

Sophia Dziegielewski

SECOND EDITION

Social Work Practice & Psychopharmacology

A Person-in-Environment
Approach

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Social Work Practice and Psychopharmacology

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To Albert R. Roberts

I have come to believe that intelligence consists of the knowledge that one acquires over a lifetime; wisdom, however, is something far greater. Wisdom requires having intelligence but also realizing it means nothing if it is not shared. In wisdom, there is a natural sense of giving where there is no fear of loss. It means realizing that the knowledge that we have is measured purely by what we can teach and share with others.

For Dr. Roberts, intelligence made him a social work scholar. It was his wisdom, however, that made him my mentor and mentor for so many others. Calling Al always started with one quick point and as the minutes grew into hours, his passion for social justice, his thirst for learning, and his sense of humor made the time fly by. I could not let this book be published without telling the social work community how much I thank him for sharing his wisdom with me. Through his writings and teachings the hearts of so many social workers like myself will never be the same. Although I continue to miss him dearly I remain comforted by the gift he left me as I continue to be touched by his teachings, his writing, and his subtle “reminders” that with hard work and planned effort . . . all things are possible.

Sophia F. Dziegielewski

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Taking into Account the Person-in-Situation

In this era of cost containment and managed health care delivery, social work and many other disciplines have been forced to examine treatment methods and modalities with a new vigor (Dziegielewski, 2004). In order for social workers to survive in the physical and mental health care arenas, it is clear that we provide what is considered the most time-limited, effective, and accountable care. This care must incorporate awareness as well as knowledge of the medications currently used to supplement therapeutic interventions.

Many people, professionals as well as the lay community, do not realize the important role social work can play in ensuring client intervention progress, safety, and care. I remember distinctly appearing in court as an expert witness. Soon after I started presenting mental health and family related concerns of the client, the judge asked me with all sincere intentions, "exactly what does a social worker do anyway?" Eager to assist my client and fully maximize the opportunity to exemplify the profession, I carefully presented a case example, whereby I outlined the difference between the professions and what each contributes. I explained that the main focus in each of the professions is that sociology is often related to the study of a society, psychology to the study of an individual, anthropology to the study of a culture, but that social work is the bridge linking the individual client being served to the environment. The "person in situation" and "person in environment" has long since been the cornerstone of the profession. Clients need to be supported and the changes that occur in an individual need to be supported within the environment where the client lives and thrives. There is no magic cure or pill to cure anything without a holistic understanding of the person's support and environmental system. Once I explained this,

I gave an specific example of how this perspective was critical to our recent treatment success with this client. I explained that returning the client to an unaccounted for environment complicated and made his treatment ineffective, resulting in repeated treatment failures. Skilled in client treatment interventions and modalities, as well as discharge and case management approaches, social workers are in a unique position to ensure treatment success. When I finished with my explanation, the judge asked, "why don't we use more social workers?" I smiled and said, "for this and every client we serve, all the decisions, including receiving the help he needs, really does start with you as the judge. It ends, however, with social workers helping the client continue to adjust within his or her support system."

Do not view other professionals' lack of knowledge as derogatory to the profession of social work - just as the environment is not static, neither is the field of social work and the intervention provided. Living in turbulent times, changing with the ebb and flow is as much a part of what we do and as to who we are as a profession. Just as the environment is not static, nor can the profession be. What we do changes related to the needs of the client reflective of the "person in situation" stance. When people do not understand the role of social work, it is our responsibility to help them learn, as it is to understand that other professionals might not fully understand what it is that we do or the benefits we can provide to all we serve. Ambiguity allows for diverse approaches needed to help a client in his or her "here-and-now" environment. Therefore, what we do today to help a client may not always be the same as what we do tomorrow. As the environment and/or situations change, so too must the strategies utilized.

In terms of changing roles, social work is not any different than the other professions. One of the greatest quotes I ever read was written by Joel Paris, M.D. in his book *Prescriptions for the Mind* (2008). Regarding the changes needed in the field of psychiatry, he stated that acknowledging the importance of "talk therapy" and supportive psychotherapy needs to be revitalized, as it can no longer be avoided in the field of psychiatry. "Unfortunately, a healthy baby has been thrown out with the bathwater" (Paris, 2008, p. xiii). For social work, avoiding the importance of having knowledge and supporting clients taking medications used in conjunction with psychotherapy is like "*ignoring the baby sitting in the bath water.*" Or worse yet, realizing the situation exists and "*leaving the baby alone in the bath water, hoping someone else will come soon to assist.*" Therefore, in this volume, this author provides what is believed to me

the most important and practical information related to helping clients taking medications for mental health treatment, encouraging informed practice, and providing an overview of issues and concerns about medication that social workers will encounter in practice.

- **Why do social workers need to know about medication?**

Social workers traditionally have been expected to contribute to all aspects of a client's life. The forms of social work counseling, such as short-term therapy and cognitive behavior-based interventions, may not fully encompass the efficacy of treatment with certain mental health conditions. Therefore, medications, especially with these types of mental health conditions, are considered as a viable supplement to these intervention and treatment modalities. All social workers, regardless of whether they work directly in health and mental health care, will come across clients taking medications. Social workers are expected to have some degree of understanding as it relates to the diagnostic criteria, usage, and side effects of the medications provided in the context of the intervention.

The role of social workers remains complex, often called upon to advise on diagnostic criteria and on which medications would be the best adjunct to the current therapy. Social workers should not shy away from learning about current diagnostic guidelines and the medications frequently used. Until recently, most of the resources available in this area were written by professionals other than social work professionals and considered "unfriendly" in terms of correlating the information to social work treatment regimens in terms of moral and ethical issues. This is changing as social workers not only understand the importance of having this knowledge, but utilize a "social work" friendly way to help the client.

- **Which social workers are involved in using medication information with their clients?**

All social workers are involved. Whether in private practice or agency settings, social workers have always been involved with medications and monitoring their effects on their clients. Although social workers do not prescribe medication, few professionals would debate the need for these professionals to be well versed in the matter in order to provide ethical,

efficient, and effective services to their clients. Historically, social workers have been critical of the use of medications and have actually discouraged their use. This view must now be reconsidered because many clients not only request medication to supplement psychological interventions - they expect it. As social workers will undoubtedly encounter clients who are taking medication, their knowledge will in turn affect the counseling relationship. Social workers must know the basics of medications and how these drugs can affect the time-sensitive counseling environment.

- **As a member of an interdisciplinary team, what is the unique role of the social worker?**

Social work professionals spend the most quality time with their clients; it is likely they will be the first interdisciplinary team member to notice medication side effects or reactions. In this book, special emphasis is placed on the role of the social worker regarding the use and misuse of medication. Although it is not meant to be all-inclusive, it does seek to present medication-prescribing considerations that will allow social workers to better serve their clients.

- **Do I have to know all medications and what they are used for?**

Of course not, but all professionals should attempt to learn all they can and to utilize this new information to help their clients. Medication has dramatically improved the treatment and quality of life for numerous clients who might have otherwise spent their lives in psychiatric facilities struggling with mental illness. These medications helped individuals to be responsive to everyday life as well as to psychotherapeutic interventions. Knowing how to access information about medicinal products and having a basic understanding of what they mean is critical to promoting education to clients, families, and communities.

The use of medications has increased and so have the numbers of medication available. The *Physicians' Desk Reference, 2009 (PDR, 2009)* lists thousands of different medications. There are innumerable over-the-counter products and herbal products. No professional can be familiar with all of them, but it is crucial to know what medications a client is taking and how to research these medications. When doing a medication history, more than just prescription medications should always be evaluated.

- **What type of information should a social worker know about medication?**

Taking into account the vast array of medications in use today, this book will help the social worker: (a) establish a basis for understanding the use of medication with a primary focus on those used to improve mental health; and (b) provide basic information that will enable social work professionals to interpret, predict, and suggest environmental treatment strategy for clients who are taking medication as part of a therapeutic regimen.

- **Do I really need to know about medication, or can I depend on other professionals to teach clients?**

Over 10 years ago, more than 98% of the social workers surveyed thought it was critical for successful social work practice to be educated about medications (Dziegielewski & Leon, 1998). This view has not changed. Though all accredited social work programs generally offer at least one graduate-level course in psychopathology or clinical diagnosis, there are few textbooks available and only two address the influence of medication from the perspective of social work treatment. Education in the use and misuse of medication and its influence on the therapeutic process is a necessity that should be incorporated into the curriculum provided by social work programs, both at graduate and undergraduate levels.

- **How can I benefit directly from this book?**

This book can be used by social work professional both as a textbook and as a clinical resource. Considering that most social workers receive limited training in medication during their social work program, it provides an excellent practice resource for clinicians in the field. In Part I, general information is included that will prepare social workers to address the needs of clients taking medication. The use of medication is viewed as part of social work practice, and strategies for understanding its use are highlighted. Each chapter focuses on the basic information a social worker should know, from understanding the human brain, to tips for helping the client and termination, to how to support the medical team by tips for taking a medication history. Another chapter is devoted to explaining the difference between generic and brand names presented along with medical terminology used in prescribing medications. And in

chapter four, the basic rules for monitoring medication and compliance are provided along with tips for treatment planning and documentation.

Part II of the book outlines prescription and non-prescription medications, including herbal preparations and a section on special populations. The first chapter in this section explains both legal and illegal drugs and the way drugs are classified and scheduled. Tips related to safety planning are highlighted, from avoiding prescription errors to handling the suicidality. A chapter on complementary therapies and herbal healing is included outlining the dangers which can occur with self-diagnosis and treatment. This chapter stresses that as use of herbal and medicinal products increases among clients, consumers may be lulled into thinking that these products are safe because they are natural. The authors remind the social worker that if a product is strong enough to create a reaction in the body and produce unwanted mood changes. If it is also strong enough, these can interact with other medications and produce undesirable side effects, whether it is herbal or chemically based. In chapter seven, consideration is given working specifically with children and older adults.

Part III of the book addresses specific mental health conditions such as schizophrenia, mood disorders, depression, bipolar disorders, and specific anxiety disorders. Each chapter provides a case example, characteristics of the disorder, and the treatment interventions utilized. Medications used to treat these disorders and relevant psychosocial interventions are outlined. Each chapter emphasizes the need for accurate treatment planning and documentation and offers suggestions to facilitate this process.

Appendixes A and B provide resources to help social workers find useful information that can be shared with their clients about medications, and a sample assessment form to facilitate taking a medication history. Appendix C provides a glossary that serves as a quick reference for what may initially be unfamiliar terms. Appendix D, is a medication glossary that lists the brand name and generics of the most popular mental health prescription and herbal medications. Lastly, Appendix E has several treatment plans to assist with working with clients taking mental health medications.

In closing, the use of medication as a therapeutic modality constitutes a growing and changing field of science. Social workers must keep up-to-date with new trends and with how these medications can affect the therapeutic relationship. To complete the advocacy and broker functions basic to the field of social work, an accurate assessment and refer-

ral process must be initiated with regard to medication. Social workers must assess the various types of medications a client is taking, be they prescription, alternative remedies, or over-the-counter medicines. All social workers should be familiar with side-effect profiles and dosage routines in order to assist clients in maintaining the most therapeutically productive interventions possible. They must be able to recognize potential problems and correspondingly refer the client for adequate or revised treatment.

I would like to express my sincere appreciation to all the social workers and other practitioners across the United States who work tirelessly to assist the clients they serve. Because the use of medications to treat mental health disorders is widespread, knowledge of medications has become a practice necessity. Special thanks for her advice and inspiration goes to my dear friend and colleague Rochelle Wasserman, M.D., and the service she continues to provide to our country in the United States military.

Furthermore, I would like to thank all the individuals who have made this book possible at Springer Publishing Company. I especially want to thank Jennifer Perillo, Senior Acquisitions Editor, for her continued support and persistence to keep me on track, and her drive to make this the best edition possible. Jennifer's inspiration, dedication, and words of encouragement will never be forgotten. Special thanks also goes to Mark Frazier for his production oversight.

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Sophia F. Dziegielewski

Mental Health
Medications: What
Every Social Worker
Needs to Know

PART
I

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1

Medication Use as Part of Health and Mental Health Practice

This chapter provides an overview of the medication issues and concerns mental health practitioners will encounter. The philosophy of the author is simple: Teamwork between physicians, prescribers, nurses, other health care providers, and mental health practitioners such as social workers is necessary for ethical and competent practice (Dziegielewski, 2007). This book highlights the important roles social workers can play in assisting clients who are taking medications.

The focus of this book is on medications used to treat mental health conditions; however, many other substances (over-the-counter medications, herbal remedies, etc.) will also be discussed, as they are frequently used as intervention supplements. The author does not claim to be an expert on all types of pharmacology. Instead, this text is intended to be part of a collaboration to provide comprehensive care for those who are served.

This chapter offers both historical and current perspectives on the importance of the knowledge of medication usage in competent professional practice. From a social work perspective, it encourages an interdisciplinary team approach that takes into account the client's environment; thus, special attention is given to empowering clients to become active participants in the treatment process. The approach also recognizes the social worker as an important member of the health care delivery team.

BUILDING ALLIANCES: THE INTERDISCIPLINARY TEAM

The prescriber/social worker collaboration should assist clients and their families in taking charge of their lives while striving to improve their physical and mental health.

For many mental health conditions, traditional forms of psychosocial intervention (such as long-term therapies and insight-oriented methods) seem to fall short in providing the most cost-effective interventions (Dziegielewski, 1996, 1997, 2008). Thus, most, if not all, mental health workers will undoubtedly encounter clients who are taking medications that will affect the therapeutic counseling relationship. Because of the pressures inherent in providing comprehensive care, professionals must know the basics of medication use, avoid medication misuse, and understand how medications function as an intervention modality.

Most health care professionals agree that the physician generally leads the health and mental health care team, yet the social worker often spends the most clinical time with clients. Therefore, a well-trained social worker may be the first team member to recognize client concerns related to the medication including possible side effects or reactions to medication. Additionally, in case management and many other health-related areas, social workers are expected to assist clients with compliance issues, pharmacy shopping, and insurance coverage. Social workers, along with all other team members, should be knowledgeable about medications so they can address related treatment issues with their clients. This collaboration can actively provide advocacy and brokerage services in order to identify, implement, and monitor medication regimes.

THE RISE OF PSYCHOPHARMACOLOGY AS A TREATMENT MODALITY

Given the pressure to provide accountable, efficient, and effective service, it comes as no surprise that medication is often a primary consideration for treating many mental health difficulties. Yet it is important to remember that psychoactive medications are actually a relatively new treatment modality and some of the oldest medications used today in the field of psychopharmacology only date back 50 to 60 years.

Furthermore, medication usage is not based in purposive science; most medications, particularly those used to address neuropsychological illnesses, were developed serendipitously (Kolb & Whishaw, 2009). For

example, Jean Delay and Pierre Deniker advocated the use of Thorazine to treat schizophrenia (see chapter 11) in the 1950s even though the drug was originally developed as an anesthetic. Paul Janssen, a Belgian, developed Haldol to treat schizophrenia in 1957 (Kolb & Whishaw). These medications, although considered the oldest in the category, are relative newcomers in terms of treatment.

Paris (2008) reminds us that many of the medical triumphs achieved over the last 100 years are drug therapies. In terms of the sheer numbers, the latest edition of the *Physicians' Desk Reference* includes more than 3,000 drugs and these drugs are organized by brand name, generic, manufacturer information, and category (*PDR*, 2009). There are also more than 600 over-the-counter medications available, and an entire volume of *PDR* is dedicated to herbal medicines (*PDR for Herbal Medicines*, 2007). Not surprisingly, this has led to an increased usage of drug-related therapy.

There have also been major advances in the study of medications and their effects on the brain. A versatile 3-pound maze of nerve and tissue, the brain is a virtual laboratory whose workings and chemical interactions determine the state of our mental health (Kolb & Whishaw, 2009; Kotulak, 1997). The cerebral cortex is made up of 100 billion cells (called *neurons*) that are intricately connected to each other (Arden & Linford, 2009). These multifaceted and interdependent connections are essential to creating thoughts, actions, and feelings. How medications influence these processes is still not fully understood. Even drugs that share a very similar chemical structure can cause very different effects (Kolb & Whishaw).

Furthermore, we do not fully understand the individual, unique responses that can occur with medication use. Medical trials cannot cover every side effect a client might experience; they are simply not comprehensive or inclusive enough to adequately address all medication-related problems or interactions that might eventually develop (Henkel, 1998).

Further aspects may cloud our understanding of a drug's safety or effectiveness. Once a drug is available, it may be used for purposes for which it was not originally tested and approved (a practice referred to as *off-label prescribing*). The use of "me too" drugs may also complicate health issues (Paris, 2008, p. 113). (A "me too" drug is a medication similar in purpose and action to others already on the market. Consumers may request such drugs simply because they are newer, not necessarily because they are more effective.) Finally, it is important to remember that many clients may be taking other medications, dietary

supplements, or products that can interact with medications (Nordenberg, 1999c). A client can have a serious drug interaction that was never encountered in medical trials (Henkel, 1998). For all these reasons, even though drug trials are conducted and monitored by the Food and Drug Administration (FDA), often the full effects of many medications are not known until the medicines have become widely available.

Knowledge of technological advances in the areas of psychopharmacology and brain research is essential. This is not to say that all team members must have an in-depth knowledge of every medication in use. However, an awareness of the *types* of medications available (particularly mental health medications), as well as where and when to seek additional information in order to assist a client, is necessary for ethical and competent practice (Patterson, Albala, & McCahill, 2006).

Drugs (whether prescription, over-the-counter, or alternative medicine) are an essential part of psychiatry (Paris, 2008), and the effects of medications cannot be underestimated. Regardless of what type of product a client is taking, it is wise to remember that *anything strong enough to create an action is also strong enough to create an equal or opposite reaction*. Medications—prescription or otherwise—are clearly used in the therapeutic environment, and social work professionals must not only be aware of them but be willing to assist as part of the health care delivery team by monitoring and assisting clients who are using them.

MEDICATION AS A PRIMARY TREATMENT MODALITY

There are several reasons for the use of psychopharmacology as a primary treatment modality. First, medications can alleviate symptoms. For example, aspirin can diminish flu symptoms by reducing fever and muscle ache; similarly, many antidepressants can lift the debilitating symptoms of depression. With the use of medications, many individuals suffering from crippling mental illness can return to the community instead of spending years in hospitals. Alleviating symptoms, however, is very different from halting or curing the underlying disease.

Second, medications can prevent recurrence or *relapse* of a disorder (Gitlin, 1996). A common example is antibiotics. If a client does not take the full course of antibiotics, his body may begin producing drug-resistant bacteria and he may experience a relapse. Thus, clients are usually instructed to continue taking antibiotics beyond the course of their illness to ensure the medication is fully delivered. The same issues

apply with mental health medications. The social worker plays a critical role in helping clients understand the importance of compliance and the consequences of abruptly stopping a prescribed medication.

Third, medication use can also help scientists better understand mental illness and the etiology of mental and medical conditions. Medications are remarkable in that they have allowed us to cure some diseases, reduce suffering, and markedly improve quality of life, but only when they are used correctly (Simonson, 1994).

CONSUMER EXPECTATIONS AND THE PRESSURE TO PRESCRIBE

However, social workers may face some concerns with clients who see medication as their primary and only treatment. To provide comprehensive care, all professionals must be aware of the philosophical directives or environmental pressures that motivate a client to seek help. According to Walter (2000), advances in technology have changed our expectations. Some clients may see taking medication as a quick fix to a complicated health problem. Many clients are not open to other forms of mental health treatment; they see medication as a sole and speedy remedy.

Clients may not realize that many mental health medications do not work quickly. For example, many antidepressant medications can take 2–6 weeks to reach their full effect—this certainly does not meet the expectation of a quick fix. In addition, the use of medication is often coupled with suggested lifestyle changes (such as exercise, modifying sleep habits, and dietary changes) that can take even further effort.

Many clients believe that medication will not only help relieve their symptoms but also provide a cure for their underlying condition. Television commercials and other advertisements often feed this misconception. However, many mental health conditions are often influenced by situational and environmental stresses, many of which cannot be easily defined or addressed. When medication is used as the sole method of treatment, core aspects of the disease and its resulting problems often go untreated (Gitlin, 1996).

For example, when a client loses a loved one, he or she may experience feelings of depression and difficulty adjusting as normal parts of the grieving process. If the entire situation is not taken into account, the client may be diagnosed haphazardly or inadequately as suffering from major depression (Wakefield, 2007). This client may request

medication to help alleviate his or her symptoms of feeling lost, sad, and alone. Yet the work of professionals such as Kubler-Ross (1969) shows that the grieving process has stages, and this intervention could postpone or delay what might otherwise be a natural progression. Alternatively, it could put a potentially dangerous medication into the hands of someone who is not thinking clearly (Worden, 2009). Either way, some professionals (see, for example, Worden; and Raphael, Minkov, & Dobson, 2001) agree that medications, particularly antidepressants, should only be prescribed when there is a clear mental health disorder or serious depressive episode.

This has left authors such as Battin and colleagues (2008) to question whether mental health medications are truly a boon or a dangerous but tempting forbidden fruit. Many medications do indeed offer help and can alleviate symptoms. Many professionals, however, support the contention that mental health problems are often complex and require a multifaceted intervention. Relying solely on medications to control or cure mental health problems is not enough.

MEDICATION AND PSYCHOTHERAPEUTIC APPROACHES

Many researchers have studied the importance of psychosocial interventions for mental health conditions, either alone or as a complement to pharmacological treatments. From this perspective, although medications may seem like an easy choice, it may not always be the best one (Kotz, 2007). Lambert (1992) reported that regardless of the type of intervention, about 85% of subjects who were moderately anxious, frustrated, and distressed got better regardless of the strategy employed—or without any formal intervention at all. However, this finding has been questioned by Lazarus (1997), who believes it does not hold true for clients with particular conditions, such as obsessive-compulsive disorder (OCD); posttraumatic stress disorder (PTSD); and various eating, sexual, and panic disorders.

A study by Dziegielewski (1991), which utilized a classical control-group experimental design, highlights the importance of psychosocial therapies. In this study, family members of patients with Alzheimer's disease were invited to participate in one of three different intervention strategies: a support group, a problem-solving educational approach, and a combination of support and educational strategies. The study found that the three psychosocial methods tested were all more effective in

increasing caregiver satisfaction than in the control group, which was not given any intervention.

The importance of including psychosocial interventions is highlighted further in the work of another social worker and his colleagues (Wakefield, Schmitz, First, & Horwitz, 2007), who warned that we may actually misdiagnose or overdiagnose conditions related to depression by misinterpreting normal expressions of grief and sadness (as in the case of a bereaved client). Misdiagnosis could lead a prescriber to place a client on medication when the client might benefit from an alternate treatment.

Some studies have shown that 70%–80% of clients with a severe depressive disorder respond to antidepressant pharmacotherapy, a somewhat lower proportion respond to counseling and psychotherapy, and the maximum respond to a combination of both (Battin et al., 2008).

With an estimated 70%–80% of all visits to primary health care providers (such as family physicians and internists) by individuals suffering from psychophysiological illnesses, a combined approach seems indicated (Corbin, Hanson, Happ, & Whitby, 1988). Both psychopharmacology and counseling therapy can have a profound effect on cognition, mood, and behavior as well as the underlying disease process, which is often influenced by stressors within and outside the client (Schatzberg, Cole, & Debattista, 2007). Addressing psychosocial factors through behavioral intervention is an important component of successful treatment.

Any intervention, whether psychosocial or pharmacological, should not be considered an exact science (Prufer, 1996). For the most effective practice, medication and psychosocial interventions must be joined, as neither guarantees a perfect treatment. Since many clients believe that medication alone can alleviate their symptoms and the root causes of their mental illness, the interdisciplinary team can advocate a total package of mental health services that may include psychotherapeutic medication.

There are other reasons for offering counseling services along with medication regimens. For one, clients may need monitoring to ensure they are taking medication as directed and not encountering any adverse side effects. In addition to compliance issues, health providers should be aware of environmental factors such as the client's support system. For example, a client who has suffered from depression for a long period has probably adjusted to a certain lifestyle and level of performance, and so have individuals in her support system (family, friends, caregivers, and co-workers). Antidepressant medication may make her feel better and give her more energy, but she, and her family, must adjust to her new

behavior. She may need support to understand why things are changing so rapidly. To put it simply, the client may be feeling better—but what about the situational factors that make up her life? Mental illness can affect an individual's biological, psychological, social, and spiritual environment. While a client's biological processes may be improved by medication (as in the case of depression), it may have no effect on his or her psychological, social, and spiritual aspects.

Psychologically, the client with a mental disorder may encounter feelings of anxiety, self-doubt, frustration, hopelessness, and inadequacy, among others. In such cases, although medication may alleviate the physiological symptoms of mental illness, the client oftentimes must learn to identify, understand, and resolve the psychological and emotional remnants of his or her illness. Psychosocial interventions, in conjunction with medication, can help the client with this process.

Many clients require a counseling strategy that emphasizes problem-solving and skill-building strategies. Individuals with mental disorders can often experience alienation and isolation from friends, social support systems, and spiritual frames of reference. Again, medication can address the biological symptoms, and psychosocial interventions can be used to enhance and restore the client's social and spiritual functioning.

Lastly, family members who see improvement in a client may have higher expectations of his or her performance. In this case, counseling for both the client and his or her family is essential for the continued success of the intervention process.

For all these reasons, health professionals must spend time educating clients, family members, and other members of the health care team about the benefits of combining medication with effective psychosocial strategies. This means providing clients with specific information on mental health problems and how social and mental functioning can be enhanced by the interdependent relationship of medication and psychosocial interventions. In the clinical practice environment, all health and mental health team members must have a working knowledge of medications as mental health interventions—whether they embrace medication use or not.

CASE EXAMPLE: JOHN

John, a 25-year-old male, came seeking the services of a social worker on the recommendation of his physician. He reported feeling sad,

depressed, and alone ever since his wife had threatened to leave him and end their 5-year marriage. Upon evaluation, it became clear to the social worker that John had an idea and a concrete and immediate plan for harming himself.

After assessing the situation, the social worker immediately sought admission to an inpatient facility for John. The social worker handled both the outpatient and inpatient admissions for the facility, so she was able to follow John after his admission. John was immediately placed on an antidepressant medication. After one week in the hospital, he reported that he was feeling better, and it was obvious to all who were treating him that his depression was indeed lifting.

The social worker was not convinced. She remained concerned that John still had many personal issues regarding his marriage and family. He had made little progress in exploring alternate strategies to handle the rejection and abandonment he would feel if his wife refused to continue the marriage. His wife had not visited him in the hospital and had declined an invitation to meet for counseling. John openly stated that he was sure he had to convince his wife they should stay together.

In a brief interview with the hospital psychiatrist, John stated that he needed to go home to talk to his wife with his brother's supervision. He requested a trial 3-hour pass, and his brother would drive him to and from the hospital. The psychiatrist agreed, and the social worker relented after documenting John's repeated statements that he would not harm himself and no longer had a plan to or felt the need to end his life. John reported that he believed things could be better and blamed much of what had happened between him and his wife on his depression. He was given the pass, and his brother arrived as planned.

John never returned from that visit. After fighting with his wife, John told his brother that he was going to the store to cool off and get a pack of cigarettes. He was found later that day locked in his car at a local shopping plaza, having taken his own life with a gun. No one knows exactly what he was thinking when he made the decision to end his life.

John's case is unfortunately not unique. It is important to realize that depressed individuals are most likely to harm themselves not when they are in the deep stages of depression, but when the depression lifts (Dziegielewski, 2002). In 2004, the FDA recognized these risks, particularly noticeable with the newest antidepressants, and ordered a warning be added to antidepressant medication labeling. (See chapter 8 for more information on the black box warning.)

In cases such as these, it is important not to place blame. A health professional must not be lulled into believing that the underlying depression is no longer a problem just because the symptoms have abated. Furthermore, since social workers spend the most time with clients, they must make every attempt to make the team aware of their concerns. Antidepressant medication can help individuals feel better, but as a sole modality it may indeed fall short, as evidenced by John's case. This example reaffirms why social workers need to be aware of medications, the importance of their role as part of the treatment team, and how to anticipate problems in the therapeutic environment.

MEDICATION MYTHS: EXPECTATIONS VERSUS REALITY

There are two myths commonly held by clients with regard to medication usage.

Myth 1: Physicians and other health care professionals are familiar with most, if not all, of the medications on the market, and there is extensive research to explain how each medication will affect the person who uses it.

Most physicians and mental health professionals have an overall awareness of certain drugs, particularly the medications commonly used within their own specialty. Prescribing professionals are encouraged to look up medications they do not use regularly; this precautionary measure is an important safeguard. Given the multitude of available prescription, over-the-counter, and herbal medicines, competent and ethical practice requires that professionals be able to identify interactive effects (if any) that may occur, especially if the client is taking other medications that may counteract, diminish, or augment the effect of the prescribed medication.

Myth 2: All prescriptions are based on research that establishes the correct therapeutic dose needed to address an individual's problem.

Prescribers may try several types of medications and dosages before identifying the most beneficial and effective medication with the fewest side effects. In addition, although a drug may initially produce the

desired effect, it may not continue to deliver that effect without regular monitoring and alterations in dosage (Eisenhauer, 1998b).

Finding the right medication for a particular client depends on two factors. First, each individual's biological and physiological system is unique and will metabolize and react to medication in a singular manner. The effects of medication can vary depending on a host of factors: the client's age, size, body weight, metabolism, race, and gender, for example.

To complicate the matter further, the same client will respond to the same medication differently at various times in life or under different circumstances. For example, in a mental health inpatient setting, medication is often administered to reduce or eliminate violent or self-destructive behavior. A medication's sedative effect may calm one person immediately and even cause sleep; another client of similar age, weight, and height may remain extremely combative. In order to achieve the same result, the second client may require an additional dose or a different medication. Why does this happen? There are no easy explanations. In many cases, the combination of the client's unique biological system, coupled with the variability of medications, confirms that the use and application of medication is not an exact science.

Older clients can present a special challenge for the clinician in this regard (Eisenhauer, 1998a) because they tend to have a slower reaction time, a slower metabolism, and diminished organ function compared with younger adults (Dziegielewski & Harrison, 1996). This makes prescribing medication to older clients especially unpredictable and supports the adage, "Go slow and dose low" (Schwartz, 1998; Williams, 1997). See chapter 7 for more on the use of medication with older adults.

ETHICAL ISSUES IN PSYCHOPHARMACOLOGY

The use of psychopharmaceuticals poses many ethical questions for practitioners. Psychiatrists or other prescribers may be recruited by drug companies and persuaded to prescribe a particular type of medication in return for free services or rewards, a situation Mosher (1999) termed an "unholy alliance." In other situations, psychiatrists and other investigators who have received substantial funding from pharmaceutical companies to support their products have been accused of bias and accepting kickbacks ("Expert or Shill," 2008). The resultant conflicts of interest have been termed "appalling."

Recently, there has been public demand to scrutinize *clinical trials* (the process by which new medications are tested and eventually approved for use). There are professionals who stand in favor of the current process (Epstein, 2006) and those who question whether it actually serves the best interests of consumers (Relman, 2007). This debate provides fertile ground for further discussion. (The process of clinical trials will be discussed in more detail later in this chapter and in chapter 3.)

It is crucial to remember that a client's condition, rather than any other considerations, should dictate which prescriptions are recommended and written. A dual perspective that takes into account the beneficial use of medications while not underestimating the political pressures that can influence prescribing patterns can best serve clients (Battin et al., 2008).

ISSUES IN PRESCRIBING MEDICATION

A brief overview of prescription issues and concerns is presented here, much of which will be covered in more detail in later chapters.

Many prescription medications have a brand name and a generic name.

Example: Prozac (flouxetine hydrochloride)

The *brand name* (in this case, Prozac) is chosen by the company that originally produced the medication and obtained the patent. The *generic name* (flouxetine hydrochloride) refers to chemically similar medications that are created by other companies when the initial patent expires. (See chapter 3 for a more in-depth explanation of drug names.) Although it may confuse clients, prescribers and other professionals may use either name when referring to a medication. For example, generic equivalents of Prozac are now available. In most cases a generic version will be substituted when a physician prescribes Prozac unless the prescriber clearly states that substitutions should not be permitted. (See appendix D for a cross-reference of brand and generic names.)

It is critical to know whether medications are biochemically equivalent and/or therapeutically equivalent. They are considered *biochemically equivalent* by the FDA if they are chemically equivalent and deliver the same dosage of medication to the system (Haynes, Patterson, & Wade, 1992). Chemical equivalency does not include *medication*

fringes—ingredients such as coating, coloring, or additives that are not chemically active. Consider an aspirin that is coated and one that is not: Although the active ingredients in both aspirins may be the same, the pills may appear and taste different. However, they are still biochemically equivalent. Medications are considered *therapeutically equivalent* if they provide the same efficacy and controls for toxicity (Haynes et al.) even if their chemical ingredients are not the same.

This distinction is particularly important in terms of health care costs. For example, some agencies purchase medications in bulk. They may purchase therapeutically equivalent medications for their cost savings (Haynes et al., 1992).

Managed-care companies often charge more for medications they deem too expensive. For example, many newer medications are not covered because they are more costly than older versions, even though they may have fewer side effects. Lack of coverage may cause a client to change medications. In such cases, social workers must empower clients to negotiate with their physicians and insurance companies whenever possible so that effective medication regimens are not changed purely for economic reasons. Cost is an important factor in treatment whether on an inpatient or outpatient basis (*Mental Health Report*, 1999). When receiving care from a particular hospital or program, clients may have limited medication options due to the costs involved. For social workers, the reality of the service provider's environment (i.e., the company serving the client or insurance reimbursement requirements) and its impact on medication availability cannot be underestimated.

Some prescribers and other health professionals have customized prescription medications by *compounding* (Nordenberg, 2000). Compounding can involve crushing medications into a powder or turning them into a liquid. Since 1997, when the FDA Modernization Act defined the limits of compounding, this practice has become more common. Compounding prescription medications can be very helpful for those who have allergies to certain substances (such as product fillers or dyes) or for individuals who cannot swallow tablets or capsules and prefer a liquid form (Nordenberg). Regardless of their intended purpose, compounding can be useful—but since compounds have not been subject to FDA testing, they should be used with caution. According to Nordenberg, an approved drug should be used before a compound whenever possible.

Another important area of concern is the possibility of medication errors. Errors can occur at any point in the treatment process,

including when the prescription is first written or read. To avoid errors, some professionals request that clients be given the actual medication on discharge from a facility rather than a prescription (Johnson, Butta, Donohue, Glenn, & Holtzman, 1996).

The most common medication errors are the following: illegible handwriting, improper transcription, inaccurate dosage calculation, inappropriate abbreviations used in prescribing, and labeling errors (American Society of Health-System Pharmacists [ASHP], 1993). The proliferation of look-alike and sound-alike drug names has led to incorrectly filled prescriptions (Allan, Barker, Malloy, & Heller, 1995). Some studies suggest this occurs far too frequently for comfort and can result in dangerous health situations for clients (Allan et al.; Cohen, 1994). Various health organizations such as the FDA have created databases to track medication errors, drug interaction effects, allergies, contraindications, side effects, and duplicate therapies, as well as to ensure the safety and efficacy of the medications used (De Angelo, 2000). It is hoped that services such as this can reduce medical and prescribing errors. The American Society of Health-System Pharmacists (ASHP) recommends utilizing an interdisciplinary team approach to avoid errors. Social workers, as part of these teams, need to examine and exemplify their role.

Compliance is another issue in medication prescription. All team members need to be actively involved in medication compliance. Errors often occur because clients are not compliant and do not adhere to the medication regime outlined. There are numerous reasons for noncompliance, from confusing instructions (i.e., having to take several prescriptions at different times throughout the day) to ambiguous prescribing principles (ASHP, 1993). For example, if a client is told to take a medication twice a day, what exactly does that mean? Does the client take the medication every 8 hours, or upon waking and before going to sleep? Physicians often disagree about the exactness of these prescribed schedules; therefore, clients can become confused.

In addition, clients may be unsure which aspects of the medication or treatment regime are most important (Airaksinen, Ahonen, & Enlund, 1993). When clients first begin taking medication, they are often confused about instructions to decrease or increase their dosage depending on their feelings or symptoms. In such cases, clients often do not trust their own feelings and may either take too much or too little medication.

When medication is used as a treatment modality, three stages of therapy are usually identified: acute, continuation, and maintenance

(Dziegielewski, 2005). *Acute treatment* addresses the symptoms of an active problem or disorder (such as taking lithium to reduce the active symptoms of mania). The *continuation phase* is designed to prevent relapse. In the *maintenance phase*, prevention is emphasized, and the client is often encouraged to take ongoing doses of the medication to prevent a recurrence. If symptoms do reoccur, medication may shift back to the acute or continuation treatment levels.

There are several things social work professionals can do to assist the team in the prescribing process. First, they can help by recognizing and reporting medication errors. Second, they can ask about and monitor client responses to medications. In particular, they should note compliance issues, side effect profiles, excessive sleepiness, and impaired functioning. Third, social workers can note any particular problems with dosing schedules or other noncompliance issues. Fourth, they can help educate clients and family members to all medication considerations (Dziegielewski, 2007). If the social worker is faced with a medication question he or she cannot immediately answer, the information should be obtained and provided to the client at the next session. Last, all team members need to help clients learn about their medications. They need to provide clients with a general understanding of how the medications work and encourage clients to develop a sense of entitlement and comfort in seeking medication information from their physician or local pharmacist (Airaksinen, Ahonen, & Enlund, 1993).

THE ROLE OF THE SOCIAL WORKER: PERSON-IN-SITUATION

Social workers have historically worked with psychiatrists, primary care physicians, and other health professionals who are involved in most aspects of psychiatric treatment, including the monitoring and dispensing of medications (Cohen, 1994). Although the exact role social workers perform can vary, it generally involves encouraging medication compliance, monitoring side effects, and educating and assisting clients and their families about medication use (Bentley, 1997; Bentley & Walsh, 1998; Dziegielewski, 1998). Most agree that content on psychopharmacology needs to be included in the social work curriculum and all efforts need to be consistent with the person-in-situation stance (Farmer, Bentley, & Walsh, 2006). Workshops and in-services should also be used to prepare social workers to address the needs and

increase the compliance of clients taking medications (Dziegielewski & Leon, 1998b).

One issue that differentiates social workers from other professionals is the inclusion of the person-in-situation or person-in-environment perspective long a part of the professional foundation of social work. This core concept enables social workers to understand clients within a biopsychosocial and spiritual framework and allows them to integrate medication regimens and related issues into the helping process. An ability to understand and appreciate the client's total situation makes the social worker a valuable team member who is often called upon to assist other professionals in understanding the psychosocial and spiritual dynamics that surround medication use and abuse (Dziegielewski, 2007).

There is controversy within the social work profession regarding the actual role the social work professional should assume in this area. Some social workers believe understanding medications and assisting clients who are taking them is an essential aspect of the social worker's professional role (Bentley, 1997), whereas others advocate a more active and directive role that includes advocating for social workers to receive limited prescription privileges (Dziegielewski, 1997).

In today's environment there is less emphasis on psychosocial models and interventions as the sole treatment modality. Having an understanding of conjoint psychopharmacology and counseling has become a reality for the social work professional. In addition, the social worker can play an important role by introducing how medications can and are often influenced by environmental, psychosocial, and spiritual factors. These environmental factors are of particular importance when addressing medication use and compliance issues in the health care environment.

SUMMARY AND FUTURE CONSIDERATIONS

Knowledge of medications, diagnostic criteria, and mental health symptoms and disorders has become a necessity for team members. A team of essential and supporting personnel all need to work together to support the health and mental health of clients. Social workers contribute to this team by recognizing the accuracy of the potential diagnosis after taking into account environmental and life-situation factors. Through direct and indirect contact, social workers can assess the functional status of their clients in multiple contexts and support a team approach by identifying the need for medication changes or adjustments. By spending quality

time with clients, social workers can help identify potential medication side effects. Social workers can also assess and monitor a client and his or her current life situation and as a knowledgeable part of the team suggest medications that could be tried. All interdisciplinary team members need to work together in providing improved communication, coordination, and referral for all aspects of health delivery including primary health, mental health, and community-based programs (Diamond & Scheifler, 2007).

All members of the team need to be aware of the basics of medication usage as a form of treatment. The physician/prescriber and social worker can work together to see how medication can affect a client with or without other forms of psychotherapy. Whether one takes the more radical stance to provide enough education to enable limited prescription privileges, as suggested by Dziegielewski (1997), or a more conservative role, as suggested by Bentley (1997), it is clear that social workers must have at minimum a general knowledge of medications. All social workers must be familiar with side effect profiles, dosage routines, and compliance issues in order to assist clients in obtaining and maintaining the most therapeutically productive treatment. Social workers must be able to recognize potential problem areas in order to refer clients for adequate or revised treatment.

This chapter is not meant to be all-inclusive of the concerns social workers may have with regard to medication. It is also not meant to suggest that social workers tell clients what to take or determine which medications are best. It is written to provide basic information for the social worker in the areas of health and mental health. This information is needed to encourage the social worker to serve in a supportive role, empowering clients while remaining vigilant to seek and learn more in this area. Chapter 2 provides a simple overview of how medications work.

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2

Understanding How Medications Work: The Human Brain

This chapter highlights the basic biomedical knowledge essential for interpreting medical information and understanding how medications work in the body. Fundamental issues about the brain and nervous system are discussed in a practical and simplified manner with an emphasis on those issues most relevant to social work. Lastly, this information is used to understand addiction and dependence and how they can affect clients. It is important that all social workers have basic knowledge of the working of the brain, neuronal activity, and how medications can affect functioning.

THE BRAIN: UNDERSTANDING STRUCTURE AND FUNCTION

It is beyond the scope of this chapter to explain the complex anatomy and physiology of the brain, although some knowledge is needed to be able to interpret how medications directly affect brain function. A course on human anatomy and physiology, with special emphasis on the study of the brain, is the best way to understand the intricacies of these interactions; however, this is beyond the scope of this book and more than the social worker needs for effective and efficient practice. Instead, this

chapter provides a summary of essential knowledge related to the inner workings of the brain, emphasizing how the brain influences a client's physical and mental states and how clients are affected by medications.

In every respect, the brain is the most intricate organ in the human body. Two of the most astounding and profound discoveries to come out of recent research are how the brain uses information from the environment to shape how it functions and how the brain must go through crucial periods of specific stimulation in order to develop abilities such as language, smell, vision, muscle control, and reasoning (Kotulak, 1997). In light of these discoveries, it is not surprising that our personality traits, thought processes, and behaviors are linked and greatly influenced by the way our brains function (Arden & Linford, 2009; Fitzgerald, 2007). For example, it is believed that circuit connections in the *frontal lobe* of the brain (which organizes and controls movement) may also be related mental health conditions such as depression, attention deficit hyperactivity disorder (ADHD), and obsessive compulsive disorder (OCD).

Figure 2.1 highlights some of the key sections of the brain that relate to mental health functioning. Table 2.1 shows how the various parts of the brain regulate our behavior and how they are linked to certain mental health conditions or disorders.

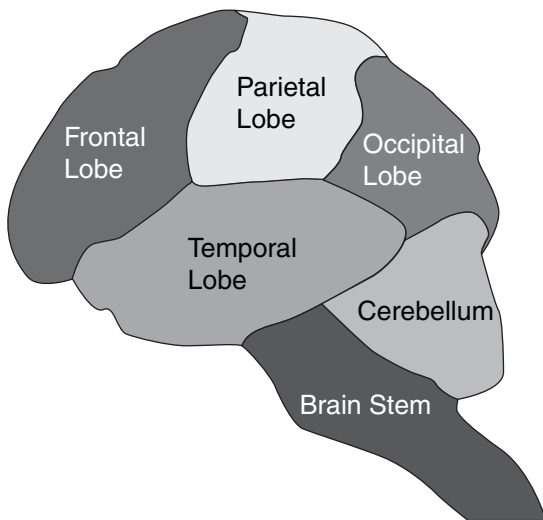


Figure 2.1 The human brain.

Table 2.1

BRAIN FUNCTIONS AND RELATED MENTAL CONDITIONS

SECTION OF BRAIN	FUNCTION	RELATED MENTAL CONDITION(S)
Frontal lobe	Organizes, plans, and controls movement	Depression, attention deficit hyperactivity disorder (ADHD), obsessive-compulsive disorder (OCD)
Prefrontal cortex	Regulates attention span, impulse control, problem solving, critical thinking, and empathy	ADHD, OCD, anxiety, and bipolarity
Basal ganglia	Controls anxiety and coordinates motor behaviors	Anxiety, OCD, depression, panic, bipolarity
Hippocampus	Essential to memory and higher learning	Depression, panic, bipolarity
Thalamus	Relay station for all incoming sensory information	OCD
Cingulate gyrus	Critical to adaptation, cognitive flexibility, and cooperation	OCD
Amygdala	Hub of fear and emotions	Depression, anxiety, panic, posttraumatic stress

THE IMPORTANCE OF IMAGING IN BRAIN SCIENCE

To date, there are several brain imaging techniques used to study brain activity in real time and assist our diagnostic capability (Fitzgerald, 2007). These tests can elucidate information about both the structure and metabolism of the brain. These tests are very important because they are noninvasive and do not have to penetrate the skull. When used together, these tests can provide both functional and structural information that increases understanding. Several of the most common radiological techniques include the following:

- *Computed tomography (CT)* was introduced in the 1970s and uses x-ray equipment with sophisticated computers to produce multiple images or pictures of the inside of the body. These cross-sectional images of the area being studied can then be examined on a computer monitor or printed. This radiological technique provides more detailed information about brain tissue and brain structures when compared to a standard x-ray.
- *Magnetic resonance imaging (MRI)*, introduced in the early 1980s, measures changes in blood oxygenation.
- *Functional magnetic resonance imaging (fMRI)* is a specialized type of MRI; this newly developed form of neuroimaging has gained in popularity since the 1990s because it is less invasive and has less radiation exposure than the previous versions. This technique examines neuronal activity within the brain influenced by increased blood flow to the local vasculature. This technique provides the ability to observe structures within the brain, helping to identify which structures are actually related to what function.
- *Positron emission tomography (PET)*, which was introduced in the mid-1970s, is used to monitor neuronal activity by utilizing radioactive injected tracers that enter the brain.
- *Single photon emission computed tomography (SPECT)*, which was developed and enhanced between the 1950s and the 1960s, operates similar to the PET; however, the tracers actually interact with the brain.

These radiological techniques help monitor affected areas of the brain and how these areas are affected by drugs (Arden & Linford, 2009; Fitzgerald, 2007). Childress (2006) warned, however, that these imaging studies can only represent a client at a particular point in time; they cannot show prior states. Furthermore, the cost of these procedures, no matter how much information they contribute, can be limiting. This leads to a battle between physicians—who order more tests to ensure “defensive medicine” to protect both the consumer and the prescriber—and insurance companies, who struggle to decrease the use of such tests as a cost-saving measure (Titolo, 2008).

Since the 1990s, major progress has been made in recognizing the relationship between certain areas of the brain and mental illness. The fields of bio-mapping and bio-imagery have uncovered valuable information, although they are still in their infancy. Furthermore, the relationship between the mind and the body should never be underestimated; mental health and mental illness are clearly linked to mental and physical

functioning in terms of mood, cognitions, and behaviors (Surgeon General, 2001). As we learn more about the effects of medications on the brain, we will better understand the brain's complexity, versatility, and relevance to treating mental illness (Fitzgerald, 2007). Research has substantiated viewing human beings from a holistic approach because of the interdependent relationship between mind, body, and emotions.

NEURONS, NEUROTRANSMITTERS, AND BRAIN ACTIVITY

To understand the relationship between the brain and emotions, behaviors and feelings, some description of the *neuron* is necessary. The neuron, the basic functional unit of the nervous system, is a highly specialized cell responsible for signal transduction and information processing (Coyle & Enna, 1998). Kolb and Whishaw (2009) explained that the neuronal hypothesis makes understanding neuronal activity essential to examining the workings of the brain.

The neuron serves one primary purpose: to receive, conduct, and transmit signals to the other cells. Neurons come in groups; a single thought, action, or impulse requires the stimulation and interaction of over 10,000 neurons, known as *neural networks* (Arden & Linford, 2009). It is estimated that there are more than 100 trillion possible interconnections. The responses from these connections are too numerous to count, and each is finely tuned, which results in a large repertoire of cognitive, affective, and behavioral capacities (Fitzgerald, 2007).

Communication within the brain starts with an electrical impulse initiated or triggered by sound. The *axon*, which serves as the conductor, carries the impulse along the neuron across its designated path. Eventually the nerve impulse reaches the end of the axon (a.k.a. the *terminal button*), ending at the synaptic junction referred to as the *synapse*. Synapses (Arden & Linford, 2009) are the gaps between neurons where all the initiated activity that results in a thought, feeling, or action takes place.

Electrical impulses are limited because they cannot bridge the synapse, so the continuation of the messages in these specialized sites is dependent on chemical messengers. The axon triggers the release of a relatively fixed amount of a chemical messenger into the synapse. These chemical messengers capable of crossing the synaptic gap are referred to, interchangeably, as *neurochemicals* or *neurotransmitters*. The neurotransmitters create the connection that completes the process. (For the steps in the synaptic process, see "Pharmacodynamics" later in this chapter.) The presence of the chemical in the *receptor* sparks an electrical impulse

in the neuron, and the sequence continues until a thought, a feeling, or a behavior is initiated (Coyle & Enna, 1998).

The neurochemicals and their specialized receptor cells create a neurodynamic subsystem. Arden and Linford (2009, p. 23) described two main categories of receptors: “the faster and the smaller” and “the slower and the more complex.” The faster and smaller receptors, called *ion receptors*, are able to pass quickly and easily through the neuron membrane. The slower and more complex receptors, called *G-protein receptors*, are more complicated. G proteins, short for guanine nucleotide-binding proteins, are a family of proteins that work to activate these intracellular communications. These proteins serve as a type of biological traffic light, able to respond to signals outside of the cell by activating changes within the cell. When the G protein is activated, it releases a second messenger within the neurons. Therefore, in this type of cellular activity, the G protein sparks the effector enzymes and enables the cell to react. For a more detailed but easy-to-understand explanation of this process, see Arden and Linford (2009). It is useful for the social worker to understand these two processes, as they help explain why some medicines (such as antidepressants) can often take 4 to 6 weeks to reach their full effect.

NEUROCHEMICALS AND MENTAL HEALTH

Although social workers do not have to be experts in neurochemicals, a basic understanding of their function can clarify the role they play in creating or minimizing mental health symptoms. According to Coyle and Enna (1998), knowledge of the basic neurotransmitters and the principles of neurochemical transmissions provides a context for understanding how and why brain activity is influenced. Some knowledge of neurotransmitters is essential because these chemicals are responsible for the connection of all communication in the brain.

Social workers should acknowledge the role neurochemical activity has in developing and influencing so many of our most basic personality traits (e.g., paranoid feelings, obsessive thoughts), feelings, emotions, and behaviors. How an individual develops, who he or she becomes, and how he or she behaves is related to how his or her brain functions and reactions that appear to be produced by different molecules working on different brain structures (Kotulak, 1997).

At least 50 neurotransmitters directly related to mental health and emotions have been identified. The most commonly noted mental

health-related neurochemicals, often referred to as the “big three,” are *norepinephrine*, *serotonin*, and *dopamine* (Fitzgerald, 2007). Some of the general neurotransmitters found in 75% to 90% of all neurotransmissions are glutamate, gamma-aminobutyric acid (GABA), and glycine. Many professionals agree that of all of the general neurotransmitters, GABA holds a substantial role in mental health reactions. It has been identified as essential in exciting reactions and initiating many chemical transmissions (Coyle & Enna, 1998). See Table 2.2 for a description

Table 2.2

SELECTED NEUROTRANSMITTERS, APPLICATIONS, AND TARGETED EFFECTS

NEUROTRANSMITTER	GENERAL MENTAL HEALTH INDICATIONS, TARGETS, AND EFFECTS
Dopamine	Psychosis (reduces anger and increases feelings of pleasure, learning, bonding, attachment, attention, motivation)
Norepinephrine	Depression (increases energy, feelings of pleasure, and memory)
Serotonin	Depression (improves sleep, calmness of mood, and emotions such as anger, depression, aggression; provides sense of safety, satiety)
Acetylcholine	Dementia (treats symptoms of Alzheimer's disease and Parkinson's disease)
Gama-aminobutyric acid (GABA)	Anxiety (sedation, muscle relaxation, tranquility, and calmness)
Glutamate	Anesthesia (arousal)
Glycine	Depression, dementia, and schizophrenia
Enkephalin	Addictive disorders, depression
Beta-endorphin	Addictive disorders
Dynorphin	Depression, addictive disorders

Note: Selected information adapted from “Overview of Neuropsychopharmacology,” by J. T. Coyle & S. J. Enna, 1998. In S. J. Enna & J. T. Coyle (Eds.), *Pharmacological Management of Neurological and Psychiatric Disorders* (pp. 1–24). New York: McGraw-Hill; “Chapter 2: The Fundamentals of Mental Health and Mental Illness,” by Surgeon General, 2001. In *Mental Health: A Report of the Surgeon General*. Retrieved March 23, 2009, from <http://www.surgeongeneral.gov/library/mentalhealth/chapter2/sec1.html>; and *Brain-Based Therapy With Adults: Evidence-Based Treatment for Everyday Practice*, by J. B. Arden & L. Linford. Hoboken, NJ: John Wiley & Sons.

of several classic neurotransmitters and their primary relationships to symptomatology.

It is important to note that the neurochemicals related to mental health actually make up only a small portion of all neurochemicals in the brain. The neurotransmitters involved in mental health responses and behavior are found in approximately 2% of the synapses of the brain (Kotulak, 1997). Many people believe neurotransmitters are confined to the brain, but this is not the case. For example, 95% of the body's serotonin (5-HT) is processed within the digestive tract (Arden & Linford, 2009).

Although the exact relationship is not known, we do know there is a connection between certain neurochemicals and specific feelings, thoughts, and emotions. For example, much attention has been paid to serotonin over the last 10–15 years. Its relationship with depression and anxiety has captured the interest of many professionals as well as the lay community.

Research suggests serotonin is a relatively simple neurochemical that appears vital to the brain's regulation of many bodily functions such as sleep, appetite, muscular activity, breathing, and blood circulation. Abnormal serotonin secretion levels have been blamed for a large number of mental and physical problems, including depression, obsessive-compulsive disorder, and panic disorder (Hickling, 2000). Feelings of depression may be the result of internal causes (*endogenous factors*) rather than environmental causes (*exogenous factors*). When released, serotonin will fit into a specifically shaped receptor, diminishing the emotional and behavioral manifestations of the client's depressive mood.

Marano (1999) warned that this process might not be as simple as it seems. He believes evidence indicates that a neurodegenerative process can occur in cases of recurrent depression. In such cases, the structure and function of brain cells are affected, resulting in the destruction of nerve cell connections, which, in turn, can precipitate further cognitive decline. In addition, brain activity may take on patterned responses and therefore may be more likely to re-engage in certain patterns.

One of the biggest myths in the lay community is oversimplifying the role of a neurochemical (for example, by stating that the neurotransmitter serotonin and the mental health condition of depression are clearly linked). Overly simplistic definitions such as this have led some people to conclude there is a one-factor biological cause for conditions like depression. Yet nothing could be further from the biological explanation of the process. These chemical messengers and their receptor targets

regulate basic feelings and emotions and are naturally designed to work together. When a neurotransmitter's level is too high or too low (by as little as 5% or 10%) it can affect the way other neurotransmitters work (Kotulak, 1997) and can trigger a chemical chain reaction that contributes to a range of mental health behaviors.

We used to believe only one neurochemical was needed to enhance neurotransmission, but we now know that more than one neurotransmitter is involved in the response-action pattern—a process referred to as *colocalization* (Lehne & Scott, 1996). In colocalization, neurochemicals work together to excite the same receptor site, helping fine-tune the neurotransmission process. For example, dopamine (another neurochemical often involved in mental responses) and serotonin play decisive roles in maintaining improved mental health. Dopamine was historically indicated as the primary neurochemical involved in the development of psychosis. Now we know psychosis does not appear to be related to dopamine alone, but rather to some type of interaction (colocalization) between dopamine and other neurochemicals. Exactly how these chemicals respond to environmental factors to influence the development of psychosis is unknown. The key point is that referring to one neurochemical as causative can be both deficient and misleading; the process is much more complicated, and simple explanations are not possible.

There has been considerable debate among scientific professionals about the etiology of mental illness (Kotulak, 1997). How does the mind interconnect with the body? Although the exact cause–effect relationship is by no means determined, it appears that understanding this relationship is a multifaceted process. Through a better understanding of the human brain and its circuit-related activity we can identify and link emotions (mind) and behaviors (body) to specific areas of the brain (Fitzgerald, 2007). It is now known that certain mental health conditions—and the dysfunctional behaviors that result—can be directly linked to chemical activity within certain areas of the brain. For example, clients suffering from paranoia may experience feelings that someone is out to get them or wants to harm them. These feelings can be traced directly to activity within the brain and its neurochemicals.

The development of a biological profile that clearly identifies those individuals at risk for mental illness is probably not far off. Once identified and linked, these profiles can be used to target, and ultimately treat, mental health problems. Greater understanding of the use of these neurochemicals, and the newer medications that enhance these responses,

is maximizing what we know about the brain, thereby enabling the restoration of normal brain chemistry.

It is important to note that the interactions within the human brain are complex, and the neuroconnections within the human body are not always linked with negative feelings or behaviors. They are also linked to pleasurable feelings, such as happiness and satisfaction. The emphasis, however, often remains on studying the negative behaviors clients experience rather than the positive ones because the negative behaviors most often impair social and occupational functioning.

PHARMACODYNAMICS: SYNAPTIC ACTIVITY AND MEDICATIONS

In psychopharmacology, the study of how medications work at the molecular level is called *pharmacodynamics*. For a drug to produce an effect, it must bind and interact with specialized receptors usually located on the cell membranes (Julien, 2001). In this way, the drug-receptor binding that occurs affects the resultant neuronal activity and results in a predicted characteristic response. Therefore, drugs can be developed to modify responses or physiologic functions but not to create a new function or effect (Becker, 2007). Affecting these responses is often a very complicated process, and the primary action of many drugs cannot be fully elucidated. Therefore, it is possible that some drugs (even those seemingly in the same class) may produce differing reactions even when given under similar circumstances. However, some general knowledge about how neuroconnections occur and how medications may influence or alter biochemical processes is beneficial. It becomes possible to predict the influence of drugs by understanding synaptic activity; some drugs may have a more selective action designed to maximize the expected therapeutic effect (Kolb & Wishaw, 2009).

Scientists are eager to understand what happens when neurochemicals—whether naturally occurring or influenced by medications—bind at the awaiting receptor sites. Many scientists believe the receptor is like a closed door and the neurochemical is the key. When binding occurs, the door opens. (For example, one such door has been identified as the 5-HT₁ serotonin receptor, which affects aggression, mood, and appetite.) Kotulak (1997) identified as many as 16 different serotonin receptor sites in various parts of the brain, all of which modulate different basic drives and emotions. Receptor 5-HT₃ plays a role in learning

and memory as well as in nausea and vomiting (Kotulak). Other identified receptors are 5-HT₂ and 5-HT_{1c}, which relate directly to psychosis, depression, alcohol abuse, and mood. By understanding this process, we can understand the action–reaction that results. Further study of neurotransmitters and the dynamic processes at the receptor sites will illuminate more of this complex process.

The neuron cell is the basic unit of the brain, and neuronal activity is central to the thought, action, or feeling that results. As an impulse travels along the axon and prepares to enter the synaptic gap, neuronal activity results. This process occurs in five basic stages: synthesis, storage, release, receptor binding, and termination.

Stage 1: Synthesis

In synthesis, the process for combining the elements begins. Any thought, action, or feeling begins with a catalyst called a *precursor*, which starts the process of *synthesis*, or creation, in the neural site. For the most part, the relevant precursors are further activated by a relevant enzyme and become neurochemical transmitters. The role of the enzyme is important in increasing the rates of chemical reactions. When a drug decreases enzyme activity it is called an enzyme inhibitor; when it increases this activity it is called an enzyme inducer (Becker, 2007).

The type of precursor can vary depending on the type of response or neurochemical involved. For example, levodopa is the metabolic precursor for dopamine, and when it is converted to dopamine in the brain, it can help relieve the symptoms related to mental health conditions such as dementia (specifically, Parkinson's disease). In a normal, nonmedicated process, this would be the first step in creating a thought, action, or feeling. When medication is introduced, it can affect the process of transmitter synthesis by either increasing or decreasing this action.

Influencing this process will result in less neurochemical activity, as the basic neurotransmitters may not be forthcoming. Synthesis can be compared to a planting in a garden where the soil is right for development. The precursor would be similar to the fertilizer that starts the process.

Stage 2: Storage

Once created, the neurochemical is stored in *storage granules*, or *vesicles*, at the axon terminal, just waiting to be released (Kolb & Wishaw, 2009).

Here the neurochemical remains in the *vesicle*, which is like a storage container, until it is called forth into the synaptic gap where the subsequent binding will occur. This process is like having mature plants in the garden, ready for harvest—just waiting to be picked.

Medications can influence transmitter storage by leading to an actual reduction of transmitters and, in turn, reducing the number of synaptic transmissions capable of being stored (less plants in the garden). When the process of transmitter storage is disrupted, transmitter storage is depleted.

Stage 3: Release

In the process of *release* the neurochemicals are allowed to leave the storage section of the neuron and are thereby released into the synaptic gap. In the garden, people are hungry so the plant is harvested.

Medications can influence this process by either promoting or inhibiting transmitter releases. If a drug promotes release, it will intensify transmissions. If it inhibits release, it will suppress transmissions. The type and amount of neurochemicals released into the gap is critical, as their availability is crucial to the completion of the thought, action, or feeling.

Stage 4: Receptor Binding

When the neurochemical binds at the designated receptor site, the neuron is either *excited* or *inhibited*. When excited, receptor activation occurs; when inhibited, it cannot. Either way, the changes that result will be noted in the postsynaptic cell. In the receptor-binding stage, medications cannot create a new effect; however, through exciting or inhibiting, they may interfere with the natural process of receptor binding. To influence a response, a medication serves as an *agonist* (in which it directly activates the receptors); to inhibit or block a response, a medication serves as an *antagonist* (in which it prevents receptor activation; Kolb & Whishaw, 2009). As agonists, medications mimic the action of the neurotransmitter, whereas as antagonists, they block the transmitter from getting to its receptor site (Becker, 2007).

For example, a medication designed to increase the amount of dopamine available in the synapse is considered an agonist. It could increase the dopamine in several ways: by stimulating the release of dopamine, by blocking the reuptake of dopamine (reuptake will be defined in the next

stage), or by blocking the reactivation ability of dopamine. If a medication worked in the opposite way and blocked the synthesis of dopamine, thereby decreasing the biochemical effect of the neurochemical in the synapse, it would be referred to as an antagonist.

Benzodiazepines, a class of antianxiety medications, can be used as agonists since they facilitate the action of the general neurochemical GABA. This allows for the flow of chloride ions into the neuron, creating a phenomena known as polarization of the neuron, which allows for inhibited function (Julien, 2001). This is why benzodiazepines are used as sedative, antianxiety, amnestic, and antiepileptic agents. (Benzodiazepines will be covered in more detail in chapter 8.) In the case of an overdose, it can be important to know what medication has an opposite effect and can help reverse this process by not stimulating the GABA. Such a medication can compete directly with the benzodiazepine, creating a *pharmacological reversal agent* used to treat overdoses in this category. Flumazenil (Romazecon) is one such medication and is listed as benzodiazepine reversal agent (Julien).

Stage 5: Termination

Once receptor binding occurs and the thought, action, or feeling is initiated, there are three primary ways the neurotransmitter can be cleared from the gap (Kolb & Whishaw, 2009).

The first and probably most important is called *reuptake*. In this process, the neurotransmitter is reabsorbed by the postsynaptic neuron, back into the synaptic cleft from which it came. Once the action is completed by the neurochemical, a little pump pushes it back to where it originated. For the most part, this is the most desirable method, because in this process the neurochemical returns to the receptor site and is available if needed again.

A second, less common response is known as *enzymatic degradation*. In this type of termination the process allows for certain enzymes to deactivate, or break down, the neurochemical. For example, enzymes known as Ach-E break down acetylcholine, releasing other enzymes such as monoamine oxidase (MAO), which breaks down catecholamines. (Examples of catecholamines are neurochemicals such as epinephrine, norepinephrine, and dopamine, which are related to mental health responses such as depression.)

A final way the process can end is when the neurochemical is taken away from the gap and dissolved. Once this happens, the neurochemical

is no longer available for return or reuse. This process is very slow, and relying on it for therapeutic relief isn't a realistic option.

This simplified explanation is designed to help the reader see how neurochemicals work to create thoughts, feelings, or actions and how drugs and medications can influence each stage of the neurochemical process. For the most part, reuptake medications enhance the environment where neurochemicals flood the gap, causing an intensification of the action.

One last example to exemplify this point involves the neurochemical serotonin. Serotonin, although not solely responsible for depression, has a known relationship with depressive symptoms. Serotonin is vital to the brain's regulation of many bodily functions, including sleep, appetite, muscular activity, breathing, and blood circulation. To date, abnormal serotonin levels have been blamed for a large number of mental and physical problems, including depression, obsessive-compulsive disorder, and panic disorder (Hickling, 2000). Therefore, a depressed mood and suicidal thoughts may develop when serotonin levels are low.

Within the synaptic process, serotonin is *synthesized* by the precursors in the transmitter sites. Therefore, the neurochemical is available in *storage* and is waiting for release. Once called for *release*, the serotonin fits into the specifically shaped receptor in the synaptic junction, and *receptor binding* initiates actions designed to diminish emotional and behavioral manifestations related to depressive mood. The process of breaking down the serotonin can occur naturally, but medications can influence this process every step of the way.

MEDICATIONS AND THE BODY'S RESPONSE

Although this information may seem somewhat technical, it is important that social workers, as part of an interdisciplinary team, understand these processes. Having a general knowledge of how the brain and neurochemicals influence behavior will help social workers assist clients and their families. Understanding how pharmacological interventions affect clients will enable social workers to gain credibility as professionals who are aware of the purpose, use, benefit, and side effect profiles of medications.

Mental health and health care social workers need to be aware of how different parts of the brain utilize different neurotransmitters and how they are synthesized, stored, released, and inactivated. This knowledge

can help social workers understand why one medicine may work better than another even if they are both of the same type and class. It also explains why medications designed for one purpose can have different effects. As an example, psychiatrists have discovered that drugs designed to treat schizophrenia (see chapter 11) are also useful in treating the erratic behaviors and mood swings seen in bipolar disorders (see chapter 9). Although the exact response and pattern of this effect is not known, it appears to be related to a common biochemical pathway where the combination of neurochemicals and medication can also inhibit the development of psychosis (Foreman, 2000).

Understanding the role of the brain, neurons, neurotransmitters, and what happens at receptor sites can help in understanding how specific responses are generated, encouraged, or discouraged by the use of medications. This understanding is enhanced by careful observation, taking into account the uniqueness of the individual client served (Henkel, 1998). Because the ways clients may respond to medication (including side effects) may differ, monitoring these responses is invaluable. The professional's role in understanding, relating, and recommending the best course of action for a client based on the client's individual reaction to medication is an essential part of the intervention process.

It is also wise not to consider medications as cure-alls for health or mental health issues. For example, after Prozac (flouxetine) was developed to treat depression it became the gold standard for treatment, and over 20 million prescriptions are written annually, making it the third most commonly prescribed antidepressant in the United States.

Between 1987 and 1997, the number of clients treated with psychotherapy declined, whereas prescriptions for antidepressants doubled (Barber, 2008). Yet during this time, how many professionals questioned how much we really knew about the potential effects of chemically altering brain activity? How many explored alternate natural methods (i.e., exercise, enhanced sleep, diet, supportive behavioral treatments, and psychotherapy) that could assist in a similar way?

Social workers like Dziegielewski (2007) warn that caution should always be used when prescribing medications since any chemical substance strong enough to affect normal processes and responses could also be strong enough to affect other unintended thoughts, feelings, or actions. When referring to the big three neurochemicals (serotonin, norepinephrine, and dopamine), Fitzgerald (2007, pp. 57–58) says they can have a profound influence on personality and mental illness “in essence because these functions, or disturbances of them, produce personality

and mental illness, and thereby affect our experience of the world and quality of life.”

ROUTES OF ADMINISTRATION

The *route of administration* (the way a medication or drug is taken) can influence how quickly a drug works. Four major ways drugs are taken include orally (in pill form), through nasal inhalation (sniffing or snorting), through oral filtration (smoking), or via injection.

Drugs that are small in size, potent in small amounts, and do not degrade easily are the best candidates for oral administration. When coupled with a product that is weakly acidic and water or fat soluble, oral administration could be the route of choice. However, oral administration typically requires larger doses to get the same effect. For example, according to Kolb and Whishaw (2009), 1 milligram of amphetamine (a psychomotor stimulant) produces noticeable behavior changes when given orally. If it is inhaled into the lungs or injected into the blood, a much smaller amount of the drug is needed. With these other routes, the same result occurs although the dose is less and the stomach is bypassed. For this reason, most illegal drug users find oral ingestion less desirable than inhalation or injection.

Although oral administration may not be the quickest way to get the effects of a drug, it is clearly the most reinforcing and convenient (Goode, 1992a). (*Reinforcing* refers to how much pleasure results from taking the medication.) Oral administration of a pill and nasal administration (snorting or sniffing) are clearly more convenient for most clients, even if their effects are more delayed than other methods. When a client needs immediate assistance, oral and nasal administration may not be as desirable as quicker, more direct methods.

This has led to the popularity of two other types of ingestion that are immediate and therefore more reinforcing: oral filtration (smoking) and intravenous injection (Goode, 1992a). Oral filtration's quick and convenient delivery may be why smoking is so seductive, whether the drug of choice is nicotine or crack cocaine. Many professionals consider the immediate reinforcement of intravenous injection and oral filtration as major contributing factors in the increased use of illegal drugs such as crack cocaine and heroin.

If a client is extremely agitated, hostile, and threatening to do harm, however, a sedative antipsychotic administered via injection is usually the

best plan. When time is of the essence, the oral route may not be feasible. Given the many obstacles present in metabolism, absorption, and digestion, inhaling or injecting a drug into the bloodstream has clear advantages (Kolb & Whishaw, 2009). Intravenous injection is faster and delivers the medication very quickly, allowing for faster control of the symptoms.

Recently, the popularity of *depot* (long-acting, injectable medications) as a mode of delivery has increased. Depot preparations are good for those clients who need a repeated standardized dose, such as chronic clients who need long-term therapy. They are also useful for clients who are difficult in terms of compliance (Lehne & Scott, 1996). This has important implications in drug trials, as success rates are often linked to drop-out rates (Relman, 2007). So, for a medication to be considered of merit, the number of consumers that complete a trial is considered. Because depot preparations lead to higher completion rates, there has been an increase in these types of preparations in clinical drug trials. Regardless of the reason for the increased interest, the popularity of this type of medication administration is rising, and more medicines are being offered in this form than ever before.

In summary, all social workers need to be aware of the link between a medication's route of administration, its reinforcing nature, and the length of time to results. However, cultural and social factors also play an important role in a client's pattern of medication use and misuse (Goode, 1992a). Clients are individuals with unique experiences, belief systems, ideas, concerns, and patterns of behavior that influence why, how, and when they take medication. It is imperative that the social worker understand the client's cultural, religious, and social influences because these may determine how the client perceives medication usage and compliance. When clients trust the social worker, they are more likely to comply by following the routine and taking their medication. As a profession, social work has always stressed the importance of the person-in-environment perspective wherein practitioners view clients through a cultural lens. This framework is an integral component of the intervention and ensures any medication difficulties related to cultural or religious beliefs are addressed.

SIDE EFFECTS

Many drugs can result in therapeutic effects and side effects that are unique to the individual and the result of many complex processes

(Schwartz, 1998). The uniqueness of the individual response may result in side effects that are unacceptable to the client.

Many cases have been brought to the attention of professional counselors with regard to Prozac, which was originally approved by the FDA to treat severe depression. Though effective in treating depression, the use of Prozac, as well as other medications in the same class, can result in sexual disinterest (*PDR*, 2009). In some individuals, sexual performance issues can, in turn, cause strained interpersonal relations. If such medication is used as the sole modality for treatment, the underlying relationship factors may not be adequately addressed. In addition, the client may incorrectly blame him- or herself and be too embarrassed to report the sexual side effects. This can result in the client's discontinuing the medication and avoiding the sexual issues, which further complicates both the relationship and treatment. Therefore, the uniqueness of the individual and the subsequent identification of side effect profiles can be critical in promoting the overall health and well-being of the client.

As another example, consider Thorazine (chlorpromazine), which was approved to treat psychosis. It reportedly not only reduces explosive aggression but also helps clear psychotic thoughts. Antipsychotic drugs like Thorazine were formerly called *major tranquilizers* or *major sedatives* because clients who used them became lethargic, sleepy, apathetic, and nonsexual. These sedative side effects often resulted in a client's discontinuing or refusing to take these medications. Fortunately, the new generation of psychotropic medications do not work this way (although they may have other concerns that will be discussed more in chapter 9). Again, the side effect profile can cause problems within a relationship that might not be obvious to the prescriber if the person taking the medication is either embarrassed or unaware of how unanticipated side effects are affecting his or her relationship.

Overall, as research and technology improve, newer medications are developed that more clearly target the sources of difficulty within the brain, like guided missiles. Thanks to scientific advances and psychopharmacological efforts, researchers better understand the brain; it is expected that newer medications will perform with more accuracy and less severe side effects than previous generations of drugs (*Mental Health Report*, 1999). This does not mean, however, that the drug will address the psychosocial aspects; each client should still be assessed individually, taking into account how the drug relates to their current circumstance.

REMOVAL OF DRUGS FROM THE SYSTEM

There are numerous ways drugs are metabolized in the body and therefore multiple ways they can be removed. Although drugs are metabolized throughout the body, the organs most involved are the kidneys and liver, as well as a digestive juice known as *bile* (Kolb & Whishaw, 2009). In the following chapters, special attention is often given to these modes of excretion and how they can affect the client's responses. Therefore, careful attention should always be paid not only to how a medication works but also how it is excreted from the system. For example, is a female client considering breast-feeding? Many drugs are excreted through breast milk. Many women considering breast-feeding may not know to ask their prescriber whether breast-feeding could put their child at risk.

Drugs can also be excreted through urine, feces, sweat, and exhaled air. Most social workers are familiar with clients who are concerned they will fail a drug test because of an illegal drug they have taken in the past that may still be detectable in their system. Or minimum wage workers who are injured on the job but refuse to file a workman's compensation claim because they fear the marijuana they smoked earlier in the week will result in a positive test and thereby the loss of their job.

In addition, some drugs are not easily eliminated from the system and, with repeated exposure, can result in toxic levels, thereby poisoning the person they are expected to help. This makes information relevant to overdose, dependence, and choice central for all clients.

DEPENDENCE AND OVERDOSE

Most professionals agree there are biological and biochemical processes that increase the possibility of drug addiction—or what is often characterized as drug *dependence*. In terms of mental health, it was once believed that individuals selected medications that helped with their symptoms and would later become addicted to them. Yet it now appears that individuals who abuse drugs choose drugs that *exacerbate* their symptoms and illness (e.g., a person with schizophrenia who uses cocaine) rather than support them (Mueser, Drake, Turner, & McGovern, 2006). This perception is unfortunate, as many clients may avoid using medications whenever possible because they fear they will become addicted.

The desirability and initial effects of a medication can be powerful incentives for continuance or discontinuance. There is a continuum of medication use that extends beyond the simplistic notion that a medication either worked or it did not. Certain drugs in themselves have unique properties that determine how often they will be taken. As mentioned earlier, when a medication is reinforcing it refers to how much pleasure results from taking the medication. The more reinforcing, or pleasurable, the effects of the medication, the more likely clients will continue to take it, increasing the likelihood of physical dependence. For example, many professionals complain about the situation when a client is placed on a medication, begins to feel better, and subsequently refuses to address the underlying issues that contributed to the mental condition in the first place. If the medication is capable of controlling the outward symptoms, the client may view psychosocial intervention as unnecessary and accept the medication as the sole modality for intervention. After all, it is easier and oftentimes more cost effective to simply take a pill that makes you feel better than to struggle with uncomfortable issues in a therapeutic relationship.

According to Koob (2006, p. 25), drug dependence is defined as a chronically relapsing disorder characterized by: (1) a compulsion to seek and take the drug; (2) loss of control in limiting intake; and (3) the emergence of a negative emotional state (e.g., dysphoria, anxiety, irritability) when drug use is prevented. Most professionals are aware of drug dependence as related to illegal substances or legal substances taken illegally, but less are aware of the dependence that can result from legal or prescribed medications.

Most of what we know about addiction and dependence comes from animal studies. These studies reveal that self-administered drugs have the highest abuse potential. For example, similar to humans, rats that have the ability to self-administer psychostimulants and opiates intravenously are at the highest level of abuse potential (Koob, 2006). This becomes further complicated when the client desires the drug in higher and higher dosages. Furthermore, there is often a reduction in the reward threshold with commonly abused drugs—where the same drug taken in the same dose does not yield the same reward structure. The brain reward function seems to be altered. From this perspective, drug desires and impulsive behavior become compulsive (Koob).

One of the greatest areas of concern is the potential for drug overdose. An overdose occurs when an individual receives an excessive dose of a drug. Depending on the drug, excessive dosing can cause symptoms

that range from nausea and vomiting to coma or death. Once the substance taken in excess is identified, the resulting symptoms can also be identified, as each drug often has its own therapeutic fingerprint. Many drugs have the potential to be abused, and if deliberately taken in excess (as in an attempted suicide), the overdose may not be discovered until damage has already occurred. It is important to recognize an overdose and take action as soon as possible to avoid serious consequences (such as kidney or liver failure) or even coma or death.

Social workers can help in client education and overdose prevention. For example, during home visits to families with small children, ask parents if all medications are kept out of reach and stored in bottles with child-resistant caps. With elderly individuals whose grandchildren may visit, ask if their home is childproofed. For example, are medications properly stored so that children or adolescents cannot get access, either accidentally or deliberately?

If a drug overdose is suspected, immediate care, such as a call to a medical provider, is recommended. In the case of poisoning, call the poison control center before attempting any type of emergency intervention. Always remember, if you find someone unconscious or having convulsions, call for help immediately. If the person is not breathing and you are trained in cardiopulmonary resuscitation (CPR), call for help first, then work to make sure the person's airway is open before you try to assist with breathing or rhythm until the emergency health care provider arrives.

Since time is of the essence, here are some ways to react in an overdose/poisoning emergency:

- Ask what drugs or medications are being taken, and see if you can find the containers. Be sure to ask about prescription, non-prescription, legal, and illegal substances as well as vitamins and herbal products. In addition, ask if any medications were taken with alcohol or any other drugs or chemicals.
- See if the individual or family and friends can tell you how much was taken and when.
- Make a list of the symptoms the client is experiencing. For example, does the client report labored breathing, a racing or slowed pulse, vomiting, and so forth?
- Be sure to gather the person's personal information such as age, general mental and physical health prior to the event, and any recent events that may have triggered the overdose (i.e., whether it is self-inflicted or accidental).

- Help the client and family or friends at the scene to stay calm, allowing the medically trained providers to do their job.

REVITALIZATION OF THE BRAIN

Social workers who deal with older people who suffer from brain deterioration are often frustrated by their inability to help their clients. These feelings of helplessness are worsened when the client's family and friends believe little can be done to help the loved one recover, especially when brain damage and deterioration are suspected. The same may hold true for those who have been addicted or have suffered an overdose resulting in long-term or extensive brain damage. The hopelessness that accompanies these types of illnesses is a disincentive for many social workers entering the field. All that may be about to change.

Coyle and Enna (1998) pointed out that one of the biggest problems with the neuron is that this highly specialized cell does not replace itself, which has obvious clinical implications when dealing with a damaged central nervous system. New research into the brain's power to heal itself, however, has brought new hope and better understanding for working with clients who suffer from organic brain damage or injury. We now understand that brain deterioration does not always result in total nonfunctioning. Relevant neuroimaging and neurobiologic markers also support this positive outlook (Degleris, 2003). Although much of this research is still experimental, scientists are now convinced there are many hormones and other chemicals that can nurture and sustain brain cells.

According to Kotulak (1997), there are several significant findings with regard to repair and renewal of the brain. Hormones such as estrogen, progesterone, testosterone, and growth hormones can be important factors in maintaining many types of brain cells. These hormones may become the most powerful form of treatment to prevent debilitating conditions such as Alzheimer's, Parkinson's, and other degenerative diseases. Estrogen, for example, was previously believed to be a female hormone related primarily to reproduction, but we now know estrogen is present in both the male and female brain. Because of its unique biological ability to enter most cells, it is active in many communications between the brain and the body. Estrogen is needed to ensure proper nerve growth, and estrogen replacement may be able to cut the

incidence of debilitating conditions such as Alzheimer's disease in half (Ahlgrimm & Kells, 2003).

Certain brain chemicals, called *neurotrophic factors*, also keep brain cells healthy and receptive. When these neurotrophic factors diminish and stop working, so do the brain cells they nourished. Studies are now being conducted to see if new brain cells can be grown to replenish those that are no longer functioning.

Brain cells, like muscles, need exercise or stimulation in order to remain healthy and functioning. Brain development is not limited to childhood, and experience-based learning can continue throughout life with proper stimulation. The act of learning is now considered a powerful preventive measure against brain degeneration because it excites the production of connections between brain cells. These connections make it easier to withstand the destructive forces of a debilitating disease.

Recently, the results were revealed of a 30-year, federally funded study that examined more than 8,000 Japanese American men who were heavy coffee drinkers. The study suggested caffeine might contribute to protecting against the nerve cell destruction that leads to Parkinson's disease. Parkinson's involves the gradual deterioration of nerve cell clusters that make the chemical dopamine, which helps control muscle movements. There is speculation that caffeine might actually increase dopamine levels in the human body, thereby decreasing the likelihood of developing the disease ("Preventing Parkinson's," 2000).

SUMMARY AND CONCLUSIONS

Understanding how medications work is a necessity for effective social work practice in today's health care environment. The last two decades have brought about unprecedented gains in knowledge and application with regard to the brain and its role in mental illness. These gains will continue, and medication and neurochemical influences will have an even greater impact on mental health practice. The challenge for social work practitioners will be twofold: First, social workers must stay current on medication and neurochemical research and findings; and second, they must ensure all clients benefit from these scientific gains regardless of their ability to pay. Understanding medications in terms of dependence and recognizing and assisting those who overdose are ways social workers can contribute as part of a comprehensive team.

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3

Practice Tips and Helping the Client

Mental health and health care social workers need to be aware of several factors that can assist in monitoring their clients who are taking medications. Social workers can empower clients to ask questions of their prescribers in order to verify that the medication prescribed is the best one for them. Often clients rely on the professional judgment of their physicians, pharmacists, and other professionals who prescribe and dispense medications but forget that these prescribers cannot always account for individualized reactions.

It is critical that professionals listen carefully and encourage clients to express what they are experiencing. Clients need reminding that they must be aware of their own bodies and reactions. The client will reap the rewards or suffer the consequences of the medication. If a client is well educated and aware of the properties and possible side effects of medications, he or she can be the first to identify adverse reactions. The purpose of this chapter is to help social workers become aware of medication issues that are important to their clients.

HOW MEDICATIONS ARE NAMED

Every drug has at least two names; sometimes a third name, the chemical name, is also used.

The first name is the *trade name* (also known as the *proprietary* or *brand name*), which will be attached to the drug as long as the pharmaceutical company's patent (exclusive right to manufacture the drug) is in effect. This name is chosen primarily for marketing and sales purposes, so it is often short, memorable, and unique.

The second and usually longest-lasting name is the *generic name* (also referred to as a *nonproprietary name*). The drug has this name as long as it is on the market. The generic name is formulated after the initial clinical trials and from that point on is used to describe the drug (even though the patent may not be expired). Many professionals prefer to use the generic name because it will be used long after the brand-name patent has expired.

Before a trade or generic name is chosen, it must be submitted to the FDA for approval. This process is rather involved, as the name must be checked to make sure it does not closely resemble that of any other medicines. The need to avoid similar names is important; between 1995 and 2000, 15% of all medication errors were attributed to name confusion (Ipaktchian, 2005). Also, the trade or generic name cannot resemble the purpose of the medication or what it is supposed to do (Ipaktchian).

The last name is the *chemical name*, based on the drug's structure, which is given to a medicine by the International Union of Pure and Applied Chemistry (IUPAC). As you can see in Figure 3.1, this name is

Figure 3.1

THREE NAMES FOR A MEDICATION

Example: antidepressant

Generic name: fluoxetine (pronounced flew-OX-e-teen) or fluoxetine hydrochloride

Brand name: Prozac, Prozac Weekly, Sarafem

Chemical name (IUPAC name): N-methyl-3-phenyl-3-[4-(trifluoromethyl)phenoxy]propan-1-amine

often very long and so complicated that it is rarely used, unless accompanied by the brand or generic name.

One of the most confusing issues for social workers and clients alike is the use of these three different names for the same medication. Many clients, as well as social workers, get used to seeing the catchy brand name, which is the manufacturer's trademark. When a drug is first introduced, the brand name is everywhere in the marketing material. The generic name (and sometimes the chemical name) is often listed next to it, but because these are typically longer and hard to pronounce they are often ignored. For this reason, drugs in this text are listed brand name first, as for many social workers it may be the easiest to recognize.

The use of a generic name can cause confusion because the introduction of a generic means the chemical name now has two meanings. The chemical name represents the brand name as well as the generic name. To confuse this further, the original brand name is generally discarded and may not appear on the label at all.

APPROVAL OF NEW MEDICATIONS

Before a new drug can be placed on the market, an elaborate testing procedure must determine its safety and effectiveness. The sale of unlicensed or unapproved drugs can result in substantial penalties (Miller, 2006). The FDA handles this responsibility and is the first U.S. agency tasked with protecting the safety of the consumer in this area. Many in the lay community believe the FDA actually conducts the testing of medications. However, the FDA is an oversight agency and does not do the actual testing, which is the responsibility of the pharmaceutical manufacturers. They develop a drug and then initiate testing in three phases (Miller).

A clinical trial begins this process. The purpose of the clinical trial is to determine with some certainty that the product is effective. (To do this, users of the product are compared to users in a control group, who do not use the product.) In addition, it is expected the clinical trial will identify common serious adverse events. The first phase involves determining the action of the drug, the side effects, and the maximum tolerated dose. Generally, this phase of the study utilizes normal (healthy) volunteers.

The second phase of drug testing is a controlled study. The focus at this level is to look for indications that the drug is helpful and to continue to monitor and identify potential side effects. The controlled study involves a smaller group of testers.

The third phase is a broad-based study (either controlled or uncontrolled) that further focuses on effectiveness and safety, risks and benefits, and the type of labeling to best represent the pharmaceutical.

If a failure occurs at any level of the trial, the creation of the drug becomes an expensive mistake for all involved. In addition, some companies engage in a fourth phase, which is primarily used for postapproval and marketing.

In the past, there have been concerns related to the timeliness, cost, and consistency of the testing process, as well as the time allowed for a patent. Since the FDA is responsible for balancing cost, safety, access, and other factors, it has become the focus of critical attention. Over the years, this process has improved, and it is believed the FDA is indeed reviewing drugs more quickly and carefully. “It used to be that the review period—after the pharmaceutical company studies the drug, writes up the report, and sends a gigantic packet of information to the FDA—took about 2 to 3 years to complete . . . now it takes 12 months” (Nordenberg, 1999c). The FDA sometimes allows treatment use prior to full approval when a drug is needed for a serious or immediately life-threatening event where no satisfactory alternative is readily available. There are also some rules that permit humanitarian use of a drug (Miller, 2006).

A reason for this improvement is that FDA has more people working within the review process. Relman (2007) believes this is a result of the fees drug manufacturers pay to the FDA when they submit a drug; this financial assistance helps pay the salaries of the staff who conduct the studies. This additional support staff enables shorter drug-review time periods. Furthermore, representatives of the FDA argue this faster turnaround time does not harm drug quality, as the actual testing period is now longer.

Manufacturers are also expected to ensure their trials include representative populations for which the drug is intended, such as women, older patients, people with kidney-filtering problems, and other population groups that were overlooked in the previous testing processes. This began in 1998, when the FDA mandated that studies take into account gender and race; pediatric-based studies also had to be conducted with children. Although this pediatric mandate, in its original form, was struck down in 2002, Congress amended the law to give the Department of Health and Human Services the ability to reward manufacturers with patent extensions for some pediatric studies (Miller, 2006).

Regardless of these improvements, critics such as Epstein (2006) claim the limitations placed by the FDA—including the excessive

number, length, size, and cost of clinical trials drug manufacturers are required to complete—is creating a logjam. He believes this delays potentially important pharmaceutical developments. Relman (2007) disputes this claim, however, saying much has been done both legislatively and administratively to expedite and simplify the process. Recent changes have resulted in a streamlined process where only one or two good clinical trials are required to support an application for approval. Furthermore, concerns about long-term complications or rare, although serious, side effects are not allowed to delay approval. To address this, manufacturers are asked to conduct follow-up studies on patients using the drug over a longer period. Relman (2007) warned, however, that this “commitment” often goes unfulfilled, as this type of formal follow-up is simply not conducted.

Another concern with the approval process is that some manufacturers have been allowed to extend patents on the grounds that more extensive and lengthy testing periods are required. Serafini (2000a) warned this appears to go against the Drug Price Competition and Patent Term Restoration Act (the Hatch-Waxman Act). Extending patent-protection periods for brand-name medications might lead to higher medication costs because there will be no competition from generic drugs (Banta, 2000).

Clinical trials clearly have benefits and limitations. One of the most common limitations is the size of most drug trials, which are often limited to less than 3,000 participants. Also, clients who have complicated medical conditions or those taking other types of medications are often excluded. Lastly, trials are limited by the brief testing period, which is unable to monitor latent or long-term effects. To remedy this, programs such as MedWatch (explained later in this chapter) provide valuable information for social workers and other supportive professionals.

The steps required for medication approval are outlined in Figure 3.2.

CREATING GENERIC DRUGS

Generic drugs are the same as their more expensive brand-name counterparts, but many people are not aware what makes them equivalent or how the process works. Generic drugs are merely less expensive copies of brand-name medications (Stoppler, 2009; Watson-Heidari, 2000). They can be thought of as knock-offs—similar to a designer handbag, but without the designer name and frills. Generic drugs are created only after the patent for the brand-name medication has expired.

Figure 3.2

APPROVAL PROCESS FOR PRESCRIPTION MEDICATIONS

- Brand-name drug is developed.
- Drug company conducts testing and submits results to the FDA.
- Company receives time-limited patent with exclusive production rights from FDA.
- Time limit ends and patent expires.
- Application for generic drugs can now be filed and approved.

As discussed earlier, the creation of a brand-name medication involves original research, testing, and marketing investments that can be quite costly for the manufacturer (Watson-Heidari, 2000). In recognition of this, the FDA designates a time period for the *patent* when it approves the medication. Generally a patent can extend as long as 20 years. During this period, no generic drugs can be created utilizing the same ingredients as the original patent. This time period is an important incentive for the brand-name manufacturer, as it allows that manufacturer an exclusive market as a reward for the time, effort, and expense involved in creation and testing.

The Federal Trade Commission reports that since 1984 more than 10,000 generic versions are now available for about one-half (50%) of all medications currently on the market (Food and Drug Administration [FDA], 2009d). Since the production cost of a generic drug is so much less, several different manufacturers may seek approval for generic medications when the brand-name patent expires. Creating the generic is much less expensive because the FDA requires only that the generic have the same active ingredients, strength, and dosage of the brand-name medication it duplicates (Watson-Heidari, 2000). Almost all initial testing and marketing carries over to the generic manufacturer because the generic drug is a copy, and duplicate testing on a biochemically similar drug is not nearly as intensive or expensive.

The comparison for equivalence between the generic and brand-name drug is a statistical one. A generic drug must be similar to the standard drug when measuring plasma levels (Public Citizen's Health Research Group, 1993). In general, there should be an overall devia-

tion of not more than 10% between generic and brand-name products, and most professionals agree there is no difference between generic and brand-name drugs. Odds are slim that something will be found wrong with the amount of active ingredients or the purity of a generic drug when compared to the brand name (Public Citizen's Health Research Group, 2009). For a helpful Web site that provides more information on specific generic drugs, go to <http://www.fda.gov/cder> and click on Consumer Education.

From a statistical perspective, brand-name and generic medications are equivalent. Generic drugs are required to have the same active ingredients, dose, strength, side effect profiles, route of administration, and safety as the brand name they replicate (Stoppler, 2009). Furthermore, as the patent expires, the brand-name manufacturer can apply to the FDA to also make the generic equivalent; it is estimated that 50% of all generic drug production is actually by the original manufacturer (Stoppler).

Although the cheaper price on generic medication is attractive, many health care prescribers still prefer to use brand-name medication whenever possible. Unfortunately, this preference can have consequences for the client; not all clients can afford brand-name medications, which may not be covered by medical insurance. It is critical for social workers to encourage clients and family members to talk with their prescribers about budgetary restrictions, so an informed decision can be made about whether brand names or generics are better for the client.

Furthermore, clients should be aware of some of the differences with no-frills generic medication. Since the FDA requires only that the chemical composition of active ingredients be the same, the color, shape, size, and taste of the generic medication may be different. These *inactive ingredients* hold the pill together or maintain its shape (Watson-Heidari, 2000). Inactive ingredients can add flavor or color, make the medicine last longer, or make the tablet dissolve more quickly. Furthermore, trademark laws do not allow the generic drug to look exactly like the brand-name preparation (Stoppler, 2009). These differences may be visible to the client, so switching from a brand-name to a generic medication could actually cause confusion or even trigger a severe reaction unanticipated by the intervention team. Other clients may be upset by the switch (whether it was with or without their consent) and might worry about different or additional side effects. If a pill looks or tastes different, which is common, the client may be concerned, leading to noncompliance.

Professionals should educate their clients about the differences between generic and brand-name medications. Clients should not think of

generic medications as different or less effective than their brand-name counterparts. There are laws in virtually all states allowing pharmacists to substitute generic drugs for many brand-name products. Some states actually require that a generic must be substituted if it is available (Watson-Heidari, 2000). If a client does not want a generic medication, or if the provider does not want the client to have one, the prescription should state this specifically. The social worker should check that the prescriber has written the words “dispense as written” or “do not substitute.”

Asking clients or their family members questions about insurance and medication reimbursement is critical. This generally means helping clients read pamphlets outlining their insurance coverage or helping them call their insurance benefits office. Simply helping clients determine what, when, and under what circumstances medication will be covered by insurance will help them make informed self-care decisions. However, finances should never be the primary consideration for prescribing decisions. To let cost completely determine prescribing patterns is contradictory to the purpose of medication. As a practice reality, however—and no matter how disturbing it may be to take cost into consideration—it is relevant to a client’s decision. If clients cannot afford to pay for medication, they will cut corners or avoid taking the medication altogether. These issues are important in deciding whether to use a generic or a brand name and should always be considered within the therapeutic decision-making process. If a prescriber writes a prescription to be filled with the brand name only, and the client’s insurance will not cover it, this needs to be discussed with the client and the prescriber. Many clients may not feel comfortable discussing this with their provider and may not get the prescription filled.

MEDICATION AVAILABILITY AND PRICING

In 1992, pharmaceuticals were a \$40-billion-a-year enterprise in the United States, with an additional \$7 billion spent on over-the-counter drugs (Goode, 1992b). Today, this industry is at \$291 billion (IMS, 2009). The use of herbal medication has also continued to increase and grows each year by approximately 25%, with an estimated \$1.5 billion in preparations, extracts, and teas (Khatta, 2007). It is estimated that three out of every four doctor’s visits result in prescriptions, and approximately 2.8 billion prescriptions were written in 1999 alone (Friebert & Greeley, 1999).

Of the 10,668 FDA-approved pharmaceuticals, there are more than 7,000 generic versions (Food and Drug Administration [FDA], 2004a, 2004b; Pal, 2007). In the United States, half of all prescriptions are filled with generic versions (Stoppler, 2009), although they only account for approximately 16 cents of every dollar spent on prescription medication (Long, 2003).

The cost of medication is not only a personal issue but also a political one. According to some policy makers, the cost of medications has become so high that desperate measures are needed to combat these costs (Serafini, 2000b). Limiting prescription costs is further complicated by the fact that the pharmaceutical industry is an unregulated market; manufacturers can charge whatever they want for new medications (Relman, 2007). The United States is the only developed nation that does not control this pricing. Some professionals are horrified when clients are able to purchase their own prescription medications for a lower price at a veterinarian's office rather than at a pharmacy because the companies charge less if the same medication is for animals (Fournier, 2000).

Pharmaceutical costs are rising and insurance reimbursement is increasingly limited, and social workers must help their clients decide what is best for them in their fiscal situations.

THE COST OF GENERIC VERSUS BRAND NAMES

A sweet-spoken elderly woman describes what it is like to live on a fixed income of \$658 a month. She relates how she places her six pill bottles on her kitchen table, then decides which ones she can afford to refill, which pills she will have to take every other day, and which ones she will do without. (Serafini, 2000b, p. 1)

It is easy to see how clients are often unable to determine whether there is an effective difference between brand-name and generic medications. For many clients, this complicated decision is based on the fact that they cannot afford brand-name medication, or else they are simply given the generic without being consulted. Since many health care organizations (such as the Veterans Benefits Administration and military-based pharmacies) now buy medications in bulk, replacing brand-name medication with cheaper generic alternatives is becoming common practice.

The rationale is simple if one accepts the cost-saving incentive to switch from a brand name to a generic. On the surface, it is clear that

generic medications are less expensive and considered as equally effective therapeutically. However, it is crucial to make sure the decision to switch reflects informed choice and best practice rather than just fiscal concerns.

EXPIRATION DATES

Clients who ask about using expired medications should be advised to call the pharmacy before discarding the medication. Many times pharmacists stamp their own expiration date, which generally expires before the one assigned by the manufacturer (Prufer, 1996). This practice can be costly for clients who can't afford to purchase new medication when the old one appears to have expired. At the same time, clients should be reminded that old medications could prove ineffective and might need to be discarded after consultation with the pharmacist. If there are two dates on a prescription bottle, the latest one is the one most likely put there by the drug manufacturer and should be followed. Care should always be taken when disposing of medications. Remind clients to properly dispose of medications by bringing them to the pharmacy or disposing of them in receptacles provided rather than flushing them down the toilet or throwing them in the trash.

COMMON MEDICATION TERMINOLOGY

Some common terms in medication dosing and monitoring that the professional social worker should be aware of include medication half-life, drug potency and toxicity, the therapeutic index, and drug tolerance. Appendix C, the glossary, also defines other commonly used medical terms.

Half-Life

A medication's *half-life* is the amount of time it takes for one-half of a drug's peak plasma level to be metabolized and excreted from the body (Sadock & Sadock, 2008)—in other words, the time it takes the amount of the drug in the body to be decreased by half (Schwartz, 1998, p. 311). If the half-life of a medication is estimated to be 4 hours, the peak concentration of the medication occurs within 4 hours of ingestion. After

4 hours, the level of medication continues to decrease by another 50% of the original amount. In 8 hours, the medication in the client's system is reduced by another 50%, and so on. The original 50% that was left continues to be divided; 12 hours after taking the medicine, 87.5% would be eliminated. See Figure 3.3, which outlines the elimination schedule of a medication with a half-life of approximately 4 hours. Although this calculation may be confusing, the basic point is that many medications remain in the system long after the medication is taken. This has serious implications for clients who combine medications or who begin another

Figure 3.3

EXAMPLE OF MEDICATION HALF-LIFE

When half-life is estimated at 4 hours, the concentration of medication follows these patterns:

Upon taking medication	100% medication in system
After 4 hours	50% is left
After 8 hours	25% is left
After 12 hours	12.5% is left
After 16 hours	6.25% is left

medication before the first drug has left the system, which creates the potential for hazardous reactions.

A computation of medication half-life can assist the health care team in determining how much medication is actually left in the client's system and how this residual amount can effect presentation and subsequent treatments. A distinction is made between a short-acting medication that is eliminated more quickly and a long-acting one, which stays in the system for a much longer period. Furthermore, medications with a short half-life are more likely to result in *discontinuance syndrome*, or the withdrawal symptoms that result after a medication is stopped.

For a medication to have an effect, a certain level of medication must be obtained. Generally it takes approximately four half-lives of a medication to reach what is identified as a *steady state*. The steady state

is achieved when there is a consistent level of the medication in the body. The medication described above, which has a half-life of 4 hours, would take approximately four doses every 4 hours to reach the correct level. This is why a prescriber might recommend a client double the dose when starting a new medication. When done under proper supervision, this would cut in half the time needed to get the steady state.

There are also ways to slow down or achieve a longer half-life. For example, some drugs may be coated to slow their breakdown. Hulatt (2009) warned, however, that this is only relative to how long the medication stays in the body. Another way, which may have a more lasting effect, is to use a *chemical intermediary*. The entire dose of the medication is released into the blood stream, and the intermediary remains in the system for a period of days, breaking down the original substance.

Drug Potency and Toxicity

Drugs, whether legal or illegal, can affect the nervous system and, thus, a person's mood and behavior (Millhorn et al., 2009). *Potency* refers to the relative dose needed to achieve a certain effect (Sadock & Sadock, 2008): The greater the potency, the easier it is to bind to a specific group of neuron receptors in the brain (see chapter 2 for a discussion of medications and their interaction with neuron receptors). The more potent the drug, the lower the amount needed to achieve the desired therapeutic effect (Hogarty, 2002).

Potency has a close relationship with toxicity. *Toxicity* is the level of medication that does not help the body, but rather upsets or destroys normal body functions (Hanson, Ventrurelli, & Fleckenstein, 2005). Most professionals agree, for example, that heroin is potent and at toxic levels more lethal than many prescription and over-the-counter medications. This does not eliminate the risk, however, that can result from underestimating the issues related to toxicity and prescription medications.

For example, Haldol (haloperidol), a drug used to treat psychosis, is a high-potency medication because the dose needed to produce a therapeutic effect (5 mg) is much lower than its counterpart, Thorazine (chlorpromazine), which requires a much higher dose (100 mg) to achieve the same effect. Understanding medication potency helps explain why doses are given in different levels for different medications. Dosages can be very confusing and difficult for the layperson to predict. Family members can also be confused when the dosage requirements for a loved one vary from a high-potency to a low-potency medication or vice-versa. The

social worker can assist the client by pointing out these types of medications and getting the client to ask their prescriber any specific questions they have related to dosage.

The Therapeutic Index

How a drug works is described as its action (Becker, 2007). Knowledge of the action of a medication, including information related to the *therapeutic index*, is essential for social workers because it outlines how to utilize a drug safely. The therapeutic index is the relative measure of a drug's toxicity or safety. This index, also referred to as a *therapeutic ratio*, provides the mathematically calculated range between a therapeutic and a toxic dose of a drug, thereby outlining when a previously safe dose can become toxic.

Drug Tolerance

Clients may also develop *drug tolerance*, or lower levels of responsiveness to a medication over a period of time. The development of tolerance is associated most often with the client's physical or mental dependence on a medication. The term *tachyphylaxis* relates to the rapid occurrence of drug tolerance. Some drugs, such as painkillers, may bring this about quickly. In these cases, clients must take the drug regularly in order to prevent the usually uncomfortable symptoms of withdrawal (Sadock & Sadock, 2008). With drug tolerance, larger doses of a drug are required to receive the same response that earlier occurred with a lesser dose. Tolerance can involve both physiological factors as well as psychological ones. *Physiological tolerance* results when clients build up a resistance to a medication after repeated exposure. They may physically need more of the medication to get the desired effect. The psychological aspects can also be problematic and may lead a client to visit multiple prescribers seeking the medication he or she so desperately desires.

For social workers, it is important to assess any cues in a client's environment that may bring out the desire for a drug when tolerance is suspected. For example, most social workers are familiar with the issues that surround recovery efforts and the problems that clients can experience when trying to avoid alcohol. Most professionals realize the danger of relapse, which can occur by simply being near a place where alcohol is present and how that place may trigger an intense desire to drink. How many, however, have made the same connection with legally prescribed drugs?

Some clients, for example, may miss the buzz from benzodiazepine; for others, the smell of a hospital may trigger an uncontrollable desire for a painkiller. Social workers need to be aware of drug tolerance and what medications are most likely to cause problems after discontinuance. Staying aware and informed of the triggers that can potentiate a response can help the social worker anticipate and possibly prevent a potential relapse.

MEDICATION MONITORING: COMMON DOSING MISTAKES

Professional social workers are often involved in establishing and monitoring a client's medication regimen, as well as educating clients and their families on basic issues related to medication use. Therefore, a working knowledge of medications helps the social worker prepare for potential problems related to medication usage and misuse.

One common problem noted by social workers regarding clients taking medications is a lack of awareness. Many clients are simply not aware of the commonsense principles of medication usage (Dziegielewski, 1998). For example, some clients may be unaware that a time-release medication should never be chewed. These medications are coated so part of the medication is released first, while the remainder is released when the additional coating breaks. Chewing this type of medication defeats the purpose of a time-release dosage, yet clients are seldom reminded of this because it is assumed they know.

If a medication is in a capsule, it should not be split, as this defeats the purpose of the capsule as a mode of delivery. The medication may not be evenly distributed in the capsule, and the capsule may also contain fillers and other ingredients. Splitting a capsule could easily result in the client getting all the medication at once—or none of it.

A more common example of misdosing can occur when a client is not instructed how to take a nonscored tablet. Many medications are expensive, particularly those required for maintaining mental health. In a desperate attempt to save money, a client may try to split tablet medications in half, thinking to get half the prescribed dose. Yet there is no uniform dose distribution in a nonscored tablet; the amount of medication in each side cannot be determined. Clients should be instructed to only split medication tablets that have been scored. Such a simple mistake could cause serious problems that might remain undetected by the client, the prescribing professional, and the interdisciplinary health care team.

Liquid medications may also cause dosing problems. Most clients will simply use a kitchen spoon to measure a dose, but all spoons are not the same size. For example, the average teaspoon holds 5 milliliters (Kurtzweil, 1994), yet common tableware teaspoons come in various sizes from 2.5 to 9.5 milliliters. Thus, using everyday tableware does not guarantee accurate dosages. To assist consumers, there are various types of standardized measuring devices available, including hypodermic and oral syringes, oral droppers, cylindrical dosing spoons, and plastic medicine cups.

A simple explanation or demonstration of how to measure liquid medicines could prevent dosing problems. Also, instruments such as oral syringes are generally placed in the mouth to release the medication; be sure to remind the client and family members to remove the cap to avoid swallowing it (Kurtzweil, 1994).

Consumers and professionals have been led to believe that the dosing cup used in inpatient or residential settings is an accurate and effective way to ensure the client is receiving the correct medication. In the past, however, there have been several cases of dosage cup mislabeling that have caused the FDA to survey drug companies and recall those products that have not met the standard (Kurtzweil, 1994). The role of the health professional is essential in educating the consumer about potential dosing problems and helping to identify problems related to manufacturer error that need to be reported to the FDA for correction.

Social workers should never assume clients are clear about how to take medications and that clients will follow commonsense procedures. Oftentimes, the prescriber does not have enough time to explain all aspects of dispensing, especially when it is assumed to be well-known information. It is helpful to review with clients how they were instructed to take a medication and why it is important to take as directed (see Figure 3.4).

MEDICAL TERMINOLOGY AND THE OFFICIAL “DO NOT USE” LIST

It is important that social workers stay abreast of medical terminology and jargon. To read and interpret medical records, social workers need to be aware of the symbols and abbreviations commonly used in the medical profession. Table 3.1 provides examples of some abbreviations often used in the health care environment.

To protect clients, make sure all clients are aware of the “do not use” abbreviation policies and that they are followed. For example, to confirm dosing accuracy, each prescription dosage should be written with a leading zero (rather than a trailing zero) to avoid confusion. This official “do not use” list applies to all handwritten medication orders and all printed

Figure 3.4

TIPS FOR HELPING CLIENTS WHO TAKE LIQUID MEDICATIONS

1. Remove caps from hypodermic or oral syringes, and (if not needed) throw them away prior to giving the medication.
2. Use only the plastic dosing cup that comes with the product; don't use one from another product.
3. Do not use tableware spoons to measure liquid medication, as they cause too much variability in dosing.
4. Read the directions for proper cleaning and handling techniques.

Suggestions adapted from “Liquid Medication and Dosing Devices,” by P. Kurtzweil, 1994. *FDA Consumer*, 28(8), 6–9.

Table 3.1

SELECTED MEDICAL ABBREVIATIONS

ABBREVIATION	GENERAL MEANING
a	before
ad	to; up to
ad lib	as desired
add	add
aq	water
bid	twice daily
BP	blood pressure

Table 3.1

SELECTED MEDICAL ABBREVIATIONS (Continued)

ABBREVIATION	GENERAL MEANING
c	with
f	female
fl dr	fluid dram
fl oz	fluid ounce
gtt	a drop, drops
hs	at bedtime
liq	a solution
mg*	milligram
ml or mL	milliliter (mL is preferred)
mm	millimeter
os	mouth
oz	ounce
pr	through the rectum
prn	as needed
pt	pint
pv	through the vagina
QD, qd	old abbreviations; now just write “daily”
qh	every hour
q2h	every two hours
q3h	every three hours
qid	four times a day
qt	quart
s	without
sc	subcutaneously
sig	write; let it be labeled
tab	a tablet
tid	three times daily
tin	three times a night
tm	tomorrow morning

*This symbol, mg (milligrams), can be mistaken for mcg (micrograms), which could result in a one-thousandfold overdose.

Figure 3.5

OFFICIAL “DO NOT USE” LIST

Do not use: trailing zero
(i.e., X.0 mg)

Instead use: X mg

Do not use: omitted leading
zero (i.e., .X mg)

Instead use: 0.X mg

Source: Taken from the Joint Commission Official “Do Not Use” List, 2005, http://www.jointcommission.org/NR/rdonlyres/2329F8F5-6EC5-4E21-B932-54B2B7D53F00/0/dnu_list.pdf

forms. Soon, it may be extended to preprogrammed health information technology systems as well. See Figure 3.5.

Social workers are not generally responsible for documenting this type of information, but the more they know the more helpful they can be to the client. The more knowledgeable eyes monitoring a situation, the less likely errors will go unnoticed. In fact, some states are now requiring social workers to complete continuing education hours on reducing medical errors and client safety (Allen, 2008). The need for this type of education is fueled by the at least 44,000 deaths related to medical errors that occur each year in hospitals. This trend is so alarming that, in 2001, the Florida legislature made it mandatory that all health care professionals in the state, including social workers, complete a 2-hour course on the topic (Florida Statutes, 2001). Preventing common abbreviation errors can increase compliance for all involved while decreasing the possibility of medical errors (Joint Commission Perspectives on Patient Safety, 2009).

IDENTIFYING REACTIONS AND ADVERSE EFFECTS

All health care professionals are expected to monitor side effects and report significant adverse events to the FDA in a system known as *voluntary reporting*. All clients need to be aware of the risks and benefits of taking medications, including potential side effects. To cover all side effects from every drug is beyond the scope of this chapter; there are some important general guidelines, however, that apply to all drugs.

One of the biggest weaknesses of clinical trials is they provide isolated results at one point in time. In reality, clients often take more than one medication, and it is unclear how medications may interact with each other. In addition, results may be complicated by *off-label use*. Off-label use is when a prescriber recommends a drug for a health condition or symptom for which the FDA has not approved its use. For all these reasons, a clinical trial is only one measure of what can be expected from a particular medication. We can learn more about a medication when it is prescribed to an individual than we can from a clinical trial. This makes the role of the social worker, and other professionals who view the client from an environmental perspective, critical.

Social workers should be aware of the expected general reactions and precautions that apply to each drug. This means a basic knowledge on referencing medications in sources such as the *Physicians' Desk Reference (PDR)* is recommended. This book provides manufacturer data on testing and side effect profiles as well as pictures of each medication (PDR, 2009). For simpler client-friendly language, a call to the local pharmacy will yield information on prescription medications as well as bottle or package inserts. Clients must be encouraged to read these inserts completely before beginning their medication regimens. *Physicians' Desk Reference for Nonprescription Drugs and Dietary Supplements* (2003) may also be helpful. Similar to the PDR, it provides pictures and clear explanations of nonprescription medications.

THE MEDWATCH PROGRAM

MedWatch, sponsored by the FDA, is responsible for postmarketing surveillance. This program assumes all medications need to be monitored on an ongoing basis for safety (MedWatch, 2004). Through this program, health care professionals can share information and identify safety concerns that may require formalized action (Henkel, 1998, 1999). Since initial testing for side effects during clinical trials may be limited, programs such as MedWatch allow for follow-up once a medication is on the market.

MedWatch has four purposes: (a) It is designed to increase awareness about serious reactions caused by drugs or medical devices; (b) it makes it easier to report adverse drug reactions; (c) it gives the health community continuous feedback; and (d) it provides a postmarketing mechanism for reporting product safety issues (Henkel, 1999).

There are three types of reports the FDA, under MedWatch, is most interested in. The first (and most relevant to this book) is the reporting of suspected serious adverse events related to drugs (prescription and over-the-counter), medical devices, biologics (except vaccines, which are reported to another program), cosmetics, and special nutritional products (dietary supplements, infant formulas, and medical foods).

Second is the quality of the product and whether serious adverse events are related to how the product was created or distributed. Special attention is given to whether a drug may be counterfeit or contaminated, packaged or labeled incorrectly, made of defective components, or therapeutically different from the clinical ingredients originally approved by the FDA.

Lastly, MedWatch monitors issues of medication errors, such as incorrect dosage or usage.

Health care professionals may supply spontaneous reports at any point during patient care. MedWatch also has a toll-free phone number. The major criterion for filing a report is belief or evidence a serious adverse reaction has occurred (Henkel, 1999). There is no consequence if a report is made in good faith and proves to be unfounded. Generally, reactions to report are those that were not evident during initial drug trials and were not expected to have a common side effect and, therefore, do not appear in the product handout. The reporter is not required to demonstrate or substantiate an actual reaction, yet the reporter needs to believe it has occurred and that future incidents are possible. Since the FDA will probably ask for technical follow-up information on a report, it prefers that a trained health care professional, rather than a client, make the actual report. A postmarketing safety evaluator examines information from MedWatch reports, and, according to Henkel, once an adverse effect has been substantiated, the FDA can take the following actions:

- **Issue medical alerts:** These alerts can provide valuable product safety information to physicians, pharmacists, and other health professionals, as well as to trade and media groups.
- **Require label changes:** The manufacturer may have to add or change product information on all current product labels.
- **Create warnings on packaging and product information:** The FDA can require these warnings be prominent so physicians, health care professionals, and consumers are aware of their existence.
- **Withdrawal products:** When warranted, the FDA has the power to require a company to permanently withdraw its product from the marketplace.

An immediate report to MedWatch is warranted if one or more of the following occurs:

- **Death:** If you believe using a medication or medical device is the suspected cause of a client's death.
- **Life-threatening hazard:** If a client is at risk of death due to an adverse reaction, or if it is suspected that continued use of a product could cause death (e.g., possible pacemaker failure).
- **Hospitalization:** If a client is admitted to a hospital because of a severe reaction to a prescribed medication.
- **Disability:** If an adverse reaction results in a significant or permanent change in a person's previous level of functioning.
- **Birth defects, stillbirth, miscarriage, or birth with disease:** If a client is exposed to a medication or medical device that leads to any of these problems in the birthing process.
- **Intervention:** If a client needs intervention to avoid permanent damage (see Figure 3.6).

Figure 3.6

HOW TO FILE A MEDWATCH REPORT

A MedWatch report can be filed by mail, fax, or online.

- **By mail:** Use a postage-paid MedWatch form, which includes the address. To get a copy of the form, call MedWatch at 800-FDA-1088.
- **By fax:** Fax the form to 800-FDA-0178. Any serious or adverse reaction can also be reported to the product manufacturer who by law is required to report it to the FDA.
- **Online:** Go to the MedWatch Web site at <http://www.fda.gov/medwatch/> and follow the directions for submitting a report electronically.

To learn more about MedWatch, visit the MedWatch Tutorial at: http://www.accessdata.fda.gov/videos/MedWatch/tutorial/tutorial_video_flash.htm

TAPERING MEDICATIONS

Clients often ask how they can reduce or cut back on the medications they are taking. It is always best to refer this question immediately to the prescriber because of complications that can result from discontinuing or reducing the level of certain drugs. Clients should be cautioned on the perils of stopping medication abruptly or weaning off medication without sound medical advice and monitoring. For example, Xanax, which is used to control anxiety, should never be discontinued suddenly because of the risk of seizures (*PDR*, 2009). If a social worker is unfamiliar with the effects of discontinuing or tapering off a medication, competent supportive practice is to refer the client appropriately before encouraging reduction or discontinuance of any medication.

Tapering a medication requires constant monitoring, and there are no standard rules for all medications. If a client states they are going to discontinue a medication without seeking medical advice, it is best to recommend a slow tapering process (Harper, 2009). This slow decrease can help avoid severe side effects and make withdrawal symptoms tolerable. When a plan for tapering is established by the prescriber, the social worker can assist the client in identifying any side effects that may occur.

CASE EXAMPLE: JOAN

Joan, a 30-year-old single parent with little free time or extra money, began to experience flulike symptoms. Her body ached, and she was tired and depressed. The symptoms were not severe enough to keep her home from work, and she decided against a trip to the physician because she was concerned about the copayment required by her insurance company. She started by going to the Internet and searching for flulike symptoms and treatments, which led to 2,340,000 search results. There were numerous Web sites that offered everything from diagnosis tips and strategies to testimonials from individuals recommending what worked best for them. She felt overwhelmed and too sick to start reading each of the entries, so she shrugged her shoulders, turned the computer off, and went to the drug store.

At the drug store, she looked at the shelves and tried to decide what type of cough-and-cold medicine might relieve her headache and runny nose. She did not see any clerks to ask, and there was a line outside

the front window of the pharmacy. She also hoped whatever medication she chose might have a bit of a stimulant effect to “pick her up a little.” She looked at all the different choices on the shelf and finally chose the cheapest over-the-counter cough preparation she could find.

When she finally got home she was feeling tired, and she decided increasing the dosage of the new medicine might help her sleep. She took two full tablespoons of the medication and went to bed, but about an hour later she started feeling sicker. Her head throbbed, she began feeling nauseous, and then she vomited. She could not fall asleep, her palms were sweating, and her heart raced. Afraid of what was happening, she went into the kitchen and re-read the label. The directions read two teaspoons, and she realized she had taken more than double the prescribed dose. There was also a warning of drug interaction with certain types of antidepressants and advice to contact a physician before using the medicine. Joan was taking such a medication—Prozac. Her physician had prescribed it for her depression and to suppress her appetite. She called her neighbor to help with the children and was taken to the hospital for assessment and treatment.

Fortunately for Joan, there were no serious repercussions, but cases like this are not uncommon. She probably experienced a serious side effect: first by overdosing, and then by combining the cold preparation with another medication it specifically warned against. She had not read the directions carefully and compounded the problem by using a common household tablespoon, which is not standardized. Unfortunately, many people like Joan are lulled into a false sense that over-the-counter preparations are safe because they are sold without a prescription and are available at any pharmacy. In addition, many are not aware that over-the-counter preparations can produce interactions with other medications.

According to the FDA, 50% of all consumers do not take medicine as prescribed or take them without proper professional supervision. One reason cited for this trend is that too many people (primarily women) neglect their own health because of busy schedules and lack of time (Friebert & Greeley, 1999).

MEDICATION INFORMATION AND THE INTERNET

As in Joan’s case, the abundance of information now available to the nonprofessional can empower clients to learn more. The Internet can

help interested consumers investigate whether a particular medication is appropriate for their specific situation, and it allows them to do this privately and comfortably in their own homes. The sheer volume of information, however, can prove overwhelming; there is much contradictory, conflicting, and simply untrue information that may appear credible. The sheer abundance of information available to the lay public increases the possibility of misinterpretation.

The Internet has become a major resource for individuals using prescription, nonprescription, and herbal remedies. For the most part, this type of access reinforces the consumer's right to control his or her own health and mental health. On the negative side, however, having all this information so readily available can challenge professionals seeking to provide both competent and effective use of medications. Although client self-determination is always encouraged, this overload of uncensored information should always be utilized with caution—especially unsubstantiated claims from newspapers, television, or the Internet.

There is a massive amount of information available to the consumer describing the risks and benefits of medication. Technology provides easy access to information, and the public has an interest and desire to find out more. Clients ask complicated questions, and those supporting them are expected to have the answers. Social work professionals must be able to help clients and their families view the information they receive objectively. It is essential to question the reliability of information retrieved online. To assist clients in determining the reliability of information gathered from various sources, Desselle and Zgarrick (2004) and Larkin (1996), among others, suggest the following guidelines:

1. Who maintains the site? Government or university-based Web sites are recommended for the most scientifically sound information. Private sources may have their own entrepreneurial agendas for promoting or marketing a product not appropriate for every client. This is particularly important when searching for information on herbal remedies that are offered for preventive or therapeutic purposes, such as foods or dietary supplements. The FDA does not generally monitor these products and their claims (Zink & Chaffin, 1998). In addition, can you determine who owns the site? This will help the client determine if there are some bias or promotional aspects that override the content.
2. Is there a professional body responsible for reviewing the site's contents? Do the professionals who review the site have a direct

connection to the site (i.e., employees at the site) or are they independent professionals? Who reviews content from a more objective perspective? Are references made to professional journals or researchers to support the claims being made? Can the professionals, researchers, or scientists who review the site be contacted for additional information or clarification? Does the site give the credentials of the reviewers and authors of the material? What are the credentials of the writers, and where are they getting their sources?

3. Are there links to other sources that can support or supplement what is provided on the site? Does the site list where the information comes from and give credit so you can check the accuracy? Be sure these referral sources are reputable and well established, because many companies set up professional-looking Web pages but may not accurately represent the product they are advertising.
4. How often is the site updated? Within the rapidly changing mental health field, all sites that discuss medications or medical information should be updated at least monthly.
5. Does the site supplement medical information with any type of multimedia presentation that facilitates understanding of the product? Be careful, however, as a sophisticated and impressive presentation does not always mean the information is accurate. If it is from a nonreputable sight, there may be a hidden message or agenda.
6. Does the site charge a fee for access? Before paying such a fee, determine if the service is more worthwhile than the many sites that are free of charge. Paying for information does not guarantee the information is proven, worthwhile, or appropriate for the client.

It is not surprising that technological advances have resulted in a surge of self-help interventions, particularly in the area of health and wellness; this trend will continue. What is most frightening is that many clients will act upon the information they get from the Internet—for example, by taking over-the-counter medications or herbal treatments—without informing their health care worker.

It is common to think herbal preparations are natural, safe, and therefore harmless, and clients frequently take these preparations to improve their health. This can be problematic because many of these products can interact with prescription medications. For example, some

herbal preparations can become toxic when taken with certain drugs, and fatal herb–drug interactions can occur (Fugh-Bergman, 2000; Mayo Clinic, 2000b). All social workers are reminded to encourage clients to write down all their medications and treatments and the sources of their information on these products. This information should later be shared with the health care provider or interdisciplinary team to determine whether the product is compatible with the client’s medical, mental, social, and environmental situation. Social workers should warn clients to be cautious of products that advertise a miracle cure or a solution to all their problems. Any claims of this nature should be scrutinized thoroughly.

There are other disadvantages to the overwhelming amount of medical information available online. Adolescents, for example, are using the Internet to learn more about prescription medications—and then are using them illegally. As of 2006, prescription medications were among the drugs most heavily abused by teenagers, surpassed only by marijuana (Substance Abuse and Mental Health Services Administration [SAMHSA], 2008). Therefore, when assessing for medication use and abuse in adolescents, social workers are recommended to assess for legal as well as illegal medications (Dziegielewski, 2005).

Some adolescents create what is often referred to as “trail mix” or “skittles” and then distribute it at “pharming” parties. These small plastic bags filled with random pills from the medicine cabinets in their homes are passed around at parties and taken indiscriminately (Prosser & Nelson, 2008). Many young people are using the Internet to determine which medications to include in these bags. They can read about the medications in the medicine cabinet and select which ones might be of greatest interest for either personal or financial gain.

Furthermore, some adolescents who want prescriptions to pain medications for illegal use will even learn the symptoms of a disease that requires a certain medication; they can then fake the symptoms in order to get a prescription from their provider. Parents unaware the Internet is being used for such purposes may not know the symptoms are faked.

Most social workers who have worked for any length of time on an adolescent inpatient unit can give an example or two of a young client who tried to feign symptoms for increased or decreased dosing. This is just one more reason why parents need to monitor their children’s Internet activity. Also, parents need to be aware of what medications are in their medicine cabinet, what happens to them if they are not used, and the safest way to destroy them.

Despite the positives and negatives of this increased and easily accessible information, the role of the social worker remains central to helping clients secure and interpret accurate and relevant product information. Social workers should make it their responsibility to help clients obtain the most up-to-date and credible information. This empowers clients to self-determine if a medication in question is appropriate for them. Social workers also need to address the person-in-situation and person-in-environment issues other professionals may neglect. For example, are there others in the home who may use or abuse these medications? If so, what are some of ways this can be addressed and possibly avoided?

BUYING MEDICATIONS ON THE INTERNET

Many Web sites make it easy to purchase medications. Purchasing online appeals to many individuals, especially those who cannot leave their homes or who live in rural areas (Henkel, 2000). With a simple faxed prescription or online request, a client can have medicines delivered the next day to his or her own home.

Although this is a convenient way for clients to receive medications and treatments, it can be problematic for the professionals who treat the individual. For example, a consumer can obtain a prescription without ever seeing a health care professional at some Internet sites by simply filling out a questionnaire. This type of purchase can result in problems ranging from misdiagnosis to purchasing or receiving incorrect medication (Carey, 2000). To demonstrate the negative effects that can result from this practice, Chen (1999) described an official crackdown on one such site that found the person authorizing the prescriptions was a veterinarian in Mexico. The Clinton administration allocated \$10 million to crack down on illegal drug sales online. This fund was designed to identify and punish site owners; however, this cannot stop foreign-based sites from engaging in the same practices (Carey). The rules and regulations for sites located in other countries are not the same as in the United States, but the sites are available to anyone with Internet access (Henkel, 2000). Unfortunately, cases such as these give a bad name to reputable electronic pharmacies that provide a valuable service.

If clients decide to purchase their medications online, social workers can help them establish the credibility and reputation of an electronic pharmacy. For example, remind clients that reputable pharmacies will

always verify a prescription with the physician who wrote it and provide the client with clear information about the risks and side effects. Advise clients to get the name, phone number, and professional license number of the online pharmacist and to keep this information in a safe place in the event of any problems. In addition, it is helpful to determine whether a site is approved by the National Association of Boards of Pharmacy (NABP; online Web site at <http://www.nabp.net>), which has developed a seal of approval for sites that meet the appropriate standards (Carey, 2000). Regardless of where clients get a medication, before use they should be sure it has been dated and that outdated medications are not being used.

SUMMARY AND CONCLUSIONS

Social workers often work with clients who are taking medications, and the more knowledge they have, the better equipped they will be to handle potential problems. The role of the social worker in medication usage is an essential one, if only to educate clients about issues other professionals may avoid or neglect. One problem often noted by medical social workers is client lack of awareness in taking medications properly (splitting tablets, not measuring liquid doses appropriately, and/or stopping a medication without notifying a medical professional).

The role of the social worker in helping to understand, communicate, monitor, and document issues surrounding the use of medications is an important one. Social workers need to be aware of medication interactions and help clients prepare for and avoid negative reactions. It is unrealistic to expect social workers (or any health professionals) to know about every medication a client is taking. It is not unreasonable, however, to expect them to find the necessary medication information and become familiar with effects and adverse reactions. Using the *Physicians' Desk Reference* and similar resources can assist in gathering available manufacturers' data on testing and side effect profiles (PDR, 2009). If this is not available, a call to the local pharmacy can provide package inserts.

The social worker is essential both as a direct provider and as a member of the interdisciplinary team verifying information about the client's medications. Although careful monitoring of drug therapy is not considered the primary role of the social worker, assisting in the verification process is. Social workers can identify medications that might be

unnecessary or inappropriate and assist in documenting the efficacy of drugs, because many clients do not explore the appropriateness of their medications.

Social workers are now often expected to take an initial medication history and clearly relate how taking these medications can affect the client's activities of daily living (ADLs) or supportive counseling efforts. It is important to remember that an accurate and responsible history should also explore the possibility for abuse. When the potential for abuse is high, social workers can note this and prepare the team to be aware, thus avoiding possible problems for the client. When a medication history is completed be sure the assessment is complete and includes the of all prescription and nonprescription drugs and drugs for chronic conditions. It is important to document all medications and substances that a client is taking, including caffeine, nicotine, and over-the-counter medications. In the future, social workers will probably not only complete this task regularly but also be held solely accountable for this very important responsibility.

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4

Taking a Medication History, Documentation, and Treatment Planning

There are three functions that need to be addressed when providing services to individuals, couples, families, and small groups experiencing psychosocial difficulties, according to O'Hare (2009): assessment, intervention, and evaluation. Furthermore, to facilitate sound clinical practice and the resultant assessment and treatment planning, social workers need to be aware of the roles medications play. Substance use and abuse (legal or illegal) can clearly interfere with behavioral functioning and influence intervention success. This makes the supportive role of the social worker crucial in understanding, assisting, and monitoring clients who are taking medications (Dziegielewski, 2007).

The emphasis of this chapter is on using the skills of the social worker to support the health care delivery team. In order to complete the advocacy and broker functions basic in the field of social work, an accurate assessment and referral process in regard to medication usage must be utilized. To best assist the client, social workers must consider the types of medications a client is taking—whether they are prescription, alternative, or over-the-counter remedies—and how they may affect the client's treatment goals and expectations. Social workers must be familiar with side effect profiles and dosage routines in order to assist clients obtain and maintain the most therapeutically productive treatment. They must be able to recognize potential problem areas in order to refer the client

for adequate or revised treatment. This requires a general awareness of the purpose of any medications, as well as the side effects, general reactions, and cautions that apply to each drug. As outlined in chapter 3, social workers will need a working knowledge of how to find reputable research on medications. When unsure, social workers should never work outside of their competence and should know when to defer to others for additional help or information.

Social workers are often confronted with numerous agency forms that document client progress. Many agencies also have their own documentation formats and expectations requiring uniformed recording. One survey by a medical liability insurer found that 40% of the medical records examined did not have clear documentation regarding patient education, 40% did not mention whether the client had any previous history of drug allergies, 49% were so poorly written the handwriting could not be deciphered, 96% contained unidentified comments or documentation, and 66% had little information about when prescriptions were written and refilled (Buppert, 2000). Documentation problems like these are unacceptable and put clients, families, and providers at significant risk. As part of an interdisciplinary team, the social worker can play a critical role in avoiding medical errors. The social worker should be certain all client data (including information on medications) is accurate and complete when completing a biopsychosocial assessment.

INCORPORATING A MACROLEVEL APPROACH

In starting the assessment process, social workers can benefit from considering a public health perspective in which principles of prevention and intervention are highlighted. Accordingly, all treatment efforts become more comprehensive as the social worker not only works to serve the client but also uses this knowledge to advocate for larger societal changes when relevant (Van Pelt, 2009). This highlights the macro aspects of serving a client, as often health care policy changes have an impact on preventive health care and wellness for all served.

For example, an elderly client is assigned to a social worker for case management. The medical staff feels the client's compliance may be problematic. After meeting with this client, the social worker realizes this is indeed the case: The client is not taking his medication as prescribed. After assessing his situation, it comes to the social worker's attention that the prescription he is supposed to be taking is not covered

by his insurance plan. The physician ordered a newer brand-name medication that has no generic available. The client never told the prescriber it was not covered by insurance and decided to pay for it on his own. To save money, he started splitting pills in half. The social worker explained the problem of splitting medication (described in chapter 3). She also initiated a request from the physician to the insurance company to have the brand-name medication considered for addition to the list of covered medications.

Macrolevel intervention efforts can be as small as advocating that pharmacies not use child-safety caps for elderly clients (because of the difficulty of getting them off) to advocating for insurance coverage for prescription medications not covered under a certain plan.

A PERSON-IN-ENVIRONMENT APPROACH TO ASSESSMENT

Social workers have always relied on some form of documentation of client situations and problems. One enduring theme central to social work is the focus on the person-in-environment. Austrian (2009) outlined the role of social work, taking into account the *ecosystems perspective*—where *eco* refers to the relationship of the person to the environment and *systems* relates to interrelatedness and sources of interaction. When viewed together, all documentation should take into account the contextual circumstances surrounding the individual.

While formats have changed, documentation for maintaining case continuity remains a professional priority (Dziegielewski, 1998; Kagle, 1995).

Record keeping provides the health and mental health care social worker with a map of where the client and worker have been in their intervention. Understanding and recording the client's problems, interventions used, and any progress made enables the social worker to assess the interventions, recommend adjustments in medications, and make necessary changes in counseling strategies. It is also crucial in terms of client safety, especially when clients are depressed and might attempt to hurt themselves or others. As part of the assessment process, a culture of safety needs to be created (Yeager, Roberts, & Saveanu, 2009).

At the beginning of the assessment process, many social workers fear they do not know enough to assist clients who have questions or concerns about their medications. This caution is important, although the

fear associated with it may not be well-founded. Memorization of the facts surrounding a medication is not required. What is needed is being able to listen to what the client says and then educating and empowering the client to make informed choices (Dziegielewski, 2009). The social worker must be able to look up a medication from reputable resources (discussed in chapter 3). These references can help the social worker access the latest manufacturer's data on the testing and side effect profiles of the medications in question.

The social worker should first help clients verify information about the medications they are taking. Providing a trusted, objective, and educated perspective can help clients feel more assured when asking questions. When completing a psychosocial assessment, social workers should not be intimidated or ignore a client's medication because it makes them uncomfortable. Social workers do not prescribe medications and, therefore, should *never* tell a client what to take or what medicine is best. Rather, by assuming the role of advocate, a social worker can empower his or her clients to voice their concerns and take control of their medical regimes.

Due to the therapeutic relationship and the trust and rapport they develop with clients, social workers are in a unique position to help ensure medication compliance. Many times medication is not effective because clients do not adhere to the intended regime. There are numerous reasons for this—from being instructed to take multiple prescriptions at different times throughout the day to ambiguous prescribing principles (ASHP, 1993). There are several ways social workers can assist with compliance, starting with recognition and reporting of medication errors (as discussed in chapter 3) and extending to providing a safe and trusting environment to explore and monitor client responses to medications. The more professionals aware of the possible adverse effects of a medication, the better, as these adverse reactions can affect or impair a client's functioning in many ways.

A comprehensive assessment that clearly identifies the mental health issues a client is experiencing requires documenting medication use and abuse, which contribute to overall functioning and therapeutic success. This can make the social worker aware of potential problems with prescribed use and abuse, as well as using excessive medication or many drugs together as in polypharmacy. When the abuse potential is high, social workers can confront the client that his or her behavior can complicate mood patterns and treatment success. In addition, when working as part of an interdisciplinary team, sharing information can

help others on the team become aware of and avoid possible problems for the client.

Good record keeping is essential to the ethical and legal aspects of practice (Buppert, 2000; Kagle, 1991). Regardless of the format used, all record keeping should at a minimum contain the following information: (a) a description and assessment of the client's situation; (b) safety concerns; (c) the reason for referral and purpose of service; (d) identification and description of measurable goals, objectives, and tasks; (e) a clear intervention plan; (f) a plan for monitoring and evaluation of client progress; and (g) evaluation and presentation of treatment outcomes. In terms of medications as part of the helping process, the importance of this type of documentation cannot be overemphasized.

SPECIAL CONSIDERATIONS FOR A CULTURALLY DIVERSE POPULATION

Culture has been defined as the “sum total of life patterns passed from generation to generation within a group of people and includes institutions, language, religious ideals, habits of thinking, artistic expressions, and patterns of social and interpersonal relationships. Aspects of culture are often related to people's ethnic, racial, and spiritual heritage” (Kirst-Ashman, 2000, p. 11). Many individuals are confused about the difference between culture and ethnicity. *Ethnicity* generally refers to one's roots, ancestry, and heritage whereas *culture* generally relates to values, understandings, behaviors, and practices (Ton & Lim, 2006). All social workers need to take into account a client's personal beliefs about the etiology and prognosis of his or her symptoms (Chang-Muy & Congress, 2009).

Social work practitioners encounter a wide range of ethnic and minority clients who present varied mental health problems. Although this book cannot do justice to the unique characteristics, issues, and challenges of each of these groups, it is important to ensure social workers are aware of the major considerations related to mental health practice with these populations. This section will sensitize the reader to some of these considerations and how they can affect the course of medication regimes in mental health practice. Readers should seek out other information when faced with additional considerations in the mental health treatment of minority clients. The *DSM-IV-TR* cautions clinicians not to diagnose individuals without taking into account cultural considerations,

and it provides information on culturally bound syndromes (American Psychiatric Association [APA], 2000).

Dziegielewski (2002) identifies two culturally bound syndromes of particular importance when working with Hispanics. These two conditions are *ataque de nervios* (nerve attacks) and *susto* (fright or soul loss). Both are listed as culturally bound syndromes in the *DSM-IV-TR*. These conditions can resemble certain mental disorders and may be interpreted as dysfunctional in mainstream society by the professional who is unaware of their cultural significance (APA, 2000). Yet these syndromes are not considered mental disorders and are commonly accepted among many Hispanic cultures.

Social workers and other mental health professionals are encouraged to become familiar with culturally bound syndromes and other cultural factors during the assessment and treatment process. Knowledge of these syndromes can prevent clients from being misdiagnosed and can help practitioners understand the role of culture in the client's symptoms and behaviors.

The beliefs of individuals about the role of drug therapy in curing or controlling their disease or in promoting their health are intimately linked to their beliefs about disease causation (Chang-Muy & Congress, 2009; Eisenhauer, 1998a). While differences exist among minority clients, it is essential that social workers integrate the following general assumptions when working with all minority clients.

First, an understanding, appreciation, and assessment of cultural differences is required to enable mental health providers to develop culturally compatible services for a variety of clients (Gonzalez-Ramos, 1990; Rogler, 1989; Smart & Smart, 1995). Social workers must learn about a client's cultural background and understand how the client's unique values and belief systems shape who the client is, how his or her emotional and psychological problems are manifested, and how the individual perceives mental health services. The minority client's perceptions, fears, and concerns about psychosocial and medication interventions will influence treatment compliance and ultimately determine treatment success. Furthermore, all professional helpers must be aware of a common tendency to base their assessments on their own values, beliefs, societal biases, and stereotypes rather than on the client's (Boyd-Franklin, 1989; Dupper, 1992). Providing culturally sensitive practice utilizing a narrow cultural lens can potentially result in interpreting a minority client's traditions and problem-solving processes as abnormal or dysfunctional.

Second, social workers must recognize that many minority clients rely on informal systems that provide nontraditional therapeutic services (Chang-Muy & Congress, 2009). An example of this is the role of a spiritualist for Hispanic clients. The spiritualist listens, encourages ventilation, supports, and provides empathy while also providing specific rituals and herbal remedies to cure the client's emotional and psychological ills. For other minority groups, such as African Americans, the church and clergy serve a similar role. Informal systems such as spiritualists or the church serve important functions in providing emotional and psychological help to minority clients. Social work practitioners need to ask clients directly about their other helping systems and find ways to integrate these systems into the client's treatment plan. For example, including a spiritualist or clergy person in the client's treatment plan may increase compliance with both psychosocial and drug interventions.

A third consideration requires that social workers become aware of the oppression minority clients have encountered. The social worker must understand how institutionalized oppression has affected the minority client's perception of helping professionals outside his or her culture or race, as well as the perception and utilization patterns of mental health services (Lee, 1996). According to Lee, this includes active discussions with the client on how oppressive factors have contributed to the client's current problems.

Finally, social workers should not take a cookie-cutter approach with all minority clients. The diverse range of minority clients and regional differences within larger ethnic minority groups requires practitioners to pay attention to the unique differences reflected by diversity in age, gender, region, education, and personal experiences. These variables account for distinctive differences between clients of the same minority group who on the surface appear similar; on closer examination, these clients often have clear differences in their language, values, and belief systems. At no time has the statement "start where the client is" been more relevant than when addressing culturally sensitive practice in the field of social work.

For example, two Hispanics—one a Puerto Rican and another Mexican—have different political and socioeconomic histories, dialects, and belief systems. Administrators working with national-level statistics and disease surveillance systems try to avoid any discussions related to race and ethnicity due to rapid changes in this area (National Institute of Drug Abuse [NIDA], 2003). The key for social work is to start where the client is. By acknowledging the broad variations within racial and ethnic

groups, and by recognizing individuality and not ignoring differences, the social worker can carefully examine the applicability of current treatment models and determine if a relevant therapeutic framework is being used with minority clients. Rogler, Malgady, Constantino, and Blumenthal (1987) advocate culturally or ethnically sensitive services that include focused, therapeutic models and emphasize short-term problem-solving approaches when working with Hispanic clients. Many of these approaches are useful in helping other minority clients cope with the socioenvironmental problems they encounter.

ASSESSMENT AND MEDICATIONS WITH MINORITY POPULATIONS

The National Institute on Drug Abuse (NIDA, 2003) stresses the importance of understanding the relationship between psychopharmacology and ethnic and cultural factors. Although there is a scarcity of literature on the influence of culture on psychopharmacological interventions, existing literature suggests ethnicity may influence not only the metabolism of medications within some minority groups (Keltner & Folks, 1992), but also their availability and patterns of use. In older adults, for example, there appears to be a clear relationship between socioeconomic status and chronic pain (Fuentes, Hart-Johnson, & Green, 2007). For example, a recent study that tracked zip codes found that lower income minority neighborhoods not only had fewer chronic pain medications available but also that they were in lower demand. The differences between the upper income and lower income zip codes were significant. These authors also found that Black women with chronic pain were more likely to also report more physical ailments than White women (Ndao-Brumblay & Green, 2005). In another study of older Black females, factors relating to depression and physical health were clearly related to how pain was perceived and identified (Baker, Buchanan, & Corson, 2008).

The study of ethnic variation in medication response has been limited to several classes of medicines, including antidepressants and antipsychotics (Smith, 2006). Some studies have identified that Hispanic and African American clients on tricyclic antidepressants experience side effects before reaching full medication dosages, which implies these groups may require lower dosages of antidepressants (Marcos & Cancro, 1982; Rudorfer & Robins, 1982). The same level of variation, however,

does not seem to exist in the newer selective serotonin reuptake inhibitors (SSRIs, discussed in detail in chapter 8; Smith).

One medication that requires a change in dosage based on ethnicity is the antipsychotic Haldol (haloperidol). Based on slower rates of metabolism, this neuroleptic, which is used to address psychosis, should be given at one-half to two-thirds of the normal dosage when prescribed to Asian clients (Yamamoto & Lin, 1995). Similarly, higher levels of toxicity have been found in African Americans who were prescribed lithium carbonate (a mood stabilization medication) for treatment of bipolar disorders (Yamamoto & Lin).

Beyond the biological relationship between psychotropic medications, culture, and rates of metabolism, social workers need to be aware of how cultural differences may affect compliance. Social work practitioners must acknowledge that for many minority clients—including Hispanics, Asians, and African Americans—the family unit is a strong influence and can reinforce or weaken compliance with psychosocial and medication interventions. It is important, therefore, that family members of minority clients be included in the treatment process and educated about the value of medication therapy. Another consideration is that for many minority clients the need for medication therapy and counseling may be perceived as a sign of weakness and vulnerability. This negative opinion may dissuade clients from taking medication or result in their discontinuing a medication regimen. Taking this potential resistance into account, social workers must explain the purpose of a medication and show how medication therapy can be integrated into the client's cultural context.

Compliance can be more complicated when minority clients do not see immediate results and become skeptical about the intervention being used. The client may not think the medication is going to work in the first place, and the lack of quick reinforcement then becomes a reason for noncompliance or discontinuance. It is important for practitioners to educate clients when treatment starts about dosage patterns and the estimated time required to achieve effective therapeutic results. Additionally, some Hispanic and Asian clients defer to medical authority figures and do not question the purpose, directions, or side effects of their medications. In these cases, the role of the social worker is to provide clients with the necessary medication information without devaluing the client's cultural beliefs. If a client is not comfortable asking questions of the provider, then it can be the role of the social worker to empower clients to seek answers.

Providing culturally sensitive practice to clients who are taking medications also requires an assessment of their ability to read and understand instructions. Clients for whom English is not their primary language may have a lower level of health literacy. Can they understand the written material given to them, and, if not, would they admit that to the prescriber? The National Assessment of Adult Literacy (NAAL, 2003) found that 22% of the U.S. population could only read and understand materials at a basic level. Special attention should always be given to make sure clients understand the information they are given and the implications of the medications they are taking.

Although the research is still limited, it is essential that social workers be aware of any studies specifically targeting the minority group they are working with. Studies are beginning to show differences in metabolism rates between men and women and among different ethnic groups, and little has been done to test the effectiveness and efficiency of various medications on these groups. Social workers should advocate for more research in this area and report any side effects when working with these specific populations. Recording these events will bring attention to these specific needs and encourage systematized research to address potential problems.

The importance of the values and belief systems of the client should always be considered and addressed. Clients who understand the medications they are taking and how they relate to their own health will be more likely to take the medications. Demonstrating respect for the client's beliefs and expectations is essential to create an atmosphere of trust and encourage continued compliance. Including the client's family system is a way of increasing compliance with the medication regimen. The client's support system will typically be very concerned about the client's welfare and will also have a great deal of influence on the client's actions.

The best example of this is a client with diabetes with whom the author worked. This Hispanic male had frequently been given directions on how to take his insulin and what foods to avoid but repeatedly violated the dietary restrictions. In frustration, his physician sent him to the author for counseling. During the first interview, it became obvious the client was indeed noncompliant with regard to his diet. When this was discussed, he stated that he did not do the cooking, his wife did. When asked if she had ever seen the dietitian, he said no, but that he had on five occasions. The importance of involving his wife in the dietary sessions was explained, and he agreed to invite her to meet the dietitian.

After this meeting, the physician reported that the client had made remarkable progress. The client's wife also went to several of the medical sessions and reported to the physician that although she was "not perfect yet," she was working very hard at preparing an appropriate diet for her husband.

Traditions and beliefs can be misinterpreted, and social workers must be aware of mental health diagnoses and how individuals from different races and cultures might not fit a specific therapeutic mold. As social workers, it is important to become aware of cultural mores and expectations as well as the cultural influences that affect their diverse clientele. Social workers should be keenly aware that their own cultural beliefs could result in a client's incorrect diagnosis.

TAKING A MEDICATION HISTORY

As part of the assessment process, a medication history needs to include the client's patterns of medication use, preference, and potential for (or history of) abuse. Identifying medication abuse allows the social worker to warn the medication prescriber, who can then anticipate possible problems and determine the most effective medication and dosage.

Every record must have basic information, including the date and time of entry, interview notes describing the client and the problem or situation requiring treatment, an assessment and initial treatment plan, and therapeutic objectives and treatment responses. A time frame for intervention must be clearly established, and progress with regard to that time frame must be documented. When family interventions are included, the time, date, and who was involved should always be noted. Also, when discharge services such as placement are addressed, they need to be formally documented in the record. Ongoing progress notes should always reflect the client's adjustment and compliance with their medications and indicate any side effects that may have emerged.

Start the assessment by introducing yourself and explaining how long the interview will last. Be sure to explain you are a social worker completing a biopsychosocial assessment. As part of that assessment you are also interested in what medications the client is taking and how they can affect the client.

When a client shares medication information, it is important to separate medications taken recently from those taken in the past. (See

appendix B for sample questions to guide the interview process.) Generally, a time frame of at least 6 weeks to 3 months is recommended for documentation of past medication use. Most clients, especially those who have taken multiple medications, will have trouble remembering everything they have taken. It is important to be supportive and allow the client to look up medications and find old bottles if it facilitates improved memory for documentation purposes. Older adults in particular often take multiple medicines (known as *polypharmacy*), so be sure to address this. Multiple medications may have a synergistic or interactive effect. As a general rule, nine or more different medications can be especially problematic. When you see someone on this many medications, be sure a medical professional reviews his or her case.

When a client takes medication, he or she should be expected to know certain information to support his or her therapeutic success (Howland, 2009). The client should be able to answer several questions about each medication.

1. What medications are you taking, and what are they used for?
2. What is the generic name and the brand name of the medication?
3. When should the medication be taken and why?
4. What should you do if you miss a dose?
5. What are potential adverse effects related to your medication, and what should you do if they occur?
6. What signs and symptoms would make you call your health care provider for advice and assistance?
7. Who prescribed or told you to take your medication? (This will assist to identify multiple prescribers or self-administered medications.)

The social worker can assist the client by helping to address these questions. If a medicine is prescribed off label (other than its originally tested or intended use), the client should ask his or her prescriber the following questions:

1. Is this usage recommended based on clinical studies or well-established clinical practice (Howland, 2009)?
2. How long does the medication take to work?
3. What is the rationale for using this drug as opposed to another?
4. Are there any adverse events or side effects I should be aware of?

In a supportive role, the social worker can help the client problem solve and empower responsibility for his or her own care.

Physicians and nurses are usually responsible for providing information that enhances and clarifies medication use for the client (Howland, 2009). Therefore, social workers are not usually responsible for the full medication history; however, the importance of keeping careful records that support the provision of care and may ultimately affect the progress of verbal therapy cannot be underestimated. In the future, social workers, along with other counseling professionals, may be formally tasked and held accountable for this important responsibility.

Within the assessment it is important to include all client's medications, including prescription and nonprescription drugs and drugs for chronic conditions. The social worker should also ask about any herbal medications or treatments and nontraditional drugs—even those assumed by clients to be safe. It is important to document all medications a client is taking, even ones that may not be considered "real medications" (e.g., caffeine, nicotine, over-the-counter medications, vitamins, and diet supplements). Although many in the medical community and the FDA discourage the use of alternative medications, interest and use are both increasing. The medical climate is changing, and in the future it may be commonplace to include alternative strategies as part of a health and mental health treatment regimen.

A client may take aspirin for arthritis pain, for example, and not consider it important enough to mention. Recording aspirin as one of the client's medications is important, however, because it can interact with certain blood pressure or anticoagulant medications (Coumadin), diabetes medications (Diabinese), or mood stabilizers such as valproic acid (PDR, 2009).

Similarly, documentation of caffeine usage is important because it has been linked to decreased antipsychotic medication effectiveness. Cigarette smoking has been linked to decreased levels of antidepressant and antipsychotic medication in the blood. Another example is over-the-counter drugs—taking antacids may lead to decreased absorption of antipsychotic medications.

One way to address all the medications a client is taking is to ask the client to go down his or her body and think of any medications related to that area. For example, are you taking any medications to help your head handle a headache? Are you taking anything for your heart, lungs, organs, and so on? See Figure 4.1.

Figure 4.1

LEARNING AND ASSESSMENT ACTIVITY

Create a client medication file box. Complete a medication assessment for each client and use an index card to record subsequent medication information. Write down all your client's current medications on the index card. Describe the purpose of each medication, how the drug works, the side effects, the dosage the client is receiving and the expected dosage range, and any precautions. List how the client feels the medication is benefiting him or her, what side effects have been experienced, and how side effects are to be handled. This helps the social worker assist clients in tracking medication changes that may affect the treatment progress.

Social workers are not usually responsible for documenting medication history, but keeping careful records supports the interdisciplinary team.

IMPLEMENTING A SUCCESSFUL COMPLIANCE STRATEGY

To increase compliance, the social worker should always explore, examine, and document the conditions or situations that might lead to non-compliance. First, ask the client what is keeping him or her from taking the medication, because the problem is usually solvable.

For example, if a medication causes decreased sexual interest (as frequently occurs with SSRIs, often used in the treatment of depression), a client may stop taking it. Once the side effect is identified, other medications or psychosocial interventions can be suggested to address and possibly eliminate the problem.

If a medication is expensive, the client may be embarrassed to admit not being able to afford it (Trafford, 1999). If cost is an issue, consider advising the client to request a switch to a generic medication. In addition, the client might benefit from a pharmacy assistance program offered through a governmental agency or pharmaceutical company. These programs are particularly good for clients who have difficulty paying for their medications. Some companies may provide medications

directly to physicians for use with patients who cannot afford them. Bupert (2000) warned, however, that it is illegal for a health care provider to sell samples even at a reduced cost or to give a client a full dosing supply of free samples. To participate in these programs, clients must show they cannot afford to purchase the medications and they have no health insurance coverage. Because other eligibility requirements vary depending on the program, it is best to call for specific requirements (see Figure 4.2).

Figure 4.2

PHARMACEUTICAL COMPANIES THAT PROVIDE PATIENT ASSISTANCE

- Janssen (a division of Ortho-McNeil-Janssen Pharmaceuticals, Inc.): 800-JANSSEN (526-7736), <http://www.janssen.com/janssen/contact.html>.
- Pfizer, Inc. Free Medicines Program for Newly Unemployed Americans (new program fully operational on July 1, 2009): 866-706-2400, <http://www.pfizerhelpfulanswers.com>.
- Hoffman-LaRoche Laboratories: 973-235-5000, 877-75ROCHE (877-757-6243) for Roche Patient Assistance Programs.
- Partnership for Prescription Assistance: <http://www.ppar.org>.

In other cases, the client may start to feel better and decide to stop taking the medication (McGrath, 1999). The social worker should remind the client of the importance of taking a full dose of medication.

If the client is not taking the medication because he or she simply forgot, the social worker can assist with ways to remember. Using pill organizers or even egg cartons to hold a weekly dose is just one method. Suggesting a client take a medication once a day rather than twice a day (if that is appropriate) may assist in increasing compliance.

Social workers should also ask about the method of ingestion in terms of compliance. Liquid medication may be more tolerable for individuals who have trouble chewing or swallowing.

Empower the client by helping him or her fill out a medication card so the client becomes responsible for monitoring, recording, and updating his or her medications.

Lastly, what are the client's expectations regarding what the medication can realistically do? The United States and New Zealand are the only two countries in the world that allow direct-to-consumer advertising of prescription-only medications. Advertisements on television, online, and in magazines may foster expectations that either mislead or bias clients in terms of the benefits. It may also steer them away from other nonpharmaceutical options. Simple statements such as "Only your doctor can diagnose depression" are simply not true and may steer clients away from nonmedical techniques provided by psychologists and social workers that can be quite successful (Lacasse, 2005). Asking clients about their expectations of the medication's effects, and whether they considered other approaches, will help with compliance, assuring the client that this can help to provide comprehensive care.

The social worker practicing in today's health care environment must be aware of the direct link between service delivery, good record keeping, and treatment planning. Of special importance are documented records that reference the original treatment plan and show evidence of outcome measurement. The process of assessing pretreatment, posttreatment, and follow-up measures of client progress must be documented. A symptom description must be clearly stated in observable, demonstrable terms that relate to the measurable treatment intervention presented. The treatment plan should always include a detailed description of client complaints and the specific interventions used to address them. The importance of the written record in health and mental health treatment cannot be overemphasized, especially in this time of increased litigation, limited service delivery access, and controlled health care costs.

PROBLEM-ORIENTED RECORDING

Sound documentation is the root of intervention success, and clear problem-oriented case recording can facilitate this process. Traditionally, one of the most popular recording formats has been *problem-oriented recording*, or POR (Dziegielewski, 2002, 2008). Still widely used in health care or medical settings, the POR was originally formulated to encourage multidisciplinary and interdisciplinary collaboration and to train medical professionals (Weed, 1969). The POR format provides uni-

formity and allows each team member to respond to the problem being treated, thus highlighting the use of a team approach to recording care. In addition, the POR works within an evidence-based perspective, as it clearly emphasizes accountability through brief and concise documentation of client problems, services, or interventions as well as responses. Formats for the POR may differ slightly, but the underlying principle is to keep comments concise, concrete, and measurable. This format corresponds well to using rapid assessment instruments to measure problem behaviors and implementing time-limited treatment options. Brief and problem-focused notes provide detailed summaries of the intervention progress. Generally, use of the POR is often based on agency choice as well as the need for accountability.

One element all POR recording formats share is starting with a problem list clearly linked to the behavioral-based biopsychosocial interventions (Dziegielewski, 2004, 2005). Data-based documentation related directly to the identified problem helps guide the case plan, allowing the worker to focus on the strategies needed to address presenting problems and coping styles. Maintaining all documentation with a clear focus helps limit abstractions and vague clinical judgments. In addition, the POR includes an inventory that reflects the current active problems to be addressed, which needs to be periodically updated. Here, the social worker can record updated discussions about medications and indicate that suggestions to empower the client were provided. Therefore, a situation that has been addressed can be crossed off the list with the date of resolution clearly designated.

The SOAP Format

The most common form, the Subjective-Objective-Assessment-Plan (SOAP), first became popular in the 1970s. The *S* (subjective) refers to data relevant to the client's request for service and what the client says and feels about the problem (Dziegielewski, 2002, 2004). This section allows some degree of clinical judgment and skilled diagnostic impression that may not be based on data. Some professionals prefer to document this information in terms of major themes or general topics addressed rather than specific statements about what they think is happening.

Here, the social worker can list any impressions he or she has in regard to the client's functioning and whether medication may be a problem. For example, consider a client who states he is tired all the time and cannot seem to get any work done since he started a new

medication. In the subjective portion of the note, the social worker summarizes that the client reports feeling sleepy and tired since starting his new medication and is having trouble completing simple tasks. This can alert the team to the potential problem, especially important if it is medication related.

When charting in the subjective section, however, the social worker needs to examine whether his or her statements could be open to misinterpretation. If statements indicate a personal rather than professional reaction to the problem identified, they should not be included. Generally, intimate personal content or details of fantasies and process interactions should not be included. For the evidence-based practitioner, this section will most probably be the shortest and will be provided to introduce the objective information to follow.

The *O* (objective) section includes observable and measurable criteria related to the problem. These are symptoms, behaviors, and descriptors observed directly by the social worker during the assessment and intervention process. Here, the independent and dependent variables are identified and described. In addition, some agencies, clinics, and practices have started including client statements in this section as well. If client statements are to be utilized as objective data, however, exact quotes must be used. The social worker should document exactly what the client said and how it related to the behavioral outcome. For example, “Since I started on this new medication, I feel sleepy way too often, and I cannot seem to finish any of the projects I start.”

This section may also include the introduction of standardized assessment instruments designed to measure psychological or social functioning. As the notes progress it makes sense to include the results of these measures as well. In each part of the objective section, clearly defined goals and objectives should be linked to clear descriptors of what is happening. The frequency, intensity, and duration of each behavior should be highlighted. Good documentation in this section can help make other team members aware of potential side effects from medications as well as compliance issues.

The *A* (assessment) section includes the social worker’s assessment of the underlying problems, which in the mental health setting might include a *DSM-IV-TR* multiaxial system. Since application of this framework is beyond the scope of this chapter, please see Dziegielewski (2002) for more specific applications. Special attention should be given to co-occurring conditions and the potential for substance abuse, either legal or illegal.

In the *P* (plan) section, the social worker records how treatment objectives will be carried out, areas for future interventions, and specific referrals to other services needed by the client. A clear behavioral assessment is needed in order to establish this plan. The plan must also provide a method for follow-up and tracking of changes and should specify the time frames of these changes.

The traditional format of the SOAP note has been extended in some settings to address issues related to implementation and evaluation (Dziegielewski & Leon, 2001). This extension is referred to as SOAPIE. The *I* (implementation) section includes implementation considerations of the service to be provided. Exactly how, when, and who will implement the service is explained. In the last section, an *E* represents service provision evaluation (Dziegielewski, 2002). This is a popular addition to treatment plan formulation and development that can be tracked on the service note; it evaluates actions that relate to the progress achieved after any interventions are provided. When treatment is considered successful, specific outcomes-based objectives established early in the treatment process are documented as either progressing or attained. In some agencies, a modified version of the SOAPIE, referred to as SOAPIER, has been introduced. In this latest version, the *R* outlines the client's response to the intervention provided.

The DAP Format

A second type of POR is the DAP (data, assessment, and plan) format. The DAP identifies only the most salient elements of a practitioner's client contact. The *D* (data) section records objective client data and statements relating to the presenting problem and the focus of the therapeutic contact. The *A* (assessment) section is used to record the diagnostic assessment intervention from the multiaxial format, the client's reactions to the service and intervention, and the social worker's assessment of the client's overall progress toward treatment goals and objectives (Dziegielewski, 2002). Specific information on all tasks, actions, or plans related to the presenting problem to be carried out by either the client or the helping professional is recorded under *P* (plan). *P* also includes issues to be explored at the next session and the specific date and time of the next appointment (Dziegielewski). As with the SOAP, the DAP format has undergone changes. For example, some counseling professionals who utilize DAP are now being asked to add an additional

section for evaluation (DAPE). The *E* reflects what type of educational and evaluative services have been conducted.

Computer-Generated Notes

As the use of computer-generated notes becomes more common, varying forms of problem-oriented case recording are linked directly into computerized databases (Gingerich, 2002). In terms of convenience, this can mean immediate access to fiscal and billing information as well as client intervention strategy, documentation, and treatment planning. When working with computerized records, Hartsell and Berstein (2008) suggest the following: (a) when recording client information on a hard drive or disk be sure it is in a safe and secure place; (b) be sure to secure any passwords from detection; (c) when treating a celebrity or famous individual use a fictitious name and be sure to keep the “key” to the actual name in a protected place; (d) always maintain a backup system and keep it secure; (e) be sure everyone who has access to client files reads and signs an established protocol concerning sanctity, privacy, and confidentiality of the records; and (f) establish a policy to safeguard data in the event of a computer theft or crash.

The convenience of electronic records produces one major concern. Since clinical case records are easy to access and portable, the recorded information is vulnerable to unauthorized access, and every precaution should be taken to safeguard that information. In addition, since clinical records are kept for the benefit of the client, access to the record by the client is generally allowed. When engaging in any type of disclosure or transfer to either the client or third parties, however, a written client consent form is usually required.

Important Medication Considerations in Session Notes

It is essential that social work practitioners ask clients on a regular basis about the positive and adverse effects of their mental health medications. Social workers and other professionals should not assume clients are not experiencing any issues related to their adjustment to or use of medications. At every session it is important to ask the following questions:

1. Is the client still taking the medication as prescribed?
2. Did the client make any changes in dosage or frequency?

3. When was the last time the client took the medication?
4. Were there any interruptions in the medication?
5. Has the client noticed any positive or negative effects from the medication?
6. Is the client clear on what the medication is supposed to accomplish?
7. How does the client feel now about taking medication?

In addition, the client should be given the opportunity to ask questions about the medication and to express any other concerns. This helps the client increase his or her compliance with the medication regimen and ultimately achieve success in treatment. Addressing these questions also provides important information that is then documented in the client's record, making it available to the medication prescriber and other health care team members for coordinating and maximizing the client's treatment.

The primary care physician or nurses are generally assigned the responsibility for documenting the progress note. According to Ouslander, Osterweil, and Morley (1998, p. 178), the following information must be clearly documented in order to accurately monitor medications:

1. Assessment of the clinical effectiveness of the drug and identification of side effects
2. Periodic measurement of various clinical parameters (e.g., pulse, blood pressure, postural blood pressure)
3. Periodic laboratory studies

The most valuable contribution of the social worker is to provide other team members with information about how the client appears to be responding to medication. For example, a client has been prescribed a medication to be taken PRN (only as required or needed). During visits with the client, the social worker becomes concerned that the client is in so much pain she is taking the medication regularly every 2 to 4 hours. The social worker should immediately document this information and share it with the intervention team since it is essential in making the best decisions for the client. In this case, it will help the team and prescriber decide if this is the best way to administer the medication, if the medication is needed on a more regular basis, if a stronger

medication might be more beneficial, and if there is potential for abuse or dependence.

DOCUMENTATION SKILLS

The key to documenting medication and counseling strategies is to maintain brevity while providing informative data. Only the most salient issues relevant to client care and progress should be recorded. Information should focus directly on the content covered in therapeutic sessions and on the interplay of the client's progress with medication and counseling interventions. It is equally important for the social work professional to include the medication and counseling strategies in the primary treatment plan, as it is best to link the therapeutic interventions to the original problems, goals, and objectives.

Providing brief, accurate, and informative documentation that includes both counseling and medication interventions requires skill and training. Social workers must learn to document important information that will assist the medication prescriber and other team members in providing the most effective interventions. This requires that assessment information, diagnostic impressions, and intervention recommendations be presented in documentation that clearly identifies the client's problems, signs and symptoms, and past and current mental health and medication history. While the specific documentation format used will often be determined by the agency setting, social workers should closely examine the format of choice and learn to integrate biopsychosocial and spiritual information helpful to understanding the client and valuable in formulating an effective intervention strategy.

With so much emphasis on outcome in today's health care environment, it is essential that social workers learn to include objective measures to evaluate the effects of medication and counseling therapies. Assessment measures and tools can be used to quantify client assessment information (LeCroy & Okamoto, 2009). Some of these measures are standardized scales, surveys, and instruments such as the Beck Depression Inventory and the Hudson Index of Self-Esteem. These tools provide empirical data to identify changes over the course of medication and counseling interventions and are especially important in today's health care practice environment, which emphasizes treatment efficacy and accountability. It is extremely important that social workers become familiar with and integrate measurement instruments into

their practices and in their documentation to determine if treatment interventions have had an impact on baseline behaviors and problems (Dziegielewski, 1997). Gathering data throughout a client's course of treatment enables both the social worker and the client to see whether progress has been made and provides regulatory agencies with tangible objective evidence of client progress or decompensation.

By using a holistic framework that stresses the client's biopsychosocial factors, social workers play an important role in the efficient delivery of interdisciplinary health care services. As part of the health care team, social workers can use record keeping to communicate effectively and collaborate with team members on client progress and problems. Providing accurate, up-to-date, and informative records is vital to the coordinated health care planning efforts of the entire team and to ensuring the client's health.

In closing, documentation in the case plan should always be clearly sequenced and easy to follow. If the documentation contains an error, never change a summary note or intervention plan without acknowledging it. Clearly indicate a change is being made in any clinical case record or intervention plan by drawing one thin line through the mistake and dating and initialing it. Records that are legible and cogent limit open interpretation of the services provided. In addition, the mental health practitioner will always be required to keep clinical case records (including written records and computerized backup files) safeguarded in locked and fireproof cabinets; after a service is terminated, many health and mental care facilities prefer to use archival storage systems such as microfiche or microfilm to preserve records and maximize space.

SUMMARY AND CONCLUSIONS

Social workers are often involved in medication regimens, and the more knowledge they have the more equipped they will be to handle potential problems. The social worker is essential both as a direct provider and as a member of the interdisciplinary team. As team members, social workers help verify information about the medications a client is taking and educate clients on issues other professionals may avoid or neglect. Although careful monitoring of drug therapy is not considered the primary role of the social worker, assisting in the process is. Social workers can identify unnecessary or inappropriate medications and assist in documenting the

efficacy of the medication regimen because many clients do not explore the appropriateness of their medication on their own.

Social workers are often expected to assist with taking an initial medication history. An accurate and responsible history should also explore the possibility of medication abuse. When the potential for abuse is high, social workers can prepare the team to be aware, thus avoiding possible problems for the client. As part of a routine assessment, medications—including prescription and nonprescription drugs, drugs for chronic conditions, alternative remedies, and over-the-counter preparations—can affect functioning and the progress of any therapeutic intervention. Since medications are often utilized with other psychosocial treatments, an awareness of their influences on one another should not be underestimated. With the financial crunch in health care delivery and the blurring of roles in managed care, social workers and other counseling disciplines will be held accountable for this important responsibility.

Prescription and
Nonprescription
Medications, Herbal
Preparations, and
Special Populations

PART
II

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5

Prescription and Nonprescription Medications: What Every Social Worker Should Know

Understanding the medical aspects of psychopharmacologic interventions can be intimidating for many social work professionals. Social workers generally are not educated on medications in their undergraduate or graduate education; thus, any skills acquired in this area must be derived from on-the-job training or through continuing education (Dziegielewski, 2007). Although continuing education might indeed be beneficial, it is often not provided by professional social workers. The benefits of receiving training from experienced social workers are many, including that social workers are more likely to be sensitive to the person-in-situation or person-in-environment stance that has long been the foundation of social work. They are also very much aware of client self-determination, dignity, and worth, as well as how cultural mores and expectations may influence compliance.

Despite the lack of formal training in medication use and misuse, social workers frequently provide services to clients who are on psychotropic medications. They are also required to integrate medication information into the assessment, working, and termination phases of the helping relationship. This chapter is designed to examine the issues most relevant to social workers serving clients who are taking prescription or nonprescription (over-the-counter) medication. Topics covered include

the labeling, regulation, and scheduling of drugs in terms of both prescription and nonprescription medications.

DRUGS, PHARMACEUTICALS, AND MEDICATIONS: LEGAL AND ILLEGAL

Drugs are very much a part of our society, whether taken for medicinal reasons, as a lifestyle choice, or to satisfy a desire or an addiction. The word *drug* itself can have different meanings and, based on the context in which it is used, different policy implications (Battin et al., 2008). One derivation of the word *drug* comes from the Middle Dutch *druge vat*, or *dry-vat*, which is related to dried plant medicinals. In the United States, the word *drug* can have several meanings, but when used as a label for an illegal substance it is particularly problematic and stigmatized.

To avoid these value-laden assumptions, prescription and over-the-counter drugs are often referred to as *medications* and herbal and dietary substances are often called *remedies*. Social workers and other professionals often avoid the word *drugs* when there is concern the term could be confused with illegal drug use. (No doubt members of the pharmaceutical industry would be upset if they were referred to as the most profitable drug dealers in the U.S. and global markets.) Consumers may have a false sense of security that a legal drug is safe or the potential for abuse diminished.

Drugs, medications, and remedies are classified differently, and a basic knowledge of this process can help the social worker understand some of the classification issues.

DRUG CLASSIFICATION SCHEDULES

The Comprehensive Drug Abuse Prevention and Control Act was first enacted in 1970 and provides the legal foundation for narcotics identification and enforcement in the United States. It, along with subsequent revisions made over the years, requires strict record keeping on certain types of drugs. In addition, the Controlled Substance Act (CSA), which is Title II of the Comprehensive Drug Abuse Prevention and Control Act, oversees the possession, manufacture, movement, and distribution of drugs in the United States. In the CSA, drugs are identified and placed in five separate categories referred to as schedules. Each sched-

ule is updated regularly and new substances are added on an annual basis (Drug Enforcement Administration [DEA], 2008). Each schedule has varying qualifications that determine whether a particular substance falls within it.

The two U.S. agencies that determine what substances are added or removed are the Drug Enforcement Administration (DEA) and the FDA. Where a drug is classified depends on several characteristics: its determined medical use, the potential for abuse or physical and psychological dependence, and whether there are any international treaties to take into account. *Drug abuse* refers to excessive drug use that does not have a medically determined purpose. *Physical or psychological dependence* is when an individual needs a substance to continue functioning and uses the substance even when he or she knows negative circumstances could result.

If international policies, procedures, or expectations are in place, it is assumed they will be honored and incorporated into the U.S. classification system. Furthermore, these classifications are updated yearly based on new information, so it is important to remember what is approved this year can be changed next year (see Figure 5.1).

Figure 5.1

U.S. DRUG ENFORCEMENT ADMINISTRATION DRUG SCHEDULING

General reference list: <http://www.usdoj.gov/dea/pubs/scheduling.html>

Comprehensive list: <http://www.dea/diversion.usdoj.gov/schedules/schedules.htm>

For the most part, drugs classified into Schedule I have the highest potential for abuse and generally do not have an accepted medical use in the United States. (See Figure 5.2 for a list of the most common drugs that fall into each schedule.) Examples of drugs in the Schedule I classification include heroin, LSD (D-lysergic acid diethylamide), MDMA (ecstasy, 3,4-methylenedioxymethamphetamine), and marijuana.

Figure 5.2

DRUG SCHEDULES: SELECTED EXAMPLES**Schedule 1: High Abuse, No Recognized Medical Use, Lack of Safety**

Heroin, LSD, MDMA, marijuana, methaqualone

Schedule 2: High Abuse, Medical Utility, High Dependency Risk

Amphetamine, codeine, cocaine, hydrocodone, methadone, methamphetamine, methylphenidate (e.g., Concerta, Ritalin, Methylin), morphine, oxycodone

Schedule 3: Lower Abuse, Medical Utility, Moderate Dependency Risk

Anabolic steroids, barbiturates (some), codeine (e.g., combination products), ketamine

Schedule 4: Limited Abuse, High Medical Utility, Limited Dependency Risk

Alprazolam (e.g., Xanax), chloral hydrate, dextropropoxyphene dosage forms (e.g., Darvon, Darvocet), diazepam (e.g., Valium), paraldehyde, phenobarbital

Schedule 5: Minor Problems

Typically includes preparations of the above drugs in limited amounts (e.g., codeine preparations such as Robitussin AC and others)

Information provided by DEA Web site, updated April 2008. Retrieved May 28, 2009, from http://www.dea diversion.usdoj.gov/schedules/listby_sched/sched5.htm

With each subsequent level of scheduling, the degree of risk either decreases or is balanced by the potential utility of the substance. Many different types of drugs can be placed within a category; for example, classification is not based on whether a drug is a depressant (such as heroin) or a psychedelic (such as LSD; Dziegielewski, 2005). In addition, sometimes the classification of a drug can be influenced by how it is taken. For example, heroin is a Schedule I drug whether it is injected, smoked, or snorted, whereas phencyclidine (PCP), and analogs of it such as PCPy, PCE, and TCP, can be in Schedule I or II (DEA, 2008). Also, Telazol (tiletamine HCL and zolazepam HCL), another PCP analog, is a Schedule III when used as a large-animal tranquilizer. On the other hand, dextromethorphan, a product often found in over-the-counter cough-and-cold preparations, is not regulated, although this may change shortly due to its potential for abuse. When this medication is used recreationally at high doses it can result in pronounced side effects such as euphoria and hallucinogenic or dissociative symptoms.

Schedule II drugs also have the potential for abuse and severe psychological and physical dependence. The drugs or substances in this area have a currently accepted medical use in the United States but need to be monitored with severe restrictions. Today, updates to the CSA now separate each of the drug schedules (I-V) into two subcategories: narcotic and nonnarcotic controlled substances (DEA, 2008). Narcotics are generally considered *pharmacy only*, therefore, these substances are highly regulated, purchased, and stored in a pharmacy. Some Schedule II drugs are available by prescription and others are available over-the-counter (such as dextromethorphan, which is present in many cold and flu preparations).

For example, methamphetamine (a central nervous system stimulant whose use is increasing throughout the United States) is included in Schedule II (Chang-Arratia & Dziegielewski, 2005).

Schedule III includes drugs or substances with the potential for abuse, although less than the substances identified in Schedules I and II. Drugs in this class can lead to low or moderate physical dependence or high psychological dependence. The Schedule III substances have currently accepted medical uses in the United States and (like Schedule II) are referred to as pharmacy-only medicines. Many of the prescription medications used for mental health are found here. Other drugs placed here include Tylenol with codeine (Tylenol number 3) and Vicodin, both of which are used in pain relief and require a prescription.

The Schedule IV substances are generally said to have a low potential for abuse relative to the substances in Schedule III. They have currently accepted medical uses in the United States but the concern remains for limited physical or psychological dependence. Substances in this area usually require a prescription. Some medications used for animals are classified in this schedule and also require a prescription. Substances in this schedule include Xanax and Valium, two antianxiety medications discussed further in chapter 10.

The last classification is Schedule V. Compared to the drugs or substances in previous schedules, the potential for abuse is relatively low. These drugs have accepted medical uses although abuse may still lead to limited physical or psychological dependence.

In the United States, drug classification is very important. It can affect everything from whether a drug requires a prescription to determining the ease with which research can be conducted. There are also varying prison sentences for possession or usage of substances depending on their classification (Battin et al., 2008). This gives the DEA a great deal of power by determining where a drug will be classified. For example, some experts question why marijuana is a Schedule I drug, rather than a Schedule II, where it could be recognized for its medical uses and benefits (Eustice & Eustice, 2008). Battin and colleagues noted that some commonly used substances, such as alcohol, nicotine, and caffeine, are inconsistently defined in federal code, even though these substances have many addictive properties. When unsure of where a substance is classified it is always best to look it up, as at times the classifications may not seem obvious.

Classification can help the social worker understand how use of a substance, either legally or illegally, is viewed in the medical community. It is important to keep in mind, as stated earlier, that regulatory schema change every year, and what is Schedule I today could change in a year. Most of the prescription and over-the-counter medications discussed in this chapter generally fall in the Schedule III–V range.

Where a medication is placed can also depend on use or dosage. Some drugs are regulated differently if they are used in dietary supplements or by professional athletes. For example, Battin and colleagues (2008) described how dextroamphetamine (a prescription drug and a controlled substance) is often banned from competitive sports yet is allowed in certain herbal substances in an analog form. In addition, ephedrine requires a prescription, yet when previously marketed as ephedra (an herb with the active substance ephedrine) it was classified as a dietary supplement and therefore exempt from oversight. (The FDA banned the sale of ephedra-containing supplements in 2004.)

With the wide array of medications available and the varied processes for classification, regulation, and approval, a broad knowledge of the types of medications a client is taking, and how they can affect the therapeutic process, is essential. Knowing only prescription medications, however, can be shortsighted. Clients take multiple medications, including over-the-counter and herbal products. In addition, many people may be illegally taking what are considered prescription medications.

PRESCRIPTION MEDICATIONS

Compared to other forms of mental health treatment, psychotropic medications are relative newcomers. Social workers must have knowledge of these types of medications, which can help in the fight against mental illness and its subsequent emotional, psychological, and social problems. The increasing reliance on medications over the last 30 years has been fueled by controlled-medication-based studies that assert medication alone can be a viable treatment.

This assumption has been called to question because the FDA often does not report clinical studies with negative findings in favor of the ones with positive outcomes (Arden & Linford, 2009).

It is obvious social workers cannot be expected to be familiar with all medications (Karch, 2009). However, they should be well versed in those most commonly used to treat specific problems in client populations and should have basic knowledge of the effects of medications on the human body. Social workers must also know their own limits and should be expected to practice within their competency. When unsure how a medication may affect an assessment, intervention, and treatment plan, the social worker should look up a medication or refer to another interdisciplinary team member.

In 1999, statistics showed at least three out of every four visits to a physician resulted in a prescription, with approximately 2.8 billion prescriptions dispensed that year (Friebert & Greeley, 1999). Although this trend does appear to be slowing, medications are still considered an essential part of a doctor's visit. Furthermore, the dangerous effects of misused prescription medications, whether obtained legally or not, continue to be problematic.

Deaths from drug overdoses are occurring in staggering numbers. According to the Centers for Disease Control and Prevention (CDC, 2007), over 20,000 overdose fatalities occur annually nationwide, second only to car crashes for unintentional injury deaths in the United

States. This rise is clearly related to the use of prescription drugs mostly for nonmedical purposes. According to the CDC, this rapid increase in prescription drug poisoning appears highest in the Appalachian states, the Southwestern states, and New England. Therefore, it comes as no surprise that in 2006, 295 West Virginians died from unintentional overdoses of painkillers. While the majority took them illegally, approximately 37% of the deceased had prescriptions (Reinberg, 2008). Furthermore, although national statistics are not yet available, a 2007 Virginia chief medical officer's annual report shocked many when it reported that prescription drug-related deaths accounted for more than double the illegal drug-related deaths (388 versus 152) in the state (Shenk, 2009).

Today, pharmaceutical companies find it distressing that sales related to prescription medicines are slowing and profits of \$291 billion a year are not as high as they would like (IMS, 2009). For example, IMS, which compiles pharmacy industry market data, reports that prescription drug sales increased in 2006 (8%), in 2007 (3.8%), in 2008 (1.3%), and in 2009 an expected increase of 1%–2% (IMS). Two possible reasons for this slow incline may be an increased emphasis on generic drugs and some people avoiding medication due to economic restraints.

The fact that the United States is the only major industrialized nation that does not regulate prescription drugs makes this a lucrative market ("U.S. Prescription Drug Sales Tumbled in 2008," 2009). The sheer number of prescriptions and the profit factor make many observers wonder whether some medications are developed for public good or simply profit. Other professionals have questioned whether the pattern of prescribing medication for symptom relief has undermined the critical rapport needed between the provider and the client (Arden & Linford, 2009).

The *Physicians' Desk Reference* (2009) lists more than 6,000 of these preparations, and with the FDA approving drugs faster than ever, this number will surely increase.

Today, the top-selling medications are cholesterol medications, followed by codeine and other drugs containing narcotic painkillers, antipsychotics, antidepressants, and blood pressure medications. According to IMS (2009), antipsychotic medications led all therapy classes in mental health prescription sales in 2008. Yet what is most concerning is that 50% of these medicines will not be taken as prescribed (Friebert & Greeley, 1999), which has been linked to a number of deaths (Reinberg, 2008); the CDC (2007) clearly supports this contention with its warning

that more information is needed to truly understand and accurately assess current and future drug-poisoning information.

Experienced social workers need to be familiar with the *PDR* and how to use it. In all cases, effective helping requires practicing within your competence and admitting to the client if you are not familiar with a drug. There is no stigma attached to looking up a medication—in fact, there can be negative consequences for not doing so. Most clients are unable to use the *PDR* as a resource because it is too complicated and technical (McGrath, 1999). Besides, the side effect profiles in the *PDR* may frighten even the most experienced professional and cause the client unnecessary anxiety.

When a client requests additional information, it is best to help him or her gain access to more user-friendly resources. For example, pharmacists can provide easily read and understandable literature that explains a medication, directions for usage, and potential side effects. Clients should be reminded to read and save these descriptions, which can be used to explain medications to their families and friends and to professionals trying to assist them. In addition, some pharmacies utilize computer support to analyze potential drug interactions (De Angelo, 2000).

The National Institute of Mental Health publishes “Mental Health Medications,” a booklet for clients and professionals with basic information about numerous mental health conditions and medications. It can be downloaded from <http://www.nimh.nih.gov/health/publications/mental-health-medications/index.shtml>. Social workers should help clients access this type of information as well as answer questions and interpret it. You can order the booklet from NIMH Public Inquiries, Room 8184, MSC 9663, 6001 Executive Boulevard, Bethesda, MD 20892-9663, or fax a request to 301-443-4279.

AVOIDING PRESCRIPTION ERRORS

Social workers do not prescribe medications; however, their role in protecting clients who use prescription medications is crucial. Approximately 125,000 deaths occur each year from not taking medications as directed (Buppert, 2000).

After conducting interviews with 20 prescribers about their communication with clients, McGrath (1999) reported several key themes. The first was how much information should be given to clients. Prescribers

mentioned time constraints as the most important reason for not sharing information. They also said sharing information depended on the client—whether the client wanted the information, and whether knowing the side effects of a medication would have an impact on the client's willingness to take it.

Another theme was the sources of information available to clients. Most prescribers felt that the more questions a client asked the better and that much of the necessary information could be shared by other health care professionals (pharmacists, nurses, and other members of the health care team). These prescribers also expressed concerns about clients believing available information, particularly television advertisements and promotional pamphlets.

Social workers need to take a more active role to protect and educate their clients. McGrath's (1999) study highlighted prescribers' interests in increasing compliance and the availability of medication information to their clients. However, who is actually responsible for counseling patients on the negative results of a drug interaction? Physicians and pharmacists say they do not have the time (Barnes, 1999), which means other members of the health care team may need to deal with this issue.

Medication errors can be reported (see Figure 5.3). Generally, errors are related to the wrong drug, the strength or dose of a drug, incorrect routes of administration, mistakes in prescribing or transcribing, and errors from a client taking the wrong medication because of a sound-alike or look-alike name (Karch, 2009).

Figure 5.3

REPORTING MEDICAL ERRORS

Institute of Safe Medication Practices (ISMP) Medication Errors Reporting Program: 800-23-ERROR

To report medication errors online: <http://www.usp.org>

For warning alerts: <http://www.fda.gov> or <http://www.medwatch.gov>

BLACK BOX WARNINGS

The strongest warning the FDA can provide on a prescription drug is the *black box warning* (Karch, 2009), where the boxed text is displayed

prominently. A black box warning on a drug means the drug carries a significant risk of serious and sometimes life-threatening adverse events and needs to be monitored. Once the FDA approves a warning, the pharmaceutical manufacturer is required to put it on all literature and labeling related to the medicine.

Adverse effects can vary and are medication dependent. Types of serious adverse effects that justify a black box warning include the possibility of suicidal tendencies, loss of bone marrow, and risk of heart attack or heart failure. These warnings often include adverse reactions that are observed, expected, or may occur when the medication is used off-label. The warning notes additional considerations along with drug interactions and special considerations for caregivers.

This warning can be issued before the drug is officially released and, therefore, included on all supporting information. On the other hand, if the potentially adverse effects are not uncovered during the initial marketing phase, the warning may not be posted until the drug has been on the market for quite some time. Lasser and colleagues (2006) reported that this postmarketing component is critical, as many serious adverse effects are not known with any degree of certainty until a medication has been on the market for years; the longer the medication has been on the market, the more we know about it. This makes keeping updated on the latest information essential. See Figure 5.4 for the location of free FDA medication guides. These include the latest updates on serious adverse effects to assist with patient decision making and adherence to the proper use of a product.

Figure 5.4

U.S. FDA MEDICATION GUIDES

A site where medicine updates can be accessed: <http://www.fda.gov/Drugs/DrugSafety/ucm085729.htm>

HANDLING THE SUICIDAL CLIENT

According to the Office of Applied Studies (OAS, 2006), in 2004 an estimated 106,079 emergency room visits involved drug-related suicide attempts in adults age 18 and older. Furthermore, 41%, or 43,176

individuals, were diagnosed with depression. Because of linkages between antidepressants and suicidal thoughts, on September 14, 2004, the FDA voted to add black box warnings to all antidepressant product labeling. Furthermore, on December 17, 2008, this warning was extended to include suicidal thoughts and behaviors that could occur with antiepileptic drugs (FDA, 2009c), which will be discussed further in chapter 8. (See Tables 5.1 and 5.2 for these warning lists.)

Regardless of the substance a client is taking, all clients under the influence of a substance or who suffer from a substance addiction should

Table 5.1

MEDICATIONS THAT MAY CAUSE SUICIDAL THOUGHTS AND BEHAVIORS

Anafranil (cclomipramine)	Asendin (amoxapine)
Aventyl (nortriptyline)	Celexa (citalopram hydrobromide)
Cymbalta (duloxetine)	Desyrel (trazodone HCl)
Effexor (venlafaxine HCl)	Elavil (amitriptyline)
Etrafon (perphenazine/amitriptyline)	Luvox (fluvoxamine (maleate))
Lexapro (escitalopram hydrobromide)	
Limbitrol (chlordiazepoxide/ amitriptyline)	Ludomil (maprotiline)
Marplan (isocarboxazid)	Nardil (phenelzine sulfate)
Norpramin (desipramine HCl)	Pamelor (nortriptyline)
Parnate (tranylcypromine sulfate)	Paxil (paroxetine HCl)
Pexeva (paroxetine mesylate)	Prozac (fluoxetine HCl)
Remeron (mirtazapine)	Sarafem (fluoxetine HCl)
Serzone (nefazodone HCl)	Sinequan (doxepin)
Surmontil (trimipramine)	
Symbyax (olanzapine/fluoxetine)	Tofranil (imipramine hydrochloride)
Tofranil -PM (imipramine pamoate)	Triavil (perphenazine/amitriptyline)
Vivactil (protriptyline)	Wellbutrin (bupropion HCLII)
Zoloft (sertraline HCl)	Zyban (bupropion HCl)

Summarized from FDA, "Antidepressant Drugs That Have Healthcare Professional Sheets, and Patient Information Sheets," retrieved May 29, 2009, from <http://www.fda.gov/Drugs/DrugSafety/PublicHealthAdvisories/ucm053273.htm>, and *Physicians' Desk Reference*, 2009 (63rd ed.). Montvale, NJ: Medical Economics.

be screened for the possibility of danger to themselves or others. As social workers, assessing for suicide is an important part of the diagnostic assessment. The first step is to screen for suicidal thoughts or plans. If the individual makes references to suicide, appears seriously depressed, is starting to feel better after experiencing a sincere depression, or has a history of suicide attempts, be sure to assess for the possibility of dangerous actions. For the most part, regardless of whether the client is a child, adolescent, or adult, assessment for suicidal thoughts requires asking direct questions. In asking direct questions, it is important that clients are heard, not just listened to (Papadatou, 2009). A social worker speaking clearly, slowly, and paraphrasing what is said will foster a connection with the client.

Critical questions to ask are the following:

- Have you considered harming yourself or someone else?
- If so, what would you do?
- How would you do it?

Table 5.2

ANTIEPILEPTIC DRUGS THAT NOW INCLUDE WARNINGS

BRAND NAME	GENERIC NAME
Carbatrol, Equetro, Tegretol, Tegretol XR	Carbamazepine
Depakote, Depakote ER	Divalproex sodium
Felbatol	Felbamate
Neurontin	Gabapentin
Lamictal	Lamotrigine
Keppra	Levetiracetam
Trileptal	Oxcarbazepine
Lyrica	Pregabalin
Topamax	Topiramate
Gabitril	Tiagabine
Zonegran	Zonisamide

Information retrieved from FDA, updated May 5, 2009, from <http://www.fda.gov/cder/drug/infopage/antiepileptics/default.htm>

- Have you ever tried to do this before? What did you do that time?
- What would stop you from harming yourself?
- Have you ever considered harming anyone else? If so, what would you do and why? (It is important to determine if they have access to the means or a plan for action or self-harm.)

If the potential for suicide is suspected, regardless of whether the client has a formal plan, a no-harm no-risk agreement is recommended. It can be a separate agreement as outlined in Figure 5.5, or with similar wording. Regardless, all documentation must include an acknowledgment of the symptoms and a clear safety plan.

Figure 5.5

A SAMPLE NO-HARM NO-RISK AGREEMENT

At present I do not feel as though I could harm myself or someone else. As part of a safety plan, I have discussed with my social worker what to do if I feel this has changed. If I feel I could be a danger to myself or someone else, I am aware of what signs and symptoms of depression could trigger a dangerous reaction in me, and I agree to follow this safety plan. I, *[insert client's name]*, will not harm myself or someone else.

If I feel as though I could harm myself or someone else, I have been advised and I agree to seek immediate mental health treatment from: *[List name, phone number, and address for 24-hour facility that handles indigent clients if needed.]*

Client signature: _____
With client permission, ask family member to sign acknowledging awareness of the safety plan.

The strength of supportive intervention is in the planning and preparation for a client's return to his or her environment or previous living situation. The effectiveness of a no-harm no-risk agreement is only as strong as the safety plan attached to it. If this type of formalized agreement helps clearly outline the safety plan, then use it. Be sure, however, that you also use referrals as needed and seek inpatient treatment when

there is a clear safety plan. Regardless of how the safety plan is formulated or implemented, be sure you have documentation that the questions have been asked and the client's responses addressed.

When arranging for discharge planning, the absence of visible depressive symptoms may give the client and family members a false sense of total recuperation. Family members, employers, and co-workers may expect the client to resume normal family and occupational activities, resulting in an emotional overload for the client. Many times clients do not respond as actively as they did in the past, which may result in frustration for the client and other members of the environmental support system. There are inherent risks that clients may want to discontinue their medication once symptoms of depression lift. While all clients have the right to self-determination in medication and other aspects of treatment, social workers can help educate them about the triggers and risk of relapse (Dziegielewski & Leon, 2001). Grief and the interpretation of life circumstances can change across the lifespan; for more in-depth reading in this area consider the work of Walter and McCoy (2009).

HONORING CONFIDENTIALITY AND WHEN TO TAKE PROTECTIVE ACTION

Many social workers struggle with what can and cannot be revealed when working with a suicidal or depressed client. Although statutory laws differ across the states, Gamino and Ritter (2009) described eight exceptions that allow the release of confidential information: client-authorized release of information, danger to self, danger to others, neglect or abuse of children and vulnerable adults, complaints or litigation against the counselor, litigation concerning emotional pain and suffering, court-ordered or statutory requirements to disclose, and requirements of third-party payers. For a complete discussion of these instances the reader is referred to Gamino and Ritter, as only the ones most relevant to this discussion will be addressed here.

The first exception, and the most relevant here, is a client-authorized release of information. On any safety plan, it is important to get client permission to contact the family and make sure they are aware of the situation, any intervention efforts, and the safety plan.

The second and third exceptions involve assessing for danger to self or others. It is crucial to make sure assessments include not only what clients might do to themselves, but also whether others could be at

risk. Social workers often struggle to evaluate vague threats and wonder whether a person will actually act on what he or she says. Gamino and Ritter (2009) identified a number of factors particularly relevant to the seriousness of the threat:

- Is the client male?
- What is the client's current marital status and is he or she recently divorced or separated, single, or widowed?
- Is the client White or Native American?
- Is the client over the age of 60?
- Does he or she lack social support (especially no young children in the home)?
- Does the client or other family members have a history of attempted suicide?
- Is the client recently unemployed or experiencing a recent decline in financial assets?
- Is there a history of abuse (sexual, physical, emotional)?
- Is there a mental or medical illness (particularly depression) with a recent admission and discharge from a hospital?
- Is there alcohol use and abuse?
- Are firearms present?

When dealing with danger to self and others, and duty to warn issues, factors surrounding the case of *Tarasoff v. the Regents of the University of California* (1976) are often stated. In this landmark case, an individual and her family were not warned of a potential threat made against her by a client in a therapeutic session. In this situation the threat to the victim's life was told to the offender's psychologist but no warning was issued to the victim. Sadly, the client acted on the threat and took the victim's life. It is not known whether reporting this threat could have saved her life. Since the threat was held in confidence and not reported, we will never know if revealing it could have helped to save her. Based on lessons learned in this case, precautions are often taken to avoid such situations by invoking "duty to warn." This tragedy and the lessons learned from this case alert us to the importance of keeping up-to-date information about the duty-to-warn law in your particular state and how it relates to the protection of all within our professional code of ethics. Also, always consult with a colleague or supervisor before you act in good faith to protect another from harm. In addition, always ask yourself this question:

- If I were held to a jury of my peers, would they do the same thing?
Be sure to outline the rationale for your decision.

Once a potential threat is ascertained, it is expected that notification of the individual(s) at risk, the police, and those involved may need to be implemented. Gamino and Ritter (2009) remind the counselor to ask two critical questions before taking any action to protect others:

- Is there a previous history of violent behavior toward people or animals?
- Does the individual have possession of a firearm?

Lastly, if a client threatens to harm someone vulnerable, such as a child, an elderly individual, or a mentally impaired adult, mandatory reporting requires it be immediately addressed and the local protective agency called.

PRESCRIPTION DRUGS USED ILLEGALLY

After alcohol, tobacco, and marijuana, psychoactive prescription medications are the most frequently abused substances (Lineberry & Bostwick, 2004). Furthermore, a 2007 National Survey on Drug Use and Health found that first-time drug users started off with prescription medication abuse as opposed to marijuana, which is often referred to as the “gateway drug” (Shenk, 2009). In 2003, approximately 15 million Americans reported using a prescription drug for nonmedical reasons (NIDA, 2005b).

Traditionally, acquiring legal drugs illegally was accomplished by visiting multiple physicians—a process known as prescriber shopping. It is not uncommon for social workers to hear stories of someone losing a medical insurance card only to find it had a lot of unauthorized activity. Although this pattern continues, we now see a rise in Internet pharmacies (discussed in chapter 3), which may not have physician/prescriber oversight. In addition, these drugs can be acquired from family or friends. In the addictions field, many professionals joke that the new drug dealer is not the person selling drugs on the street corner—it is the one with access to your medicine cabinet.

Some people believe a medication cannot be harmful if a family member or friend is taking it under medical supervision. Furthermore,

some teenagers now hold “pharm” or “fishing” parties, where a bowl of medications collected from participants’ homes is passed around. With behaviors such as this on the increase (Prosser & Nelson, 2008), it is no surprise that the most prominent and deadly abused drugs are prescription medications (CDC, 2007).

Commonly abused prescription drugs are depressants, opioids and painkillers, and stimulants. There has also been an increase in other compounds of abuse, such as anabolic steroids (NIDA, 2006).

Depressants

Depressants are legal drugs that suppress the central nervous system (CNS). These drugs have therapeutic value when prescribed by a physician and used as directed. See Table 5.3 for examples of depressants often abused. CNS depressants are used to create a calm feeling and can make an individual drowsy and tired. The prescribed medical uses for these medications include the treatment of anxiety, tension, panic attacks, and sleep disorders.

Table 5.3

PRESCRIPTION DEPRESSANTS OFTEN ABUSED ILLEGALLY

SUBSTANCE CATEGORY	BRAND NAMES	STREET NAMES	SCHEDULE/HOW ADMINISTERED
Barbiturates	Amytal, Nembutal, Seconal, Phenobarbital	Barbs, reds, phennies, tooies, yellow, yellow jackets	Schedules II, III, and V; swallowed and injected
Benzodiazepines	Ativan, Halcion, Librium, Valium, Xanax	Candy, downers, sleeping pills	Schedule IV; swallowed
Hypnotic, sedative	Rohypnol	Forget-me pill, Mexican Valium, R2, rouche, roofies, rofinol, rope, rophies	Schedule IV; swallowed and snorted

Information summarized from *Selected Prescription Drugs With Potential for Abuse*, by NIDA, 2005b. Retrieved May 5, 2009, from www.drugabuse.gov

Depressants come in two classes: barbiturates and benzodiazepines. *Barbiturates* are hypnotics that suppress central nervous system activity; some of these drugs have fast-acting and long-lasting effects. Amobarbital, pentobarbital, and secobarbital are a few barbiturates preferred by abusers. Barbiturates often cause sedation, drowsiness, irritability, poor judgment, and slurred speech.

Benzodiazepines, traditionally referred to as antianxiety medications, provide a calming effect and induce a more relaxed state or even sleep. Some examples of benzodiazepines include Xanax, Valium, Klonopin, and Ativan (Dziegielewski & Leon, 2001; Frances & Miller, 1998). Overdosing on these drugs can result in drowsiness, respiratory depression, unconsciousness, and coma. Benzodiazepines cause the same symptoms as barbiturates with the addition of dizziness.

One particular benzodiazepine often associated with sexual assaults and referred to as the “date rape drug” is *flunitrazepam*, which generally causes temporary memory loss.

Painkillers

Painkillers, usually opioid or morphine derivatives, are also commonly abused. When used as prescribed these medications can help relieve chronic discomfort. They are also used in preparations to help control coughs (i.e., codeine) and diarrhea. Drug addiction and misuse of opiates remain a major public health concern. “Five million people in the United States are chronic drug abusers, and 20% are opiate addicts . . . only 2.1 million receive treatment, 179,000 of whom are in methadone treatment” (McCaffrey, 2000, p. 1). These numbers illustrate a social obligation to close the gap between the need for and the availability of appropriate drug addiction services (NIDA, 2001).

Oxycodone is a synthetic opiate used in many prescription pain medications, including Percodan, Vicodin, and OxyContin. OxyContin was introduced as a pain relief medication by Purdue Pharma in 1995. It is a potent time-release pill that has become popular with drug abusers, who chew the tablet or melt it down and inject it. According to Meier (2002), abuse of OxyContin has grown faster than abuse of any prescription drug in decades. To combat these rising concerns, new clinical guidelines were suggested in 2009 based on the recommendations of a panel of pain-management experts for the treatment of noncancer pain. This expert group, sanctioned by the American Pain Society and the American Academy of Pain Medicine, outlined how decisions about chronic opioid

Table 5.4

PRESCRIPTION OPIOIDS AND MORPHINE DERIVATIVES OFTEN USED ILLEGALLY

SUBSTANCE CATEGORY	BRAND NAMES	STREET NAMES	SCHEDULE/HOW ADMINISTERED
Codeine	Empirin with Codeine, Fiorinal with Codeine, Robitussin A-C, Tylenol with Codeine	Captain Cody, doors and floors, pancakes and syrup	Schedules II, III, and IV; swallowed
Fentanyl	Actiq, Duragesic, Sublimaze	China girl, dance fever, murder 8, TNT	Schedule II; injected, smoked, snorted
Morphine	Roxanol, Duramorph	Miss Emma, monkey	Schedule II, III; injected, swallowed, and snorted
Opium	Laudanum, paregoric	Gum	Schedules II, III, and V; swallowed, smoked
Other opioid pain medications (oxycodone, meperidine, hydromorphone, hydrocodone, propoxyphene)	Tylox, OxyContin, Percodan, Percocet, Demerol, Vicodin	Oxycotton, hillbilly heroin	Schedules II, III, and IV; swallowed, injected, suppositories, chewed, crushed, snorted

Information summarized from *Selected Prescription Drugs With Potential for Abuse*, by NIDA, 2005b. Retrieved May 5, 2009, from www.drugabuse.gov

therapy must weigh the benefits of these medications with the risks of side effects and abuse (Gandey, 2009) (see Table 5.4).

Stimulants

The third category of frequently abused prescription drugs is stimulants. These medications are desirable as they produce increased brain activity,

resulting in greater alertness, attention, and energy. When they are used incorrectly, however, they can result in increased heart rate and blood pressure, even heart failure. According to a recent epidemiological review of 43,093 cases by Huang and colleagues (2006), it appears that prescription drug abuse and resultant dependence was greatest for amphetamines (classified as stimulants) and nonmedical prescription drugs when comorbid with a mental disorder as defined in the *DSM-IV-TR*.

In addition, prescription drug abuse involving amphetamine effects such as those occurring with Ritalin (methylphenidate) is on the rise (Prosser & Nelson, 2008). Since amphetamines have a pronounced abuse and dependence liability, the recent increase in the potency of illegally manufactured amphetamines has taken a toll on adolescents (Drug Abuse Warning Network [DAWN], 2006). Those who take methylphenidate illegally often take it orally, intravenously, or intranasally. The reason for taking these medications without a prescription is generally a desire to capture their stimulant effect, believing they help the client stay awake or improve school performance (Prosser & Nelson). Furthermore, the increase in the abuse of prescription pain relievers leaves many prescribers feeling they have to practice defensively, scrutinizing clients and the potential for manipulation and abuse. Additional negative effects include product theft, crimes committed to earn money to obtain the drug, and law enforcement costs (Manchikanti, 2006). See Table 5.5 for a list of often abused prescription stimulants.

Anabolic Steroids

The last area of prescription medication abuse is other compounds, such as anabolic steroids. Anabolic steroids are lab-created (synthetic) versions of the male hormone testosterone. The term *androgenic* (related to male characteristics) is given to this category of drugs, and the term *anabolic* refers to the tissue building that occurs. *Steroids* refers to the class of drug. Thus, these drugs are known as androgenic anabolic steroids (DEA, 2004). When they were first introduced in the 1930s, these drugs were intended to assist with *hypogonadism*, a condition in which the testes do not produce enough testosterone and normal sexual development is delayed. Thus, these medications are often used to treat delayed puberty or to counteract conditions that cause wasting, such as HIV infection (NIDA, 2005a).

Abuse of these drugs has historically been associated with athletes and fitness enthusiasts. Today, steroid abuse is one of the most severe problems in sports (Shen, Xaing, Shen, Bu, & Wang, 2009). Its popularity,

Table 5.5

PRESCRIPTION STIMULANTS OFTEN USED ILLEGALLY

SUBSTANCE CATEGORY	BRAND NAMES	STREET NAMES	SCHEDULE/HOW ADMINISTERED
Amphetamines	Biphedamine, Dexadrine	Bennies, black beauties, crosses, speed, uppers	Schedule II; injected, swallowed, smoked, and snorted
Cocaine	Cocaine hydrochloride	Blow, candy, coke, Charlie, crack, snow, toot	Schedule II; injected, smoked, and snorted
Methamphetamine	Desoxyn	Chalk, crank, crystal, ice, meth, speed	Schedule II; injected, swallowed, smoked, and snorted
Methylphenidate	Ritalin	Vitamin R, skippy, R-ball	Schedules II; injected, swallowed, and snorted

Information summarized from *Selected Prescription Drugs With Potential for Abuse*, by NIDA, 2005b. Retrieved May 5, 2009, from www.drugabuse.gov

however, is spreading among the general public, as many see these drugs as a way to create a perfect body. The side effect profiles from these drugs can be dangerous. Physical side effects include high blood pressure, severe acne, thinning of hair and baldness, fluid retention, liver disorders, and sexual and reproductive disorders. There is also a high risk of HIV and other blood-borne diseases if these substances are injected with shared needles (DEA, 2004). Psychological reactions include mood swings that can lead to violence, impaired judgment, depression, extreme irritability, delusions, and aggression.

TREATMENT OF SUBSTANCE ABUSE OR DEPENDENCE

Segal, Gerdes, and Steiner (2004) noted that some individuals are more vulnerable to developing addiction or prescription dependence while others may be able to use the same substance with no problematic effects. Prescription abuse that leads to dependence can be difficult to

address. Successful intervention efforts require familiarity with psychotropic medications as well as supplemental psychosocial interventions effective in treating prescription substance abuse. A multidisciplinary or interdisciplinary team approach incorporates the following:

1. Recognition of the potential problems with this type of abuse
2. Understanding how belief in the safety or necessity of these substances can easily lead to addiction
3. Use of brief treatment using cognitive-behavior modification (including skills training and systematic desensitization)
4. Including social support in the form of professional encouragement and assistance (Dziegielewski, 2005)

An individualized, time-limited model is suggested for addressing potential problems associated with prescription medication abuse (Dziegielewski, 2005). Furthermore, it is worth noting that many individuals do not use just one drug. For example, Skarberg, Nyberg, and Engstrom (2009) warn that substances such as alcohol and other drugs significantly raise the danger for adverse effects, particularly with anabolic steroid abuse.

Treatment for people with addictions to these substances is complex. An individual must first recognize they are addicted, which generally starts with a change in mood, weight, or interests. An abused drug is continually used even though there is no medical need. In physical or psychological dependence, an individual needs a substance to continue functioning and uses the substance even though he or she knows negative circumstances could result. When abuse becomes dependence, careful evaluation for withdrawal—what is commonly referred to as abstinence or discontinuance syndrome—is expected. Due to the severity of withdrawal symptoms, detoxification can be dangerous and demands close monitoring.

For example, Rassool (1998) outlined a management plan for withdrawal from benzodiazepines. The client must be advised of the benefits of becoming clean and educated on the symptoms of withdrawal. Psychopharmacology is recommended to curb the extreme anxiety the client may feel (Ciraulo & Nace, 2000; SAMHSA, 2001, 2002). Alternative medications include buspirone, trazadone, venlafaxine, nefazadone, and paroxetine (Ciraulo & Nace). Rassool described the next step as a gradual decrease of the addictive substance with close monitoring of the reduction. He stressed the importance of implementing coping skills

and support for the anxiety. Complementary therapies, including aromatherapy, acupuncture, and reflexology, can also be used to assist with pain management when addressing benzodiazepines.

Cognitive-behavioral therapy, in combination with a 12-step program, is recommended for treatment of addiction to benzodiazepines (Ciraulo & Nace, 2000). Furthermore, a well-integrated, individualized program that includes individual, group, and family counseling, as well as contingency management, appears most effective for those addicted to prescription medications (NIDA, 2001). In terms of psychotherapeutic strategies, cognitive-behavioral interventions are considered the primary supportive intervention for those who suffer from anxiety-related conditions.

NONPRESCRIPTION OR OVER-THE-COUNTER MEDICATIONS

A nonprescription medicine, also known as an over-the-counter (OTC) medication, is any drug that can be purchased without a prescription. Some of the most common OTCs include antacids, laxatives and stool softeners, antidiarrheals, cold and allergy medications, and pain relievers (*PDR for Nonprescription Drugs*, 2009). To date, there are over 600 products available without a prescription (*PDR*). These medications can be purchased off the shelf in most pharmacies or convenience stores.

There are over 80 therapeutic categories of OTC medications that fall under the oversight of the Center for Drug Evaluation and Research (CDER) under the FDA. According to the FDA (2009e), a medication must have several characteristics to be considered for OTC status: First, the benefits of the medication must outweigh the risks, with only a low potential for misuse or abuse. Second, the consumer must be able to use them for self-diagnosable conditions—where independent action is warranted and a health practitioner's advice is not needed for safe and effective use of the product. Lastly, the labels need to provide clear and easy-to-follow instructions.

The FDA periodically reviews its policies on over-the-counter products. During a review in 1972, more than 600 drugs were changed from prescription to nonprescription status, and similar results are expected from hearings that started in 2000 (Cauchon, 2000). These constant changes and updates have resulted in the reclassification of some prescription medicines as general sales. These updates continue to provide

the public with greater access to medicines for self-care (Watson, Bond, Grimshaw, & Johnston, 2006). Consequently, sales of OTC medications have also increased (Bond & Hannaford, 2003). According to a 1992 Heller Research Group study, 85% of Americans felt it was important that over-the-counter medications be available to relieve minor medical problems (Heller, 1993). This demand and the expected profits have encouraged drug manufacturers to switch from prescription to nonprescription medication development.

Although many social workers acknowledge the importance of understanding prescription medications, little emphasis is placed on knowing nonprescription medications. More nonprescription medications become available to clients every day, and for many a trip to the pharmacy has become a substitute for a trip to the physician (Colino, 2000).

The use of OTC medications is complicated because many clients believe they are not harmful. It is critical for the social worker to remember that the interactions between OTC and prescribed medications can produce powerful effects; in fact, many OTC medications were once available only with a prescription.

Many of the concerns expressed in this chapter related to prescription medications often apply to nonprescription medications as well.

All OTC medications are required to have a Drug Facts label; this resource can help inform clients about their medications. Each medication also has warnings listed. The warnings are reminders of what a client should and should not do while taking the medication as well as how he or she might expect to feel.

The reason for choosing an OTC medication instead of a prescription medication should not be based on strength or implied safety. Over-the-counter medications can be just as powerful as prescription ones; however, they are generally dispensed at lower doses (Nordenberg, 1998). Social workers need to be aware of and dispel the myth that increased amounts of a medication are more effective, as they can actually be worse.

The use of OTC medications can be a significant problem with older people, who make up 13% of the population, according to National Information Center on Health Services Research and Health Care Technology estimates. Adults over the age of 65 purchase 30% of all prescription drugs and 40% of all nonprescription drugs (Cohen, 2000). Two-thirds of adults over 65 use one or more drugs daily, and older persons use an average of three prescription and nonprescription drugs at any given time (Beizer, 1994; Cohen). “Start low and go slow” is a well-known medication

dosing precaution when working with older individuals because of adverse drug reactions. In patients 60 and older, more than half used five or more prescription medications, over-the-counter medications, or dietary supplements (Qato et al., 2008).

The social worker's awareness of the effects OTC medications can have on the therapeutic environment is crucial for competent and efficient practice. Use of these medications continues to rise and compels social workers to fully appreciate these medications, their potential toxic interactions with other drugs, their effects on mental disorders, and their impact on the treatment process.

In addition, as clients make more self-help OTC purchases, medication storage can become problematic. Clients should be warned that OTC and prescription medications should not be kept in bathroom medicine cabinets, which are frequently hot, humid, and subject to temperature variations. A dark, dry place such as a linen closet is a better place for storing both prescription and nonprescription medications.

ADDICTION TO OVER-THE-COUNTER MEDICATIONS

Clients do not only become dependent on prescription drugs; dependence and addiction can also occur with OTC drugs. Many individuals take OTC drugs regularly, perhaps even daily, without thinking about the relationship between these drugs and other health factors. Because these medications are easy to purchase and readily available, there is a

Table 5.6

ANABOLIC STEROIDS OFTEN USED ILLEGALLY

SUBSTANCE CATEGORY	BRAND NAMES	STREET NAMES	SCHEDULE/ HOW ADMINISTERED
Anabolic steroids	Anadrol, Oxandrin, Durabolin, Depo-Testosterone, Equipose	Roids, juice	Schedules III; injected, swallowed, and snorted

Information summarized from *Selected Prescription Drugs With Potential for Abuse*, by NIDA, 2005b. Retrieved May 5, 2009, from www.drugabuse.gov

misconception that they cannot harm. Nonsteroidal anti-inflammatory drugs (NSAIDs) such as aspirin or ibuprofen are among the most frequently used and can cause stomach bleeding, ulcers, and can disrupt normal kidney functioning (Mayo Clinic, 2000a).

There is one major difference between OTC and prescription drugs: With OTC drugs, addiction does not involve getting high from the medication, but rather stems from taking the medication longer than expected and developing a need to continue taking it. Addiction can be defined as “abstinence syndrome.” If an individual experiences physical or psychological withdrawal symptoms upon discontinuance, addiction has occurred. In the case of caffeine, for instance, an individual who has not had her morning coffee or tea develops a headache. Chances are this person is addicted (Dziegielewski, 2005). Ingesting a caffeinated beverage will reduce the pain more quickly than an aspirin because the body craves the drug and will only be satisfied by taking it. See Figure 5.6 for OTC medications that can be addictive if overused (see also Table 5.6).

Figure 5.6

OVER-THE-COUNTER MEDICATIONS WITH A HIGH POTENTIAL FOR ADDICTION

Nasal sprays: Topical decongestants can be habit forming.

Laxatives: Labels clearly warn these preparations can be addictive if overused.

Eye drops: Designed to “get the red out,” but rebound effect can occur.

Stay-awake pills: These drugs generally contain concentrated amounts of caffeine, a powerful and addictive stimulant.

Sleeping pills: Most of these have antiallergy components that can cause sleepiness.

Cough syrups with codeine: Some pharmacies still allow cough syrups with codeine to be sold over the counter. These products contain codeine, which can be habit forming, and with continued use can lead to dependence.

Source: Information summarized from numerous sources, including Bond & Hannaford, 2003; NIDA, 2008; and SAMHSA, 2002.

The social work professional who understands medication use and misuse can also help clients integrate situational or environmental concerns that may not be listed in the *PDR*. They should always keep in mind the role of nonprescription medications and their effects on the body, especially in terms of the potential for addiction. Wilson (1992) gives the following advice for using medications wisely:

1. Always read the label on a new bottle or package and help the client understand it. Always check the list of ingredients (manufacturers frequently update ingredients), the warnings, and the expiration date. Expiration dates are very important because the ingredients may not remain in an active state after that date. If there are two expiration dates, follow the latest one. If the product is outdated it should be discarded immediately following proper disposal procedure.
2. Warn clients to limit their dose to the amount specified in the product directions. This is particularly important for those who practice self-medication. Clients should have simple, written, easy-to-use directions. Some clients, especially older people, may find a chart or table to accompany written directions useful. It could indicate when the medication is to be taken and allow the client to check off the doses as taken. Social workers can also advise clients to use egg cartons to dispense their daily doses. Remind clients never to skip a dose, share medicines, or take other medications without considering their effects and what they are currently taking. Social workers need to remind their clients to keep records of all their medications, including herbal preparations and OTC and prescription medications. Clients may not remember every medication, especially when they are nervous, ill, or under pressure. Be sure your clients have a list of the medications they are taking and update it regularly.
3. It's important to empower clients and their families by either asking (or helping them ask) relevant questions related to medication use. Clients should know the name of the medicine, why they are taking it, and how it should be taken. They should also know how long to continue the medication and what foods or beverages to avoid while taking it. In this rapidly changing field with a vast number of drugs available, social workers are encouraged to help clients seek additional information on side effects and the potential for adverse reactions between medications.

4. When clients suspect they are taking too much of an OTC preparation, they probably are. Advise them that it is possible to become addicted to a nonprescription medication. Clients should consult their primary physicians when physiological symptoms of dependence are suspected and should work toward terminating use of the medication. Oftentimes, convincing them to stop buying the product or to place it out of reach is the most simple and effective solution. Social workers should encourage clients to keep a log indicating the frequency, dosage, time of day, and the stresses that precipitate use of the medication. In this way, clients will become more aware of the habits and patterns that trigger their dependency.
5. Educate your clients about addiction. If they find it difficult to give up or if they justify why they are using a medication frequently, explain that the problem can become more serious and they should not be embarrassed to ask for help. This is especially important with OTC remedies because many clients do not know they can be addictive. Integrating basic education and support into the therapeutic relationship can help address the concerns of the client and family and can facilitate the intervention process and help medications work more effectively.

LESSONS FROM THE PAST

It is important to recall lessons from prior misuse of medication. Consider Fenfluramine (approved in 1973), Redux (approved in 1996), and other potentially deadly diet pills. These pills were distributed and prescribed repeatedly even after numerous warnings that not enough was known about them.

The FDA approved Fenfluramine as safe for short-term use in 1973 under the assumption it would be prescribed for individuals who were severely obese and not responding to other forms of treatment. However, many physicians dispensed prescriptions to individuals who were not obese but rather seeking a quick fix for their weight problems. Furthermore, studies suggested the combination of two drugs—Fenfluramine and Phentermine (called Fen-Phen)—would help shed pounds faster with fewer side effects. Although the FDA never approved the combined use of these drugs, it became one of the hottest-selling remedies for weight control in the drug industry (Golden, 1997).

Redux was approved in 1996, and soon 2.5 million prescriptions were written and the number of people exposed to the drug rose to 60 million worldwide (Golden, 1997). In July of 1996, Mayo Clinic researchers reported serious heart-valve damage in Fenfluramine and Redux users. Eventually 30% of the 291 users of the drug combination Fen-Phen reported the same problems (Golden); combination use of the drug was prohibited, and Redux was recalled. Golden asks who should be held accountable for errors of this type. Golden believes the primary responsibility should rest with the FDA for approving Redux, given that it received five votes in favor of approval and three against, and considering that researchers had serious misgivings.

The drug companies that produced, tested, and marketed these drugs while knowing that more research was needed are responsible, too, as well as physicians and weight-control programs that eagerly dispensed them to individuals for whom the drugs were never intended. Some blame can be placed on the media, which advertised and promoted the drugs as a miracle, and on the clients, who so desperately wanted to lose weight. Regardless, consumers were harmed, and professionals who were supposed to act in the best interests of their clients lost credibility. Social workers need to look carefully at the benefits and limitations of medications, always remembering and reminding their clients that medication prescription is not an exact science. This requires that social workers become more aware of how medications work, the effects they can have on individuals, and ways to more effectively educate their clients about the use and misuse of these drugs.

SUMMARY AND CONCLUSIONS

Social workers are often involved in medication regimens, and the more knowledge they have in the area, the more equipped they will be. Awareness of drug scheduling and medication classification can help the social worker stay abreast of classification changes and the reasons for such modifications. The presumption that medications (whether OTC or prescription) are safe is false and minimizes the likelihood of abuse, dependence, and withdrawal. According to DAWN (2006), 2.4 million individuals in 2004 alone utilized painkillers for a nonmedical use, and prescription medication abuse ranks second only to marijuana use.

The role of the social worker in helping to understand, communicate, monitor, and document issues surrounding the use of prescription

and nonprescription medications is an important one. Social workers need to be aware of medication actions and interactions and help clients prepare for and avoid negative reactions.

When a client appears to be using a prescription or nonprescription drug improperly and when dependence may result, a medical exam must determine the degree of intervention needed. A social worker must be prepared to question and address client assumptions that prescription and OTC medications are neither harmful nor addictive. A comprehensive medication history will facilitate the intervention team in prescribing appropriate treatment protocols and should include past substance abuse history and all drugs used by the client (including OTC prescriptions, herbal remedies, and prescribed medications). Compliance will be enhanced if the social worker can identify abuse patterns and practice defensibly, watching for dependence and the dangers of nonmedical usage of prescription as well as OTC medications. Social workers should recognize potential problem areas related to the use of prescription and OTC drugs and relate it to information provided in other chapters, incorporating effective psychosocial interventions as part of the recommended course of treatment.

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6

Complementary and Alternative Medicine: An Introduction for Social Workers

SOPHIA F. DZIEGIELEWSKI AND PATRICIA SHERMAN

Any discussion of medications in today's practice environment should include an introduction to complementary and alternative medicine (CAM) and other herbal treatments and remedies, with an emphasis on using this information to complement traditional treatment strategy. Herbal medications and remedies are not new; in fact, interest in these interventions for various health and mental health problems have been around for many decades. Many consumers are concerned with the long-term effects of traditional medications and prefer to rely on alternative or holistic means for their health and wellness—hence the numerous alternative medicines and treatment strategies available.

Since alternative treatments are so easy to purchase, awareness of how clients are using herbal and natural remedies has become a practice reality (Dziegielewski, 2003). What remains questionable is the extent to which consumers are aware that, although these products appear to be safe, they can indeed interact with prescription and nonprescription medications. Furthermore, the United States continues to lack a regulatory system for herbal products, particularly those marketed as food and dietary supplements (*PDR for Nonprescription Drugs*, 2009). The fact that few legal standards are applied to the harvesting, processing, and/or packaging of herbal products creates the potential for poor quality, adulteration, and contamination (Zink & Chaffin, 1998). Social workers

should educate clients and encourage them to ask their physicians about potential adverse reactions when combining herbal remedies with prescribed pharmaceutical agents.

THE INCREASED POPULARITY OF NATURAL MEDICINE

There has been an explosion of interest in nontraditional methods of treating disease and enhancing wellness. In response to this increased interest, and concerned with the small number of studies of the efficacy of such interventions, the federal government created the National Center for Complementary and Alternative Medicine (NCCAM) in 1998. The role of this center has increased since its creation; its budget has grown from \$68.7 million in FY 2000 to \$121.7 in FY 2008 (NCCAM, 2009a).

The use of plants and herbs in particular constitutes an ancient form of medicine practiced for thousands of years. Many individuals use herbs, vitamins, minerals, and so-called *functional foods* (such as broccoli, green tea, and black tea, among others) to enhance and support their well-being (Illinois Council on Food and Agricultural Research, 2009). CAM can also include the therapeutic use of animals and animal parts, but most often is defined as involving plants (Cooper, 2008), which will be the focus of this chapter.

It is difficult for consumers not to be influenced by these products given their media hype and advertising. The market for herbs and supplements has become a multibillion-dollar industry growing at an unprecedented rate (Tyler, 2000). Nor is it surprising to see that since the 1990s, alternative or herbal strategies are the medicine of choice for at least 70% of the world's population (Goeddeke-Merickel, 1998a, 1998b, 1998c).

One of the biggest concerns facing social workers is the client's assumption that, since herbal products often claim to be natural, they must also be safe (Dziegielewski & Turnage, 2004; Family.doctor.org, 2005). Yet despite their long history of use, little research has been done to quantify their effectiveness.

Most people do not realize that many prescription medications are created from ingredients similar to those in traditional medicines; in fact, approximately 25% of all prescription drugs are derived from herbs (Weisberg & Shink, 2005). Furthermore, many prescription and OTC medications adapt and freely utilize an herbal base in their composition. There are "119 prescription drugs derived from plants of which

74% are used for the same purposes as ancient cultures have used them for years” (Weisberg & Shink, p. 93). For example, aspirin is derived from the bark of the white willow tree (VitaminStuff.com, 2009). Yet, while aspirin can relieve pain and inflammation, it can also have numerous interaction effects. Taking aspirin along with an antidepressant such as Celexa, for example, can lead to bruising or bleeding (Drugs.com, 2009a). The belief that a remedy is harmless because it comes from a plant or tree may lull consumers into thinking it is completely safe, regardless of other medications they may be taking.

In the worst-case scenario, combining herbal remedies and prescription medications can lead to serious toxic results. Most people are not aware that herbal and traditional medicines can be toxic at certain dosages (Henkel, 2000). Philip (2003) reported that consumers must be aware of interaction effects between herbs and drugs that can result in increased toxic or pharmacological effects. For example, drinking grapefruit juice may seem safe, but grapefruit juice can prohibit the absorption of medications during dialysis treatments (Goeddeke-Merickel, 1998a, 1998b).

Mixing herbal remedies and prescription medicine does not always have a negative outcome: At times, these mixtures can complement each other. But because these complementary medications can supplement, interact, or augment the negative or positive effects of medications, caution should be taken when using herbal and natural products. A medical provider should always be consulted when such products are mixed.

CASE EXAMPLE: USING A NATURAL REMEDY

JoLee, a 52-year-old accountant, reported she had suffered from depression for approximately the past 10 years. Upon arriving for her third session with the social worker, JoLee stated she was very excited because she had found the answer to her depression. JoLee proceeded to thank the social worker for her time and said she was ready to try a new and different approach to life. In an excited voice she told the social worker how thrilled she was about her recent discovery.

In the assessment phase, it became obvious JoLee had a history of depressive episodes. These episodes began after her divorce approximately 10 years earlier. JoLee reported she had felt as if “the rug had been pulled from under” her after the divorce, and these negative feelings returned each time she was forced to interact with her ex-husband and his new wife. She was often frustrated and embarrassed

when she was forced to act cordial toward her husband's new wife at family functions. JoLee stated that with the help of counseling she was now aware she had never allowed herself to get over the divorce and the disruption it had caused.

Immediately after the divorce, JoLee's physician had prescribed an antidepressant and later an anti-anxiety medication to help her cope. She stated she liked the medications because they always made her feel "a little numb" and when she felt that way nothing really mattered or affected her. JoLee's daughter was concerned because her mother had been taking prescription medication for depression and anxiety for the past 10 years. JoLee agreed and, after stopping both her antidepressant and anxiety medications, decided to give counseling a try. An intervention plan and contract were established during the first few sessions, and JoLee agreed to see her physician for a physical checkup and a reevaluation of her need for medication.

Now on the third visit, and with the intervention progressing well, the social worker was shocked by JoLee's announcement. JoLee stated she had come across literature about SAM-e, a new natural remedy her friend was taking. According to JoLee, her friend had been depressed for a very long time and was feeling "better than ever." Based on how well it worked for her friend, JoLee was eager to give it a try. She said she had been taking it for more than a week and could already feel a subsequent lift in energy.

When the social worker asked about the effectiveness of the product, JoLee was quick to report that SAM-e had helped millions of individuals fight off feelings of depression. She shared the advertisement and research information she had received. Upon reviewing the literature, the social worker agreed there had been numerous research studies conducted on the effectiveness of the product. Unfortunately, however, none of the reported studies had been conducted in the United States. The social worker was concerned that foreign medical trials did not have the same scientific rigor as those in the United States. The social worker pointed this out to JoLee, who replied, "Research is research, isn't it?" The social worker clarified that research conducted in other countries is supervised by different governing bodies and is not subject to the tight limitations enforced by the FDA. Thus, such research could be less rigorous and less supervised. The lacking scientific vigor of such research is one of the biggest criticisms of complementary medicine.

JoLee also stated that she was aware that the literature also warned about the lack of governmental regulation of SAM-e, which is essential to ensure active ingredients were present in the product. Consequently,

cost varied significantly, from approximately \$2.50 to \$18 per dose. Due to the expense and the fact that it was not covered by insurance, JoLee chose one of the least expensive brands. The social worker was concerned because the literature clearly stated the natural medicine was broken down primarily in the intestines, so coated versions were needed to protect against partial digestion in the stomach. The brand of SAM-e JoLee selected had no protective coating—a cost-cutting method used by some manufacturers. There was also no expiration date stamped on the container, making it impossible to determine the shelf life of the product, whereas federally regulated products require an expiration date. Given the lack of standardization, the most helpful advice the social worker could give JoLee was to avoid using imported products because some had been shown to contain lead and other toxic materials. The social worker also strongly encouraged JoLee to discuss this with her medical provider.

In addition, the literature JoLee described reading pointed out that SAM-e would probably not help if you were not depressed. Since the social worker herself had no history of depression, she found it interesting that the client initially had suggested she also take it.

In the last line of the article it stated, “Many of us could arm ourselves against low moods, bad joints, and weak hearts simply by upping our intake of B vitamins . . . that may sound less exciting than taking a miracle supplement . . . but with luck . . . it could keep you from ever needing one” (“St. John’s Wort and SAM-e,” 2000, p. 50). This statement implied the supplement was no more effective than simply increasing one’s intake of B vitamins. The social worker recommended the client speak to a physician about her choice because it was not well tested or proven for effectiveness. In addition, the social worker suggested that JoLee reconsider evaluating the agreed-on behavioral contract that was set up earlier in the counseling sessions regardless of whether she continued to take the herbal medicine. Despite her current upbeat mood, the social worker was firm to point out that there were still many issues within the behavioral contract that still needed to be addressed therapeutically.

CHOOSING MEDICAL TREATMENTS

Medical treatments in this country are varied and can range from home remedies shared among family and friends to medications prescribed by a physician. There are three primary approaches to the delivery of

medical care: traditional mainstream medicine, alternative medicine, and complementary or integrative medicine.

1. *Western or traditional medicine*: standard drug therapies and surgical interventions
2. *Alternative medicine*: mind and body therapeutic touch (e.g., acupuncture), chiropractic approaches, and herbal and natural remedies
3. *Complementary or integrative medicine*: the use of both traditional and alternate therapies

WESTERN OR TRADITIONAL MEDICINE

Western medicine, referred to here as *traditional medicine*, involves standard drug therapies and surgical interventions requiring the skill of a trained professional. Today, the majority of Western physicians are primarily trained in this shared philosophical approach.

To avoid bias, a health care professional with traditional training should keep an open mind and not immediately discourage a client from engaging in nonmainstream practices. Clients may sense this reluctance and may not tell the provider about herbal or nontraditional treatments they are utilizing (Kennedy, Wang, & Wu, 2008). Schofield, Juranskova, and Butow (2003) found that 38% of patients' attempts to initiate CAM discussions were ignored by their oncologists. However, with physicians with more participatory styles, Sleath, Callahan, Vellis, and Sloane (2005) found patients were more likely to disclose CAM use. Furthermore, cultural aspects should always be considered. Salow, Kumar, Burke, and Inciardi (2008) found that 95% of Asian Indians studied were aware of *Ayurveda* (a form of natural therapies native to India), and 59% had used or were currently utilizing it; however, only 18% felt comfortable enough to inform their doctors they were taking it.

Some clients may avoid discussing CAM information with their provider out of fear the health care provider will not support the treatment (Tasaki, Maskarinec, Shumay, Tatsumura, & Kakai, 2002). Clients may also believe the health care provider doesn't know enough about alternative treatments and therefore cannot provide proper assistance (Wetzel, Kaptchuk, Haramati, & Eisenberg, 2003). To encourage clients and providers to discuss these matters, the National Center for Complementary and Alternative Medicine has prepared "Time to Talk," a toolkit for both

consumers and professionals on how to talk about treatment choices, including CAM. More information is available at <http://nccam.nih.gov/timetotalk/>.

The trend to supplement medical care and promote healthy moods with herbal treatments, products, and services is a significant one (Kemper & Shannon, 2007). All practicing social workers are well aware of how many clients now actively use complementary approaches and avoid solely Western, traditional methods. In the authors' practice, the most common reason clients give is that conventional medicine ignores the "human" side of health. Clients make statements such as, "I want more than management of my symptoms. I want someone to care about me and look at me as an individual and realize I have unique needs." It is important to ensure the busy medical setting—with rushed office visits, rapid assessments, and quick treatments—does not lead to less input from the client about his or her care. When clients feel their symptoms and care have been minimized, they may seek other ways to prevent or treat diseases, including alternative therapies.

Furthermore, conventional methods often come under attack as too invasive. For example, heart disease has been conventionally treated through surgery, yet this intervention entails the risk of stroke or heart attack. Because the complications can be so serious, many elect not to have this invasive procedure; rather, they choose alternative treatments such as low-fat and vegetarian diets, stress management, moderate exercise, and group counseling (Din, Newby, & Flapan, 2004; Goodman, 2000; McCall, 1998). In some cases, individuals feel these methods work as effectively and provide reasonable alternatives to the more invasive state-of-the-art surgical procedures (Aldana, Greelaw, Salberg, Merrill, Hager, & Jorgenson, 2007). In general, clients seem to want gentler alternatives to more aggressive therapies. This includes prescription medications, many of which can have serious side effects many clients would prefer to avoid.

People with chronic conditions who realize they will not achieve a quick cure are a large audience for alternative medicines. For example, a recent study by Imanishi and colleagues (2009), which examined aromatherapy massage and its use with 12 breast cancer patients, found that aromatherapy massage was a viable complementary therapy that significantly reduced patient anxiety. Since chronic conditions are painful, recurring, and long lasting, the desire to avoid pain puts clients who suffer from chronic and complicated conditions in a vulnerable position. They are the prime targets of fraudulent claims and products that promise

a quick and easy cure. Professionals who practice medicine—whether they specialize in traditional or holistic methods—would agree it is best to use traditional medical interventions when they have proven to work (Zahourek, 1999). For example, conventional therapies can yield an 80% cure rate in childhood leukemia (American Cancer Society, 2008); therefore, it seems unreasonable to switch to something that does not have as good a chance of success.

ALTERNATIVE MEDICINE

The National Institutes of Health defines alternative medicine as “medical systems, therapies, and techniques that mainstream Western (conventional) medicine does not commonly use, accept, study, understand, or make available” (NCCAM, 2004). These approaches are varied but often involve such techniques as touch therapy and massage (e.g., acupressure), chiropractic therapy, magnets, and other naturopathic remedies. Other techniques, such as herbal preparations and spiritual healing, are also used.

Despite some controversy over their effectiveness, the use of alternative herbal medicinal preparations remains strong. Many clients like the power of making their own choices, want to take control of their lives, and desire an active role in securing what is good for their individual well-being—hence the appeal of alternative medicine. Today, well over 60 million Americans actively use alternative practices as part of their medical regimens, and many people consider alternative medicine their intervention of choice. See Figure 6.1 for a brief description of selected alternative therapies.

Figure 6.1

ALTERNATIVE MEDICINE SYSTEMS

Traditional Chinese Medicine (TCM)—uses herbs, acupuncture, acupressure (shiatsu, tsabu, jin shin, jujitsu), and physical exercise like tai chi or qigong

Ayurveda—uses pranayama (alternate nostril breathing), abhyanga (rubbing skin with oil, usually sesame), rasayana (herbs and

mantras during meditation), yoga, panchakarma (intense cleansing therapy including diaphoretics, diuretics, cathartics, and emetics), and herbal remedies

Naturopathy—holistic approach using homeopathy, vitamin and mineral supplements, physiotherapy, TCM, stress management, and herbs

Homeopathy—uses homeopathic (minute doses of herbal, mineral, or animal products) remedies as catalysts to aid body's inherent healing mechanism to treat physical, emotional, and mental symptoms

Osteopathy—uses diagnostic and treatment techniques similar to medical practitioners but also treats the musculoskeletal system with adjustive maneuvers

Chiropractic—diagnoses and treats illnesses that affect the nerves, muscles, bones, and joints by relieving pressure through manipulation

Environmental Medicine—focuses on the effect of chemicals—such as pesticides, food preservatives, car exhaust fumes, and formaldehyde—on the immune system and uses nutritional supplements, immunotherapy, and desensitization

Mind/Body Therapies

Hypnotherapy—techniques of focused attention that are especially helpful for pain management, addictions, and phobias

Biofeedback—relaxation technique to enable control over autonomic responses, such as heart rate, blood pressure, and voluntary muscle contractions

Relaxation Techniques—relaxation through autogenic training, which involves repeated visualizations leading to progressive muscle relaxation and meditation

Bodywork

Massage—includes lymphatic massage, neuromuscular (deep tissue) massage, rolfing (facial manipulation)

Postural/Energy Therapies—focuses on the relationship between the musculoskeletal system and body movement and includes the following:

(Continued)

Figure 6.1

- Alexander Technique (corrects muscle and joint coordination, balance, and ease of movement)
- Feldenkrais (improves coordination and increases awareness of bodily functions involved with movement)
- Therapeutic Touch

Energy Medicine

Reiki—practitioners place their hands lightly on or just above a person to facilitate the person's own healing response

Acupuncture—use of needles placed along the meridians to relieve symptoms of many diseases

Healing Touch—practitioner identifies imbalances and corrects a client's energy by passing his or her hands over the patient

Intercessory Prayer—a person intercedes through prayer on behalf of another

Magnetic Therapy—static magnets are placed over trouble spots to relieve pain or increase energy

Millimeter Wave Therapy (MW)—low-power millimeter wave irradiation used to treat skin diseases; aid in wound healing; relieve symptom related to cancer, gastrointestinal (GI), and cardiovascular diseases and psychiatric illnesses

Sound Energy Therapy—music, wind chime, and tuning fork therapy are used to relieve pain and anxiety

Light Therapy—high-intensity light therapy used for seasonal affective disorder

Dietary Supplements

Nutritional Supplements—deficiencies are determined through blood, stool, urine, and hair analyses, although adverse reactions between medications and supplements can occur

Orthomolecular Medicine—uses megadoses of supplements and has been found useful for hypercholesterolemia and AIDS

Botanical Medicine—herbs are prescribed for specific symptoms

Source: *An Integrative Medicine Primer*, by Integrative Medicine Communications, 1998. Newton, MA: Author.

VITAMINS, MINERAL SUPPLEMENTS, AND HERBAL REMEDIES

Many social workers have clients who rely on vitamin and mineral supplements, as well as herbal medications and preparations, in order to obtain a sense of control over their physical and mental health. Social workers should learn more about what clients are taking and why but should never give medical or dietary advice, as this should only be done by an expert in that area. Tables 6.1 and 6.2 list common vitamin and mineral supplements and herbal preparations and their uses.

ISSUES WITH HERBAL PREPARATIONS

For the most part, herbal medicines are derived from plants, leaves, roots, and flowers. There are hundreds of medicinal herbs available to the consumer (*PDR for Herbal Medicines*, 2007); however, many have not been regulated or tested to clearly establish their effectiveness. In the United States, the Dietary Supplement Health and Education Act of 1994 (DSHEA) allows herbs to be sold legally as long as they make no disease treatment claims on the label (Kroll, 1997). It is common for manufacturers to use vague terminology such as “supports body function” or “safely balances emotions.” For example, St. John’s wort, a popular product used primarily for the treatment of depression, states in ambiguous terms that it is used “for mental well-being” or “to improve mental health.” Because of increasing interest, herbal medications have drawn the attention of the FDA. As of June 2007, manufacturers are required to evaluate the identity, purity, quality, strength, and composition of dietary supplements. They also have to report all serious dietary supplement adverse effects to the FDA (FDA, 2007b).

The herbal industry is booming, with little if any government oversight. Due to the competition in the herbal market, manufacturers develop unique combinations to prevent rival manufacturers from duplicating their products. For example, Nature’s Sunshine sells “5-W”—a blend of black cohosh root, squaw vine herb, dong quai root, butcher’s broom root, and red raspberry leaves—which it claims will support “female glandular and reproductive systems.” Another company, Deseret Biologicals, offers “Cohosh Complex I,” a product that combines black cohosh root, dong quai root, blessed thistle herb, goldenseal root, gravel root, cayenne fruit, ginger root, slippery elm bark, and witch hazel bark

VITAMINS AND MINERALS

NUTRIENT	FUNCTIONS IN THE BODY/BENEFITS	DIETARY SOURCES	MAXIMUM DAILY DOSE/ TOXICITIES
FAT-SOLUBLE VITAMINS			
<p>Vitamin A Retinol, beta-carotene, and various other carotenoids</p>	<p>Helps maintain good vision (especially night vision), resistance to infections, and growth and repair of body tissues. Also maintains integrity of white and red blood cells and epithelial lining. Used to treat acne.</p>	<p>Milk, eggs, meat, fish liver oils. Beta-carotene and other carotenoids are found in the following: green leafy vegetables—kale, spinach, broccoli, collard greens, parsley, turnip greens, escarole; yellow vegetables—carrots, sweet potatoes, winter squash, pumpkin; yellow and orange fruits—mango, cantaloupe, papaya, apricots.</p>	<p>5,000 IU is probably best (in beta-carotene form); 20,000 IU max/day.</p> <p>Stop immediately if you experience nausea and vomiting, blurred vision, or bone pain. A harmless orange coloring of the palms and face may develop with excessive intake of beta-carotene.</p>
<p>Vitamin D Cholecalciferol, ergocalciferol</p>	<p>Regulates absorption of calcium and phosphorus for bone health.</p>	<p>Formed in skin when exposed to sunlight. Also found in dairy products, egg yolks, fish liver oils, tuna, mackerel, herring, sardines, oysters, yeast.</p>	<p>800–1,200 IU.</p> <p>Don't give kids more than 1,000 IU; excess doses may result in hypercalcemia, which can damage the kidneys and weaken the bones.</p>

Vitamin E
Tocopherols,
tocotrienols

Antioxidant that helps maintain cell membranes and red blood cell integrity and protects vitamin A and fatty acids from oxidation. Used to treat anemia and may help manage claudication (cramping pain caused by low blood supply to affected muscles).

Found primarily in vegetable oils, but also butter, avocados, eggs, nuts, whole grain cereals, wheat germ.

Fat malabsorption can lead to vitamin E deficiency.

1,200 IU; such high amounts may interfere with vitamin K activity and increase the risk of uncontrolled bleeding.

It is important to know what type of tocopherol you're getting in a supplement.

Vitamin K

Helps make factors that promote blood clotting. Used in hemorrhagic disorders.

Gut produces some, and diet generally supplies the remaining need. Some stored in liver. Green, leafy vegetables are the best source, followed by liver and other animal foods.

Fat malabsorption can lead to vitamin K deficiency.

80 mcg; phyloquinone is essentially nontoxic; otherwise, take care with use, especially in children.

WATER-SOLUBLE VITAMINS

Vitamin B1
Thiamin

Helps metabolize carbohydrates and maintain appetite and normal digestion. Essential for nervous tissue function. May be part of a regimen to offset mitochondrial toxicity.

Found in many foods: whole grain cereals, peas, beans, peanuts, legumes, brewer's yeast, wheat germ.

Alcohol, malnutrition, diarrhea, and malabsorption contribute to vitamin B1 deficiency.

Very safe. One German study used 320 mg/day for neuropathy with no side effects.

VITAMINS AND MINERALS (Continued)

NUTRIENT	FUNCTIONS IN THE BODY/BENEFITS	DIETARY SOURCES	MAXIMUM DAILY DOSE/ TOXICITIES
<p>Vitamin B2 Riboflavin</p>	<p>Helps body break down amino acids and regulates energy, growth, hormones, and formation of red blood cells. Supports cellular breathing. Prevents red, cracked lips and burning tongue. May help with high lactate or lactic acidosis.</p>	<p>Egg whites, greens, lean meat, fish, wheat germ, milk.</p>	<p>Very safe. 200 mg/day is probably excreted.</p> <p>B vitamin complexes can include from 50–100 mg/day of riboflavin. Standard multivitamins contain 3 mg.</p>
<p>Vitamin B3 Niacin, nicotinic acid, niacinamide</p>	<p>Important for fat synthesis, protein and carbohydrate breakdown, tissue respiration, health of skin, tongue, digestive system. Higher doses may help manage cholesterol.</p>	<p>Yeast, lean meat, chicken, salmon, tuna, legumes, whole grain cereals, peanuts.</p>	<p>Niacin: Standard formulations of multivitamins can contain 20–30 mg. B-complex supplements contain 100 mg, some have up to 200 mg. Supplementation at this dose can cause flushing or itching. Higher doses are sometimes used to treat high LDL cholesterol but can cause liver damage, high blood sugar, vomiting, diarrhea, and low blood pressure. This should be done only with a physician's supervision.</p>

Vitamin B5
Panthothenic
acid

Helps body metabolize carbohydrates, fats, and make steroids. Offsets deficiency-related dermatitis and “burning foot” syndrome.

Eggs, chicken, avocados, soybeans, whole grains.

Deficiency is uncommon due to its widespread availability in foods.

Niacinamide: A nonitchy, no-flush form of B3. 250 mg is probably a safe daily dose. Higher doses may be tolerated. Niacinamide isn’t associated with low blood pressure and doesn’t work to treat high cholesterol.

10 mg included in most supplements. B-vitamin complexes can include from 5–75 mg.

Vitamin B6
Pyridoxine,
pyridoxal, other
forms

Various classes of enzymes (e.g., aminotransferases) depend on B6 for their activity. Often prescribed to offset the depletion caused by the tuberculosis drug Isoniazid.

Chicken, fish, pork, liver, eggs, rice, soybeans, oats, whole wheat, peanuts, walnuts, bananas, avocados.

250 mg; more than this may worsen or cause neuropathy; high doses probably are best taken with a B-complex; more data needed.

Vitamin B12
Cobalamin

Supports red blood cell health and development, treats pernicious anemia, used in management of neuropathy.

Liver, kidney, dairy, eggs.

B12 is synthesized by intestinal bacteria. Many people use acidophilus supplements to help maintain intestinal flora.

1,000 mcg; nontoxic.

Absorption of B12 is more complicated than other B vitamins. The body can make and recycle some B12 from what comes in, but absorption of this vitamin can be disrupted

Table 6.1

VITAMINS AND MINERALS (Continued)

NUTRIENT	FUNCTIONS IN THE BODY/BENEFITS	DIETARY SOURCES	MAXIMUM DAILY DOSE/ TOXICITIES
Biotin	Deficiency can result in hair loss, dermatitis. Biotinyl proteins are critical for fat, carbohydrate, and amino acid metabolism.	Yeast, liver, kidney, eggs, milk, fish, nuts.	in both the stomach and the intestines. If absorption is a problem, B12 may need to be administered by injection. No known toxicity. B-complex vitamins can contain from 30 to 100 mcg of biotin.
Vitamin C Ascorbic acid; also may be bound to minerals such as in calcium ascorbate	Essential element in collagen formation. Important for wound healing, bone fractures, and resistance to infections. Strengthens blood vessels. Helps body absorb non-heme iron when the two are ingested together.	Abundant in most fresh fruits (especially citrus) and vegetables.	No toxic limit. However, if you take too much too fast (greater than a 2,000 mg dose), you may have diarrhea. Ascorbate forms are easier on the intestines; raise dosage slowly.
Folic acid Folate, folacin	Essential for blood cell formation, protein metabolism, and prevention of neural tube defects.	Green leafy vegetables, liver, kidney, yeast, orange juice, fortified grain products, beans.	Very nontoxic, particularly if taken with adequate B12. High dosages may mask a vitamin B12 deficiency.

SELECTED MINERALS

Boron	Supports bone health, prevents osteoporosis, reduces magnesium excretion.	Fruits, vegetables.	3 mg/day is a suggested dose; take with multivitamin containing manganese, calcium, and riboflavin.
Calcium (and phosphate)	Necessary for strong bone structure, teeth, muscle tissue. Regulates heartbeat, nerve function. Plasma levels affected by thyroid, parathyroid glands.	Green leafy vegetables, fortified orange juice, dairy products. Sardines, salmon with bones, tofu. Alcohol, soda (colas), and caffeine deplete calcium stores in body. Need vitamin D to make use of calcium in the body.	Overdose unlikely unless you are magnesium deficient; iron and zinc absorption may be impaired with high calcium intake. High intake may cause constipation. Daily intake need varies depending on age, gender, and health. Talk with your doctor about the right dose for you.
Chromium	Glucose metabolism. Deficiency results in glucose intolerance.	Brewer's yeast, whole grain cereals, nuts, black pepper, thyme, meat, cheese.	300 mcg; around 1,000 mcg/day for certain conditions is probably safe.
Copper	Supports healthy bones, muscles, and blood vessels. Assists in iron absorption.	Liver, legumes, nuts, seeds, raisins, whole grains, shellfish, shrimp.	5 mg; avoid if you have hemochromatosis or Wilson's disease; 10 mg will cause nausea; upper limit = 10,000 mcg/day.
Iodine	Essential component of thyroid hormones that regulate tissue growth and cell activity.	Iodized salt, seafood, bread, milk, cheese.	150–250 mcg. High doses are not usually a problem unless you have hyperthyroid disease.

Table 6.1

VITAMINS AND MINERALS (Continued)

NUTRIENT	FUNCTIONS IN THE BODY/BENEFITS	DIETARY SOURCES	MAXIMUM DAILY DOSE/ TOXICITIES
Iron	Supports red blood cell health through formation of hemoglobin in blood and myoglobin, which supplies oxygen to muscles. Key for menstruating women in preventing iron-deficiency anemia.	Red meats, liver, poultry, fish, beans, peas, dried apricots, blackstrap molasses. Certain foods, like grains, contain phytates, which may inhibit iron absorption. Vegetarians may not get enough iron from their diet.	30 mg/day max; avoid extra if you have liver disease or hemochromatosis; excess can cause bloody diarrhea, vomiting, acidosis, darkened stools, abdominal pain. Non-heme (plant sources) iron absorbed poorly.
Magnesium	Important for parathyroid hormone release, muscle contraction, bone formation, blood pressure control. Deficiency occurs with malabsorption/alcoholism/kidney disorders and may result in lowered calcium and potassium levels.	Nuts, legumes, unmilled grains, beans, green leafy vegetables, avocados, bananas.	Trace element supplements can contain 100–500 mg. Higher doses (up to 1,000 mg) may also have benefit, but more data needed. Supplementation may be problematic if you have kidney trouble; first signs of excess are low blood pressure, nausea, and vomiting.
Manganese	Involved in the formation of bone, as well as in enzymes involved in amino acid, cholesterol, and carbohydrate metabolism.	Nuts, whole grain cereals, beans, rice, dried fruits, green leafy vegetables.	10 mg. Higher doses can interfere with iron absorption.

Molybdenum	Important in a variety of enzyme systems (e.g., oxidases). Mobilization of iron from storage, growth, and development.	Milk, beans, whole grain breads and cereals, nuts, legumes (depending on soil content).	75–250 mcg; it's not clear what the limit is but this is generally a safe and adequate range. A high incidence of goutlike syndrome has been associated with dietary intakes of 10–15 mg/day.
Phosphate	Bone health. See calcium entry. Maintains acid-base balance.	Don't supplement if you eat meat or drink sodas. Abundant in all animal foods: meat, fish, poultry, eggs, and milk.	500 mg. High consumption of phosphate may affect calcium levels.
Potassium (electrolyte)	Along with sodium and chloride, referred to as electrolytes. Maintains fluid balance, blood pressure, cell integrity, muscle contractions, and nerve impulse transmission. Sodium/potassium ratios out of balance result in muscle and heart weakness, diarrhea.	Fruits and juices (a banana has about 450 mg), green leafy vegetables, meats.	2,000 mg. High doses are used in people with kidney disease; excessive doses can be problematic.
Selenium	Antioxidant properties protect body tissues against oxidative damage caused by radiation, pollution, and normal body reactions. Promotes red blood cell health. Deficiency results in growth failure and hepatic necrosis.	Seafood, kidney, liver, selected grains. Keshan's syndrome occurs in regions with selenium-depleted soils.	600 mcg max; 200–400 mcg per day is probably more than enough; reduce dose if you get a "garlic" breath/taste.

(Continued)

Table 6.1

VITAMINS AND MINERALS (Continued)

NUTRIENT	FUNCTIONS IN THE BODY/BENEFITS	DIETARY SOURCES	MAXIMUM DAILY DOSE/ TOXICITIES
Zinc	Maintaining immune function; wound repair. Deficiency results in anorexia, growth retardation, lowered testosterone levels, hair loss, and impaired taste.	Meat, liver, eggs, seafood (oysters), whole grains (less absorbable).	40 mg. 50–150 mg is a maximum dose. Be sure to take copper if taking this amount and only under guidance of health care provider. High consumption of zinc may impair immune function.

IU = international units; mg = milligrams; mcg = micrograms; g = grams. (Note: 1,000 mg = 1 gram)

From *Vitamins and Minerals Chart*, by G. Carter, J. Curry, & A. Romanowski, 2002. Retrieved March 22, 2009, from <http://www.aegis.com/pubs/cria/2002/CRO20310.html>

Table 6.2

POPULAR HERBAL MEDICINES

HERB	CLINICAL APPLICATIONS	CONTRAINDICATIONS	SIDE EFFECTS	HERB-DRUG INTERACTIONS
Aloe	Topical ointment for minor burns and abrasions	Oral use can lead to abdominal cramps and diarrhea		May lower blood glucose levels if taken orally; use with caution with glucose-lowering medications
Asian gGinseng	Diabetes, immune system booster		Headaches, sleep and GI problems	May lower blood glucose levels if taken orally; use with caution with glucose-lowering medications
Astralagus	Immune system booster, may benefit heart function			May interact with medications that suppress the immune system
Black cohosh	PMS, menopause	First two trimesters of pregnancy; liver disorder	GI symptoms, headaches	May intensify side effects of synthetic estrogen
Cat's claw	Osteoarthritis and rheumatoid arthritis, stimulates part of the immune system	First two trimesters of pregnancy or while trying to become pregnant		
Chamomile	Peptic ulcers, skin irritations, colic, insomnia, nausea	Ragweed allergy		

(Continued)

Table 6.2

POPULAR HERBAL MEDICINES (Continued)

HERB	CLINICAL APPLICATIONS	CONTRAINDICATIONS	SIDE EFFECTS	HERB-DRUG INTERACTIONS
Chaste tree berry	PMS, breast pain, infertility	Pregnancy, taking birth control pills, breast cancer	GI problems, acne-like rashes, dizziness	Do not use with dopamine-related medications
Cranberry	Urinary tract infection prevention, dental plaque prevention			
Echinacea	Viral and bacterial illness, immune system booster		GI symptoms, allergic reactions	
European elder	Flu symptoms, sinus infections			Potentiates diuretics
European mistletoe	Cancer, immune system booster	Poisonous when eaten raw		
Evening primrose oil	Eczema, rheumatoid arthritis, breast pain, PMS	May trigger latent temporal lobe epilepsy, particularly in people with schizophrenia	GI symptoms, headache	Increases risk of temporal lobe epilepsy when used with epileptogenic drugs for schizophrenia
Fenugreek	Diabetes	Pregnancy		

Feverfew	Migraine, allergies, rheumatic diseases	Pregnancy, lactation, children under 2 years	GI symptoms, canker sores, swelling and irritation of the lips and tongue, loss of taste	May interact with antithrombotic drugs such as aspirin and warfarin
Flaxseed	Laxative, high cholesterol, hot flashes, osteoporosis, heart disease		Constipation	Lowers ability to absorb medications if taken at the same time as oral medication
Garlic	Atherosclerosis, cholesterol, blood pressure, cancer	Slow blood clotting, pregnancy, lactation	GI symptoms, burn-like skin lesions with topical preparation	Increases action of anticoagulant drugs; interferes with effectiveness of saquinavir, an HIV drug
Ginger	Pregnancy-related nausea and vomiting, motion sickness, rheumatoid arthritis, osteoarthritis, joint and muscle pain		GI symptoms	May interfere with immunosuppressants
Ginkgo	Intermittent claudication, dementia, Alzheimer's disease, asthma, multiple sclerosis	Ingesting the seed can cause severe adverse effects; the fruit should not be handled or ingested	GI symptoms	May interfere with MAO inhibitors

(Continued)

POPULAR HERBAL MEDICINES (Continued)

HERB	CLINICAL APPLICATIONS	CONTRAINDICATIONS	SIDE EFFECTS	HERB-DRUG INTERACTIONS
Ginseng	Ulcers, edema, cancer, infertility, fatigue, viral illness, red blood cell depletion	Acute illness, cardiovascular disease, diabetes or blood pressure disorders, pregnancy; surgery	Headache, nausea	May increase the effects of phenelzine (Nardil) or other antipsychotics; blood pressure, antidiabetic, or steroidal medications may increase bleeding risk
Goldenseal	Gastric inflammation, colds, flu, externally for lacerations, skin eruptions	Pregnancy, breast feeding, hypertension; long-term use of large amounts may lower B-vitamin absorption and utilization	Large doses may cause convulsions; long-term use may cause elevated white blood cell counts	May cause changes in the way the body processes drugs and could potentially increase the levels of many drugs
Grape seed extract	Antioxidant, prevention of breast and prostate cancers, neurodegenerative diseases		Headache; dry, itchy scalp; dizziness, nausea	
Green tea	Stomach ailments, chemotherapy, dental caries, cancer, obesity, high cholesterol, heart disease	Liver disorder	Large amounts can cause restlessness, tremor, heightened reflex excitability	Tea beverages may delay the resorption of alkaline medications; may make anticoagulant drugs less effective
Guarana	Stimulant		Large amounts can cause restlessness, tremor, heightened reflex excitability	

Hawthorn	Coronary artery disease, congestive heart failure, essential hypertension	Pregnancy, lactation; those using drug therapies for blood pressure disorders and other heart failure medications should be closely monitored	GI symptoms, headache	May increase effects of digitalis
Horse chestnut	Chronic venous insufficiency		Itching, nausea, GI upset	
Kava	Anxiety, stress, insomnia	Pregnancy, lactation, may cause liver damage— Warning issued regarding potential to cause severe liver damage	Skin rash, GI symptoms, dystonia	May potentiate effects of barbiturates or alcohol; may interact with Parkinson's drugs
Lavender	Anxiety, restlessness, insomnia, depression	May be poisonous if taken orally	Skin irritation	
Licorice root	Hepatitis C complications, stomach ulcers	Heart disease; hypertension	Hypertension, can affect body's level of cortisol	When taken with diuretics, could cause dangerously low potassium levels; may affect level of steroidal medications
Maca	Impotence, menopausal symptoms			
Milk thistle	Chronic hepatitis B, C, D, E; liver disorders; gallstones; skin problems	Alcohol-based extracts are not recommended for severe liver problems	Mild laxative effect	

(Continued)

Table 6.2

POPULAR HERBAL MEDICINES (Continued)

HERB	CLINICAL APPLICATIONS	CONTRAINDICATIONS	SIDE EFFECTS	HERB-DRUG INTERACTIONS
Noni	Antioxidant, immune system booster, cancer	Potassium-restricted diet; liver disease		
Peppermint oil	Irritable bowel syndrome, indigestion		GI upset	
SAM-e (S-adenosyl-methionine)	Depression, osteoarthritis, alcoholic liver disease		May trigger manic episode	May potentiate antidepressant medication
St. John's wort	Mild depression, anxiety, anorexia; topically, promotes wound healing	Pregnancy, lactation	GI symptoms, photosensitivity	May interact with L-dopa, MAO inhibitors
Saw palmetto	Stage I and II benign prostatic hypertrophy, female androgen excess disorders	Pregnancy, lactation	GI symptoms, headache	May interfere with hormonal therapies
Soy	Lowers LDL, hot flashes	Risk for breast or other hormone-sensitive condition	Minor stomach and bowel problems; may increase risk of endometrial hyperplasia	

Thunder God vine	Inflammation, immune system suppression, cancer, rheumatoid arthritis	Osteopenia, osteoporosis, male infertility	GI symptoms, hair loss, headache, menstrual changes, skin rash; decreases bone mineral density with long-term use; decreases sperm count
Valerian	Sleep disorders, anxiety, migraine, depression, headaches		May have paradoxical effect; headaches, dizziness, tiredness next morning May interfere with anxiolytics, hypnotics, analgesics, and antiepileptics; may enhance effects of kava and other herbs

From *A Physician's Reference to Botanical Medicines*, by Integrative Medicine Communications, 2000. Newton, MA: Author; "Systematic Reviews of Complementary Therapies—An Annotated Bibliography: Part 2. Herbal Medicine," By K. Linde, G. Reit, M. Hondras, A. Vickers, R. Saller, & D. Milchart, 2001. *BMC Complement Alternative Medicine*, 1(5) [Electronic version]. Retrieved February 10, 2002, from <http://www.biomedcentral.com/1472-6882/1/5>; and *The Use of Complementary and Alternative Medicine in the United States*, by NCCAM, 2004. Retrieved September 22, 2005, from <http://nccam.nih.gov/news/2004/052704.htm>

and leaf. The company claims it can be used to treat menstrual disorders as well as hormone imbalances.

According to Professor Varro E. Tyler from the Purdue School of Pharmacy, competition has caused two problems (Tyler, 2000). First, the market is being inundated with combination herbal products. If the combination of these products is not always necessary, it can lead to the second problem: confusion about which combination is best and why. It is important for clients, social workers, and other health professionals to understand that many of these multiple-herb preparations have not been formally tested; it is not clear what each product contributes and whether the combination of ingredients is as beneficial as advertised. Without quality standards to monitor the production of herbal medicinal products, it is impossible to tell why an herb does or does not do what is expected. The product's failure to provide relief may not be directly related to the use of the herb but rather to a poor manufacturing process (Awang, 2009).

Most herbal products are exempt from federal regulation because they are not considered medications. Advertising a product as a medication allows the FDA to monitor and evaluate its production, and many manufacturers are careful to refer to their herbal products as dietary supplements to avoid this. Unfortunately, avoiding government regulation can lead to confusion, misinformation, and adverse reactions (Gupta, 2008). And because there are no product standardization requirements, there are no assurances the product's ingredients are active. No professional regulating body has examined these preparations in terms of bioavailability and efficacy, nor is any testing required in terms of combining herbal preparations with OTC and prescription drugs. Based on this limited monitoring and regulation, it is clear the consumer *must* beware.

Furthermore, pharmaceutical companies make big profits producing and selling traditional medications. To prevent increased competition from herbal manufacturers, prescription and OTC manufacturers can encourage roadblocks in the production of these compounds (Barrett, 1998). For example, if a dietary supplement such as the red yeast grown in China could actually reduce cholesterol, it would steal interest and market share from prescription medications (Barrett). Traditional manufacturers have begun to feel this pressure. Even the FDA has gotten involved. Copulos (2001) commented, "While the FDA might fight like a lion when dietary supplements are the issue, when multinational pharmaceutical companies are involved, the agency is as timid as a lamb" (Copulos, p. 2).

Probably the single largest concern for social workers whose clients are taking herbal preparations is the lack of formal regulation. Adequate controls are necessary to decrease the possibility of toxic reactions. Negative effects from using an herbal preparation or supplement will not be discovered until well after the product is on the market and numerous individuals have used it. The lack of clear rules to ensure standardization allows for product variation, and clients can experience diverse reactions. Furthermore, without controlled studies there is no way to know who is taking a product, its relative potency, and, without a professional evaluation, whether a client even had the problem the remedy was designed to help.

Lack of extended monitoring and regulation can also lead to limited standardization in terms of harvesting, processing, and packaging. The rise in the popularity of supplements has put pressure on manufacturers to increase their supply of herbal extracts. The Dietary Supplement Health and Education Act of 1994 allowed the FDA to ensure that label information on supplements is truthful. The FDA can also take action against a supplement found to be unsafe after it is on the market. Therefore, manufacturers are expected to certify that their products contain active ingredients, which means “the producer has verified that the active ingredient in the herb is present in the preparation and that the potency and the amount of the active ingredient is assured” (“Herbal Drugs: Medicines or Food Supplements?” 2000, p. 1). So when a product is first produced, the manufacturer verifies it is active. Ensuring that the ingredients stay active, however, is also essential. For example, when baking bread from scratch, the bread will not rise if the yeast is not active. Applying the same principle to herbal preparations means that ingredients that lose their potency will not yield the same results. Without ongoing monitoring, there is no obligation to ensure a product stays active or that the packaging is sufficient to maintain the active ingredients at a therapeutic level (NCCAM, 2008). This can be a particular problem when substances are bought in bulk or remain in stores for an extended period.

This lack of regulation can also lead to products of poor quality. In the past, the FDA reported that some imported herbal products contained by-products or trace metals that are harmful when ingested. Ingesting lead, for example, can cause lead poisoning or toxic reactions that might not be easily traced to the contaminated herbal product (“Herbal Drugs: Medicines or Food Supplements?” 2000). The FDA has already established harmful links to products such as ephedra, comfrey, chaparral, licorice, pennyroyal, sassafras, and senna, just to name a few (Saper et al., 2008).

In addition, American Chemical Society researchers found variations in *Ginkgo biloba* herbal products. In the U.S. market, the products these researchers tested “contained only trace amounts of active ingredients—ginkgolides and bilobalide—and the rest was made up of other compounds” (“Herbal Drugs: Medicines or Food Supplements?” 2000, p. 2). Clearly, consumers of these products need to be aware of their efficacy and potential adverse effects, as well as the fact that the labels may not accurately reflect the true contents.

As interest in herbal products continues to grow, so do reports of fraudulent health care claims. Consumers have a deep desire to find cures for their ailments and improve their well-being and may be taken in by magazine ads and TV infomercials. The FDA describes health fraud as “articles of unproven effectiveness that are promoted to improve health, well-being, or appearance, and these articles can be drugs, devices, foods, or cosmetics for human or animal use” (Kurtzweil, 1999, p. 22). Social workers need to help clients be objective consumers.

CASE STUDY: SAM-e

Earlier in this chapter, we presented a case where a client was excited about her use of a substance called SAM-e. The way this product is processed in the body demonstrates how supplements can be utilized to support naturally occurring biological functions. SAM-e (known formally as S-adenosylmethionine) is not an herb or hormone. It is a coenzyme present in all living cells. Healthy bodies produce it on a regular basis. Among other things, it helps regulate the actions of various hormones and neurotransmitters, including those related to mental health, such as serotonin, dopamine, and adrenaline (discussed in chapter 2). It also has been noted to assist in treating arthritis and liver disease (WebMD, 2007). As we get older, SAM-e levels decrease. (Children have about seven times as much SAM-e as adults.) Our bodies make SAM-e naturally from methionine, an amino acid found in protein-rich foods. By eating well, an individual can produce healthy levels of SAM-e without taking a supplement. Even though we are not sure exactly how the process works, some researchers suggest SAM-e can indeed help prevent depression (Heusel, 2000). Its action is similar to that of St. John’s wort.

What most people do not realize, however, is that because SAM-e acts in the same way as newer antidepressants (which will be discussed in chapter 8), users of SAM-e should take the same precautions. For

example, by decreasing depressive mood, SAM-e might actually trigger a manic episode or increase the risk of suicide as depression lifts. Aside from these concerns, the most serious side effect documented so far is stomach upset.

Research on the effectiveness of SAM-e is limited. Currently, however, the National Center for Complementary and Alternative Medicine is conducting a study on the efficacy of SAM-e on depression in people with Parkinson's disease. Conventional antidepressants can exacerbate the motor symptoms experienced by people with Parkinson's; it is hoped that SAM-e may be an effective treatment for depression without side effects in this population (NCCAM, 2008).

In addition, SAM-e varies dramatically in price depending on the brand one buys. The minimal regulation of active ingredient standardization leaves the consumer little to go on.

As social workers, probably the most important thing is to advise clients who are interested in taking this substance to read up on the latest research and consult with their health care provider about their individual needs.

CAM AND MENTAL ILLNESS

There are many herbal or alternative supplements that claim to improve or treat mental health conditions. Here are some of the more common:

- SAM-e, as discussed previously, has not been found to be clinically efficacious (Agency for Healthcare Research and Quality, 2001), although tests are ongoing. Some researchers caution against using SAM-e for major depression, as it may have the potential to induce mania (Andreescu, Mulsant, & Emanuel, 2008).
- *St. John's wort* has been found to have some effect on mild depression but little on severe depression (NCCAM, 2007). Like SAM-e, it may have the potential to induce mania (Andreescu, Mulsant, & Emanuel, 2008).
- Andreescu, Mulsant, and Emanuel (2008) found that *omega-3 fatty acids* did not aid in symptom relief for patients with bipolar disorder. A report by Schachter, Merali, Lumb, Tran, and Miguelez (2005) determined that omega-3 fatty acids showed promise in the treatment and prevention of both depression and schizophrenia.

- Mixed results have been reported regarding *ginseng*'s ability to enhance psychological well-being. In addition, it can potentiate the effects of MAO inhibitors (a category of antidepressant drugs), stimulants, and haloperidol (a medication used to treat psychotic symptoms). It may also interact with warfarin, a medicine used to inhibit clotting (Vermani, Milosevic, Smith, & Katzman, 2005).
- *Evening primrose oil* was thought to help ameliorate the symptoms of PMS (premenstrual syndrome) and PMDD (premenstrual dysphoric disorder), but studies have not borne out this premise (Vermani et al., 2005).
- At one time, *kava* (also referred to as kava-kava) was used to treat anxiety, but it was found to cause serious liver toxicity (NCCAM, 2002) and the FDA issued a consumer alert. The National Center for Complementary and Alternative Medicine suspended its study of kava following the FDA announcement (NCCAM, 2009b).
- The effects of *valerian* on insomnia and anxiety have been studied, but results have been equivocal (Vermani et al., 2005).
- Clinically significant improvement in symptoms of dementia have been reported in some small studies of *ginkgo* (Vermani et al., 2005). However, larger trials undertaken by the National Center for Complementary and Alternative Medicine have not validated these findings (NCCAM, 2009c).

The Substance Abuse and Mental Health Services Administration (2003) published a listing of alternative approaches to mental health care. They included a discussion of culturally based healing arts, which involved acupuncture; Ayurvedic medicine; yoga/meditation; Native American traditional practices, such as ceremonial dances, chants, and sweat lodges; and cuentos, a narrative form of therapy from Puerto Rico. Relaxation and stress-reduction techniques, such as biofeedback, guided imagery, and massage therapy, were all found to aid in the treatment of anxiety and depression.

SOCIAL WORK AND CAM

Social workers are in a unique position to aid clients in their use of complementary and alternative medicine. Homeopathic medicine involves the whole person; it considers the emotional, mental, and physical symptoms and matches them to the needs of a particular client (Lennihan,

2004). This approach is congruent with social work, since understanding the whole person is central to providing comprehensive care. Social workers can help clients explore their preferences by fostering decision making and facilitating discussions with health care professionals. Social workers are also cognizant of the cultural, religious, ethnic, and racial factors that influence individual beliefs and the folk practices used by certain ethnic groups for self-treatment.

As part of standard practice, social workers assess their clients' capacity to advocate for themselves. If a patient is unable to do so, social workers in health care settings are in a unique position to advocate on the patient's behalf. Social workers can also teach other health care providers on the team about CAM and provide resources for CAM information and how to communicate with patients. Before undertaking any of these tasks, however, social workers need to examine their own biases and experiences with traditional approaches to mainstream Western medicine as well as the complementary or more homeopathic health practices and educate themselves about the various alternative treatment modalities.

Runfola, Levine, and Sherman (2006, p. 93) discussed the steps social workers can take as they explore CAM with their clients.

To help patients make decisions, the social worker's task is sixfold:

1. Conduct a psychosocial assessment of the patient's support systems, ability to communicate and make decisions, illness and treatment experience, and relevant life experience.
2. Lay the groundwork for decision making through helping the patient gather information, become aware of his or her rights, and learn communication skills.
3. Elicit questions from patients about CAM and determine its use.
4. Explore the benefits and risks of CAM with patients.
5. Help patients talk with practitioners and ask questions about both conventional treatment and CAM.
6. Help other health care professionals understand and communicate with patients about CAM.

Social workers whose clients do explore alternative therapies should encourage them to utilize practitioners who are licensed or certified. Also, health concerns and the use of supplements and treatments should always be discussed with a medically trained provider familiar with the individual's medical as well as mental health concerns.

SUMMARY AND CONCLUSIONS

The number of individuals using alternative therapies appears to be rising (Cary, 1998). One particularly frightening factor, however, is that some of those using alternative treatments and herbal preparations are using conventional medicine concurrently without a physician's knowledge. A client's poor communication can make it difficult for the social worker to assess his or her needs. The lack of unsupervised care can complicate treatment regimens, putting the client at significant risk for unanticipated interactions and synergistic effects.

Many traditionally trained physicians lack any formal training in alternative medicines. A University of Mississippi study revealed that 60% of the retail pharmacists interviewed learned about herbal medicines from their patients, and only 25% had encountered them during their professional schooling (Kroll, 1997). Many times clients are expected to educate professionals about the herbal medications they are taking and why they are taking them, despite the lack of controls and conflicting, ambiguous information they may have received. If professionals are having trouble sorting it all out, how can clients be expected to?

Many clients desire more effective, less troublesome treatments for chronic or terminal conditions, especially when conventional therapies have fallen short. They want a chance to try something different in addition to their traditional treatment. However, not all alternative treatments provide an answer for everyone. Alternative treatments can also have potentially negative side effects or outcomes depending on the seriousness of the illness.

There is a growing movement to integrate alternative and conventional care. In the meantime, combining herbs and other supplements with prescription drugs can have unpleasant and even hazardous consequences. It is important for social workers to encourage their clients to inform health and mental health care providers of all natural remedies they are taking. The social worker should also encourage his or her clients to make informed decisions in terms of what is best for them. Clients do not have to accept and automatically commit to a traditional medical approach (Seligson, 1998).

Social workers should assist and encourage clients to seek information allowing them to make informed choices. If health care providers seem resistant to a method of intervention, encourage clients to ask the providers to explain their reasoning. By understanding potential reluctance within the mainstream medical community to discuss the use of

natural remedies, social workers can help clients prepare for such discussions by role-playing to decide what to say and how best to say it.

Effective, efficient, and comprehensive helping relationships require social workers to recognize other treatments that could potentially be more effective for their clients. Alternative forms of intervention can also serve as preventive measures to ensure a client's well-being. Social workers can assist comprehensive care by providing stress management strategies, relaxation techniques, and psychosocial interventions that can be incorporated into alternative therapies. Keeping abreast of all forms of treatment is important to provide the best possible care.

ADDITIONAL RESOURCES FOR COMPLEMENTARY AND ALTERNATIVE MEDICINE

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7

Medications for Children and Older Adults: Specific Concerns

SOPHIA F. DZIEGIELEWSKI AND GEORGE JACINTO

The previous chapters in this book provide an overview of what social workers need to know regarding medications and supplements. In this chapter, the authors draw attention to the unique characteristics presented by two special populations that frequently receive psychotropic medications—children and older people. These two groups represent opposite ends of the developmental continuum and as such present unique challenges for professionals who prescribe medications intended to improve mental health.

Although medication concerns and considerations identified throughout this book apply to all client populations, the distinctive biological and physiological processes of children and older adults warrant a closer examination of the impact medications can have. This chapter is intended to sensitize social work practitioners to the unique considerations frequently encountered with these populations and to highlight the importance of combining medication therapy with counseling when addressing the mental health needs of children and older clients.

PROVIDING COMPREHENSIVE CARE TO CHILDREN AND ADOLESCENTS

Beginning in the late 1980s and early 1990s, mental health professionals acknowledged a need for increased research into the mental health needs of children and adolescents as well as their access to mental health services. The National Plan for Research on Child and Adolescent Mental Disorders (National Institute of Mental Health [NIMH], 1990) actively encouraged the development of research grants to study mental health service delivery among this population. In 1992, the Comprehensive Community Mental Health Services Program for Children and Their Families was founded to develop a base of knowledge on effective mental health strategies. Researchers and clinicians who work with children and adolescents have provided more information on effective mental health strategies to use (Ruffolo, 1998).

Today, health and mental health funding has been applied to research focusing on effective evidence-based practices. For example, the MacArthur Foundation Child System and Treatment Enhancement Projects (Child STEPs) has funded studies that identified “leverage points for, and barriers to, the adoption and implementation of evidence-based practices” in children’s mental health services (Schoenwald, Kelleher, & Weisz, 2008, p. 66). Despite this increased attention, there is still much to be learned about mental health problems, effective counseling strategies, and patterns of medication use for children and adolescents. The fact remains, however, that more than half of the prescription drugs likely to be prescribed to children have not been adequately tested or labeled for this type of use (NIMH, 2009a).

Social work professionals must consider many factors when providing clinical services to children and adolescents. Since children and adolescents are deemed vulnerable populations, special attention to protect them in both clinical practice and research is warranted (Spetie & Arnold, 2007). In working with children, it is of paramount importance to include the parent in each stage of the intervention process. Parental perceptions of the illness process in their child may be helpful or may obstruct the child’s treatment. Adherences to medication dosing directions are affected by parental beliefs regarding the efficacy of the medication prescribed (Hack & Chow, 2001). Since the child must rely on the parent or guardian to provide the medication and encourage him or her to take it as prescribed, understanding the parent–child relationship is of utmost importance when working with children and their families. Gau,

Shen, Chou, Tang, Chiu, and Gau (2006) reported that tense parent–child interactions, if not properly addressed, can result in poor compliance with physician-ordered medication use.

In addition, the child's parents or guardians generally determine treatment issues such as the duration of treatment and medication intervention. Therefore, parents or primary caretakers strongly influence the mental health process; this influence begins during the assessment phase and continues through the termination phase. Parents who do not fully understand or accept the value of counseling and medication therapy can change or terminate these strategies, so it is essential that social workers include the parents or caregivers in the child's treatment from the beginning. This becomes especially important when practitioners identify resistance to treatment by the child or the parents. For example, if a child's family is not supportive of mental health treatment, the child learns not to ask for help (Dziegielewski, Leon, & Green, 1998). Oftentimes, compliance issues emerge in relation to the parents' own perceptions of a medication or fears related to the potential for addiction in the child.

Adherence in the use of prescribed medication is further complicated by language barriers and cultural beliefs regarding medication (Flores, Abreu, Olivar, & Kastner, 1998). Shah and Dalal (1989) reported that factors within the community in which the child lives, such as the father's occupation, the type of medication, and the levels of negligence and poverty, were significant factors in medication compliance. In addition, cultural understandings of illness and its treatment can also complicate treatment plans. Another issue in medication adherence is the language barrier. Children may be misdiagnosed if the prescribing physician does not speak or understand the primary language of the child's family, and medications may be misused if the child's parents do not understand the directions.

Parental perceptions and contributions to care, as well as cultural factors that influence treatment, can be magnified when combined with other family issues and general life stressors. For example, divorce and family readjustments can clearly interfere with any treatment strategy. Johnston, Roseby, and Kuehnle (2009) examined the effects of divorce and family readjustment on young children through adolescence and the short- and long-term effects on the child's development.

Family changes and stressors add to what children and adolescents—already presenting with a rich, complex, and evolving biopsychosocial picture—experience. This makes it essential for all professionals to

recognize that these clients are an ongoing “work-in-progress” (McAdoo, 1997). Children are continuously developing and learning to understand their minds, bodies, emotions, and social patterns. Factors that complicate child development are ongoing or past trauma including childhood maltreatment; peer influences on the child’s perception of self and the child’s behavior in response to such influences; and other environmental aspects, such as unintentional injury, that affect the child’s perception of self or social functioning (Faust & Stewart, 2008; Schwebel & Gaines, 2007; Zielinski & Bradshaw, 2006). Aggression, shyness, and a combination of low self-esteem and poor concentration are just some frequently seen behaviors (Harper-Dorton & Herbert, 1999).

Children should have opportunities to develop the coping skills required for adjustment and adaptation to the world around them. Many normal behaviors that reflect conflict, lack of control, and opposition patterns may be mistaken for psychopathology by parents, school systems, and mental health professionals (Maxmen & Ward, 1995). Roemmelt (1998) warned that addressing these behaviors by depending primarily on medications can disguise what the child is really experiencing and give parents and professionals a false sense of control that limits normal childhood development. Woolston (1999) also warned of the dangers of only using psychopharmacology to address a child’s problems. It is therefore imperative that social workers tread cautiously when assessing and treating the problems and disorders presented by children and adolescents and utilize a team approach involving other providers and the family system.

ASSESSING CHILDREN AND ADOLESCENTS

Historically, social workers in clinical practice use various self-report or rapid assessment instruments (REIs) and other diagnostic tools on children. LeCroy and Okamoto (2009) believe the most critical aspects of conducting any child assessment are getting information from the child directly and seeking information from other sources in the child’s environment. Also, some researchers have attempted to compare the therapeutic effectiveness of studies with children and adolescents to adult-focused studies (Shapiro, Friedberg, & Bardenstein, 2006). Shapiro and colleagues acknowledged that although clear differences exist between children and adults, these comparisons allow the inclusion of larger studies involving both populations. As these authors state, “systematic effects of the measurements of well-defined treatments seems to

provide an objective method for determining which strategies are most effective for youth especially when compared to . . . subjective judgment that goes by the name *clinical reasoning*" (Shapiro, Friedberg, & Bardenstein, p. 257).

The number of child-focused assessment and diagnostic instruments continues to grow and contribute to better evidence-based approaches. Shapiro, Friedberg, and Bardenstein (2006, pp. 245–246) compare these techniques to a "palette of colors that clinicians select, combine, and blend to paint their pictures of therapy with individual clients." It is beyond the scope of this book to present criteria for using specific measurement instruments with children, but several texts are available that provide more information in this area. (See Grigorenko, 2009, for multicultural psychoeducational assessment strategy, and Shapiro, Friedberg, & Bardenstein for general mental health assessment with children and adolescents.)

Social workers can record and interpret the symptoms presented by children and can take note of environmental circumstances and how they influence the treatment process. To facilitate a comprehensive assessment, social workers must be aware of these types of instruments and aid in the interpretation process throughout the helping relationship.

The increase of time pressures—and the emphasis on rapid assessment and treatment—has forced social workers to shorten the length of biopsychosocial assessments to include only salient information on the child's past and current mental health functioning. This makes the assessment critical and forces practitioners to identify the significant aspects of the child's presenting problems and the specific behaviors and circumstances of his or her impaired functioning.

Another significant factor in the assessment and treatment of children and adolescents is the importance of information from collateral contacts, which include parents, the school system, the community, and other informants who can provide vital information pertaining to the child's difficulties and the impact of treatment and medication. This necessitates eliciting and incorporating feedback from these individuals in order to complete a comprehensive assessment of the child in his or her current environment (LeCroy & Okamoto, 2009). Lastly, to provide a comprehensive assessment it is important to assess parents' knowledge and expectations of what constitutes "normal" behavior for a child of their child's age. Some parents may not understand what is considered normal development or behavior for a specific age, which may complicate their own expectations and any reported treatment gains (Wodarski & Dziegielewska, 2002).

To facilitate an accurate and complete assessment of the child's behaviors, social workers need to record specific and behavior-focused information about the following: (a) the problem presented by the child; (b) behaviors that demonstrate the problem; (c) the intensity, frequency, duration, and specific environmental circumstances accompanying the problem; (d) areas affected by the problem; (e) previous coping skills and problem-solving methods used; (f) any previous and current medication and counseling interventions prescribed; and (g) cultural factors affecting treatment compliance (Dziegielewski, 2002).

It has become increasingly important for social workers and other helping professionals who work with children to become aware of the behavioral, cognitive, and physiological effects medications can have on children. Social workers, particularly those in school or clinical settings, are frequently expected to assist children who are taking medications. These social workers will be expected to consult with other professionals and help make decisions about the use of medications or the modification of current treatment schemes.

Gardner, Pajer, Kelleher, Scholle, and Wasserman (2002) reported that gender can also influence assessment and treatment. These researchers reported substantial gender differences in the way primary care professionals diagnose and treat mental disorders in children and adolescents. For example, girls with ADHD are more likely to present the inattentive symptoms of the disorder, while boys more often display overt learning and behavioral impairments that cause them to engage in disruptive classroom behavior. Since boys have more obvious symptoms, they are more readily diagnosed with conduct disorder and oppositional defiant disorder. Therefore, girls may experience gender-based referral biases based on their lack of overt functional impairment even though both genders require the same type of treatment. This lack of recognition could adversely affect girls who suffer from ADHD (Biederman et al., 2002).

Mental health professionals should be careful about making general assumptions based on adult guidelines and should take gender into account in terms of how a child or adolescent presents in the clinical setting. Multiple factors can contribute to differences in symptoms and presenting problems between children, adolescents, and adults in the manifestation of psychological and emotional difficulties. A comprehensive assessment needs to include significant information on the specific behavioral, emotional, and psychological problems presented by children. The accuracy of this information will help the social worker, the health care team, and the medication prescriber to determine the nature

of the child's mental disorder and whether medication therapy is indeed warranted.

USING THE *DSM-IV-TR*

The *Diagnostic and Statistical Manual for Mental Disorders*, Fourth Edition, Text Revision* (*DSM-IV-TR*) is an important assessment tool used by social work practitioners. It includes certain diagnostic categories applicable to children and others that should be used with caution. There are some developmental differences that prevent the use of certain diagnostic codes with children (American Psychiatric Association [APA], 2000). Goldman (1998) proposes a quick and practical schema that allows the practitioner to apply *DSM-IV-TR* diagnoses to children. He proposes that the clinician first confirm the full criteria in the *DSM-IV-TR* and then apply the following questions:

- *Where is the problem located?* Distinguish between problems generated within the child, such as ADHD, and environmental issues (APA, 2000), such as relationship problems with parents, siblings, peers, or adults in authority; problems related to abuse or neglect; or other conditions such as antisocial behavior, academic problems, identity problems, acculturation problems, phase of life problems, or school-related difficulties.
- *Is the child's problem a reaction to a specific and identifiable stressor?* This helps the social worker rule out or defer adjustment disorders and posttraumatic stress disorders.
- *What are the basic areas affected and impaired by the problem?* Goldman suggests the clinician should distinguish between behavioral, mood, and dissociative disorders when answering this question.
- *Are the symptoms reflective of long-standing difficulties?* In these cases, the practitioner is probably observing disorders reflective of *DSM-IV-TR* Axis II and the personality disorders, which are usually diagnosed in young adults (approximately 21 years or older). These personality disorders often originate in childhood or adolescence and, when officially diagnosed in young adulthood,

* Because the next major revision of the *Diagnostic and Statistical Manual* will not appear until 2012 (approximately 18 years after *DSM-IV* was published in 1994), a text revision of *DSM-IV* was published in 2000.

can continue to interfere with a person's social and occupational functioning (Dziegielewski, 2002).

The lack of culturally competent services can complicate treatment for those who seek mental health support within the context of their family, cultural beliefs, and community (Pumariega, Rogers, & Rothe, 2005). Johnson (1998) identifies various steps clinicians can take in order to use the *DSM-IV* more effectively with minority children. He emphasizes that cultural and ethnic factors can influence the manifestation of symptoms in children similar to the way they affect adults; clinicians should identify and understand how the child has acculturated to his or her environment and to mainstream society, assess how acculturation and racial issues are reflected in symptom formation, and utilize the appendix of culturally bound syndromes provided by the *DSM-IV*.

Culturally bound syndrome identifies any recurrent, aberrant behavior that is locality-specific and not included in Western diagnostic nosology (Smith & Hughes, 1993). Culturally bound syndromes are extreme forms of cultural expression that may be perceived as dysfunctional by individuals who are outside the cultural context (Leon & Dziegielewski, 1999). Two examples of culturally bound syndromes identified in children are brain fag (APA, 2000, p. 900) and *mal de ojo*, or evil eye (APA, p. 901). According to the *DSM-IV-TR*, brain fag is a syndrome found among West African adolescents who react to school pressures. The symptoms are primarily somatic in nature and include blurred vision, neck and head pain, difficulty concentrating, and an overall sense of "brain tiredness." *Mal de ojo*, or the evil eye, is a syndrome affecting many children in Caribbean and Mediterranean cultures. The belief is that, due to their physical and psychological vulnerabilities, children and infants are at high risk or serve as receptacles for evil thoughts or wishes intended for adult members of the family. Symptoms in this syndrome include disruptive sleep, crying without cause, vomiting, diarrhea, or fevers.

Children do not operate in a vacuum and frequently reflect the belief systems and perceptions of their parents and social environments (Canino & Spurlock, 1994). Ethnic and cultural expectations and the resulting treatment effects can be influenced by pill sizes, shapes, and colors as well as other family-related belief systems and practices (Thorens, Gex-Fabry, Zullino, & Eytan, 2008). Clinicians working with this population must be aware of and incorporate the cultural issues and perceptions of medication use that influence the course of counseling among ethnic and minority children (Dziegielewski, Leon, & Green,

1998). Dziegielewski and colleagues illustrate this when they asserted that African American children may learn it is not culturally acceptable to seek mental health assistance from formal institutions and professionals outside the family or culture.

CHILDREN, ADOLESCENTS, AND MEDICATION

Children and adolescents who present with mental disorders typically require both counseling and medication interventions. Unique to this population is the interaction between the child, the family system, and additional components in the child's environment (e.g., the school system). Medication should not be prescribed without the ongoing support and combination of various interventions, including family therapy, parent-child work, and marital counseling (Boyd-Webb, 1991). Even when medication is effective and alleviates the presenting symptoms, children must be helped to understand their difficulties and be equipped with coping skills to address difficulties that may arise in the future.

Medication prescribers also must be certain the medication given is indicated by the needs of the client and supported by an accurate diagnosis, thereby avoiding any intention to prescribe it to simply appease parents or the school system. This requires a thorough assessment that takes into account an interview with the child and an examination of the child's behaviors in the home, school, and community (LeCroy & Okamoto, 2009).

In clinical practice, many social workers would agree it is not uncommon to encounter parents and teachers who complain about a child's behavior and request medication as the first line of intervention for behavior modification. In these cases, the social worker's role as an educator comes into play. It is important to note there are a number of causes of childhood mental disorders, including biological factors such as genetic predisposition, chemical imbalance, or central nervous system disorders and environmental factors including physical and sexual abuse, violence to self or others, poverty, discrimination, exposure to toxic materials, and the loss of significant people (SAMHSA, n.d.). It is essential that the social worker provides information regarding the nature of the child's problems and stresses the importance of integrating multiple interventions to affect the child's behavior.

Because a child's emotional and physiological response to medication can vary, many mental health providers who prescribe medications

to children do so in a cautious and conservative manner (Vitiello, 2001). In the debate over granting limited prescription privileges to psychologists, Kubiszyn (1994) revealed there is little empirical research to illustrate the efficacy of pediatric psychopharmacology. Others reported that the majority of medication prescribers for child and adolescent clients tend to be nonpsychiatric physicians (Baldessarini, 1990; Barkley et al., 1990; Gardner et al., 2002). Primarily general practitioners, they are not specifically trained to deal with children and often have limited knowledge of child development and psychopharmacology.

Rushton, Clark, and Freed (2000) found that the type of nonspecialist physician seen by a child predicted the treatment types offered. These authors reported that physicians often refer the child to a specialist. Similarly, they found that 42% of family physicians had prescribed an antidepressant to at least one child in the last 6 months, compared to 25% of pediatricians. Clearly, these prescribing patterns provide grounds for further investigation. In fact, 80% to 90% of children in hospital or residential settings are on at least one medication, with almost 50% on two or more (Lyons, 2000).

Antidepressant medications raise special concerns. Due to an increase in suicide rates for children and adolescents in the United States between 2003 and 2004 (Lineberry, Bostwick, Beebe, & Decker, 2007), the FDA took action regarding antidepressant use with this population. In October 2004, the FDA required a black box warning on all antidepressants sold in the United States. Lineberry and colleagues reported that, as a result, 82% of generalists indicated they had decreased or stopped prescribing antidepressants to children and adolescents. The authors speculated that this reduced usage of antidepressants might have increased youth suicide rates. According to these authors, the FDA warning may have brought about unintended consequences since some of the children and adolescents who could have benefited from antidepressants were not prescribed medication. In addition, 26% of generalists stated they increased their referrals to psychiatrists or other mental health professionals for consultation (Lineberry et al.). Libby, Orton, and Valuck (2009) stated that this slowdown in prescribing appears to be spilling over into adult patients who were not the intended targets of the warnings. They do report, however, that the use of psychotherapy to address depression symptoms seems to be rising for adults, though not for children.

A study of generalist physicians in office-based practice revealed that less than 1 in 10 stated they had adequate training in the treatment

of childhood depression (Goodwin, Gould, Blanco, & Olfson, 2001). The development and delivery of additional medical school curriculum in child and adolescent mental disorders for generalist and family practitioners would increase treatment outcome efficacy for this group of clients (Goodwin et al.).

Very few medications given to children are approved directly for them and many are prescribed off-label (Cuzzolin, Zaccaron, & Fanos, 2003). Many medications are not approved by the FDA for use in children. There may be multiple reasons for this, including the time and expense involved in obtaining this type of approval (Wood, 2006). For this reason, many medications do not provide any information about usage with children. Absence of this information, however, does not mean the medication is dangerous or does not work (Dulcan, 2006). It does mean particular attention must be given to assessment and reassessment and to any side effects reported by the child, parents, schoolteachers, and others who come in regular contact with the child.

Finding the best and safest medication for a child is further complicated by the fact that a child's response to medication can vary. This makes it central that the prescriber does not ascertain information based on adult symptoms and doses. Social work professionals dealing with children and adolescents who take medications should be trained on issues related to child development, child psychopathology, and child psychopharmacology. This is especially true in the case of pediatric pharmacology, where it is clearly not appropriate to prescribe medications using adult guidelines and patterns. Vitiello (2001) reported there are three main factors involved with the use of psychotropics with children under the age of 6: (a) the diagnostic ambiguity associated with psychopathology at such a young age; (b) lack of instrumentation to detect changes resulting from treatment; and (c) current psychotropics prescribed for children under the age of 6 have not been adequately studied.

Social workers should take active measures to educate themselves about medications appropriate for childhood disorders. They should also assist children and their families in understanding the nature of the child's illness, the side effects of medications, and the efficacy of combining medication and psychosocial interventions; these elements all require a working understanding of the mental disorders commonly presented by children. The following section will provide a sampling of some *DSM-IV-TR* diagnoses frequently identified in children and will highlight the medications commonly used to treat these disorders. It is important to keep in mind that each child may respond differently to

medications and may vary in terms of the presenting problem and the resulting combination of medical and psychological problems (Dulcan, 2006). Dealing with children and the medications they take is an ongoing process of constant reassessment and evaluation.

ATTENTION DEFICIT HYPERACTIVITY DISORDER AND MEDICATIONS

Attention deficit hyperactivity disorder (ADHD) is defined in the *DSM-IV-TR* (p. 85) as “a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequently displayed and more severe than is typically observed in individuals at a comparable level of development (Criterion A).” Although many children are referred to health and mental health facilities for ADHD-like symptoms, only 3% to 7% of school-age children are actually affected by the disorder (APA, 2000). Biederman (2003) estimates the incidence of ADHD is slightly higher (4%–12% of school-age children, as compared to 2–4% of adults) and states it is the most common neurobehavioral disorder in children. Since ADHD can originate in childhood and continue into adulthood, pharmacological treatments for both children and adults are the treatment of choice (Adler et al., 2009).

Froehlich and colleagues (2007) reported that poor children are more likely than wealthy children to meet the criteria for ADHD yet less likely to receive expected medication treatment. They also reported girls are less likely than boys to be diagnosed with ADHD even though they meet the *DSM-IV-TR* criteria (see the discussion about gender differences earlier in this chapter).

Children with ADHD present with many different types of symptoms, most of which are behavioral and cognitive in nature. According to Anastopoulos (1999), the clinical picture of ADHD is blurred by the following factors: (a) the wide range of assessment instruments with varying levels of reliability and validity; (b) the fluctuation of ADHD symptoms dependent on specific situations; (c) the amount of structure provided in each situation; (d) the existence of comorbid conditions such as conduct disorders and learning disabilities; and (e) changes in living situations as well as parenting methods and styles.

The two types of medications most commonly used to treat ADHD include stimulants and antidepressants, which address the neurochemical imbalances thought to precipitate the symptoms of ADHD (Anas-

topoulos, 1999; Greydanus, Nazeer, & Patel, 2009). Stimulants, which include Ritalin (methylphenidate) and Dexedrine (d-amphetamine), are the most commonly used and have the best evidence-based support for the management of ADHD (Greydanus, Nazeer, & Patel). Antidepressants are generally considered second-line treatments.

Stimulants help children pay attention, stay calm, and follow instructions. For simplicity, it is easiest to classify stimulant medications into three areas: traditional short- and intermediate-acting stimulants, long-acting stimulants, and nonstimulants.

The short- and intermediate-acting stimulants, such as Ritalin, are administered two to three times a day (Biederman, 2003). The effects of Ritalin generally last from 3 to 7 hours (Anastopoulos, 1999). This medication is available in tablet and capsule form and can be purchased in doses of 5, 10, or 15 mg. When used to treat ADHD, Ritalin and other stimulants need to be taken on a regular basis, and the prescriber should be contacted before the medication is adjusted (Kent, Blader, Koplewicz, Abikoff, & Foley, 1995). See Figure 7.1 for most common stimulant short-acting forms.

Figure 7.1

STIMULANT SHORT-ACTING FORMS

- Ritalin (methylphenidate HCL)
- Ritalin SR
- Methylin Chewable Tablet and Oral Solution
- Metadate ER
- Methylin ER
- Focalin
- Dexedrine (dextroamphetamine sulfate)
- Dextrostat
- Adderall
- Adderall (generic)
- Dexedrine Spansules

Source: Medication list gathered and summarized from *The Pill Book* (13th ed.), by H. M. Silverman, 2008. New York: Bantam Books/Random House.

Recent advances have brought forth newer, longer-acting stimulants, which are often the first line of treatment. These long-acting stimulants generally have a duration of approximately 8–12 hours and can be used once a day (Biederman, 2003). The long-acting dose works well for children in school where dosing during the school day could be problematic. Some common examples include a medication called Vyvanse, which was introduced in the United States in 2007. This is one of the latest medications to be approved, and it is similar to Adderall (its main ingredient is lisdexamfetamine dimesylate, a derivative of one of the ingredients in Adderall). Initially available in 30-mg, 50-mg, and 70-mg capsules, newer 20-mg, 40-mg, and 60-mg capsules are now offered. More information on Vyvanse can be found at <http://www.vyvanse.com>.

Another medication is Daytrana (transdermal methylphenidate), a patch that consists of methylphenidate, or Ritalin. The patch is available in 10-mg, 15-mg, 20-mg, and 30-mg doses. Patches can be worn about 9 hours at a time and can be placed on a child's hip. Always remember that the patch should not be worn for longer than 9 hours, that patches should never be switched with other children, and that the medication can continue to work for a few hours after the patch is removed. To help family with a child taking this medicine, consider referring them to the description of Daytrana from drugs.com for a complete and easy-to-read explanation for using the patch along with cautions and special concerns (Drugs.com, 2009b).

Adderall XR is another long-acting stimulant approved by the FDA for children over the age of 6. Adderall XR is a sustained release form that contains dextroamphetamine and amphetamine. This medication is available in 10-mg, 15-mg, 20-mg, 25-mg, and 30-mg capsules and can be opened and sprinkled onto food if a child cannot swallow medication in pill form.

A nonstimulant medication that has shown promise in the treatment of ADHD is atomoxetine, marketed as Strattera (Allen et al., 2005; Michelson et al., 2002; Newcorn, Spencer, Biederman, Denai, & Michelson, 2005; Wehmeier et al., 2008). Wehmeier and colleagues described atomoxetine as a nonstimulant selective norepinephrine reuptake inhibitor (SNRI) for use with children age 6 and older (*PDR*, 2009). In a randomized, placebo-controlled study, Michelson and colleagues reported that when administered once daily, atomoxetine is an effective treatment of ADHD in children. However, the authors suggested that outcomes of long-term therapy are unknown. Kelsey and colleagues (2004) reported that the advantage of atomoxetine over stimulants is that it is adminis-

tered once a day and provides all-day relief that lasts into the evening and early morning hours. Pomerlau, Downey, Stelson, and Pomerlau (1996) reported that use of atomoxetine with children diagnosed with ADHD demonstrated strong clinical benefits with exceptional tolerance and a safe cardiovascular profile.

Unfortunately, after a short time on the market in 2005, the FDA issued a black box warning for Strattera when used to treat ADHD. The FDA warning was based on studies of approximately 2,200 children in which one child tried to kill himself; in other studies, 4 in 1,000 children treated with the medication thought about trying to kill themselves (FDA, 2004c). For this reason, when taking any of the short- or long-acting stimulants as well as the nonstimulant medication Strattera, health care providers are advised to watch for behavioral changes and ask parents to do the same. Symptoms such as increased agitation, irritability, and suicidal ideation should be monitored, especially at the beginning of treatment or during medication changes (FDA). Drugs such as Strattera should be used as a last resort when other options have failed (Henderson, 2008).

Gordon (2009) also outlined concerns related to sudden death in children taking these medications, although to date the research in this area suggests the risk is exceedingly rare. The FDA is still reviewing the strengths and limitations of this concern and at this point it does not recommend changing current prescribing patterns (FDA, 2009b). It is clear more information is needed, and since no medication is free of risk, constant monitoring of the risk–benefit ratio is always warranted.

To better monitor for complications, most physicians will want to see children who are taking stimulants on a fairly regular basis. In order to ensure adequate monitoring and follow-up, it is important for the social worker to ask the child and family about the frequency of their visits to the prescribing physician. Social workers need to educate clients and their families about the side effects of stimulants, which may include the following: changes in appetite, problems sleeping, stomachaches, constipation, diarrhea, rash, muscle twitch, nervousness, increased anger, withdrawn stares, and changes in mood (Pliszka, 2007). Also, because of concerns for the developing brain, these drugs are not recommended for children younger than 5. Drugs such as Ritalin should be used as a last resort when other options have failed (Henderson, 2008).

Since stimulants are believed to be effective for 80% of children with ADHD, antidepressants are generally reserved for the 20% who do not respond as expected (Doskoch, 2002). Such children are typically prescribed

tricyclic antidepressants, such as imipramine or desipramine. These medications are often referred to as the second line of treatment because they are considered when stimulant medications are not effective.

A commonly prescribed tricyclic antidepressant is imipramine (brand name Tofranil) (Anastopoulos, 1999). This medication has been officially approved for children age 6 and older who have problems with bedwetting (*PDR*, 2009). It may be used as a last resort for treatment-resistant ADHD.

Figure 7.2 lists tricyclic antidepressants used to treat ADHD in order of how frequently they are prescribed (Dulcan, 2006).

Antidepressants are usually taken twice a day—once in the morning and once in the evening. Although antidepressant medications are not generally the first choice for long-term treatment of ADHD, these medications have produced positive results in decreasing impulsivity and aggressive moods and behaviors.

Figure 7.2

TRICYCLIC ANTIDEPRESSANTS USED FOR ADHD

Brand name	Generic name
Tofranil	imipramine
Pamelor or Aventyl	nortriptyline
Norpramin or Pertofrane	desipramine
Elavil or Endep	amitriptyline
Anafranil	clomipramine

Regardless of how ADHD is treated, social work practitioners should use an approach that, when combined with medication therapy, can effectively manage the ADHD symptoms. Some of these interventions include the following: (a) using interviews and behavior scales to conduct a thorough assessment; (b) directly observing the child's behaviors; (c) helping parents provide the necessary structure needed by ADHD children; (d) coordinating with teachers and schools for classroom man-

agement plans; and (e) individual, family, and/or marital counseling for parents. See appendix E for a sample ADHD treatment plan.

DISRUPTIVE BEHAVIORS AND MEDICATION

Social workers and other mental health professionals frequently get referrals of children who are diagnosed with either *oppositional defiant disorder* or *conduct disorder*. As the milder of the two disorders, oppositional defiant disorder (ODD) consists of negative, defiant, and hostile behavior directed at authority figures (Kronenberger & Meyer, 1996). In order to diagnose a child with ODD, evidence of significant impairment must be demonstrated because the behaviors presented in ODD are common and can be confused with normal oppositional behaviors characteristic of developmental growth. The *DSM-IV-TR* identifies that for a period of 6 months or longer children with ODD present with significant impairment in academic, social, or occupational functioning and demonstrate behaviors that include loss of temper, arguing with adults, anger, deliberately annoying others, and vindictive behaviors (APA, 2000).

Diagnosing ODD can be complicated because ODD shares many of the characteristics of conduct disorder (CD). Furthermore, it is not uncommon for some children with ODD to develop symptoms characteristic of conduct disorder. Social workers must be aware of similarities between these two diagnoses, particularly during the assessment process.

Conduct disorder is the more severe diagnosis and warrants more intensive psychosocial and medication interventions. Children with conduct disorders frequently display symptoms that indicate a disregard for and a violation of the rights of others. Its symptoms include physical aggression, cruelty to people and animals, breaking laws, destruction of property, substance abuse, theft, and lying (Evans, 2003; Kronenberger & Meyer, 1996). Generally disruptive in school or community settings, these children usually have academic and anger management problems and are prime candidates for developing antisocial personality disorder during adulthood (Myers, Burket, & Otto, 1993).

Researchers have identified a comorbid relationship between depression, disruptive disorders, and ADHD (Brunsvold, Oepen, Federman, & Akins, 2008). Tuvblad, Zheng, Raine, and Baker (2009) reported that a common genetic factor explains the covariation among ADHD, ODD, and CD symptoms in boys and girls ages 9–10 years.

Psychostimulants are the most common class of medications used to reduce the impulsive and aggressive behaviors caused by ODD and CD. The most well-known and successful stimulants include Ritalin and Dexedrine. Kronenberg and Meyer (1996) reported that Ritalin is a commonly used, particularly shorter acting version that requires administration three times a day. Once-a-day medications (such as Strattera and other stimulants that come in sustained-release versions and patches) may increase compliance while decreasing the potential for medication abuse.

Other medications used to treat symptoms of ODD and CD include lithium for aggressive behavior, Tegretol (carbamazepine) for ADHD symptoms, Catapres (clonidine) for low frustration tolerance and aggressive behaviors, and Tenex (guanfacine) to reduce overactivity and aggression (Kronenberger & Meyer, 1996).

Another medication that can assist with behavior problems is Wellbutrin, an antidepressant. Traditionally, this medication has been used for several purposes, including treating depression in adults. It is now used to treat emotional and behavioral problems in children, including depression, ADHD, and CD (Dulcan, 2006). The antidepressants Desyrel (trazodone) and Serzone (nefazodone) are also now used in children to address emotional and behavioral problems including depression, insomnia, and disruptive behavior disorders by helping to decrease depression, irritability, and aggression (Dulcan). For additional information on each of these medications in the treatment of ODD and CD, see Table 7.1.

Like ADHD, disruptive behaviors also require a multidimensional treatment approach. ADHD, ODD, and CD are often diagnosed together, and treatment is further complicated by co-occurring disorders. Social workers need to encourage more than medication as the sole treatment modality, highlighting therapeutic approaches such cognitive behavioral techniques, parent management training, and family therapy (Chronis, Jones, & Raggi, 2006; Connor & Doerfler, 2008; Daly, Creed, Xanthopoulos, & Brown, 2007).

COMBINING PSYCHOSOCIAL WITH PHARMACOLOGICAL INTERVENTIONS

While empirically based evidence strongly supports the efficacy of combined psychosocial and pharmacological interventions for ADHD

Table 7.1

COMMON PEDIATRIC MENTAL HEALTH MEDICATIONS

BRAND NAME	GENERIC NAME	TYPE OF MEDICATION	CONDITIONS TREATED	COMMON SIDE EFFECTS
BuSpar	buspirone	antianxiety	anxiety disorder, social phobia	nausea, headache
Catapres	clonidine	antihypertensive	ADHD, Tourette's syndrome	sedation, headache, nausea, dry mouth, constipation
Cylert	pemoline	psychostimulant	ADHD, autism, conduct disorder	appetite reduction (very infrequent)
Depakene	valproic acid	anticonvulsant	bipolar disorder, conduct disorder	upset stomach, nausea, vomiting, weight gain, sedation, tremor
Dexedrine	dextroamphetamine	psychostimulant	ADHD, enuresis, autism	appetite reduction, delay in falling asleep, irritability, dry mouth, headaches, weepiness, increased heart rate
Elavil	amitriptyline	tricyclic antidepressant	depression	same as Tofranil but less frequent
Eskalith	lithium	salt	bipolar disorder, conduct disorder	nausea, vomiting, diarrhea, mild tremor, fatigue, acne, weight gain
Norpramin	desipramine	tricyclic antidepressant	ADHD	similar to Tofranil but less frequent
Pamelor	nortriptyline	tricyclic antidepressant	ADHA, depression	similar to Tofranil and Norpramin but less frequent

(Continued)

Table 7.1

COMMON PEDIATRIC MENTAL HEALTH MEDICATIONS (Continued)

BRAND NAME	GENERIC NAME	TYPE OF MEDICATION	CONDITIONS TREATED	COMMON SIDE EFFECTS
Paxil	paroxetine	SSRI	depression, obsessive-compulsive disorder	nausea, diarrhea, weight loss, insomnia, upset stomach, excess sweating, jitteriness
Ritalin	methylphenidate	psychostimulant	ADHD, conduct disorder, autism	appetite reduction, delay in falling asleep, headaches, weepiness, increased heart rate
Strattera	atomoxetine HCl tomoxetine	SNRI	ADHD	risk of suicidal ideation, nausea, vomiting, fatigue, decreased appetite, abdominal pain, headache, somnolence
Tegretol	carbamazepine	anticonvulsant	bipolar disorder	double vision, drowsiness, poor concentration, mild nausea
Tenex	guanfacine	antihypertensive	ADHD, Tourette's syndrome	similar to Catapres but less frequent
Tofranil	imipramine	tricyclic antidepressant	ADHD, eating disorders, enuresis, depression	sedation, dry mouth, changes in blood pressure, constipation
Welbutrin	bupropion	atypical antidepressant	ADHD	similar to Ritalin and Dexedrine but less frequent

and disruptive behavior disorders (Abikoff, 1991; Hinshaw, Heller, & McHale, 1992; Pelham & Murphy, 1986), more research is needed to determine how to develop strategies for the specific treatment of children and adolescents.

Abikoff (1991) reviewed cognitive training studies of children diagnosed with ADHD during the 1980s. While cognitive training is appealing, Abikoff asserted there was little empirical support to its clinical use with children diagnosed with ADHD. March and Wells (2003) asserted that a combination of psychotherapy and drug treatment must be considered by pediatric physicians and psychopharmacologists. Psychosocial treatment includes addressing somatic complaints and person-in-environment variables that affect children's and adolescents' emotional and behavioral responses to daily experiences (March & Wells). In addition to present life experiences, children and adolescents bring memories of their past experiences and response patterns.

Pelham and Murphy (1986) reviewed 19 studies in which a combination of behavioral therapy and stimulant medication had been used with children diagnosed with ADHD. They reported that 13 of the 19 studies demonstrated a significant advantage with the use of cognitive therapy (CT) on "at least one key classroom-based task, motor, or social measure" (Pelham & Murphy, pp. 12–16). In the studies reviewed prior to 1986, Pelham and Murphy reported that CT was the superior method of treatment. While there were individual differences, the average ADHD child in the studies showed greater improvement with the combined CT and medication combination than with either treatment on its own.

Pelham (2002) reviewed several studies involving the use of cognitive-behavioral treatment, clinical behavior therapy, contingency management, intensive treatments, and combined pharmacological and behavioral treatment. In addition, the American Psychological Association task force for Division 12 (Society of Clinical Psychology) reviewed the empirical support for treatments used with children diagnosed with mental health disorders (Lonigan, Elbert, & Johnson, 1998). When looking specifically at children with ADHD, the combination of behavioral parent education and classroom interventions met the task force standard for the "empirically supported treatment" group (Pelham, Wheeler, & Chronis, 1998). DuPaul and Eckert (1997) reported that classroom behavioral strategies for children with ADHD have demonstrated positive effects and substantial effect sizes with over 600 participants in 63 studies. According to Pelham (2002), psychosocial treatments for ADHD can be effective when

they are comprehensive and include a multicomponent intervention involving three psychosocial facets—parent training, school intervention, and child intervention—along with concurrent medication.

In summary, when working with children and adolescents diagnosed with ADHD and disruptive behavior disorders, it is important to carefully attend to the psychosocial aspects of the individual's life experience, his or her characterological make-up and response patterns to noxious environmental stimuli, and patterns of coping and resilience. Psychosocial treatment strategies must be considered in combination with the use of medications as prescribed by the pediatrician or psychiatrist. Additional research is warranted with regard to combined treatment approaches using psychosocial interventions with medication, a better understanding of age-appropriate interventions, complications in treatment resulting from a combination of co-occurring disorders, family participation in treatment, the amount of medication required for effective treatment, the optimum window for treatment to occur, and the length of treatment required to bring about significant behavioral changes. All of the concerns listed here, and the various components of treatment, will affect the outcome of treatment interventions (Pelham, 2002).

SPECIAL CONSIDERATIONS AND SERVICES FOR OLDER PEOPLE

Many physical, cognitive, psychological, social, and emotional changes accompany the process of aging (Beaver & Miller, 1992; Kane, Ouslander, & Abrass, 1999). Similar to the child client, the older client is in a state of constant flux—characterized by the deterioration of biological, physical, and cognitive processes. While all individuals do not age in the same manner, many of the clients who visit social workers and other mental health professionals experience major changes in their development. The effects of aging can range from superficial to profound, and the symptoms can have a pronounced effect on quality of life, threatening independence and functional status (Watson, 2008). This is especially true for those who are in nursing homes and long-term-care facilities. Given these natural changes, and the additional mental health problems experienced by older clients, it is important for social workers to acquire an understanding of human development and how changes that occur during the life cycle can affect elderly clients.

Older individuals frequently attach primary importance to their health concerns, which explains why they use hospital services, physician, and long-term-care services more than any other age group (Rhodes, 1988). Clients who are 65 and older now make up more than one-third of all primary care visits (Kane, Ouslander, & Abrass, 1999).

Many older clients fear they will develop a chronic condition that will result in a gradual loss of activity or unaided mobility (Rhodes, 1988). Chronic conditions found in the elderly are either of a physical (biological) or mental (psychological) nature. Although this is a simplistic distinction, it is important to note that physical and mental health conditions are often interdependent (Dziegielewski & Harrison, 1996). Furthermore, older clients often suffer from other physical conditions that require multiple medications (Maidment et al., 2008).

In the natural process of aging, individuals become more vulnerable to changes in physical abilities, cognitive abilities, and social skills. Issues like increased reliance on others and medical problems become troublesome and often lead to feelings of loss. Normal feelings of loss related to diminishing health, diminishing independence, retirement, changes in socioeconomic status, and the loss of spouses and friends can sometimes turn into serious depressive episodes that require treatment (Dziegielewski & Harrison, 1996). Working with older clients who present with depression can potentially sensitize social workers to their own fears of losing their mental abilities, contracting illnesses, experiencing helplessness, and depending on others. Social workers may fear they too will become depressed during their later years (Leon, Altholz, & Dziegielewski, 1999).

HEALTH DISPARITIES OF OLDER PEOPLE

When looking specifically at health disparities, there are two definitions that are particularly pertinent to a discussion of receiving medical care and psychopharmacology with older people. The National Institutes of Health (2000) defines *health disparities* as “differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups in the United States. Research on health disparities related to socioeconomic status is also encompassed in the definition.” Another definition states that health disparities include “population segments categorized by gender, race or ethnicity, education or income, disability, geographic location, or sexual

orientation” (Maryland Department of Health and Mental Hygiene, 2002).

A number of authors have listed various factors related to health disparities for older people: race, ethnicity, and language (Fiscella, Franks, Doescher, & Saver, 2002); those without additional Medicare coverage who are 75 years of age or older (Crystal, Sambamoorthi, Walkup, & Akincigil, 2003); and lower income, education, and occupational status (Fiscella & Williams, 2004). In serving minority populations, for example, one area of exclusion is the lack of qualified bilingual staff to serve non-English speakers. Excluding people based on socioeconomic status, race, and sexual orientation allows for allocating resources elsewhere (Fiscella, Franks, Doescher, & Saver, 2002; Fiscella & Williams, 2004). Lum and Lightfoot (2003) reported that elderly people with low incomes are unable to afford private supplemental health insurance. Medicaid is the alternative health coverage that includes low-income older patients, and it does improve health care services and affordability among racial, ethnic, and gender groups (Lum & Lightfoot). Policy makers need to focus on providing affordable health care especially for those that may have limited education as well as those of low income.

Social workers who work with older people must be aware that individuals may not receive adequate health care due to a variety of factors. It is important to ask if the older person has the resources to afford adequate health care and if he or she is able to purchase medications. (An inability to afford medications may lead to noncompliance.) Xu (2003) reported that financial disparities were observed to be greater among elderly than nonelderly adult population. Low-income elderly appeared to be in poorer health than nonelderly adults in the same poverty class, and they were also worse off than elderly peers in other poverty classes.

Listed above are only a few areas where older adults may fall short in receiving adequate health care coverage. There are many issues to consider and by excluding certain groups of people with health challenges service availability will remain a concern. Regardless of how health disparities are addressed, it remains clear that it reflects a range of political ideologies that often conflict (Carter-Pokras & Baquet, 2002).

DEPRESSION IN OLDER PEOPLE

According to the National Institute of Mental Health (NIMH, 2009b), the prevalence of depression among people who live in the community

ranges from 1% to 5% percent; however, the number increases to 13.5% among those requiring home health care and to 11.5% of elderly individuals who are hospitalized. The NIMH report observes that there are 5 million elderly individuals with subsyndromal depression—they have a number of symptoms of depression but do not meet the full *DSM-IV-TR* criteria for a diagnosis of depression.

Depression in older people is sometimes difficult to diagnose and has traditionally been linked to physiological and medical changes resulting from the aging process (Butler, Lewis, & Sunderland, 1998). Accurately assessing depressive symptoms can also be complicated by other illnesses, which can mask or precipitate depression. Illnesses commonly associated with depression in the older population are hypertension, coronary problems, Alzheimer's disease, Parkinson's disease, certain cancers, rheumatoid arthritis, chronic constipation, and sexual dysfunction (Butler, Lewis, & Sunderland). Another condition often related to depression is diabetes (Pawaskar, Anderson, & Balkrishnan, 2007).

It is not uncommon to have depression co-occurring with many of the chronic medical conditions elderly individuals experience. Some of these conditions include hypothyroidism and congestive heart failure. Patients who have experienced stroke are vulnerable to depression for up to 2 years after the stroke (Whyte, Mulsant, Vanderbilt, Dodge, & Ganguli, 2004). Rugulies (2002) reported that depression can predict coronary heart disease (CHD) in healthy people and recommends a broader biopsychosocial framework in assessing people who are depressed and have the potential for CHD. Depression was associated with increased risk of CHD in both men and women and CHD mortality in men (Rugulies). Depression did not have an effect on the CHD mortality in women (Barth, Schumacher, & Herrmann-Lingen, 2004; Ferketich, Schwartzbaum, Frid, & Moeschberger, 2000).

Furthermore, in elderly patients who are taking multiple medications, it is possible that symptoms of depression are the by-products or side effects of other medications (Belsky, 1988). For example, the American Psychiatric Association (2000) has warned that the symptoms of early-stage dementia are similar to depression. Loss of interest and pleasure in one's usual activities, disorientation, and memory loss are common in both conditions. Although many of the same signs and symptoms exist in both cases, the individual suffering from early stages of dementia usually will not improve with treatment.

Ballmaier, Sowell, Thompson, and Kumar (2004) reported that elderly patients with depression had reduced brain size. They observed

that these brain-size reductions were located in the orbitofrontal cortex bilaterally.

The relationship between depression in older people and stroke, CHD, and reduction in brain size are just three examples of many unique problems and circumstances that can involve the elderly. This is further complicated in elderly patients who take multiple prescriptions (polypharmacy).

Although depression is considered common among older people, there is little consensus among researchers regarding its prevalence or how best to recognize it in this age group (Ban, 1987; Reynolds, Frank, Perel, & Miller, 1994). Although some researchers believe the incidence of depression does not appear to increase directly with age (Blazer, 1999), it is important to remember that there is a disproportionately high suicide rate among older people (Ban), with the highest rate found among males 75 and older (Apfeldorf & Alexopoulos, 1999; Blazer). Because depression is treatable, it is unfortunate that older individuals may avoid treatment or minimize their symptoms of depression or other mental health conditions (Belsky, 1988; Browning & de la Garza, 1987).

Common signs and symptoms of depression include feelings of sadness, loneliness, guilt, boredom, a marked decrease or increase in appetite, a lack of or increase in sleep behavior, and a sense of worthlessness (APA, 1994; Kane, Ouslander, & Abrass, 1999). When the etiology of depression is related to life circumstances, it is generally considered situational in nature. *Situational depression* presents a particular problem for older people because they may have endured many tragic experiences, including the loss of loved ones, jobs, status, independence, and other personal disappointments (Greenglass, Fiksenbaum, & Eaton, 2006). When dealing with situational depression, it is essential to note that medication alone is probably a disservice to the client. Perodeau and du Fort (2000) warned that prescribing psychotropic drugs alone is not an adequate response to the distress expressed by seniors.

The addition of social work intervention and counseling can provide the elderly with the ability to achieve greater life satisfaction. Social workers can teach those suffering from situational depression to control the frequency of their depressive thoughts. Relaxation techniques such as imagery and deep muscle relaxation (as discussed in chapter 10) can be used to help clients calm down during times of anxiety. Concrete problem-solving and behavioral contracting can be implemented to help the older client change problem behaviors. Whenever possible, family members should be included in treatment contracting to provide sup-

port and to record and observe behaviors the client seeks to change. A combination of cognitive/behavioral therapy and prescription of desipramine, at recommended or higher dosage levels, was most effective in treating those who were severely depressed (Thompson, Coon, Gallagher-Thompson, Sommer, & Koin, 2001).

Depression is not always situational or reactive, however; it also can be related to internal causes and is referred to as *endogenous depression*. The etiology of depression is not always clear and may result from a combination of situational and internal factors. Psychopharmacotherapy for older people with depression usually involves some type of antidepressant medication (see chapter 8.) With this type of medication use among older people, it is believed at least 60% will respond with an improvement in depressive symptomology; however, even responders may continue to have significant residual symptomology (Rabins, 1999). Side effect profiles may be magnified, and these clients may be more likely to develop delirium, constipation, urinary retention, dry mouth, and orthostatic hypotension (Rabins). For this reason, the initial dose of the medication is generally lower, it should continue at a slower pace, and it should last longer (7 to 9 weeks) than for younger adults (Rabins).

All the major antidepressant medications discussed in chapter 8 can be used with the elderly, although caution should always be exercised. According to Apfeldorf and Alexopoulos (1999), the antidepressant medications generally used with older individuals include tricyclics (e.g., nortriptyline and desipramine, as these have lower anticholinergic and sedative effects) and the SSRIs fluoxetine, sertraline, and paroxetine, which are recommended for a broad spectrum of depressive disorders (MacGillivray et al., 2003). Anticholinergic side effects include dry mouth, constipation, urinary retention, headache, and menstrual changes and can exacerbate preexisting memory impairments (Kemper, Steiner, Hicks, Pierce, & Iwuagwu, 2007).

When working with older clients who are believed to be suffering from depression, social workers should gather a detailed medical and medication history. It is also critical to remember that medications as used with older clients do not have established safe and effective prescription doses. It was not until August of 1997 that the FDA required drug manufacturers to include a separate section in the drug literature that directly addresses "geriatric use" (Nordenberg, 1999a). Depressed older clients should always be referred for medical exams to rule out any physical causes of depressive symptoms. Although depression often goes

unrecognized by professionals, treatment for depression in older people can be as effective as in other age groups (Reynolds et al., 1994).

DEMENTIA IN OLDER PEOPLE

The mental disability known as *dementia*, acknowledged to be the most devastating and debilitating condition affecting the aged (Corvea, 1987; Steuer & Clark, 1982), has at least a hundred possible causes (Kawas, 1999). There are different types of dementia including vascular dementia and dementia of the Alzheimer's type. Currently there are over 4 million people diagnosed with Alzheimer's disease (AD), and by the year 2050 there will be approximately 11.3 to 16 million people with the AD diagnosis (Herbert, Scherr, Bienias, Bennett, & Evans, 2003). To complicate this picture further, most of the severe debilitating forms of dementia are age related, if not actually caused by aging (Watson, 2008). Ebly, Parhad, Hogan, and Fung (1994) conducted a study of dementia in Canadians over the age of 85 to observe whether the prevalence of dementia increased in the very old and to define dementia in the very old age group. Ebly and colleagues reported the prevalence of dementia was 28.5% in those 85 years and older, more than twice the prevalence in the 75-to-80-year cohort. Overall, AD accounted for 75% of all dementias, and vascular dementias accounted for 13%.

Dementia can lead to death, and it remains the fourth leading cause of death for those aged 65 and older (American Association of Retired Persons [AARP], 1993). Tschanz and colleagues (2004) reported that Alzheimer's disease was the leading predictor of death in a defined elderly population in a Utah study. The risk of those diagnosed with AD was two to three times greater than those diagnosed with other life-shortening diseases. It is estimated that the population is growing older, and increased life expectancy will make one in five Americans 65 years old or older by 2050; almost 40% of these older adults will be from diverse backgrounds (Richardson, 2009). As the numbers of elderly individuals increase, so will the number of cases of dementia (Kawas, 1999). In the case of mental impairment related directly to dementia, confusion—a characteristic of this disease—generally precipitates admission to long-term-care facilities (Dziegielewski, 1991). This disease is particularly problematic because it can affect an individual's functional independence, requiring that his or her every need be met by others. The American Psychiatric Association (2000) described the essential feature of this condition as a

loss of intellectual abilities of a sufficient nature to interfere with social or occupational functioning, thus limiting an individual's judgment, abstract thought, intelligence, and orientation.

Unfortunately, the term *dementia* has been used as a catchall phrase when discussing older people. The professional community does not always attempt to diagnose which type of dementia an individual is experiencing (Christensen & White, 2007). One possible reason may be that the person is sometimes viewed as hopeless, helpless, and unworthy of careful evaluation and treatment. Another reason is that the general approach to dementia is to treat symptoms as they appear because remedial treatments and a cure are not available (Corvea, 1987).

Conditions such as dementia of the Alzheimer's type (DAT) and vascular dementia, once called multi-infarct dementia (MID), are frequently linked, although their etiology is different (APA, 2000). DAT is the most common form of dementia (AARP, 1993; Loeb & Meyer, 1996) and entails a gradual deterioration for which there is no cure. Vascular dementia (VAD) is considered the second most common form of dementia in the United States and Europe (Loeb & Meyer). Differential diagnosis of dementia is important although frequently neglected and avoided. Professionals who seek early and improved diagnosis of older individuals can contribute to an increased understanding and perhaps an eventual cure.

Social workers should be aware of the different forms of dementia and the signs and symptoms of this progressive disease. As members of the health care team, social workers have the unique opportunity to educate and provide counseling to and support for individuals suffering from dementia as well as to their families and caregivers, thereby increasing support networks for all involved (Dziegielewski, 1990, 1991). Furthermore, the medications used to assist individuals who are experiencing cognitive difficulties have improved. Although there is no medication that can cure or completely reverse the devastating effects of the illness, there is promising research that might make it possible one day (Allian, Bentue-Ferrer, Gandon, LeDoze, & Belliard, 1997; Nordberg, 1996). The two most commonly used medications to assist with cognitive decline are Aricept (donepezil), which is given in 5–10 mg dosages once a day; and Cognex (tacrine), which is administered in divided doses of 20–160 mg (Murray et al., 2002). Both are for mild to moderate cases of cognitive decline. The use of antihypertensive medications to address cognitive decline in African Americans has also proven to be effective (Murray et al.).

Unfortunately, most clients who respond to these medications only receive modest clinical benefits, including mild memory enhancement, increased social interaction, and heightened attention (Kawas, 1999). See Appendix E for a sample dementia treatment plan.

ASSESSMENT AND MEDICATIONS FOR OLDER PEOPLE

The use and misuse of prescription medication can present particular problems for older individuals, and social work professionals must stay informed on the subject. An older person for whom medication is prescribed may have a different reaction than a younger person taking the same medication and dosage.

Two-thirds of adults over the age of 65 take one or more medications daily, and older adults use an average of three prescription and nonprescription medications at a given time (Cohen, 2000). The use of multiple prescription and over-the-counter medications remains a significant issue (Larsen, 1999). Generally speaking, older individuals use more medications than younger ones because of the multiplicity of acute and chronic conditions that manifest as part of the aging process (Williams, 1997). Also, elderly individuals, especially those in nursing homes, could be subjected to overmedication and poor-quality prescribing (Nirodi & Mitchell, 2002).

In the United States, adverse drug reactions (ADR) cause death, hospitalization, and serious injury to more than 2 million people each year (Cohen, 2000). To avoid adverse reactions, the well-known precaution “start low and go slow” should be applied to medications given to older clients (Cohen). When asked, many clients reveal long histories of adverse drug reactions. In patients age 60 and older, about half of all deaths are caused by some type of ADR (Cohen; Larsen, 1999).

The elderly generally have slower metabolic rates than younger people, possibly related to decreased activity or physiological losses (Belsky, 1988). For this reason, it takes longer for medications to be metabolized by the liver and excreted by the kidneys (American Geriatrics Society, 2005). Medications to treat chronic conditions such as arthritis, ulcers, heart conditions, diabetes, and hypertension can cause depression when taken alone or with other medications (Harrison, 1988). Common medications also can present side effects such as irritability, sexual dysfunction, memory lapses, and a general feeling of tiredness (Harrison; Kane, Ouslander, & Abrass, 1999). There are also anticholinergic side

effects experienced by older people including dry lips with difficulty speaking, urinary tract disorders requiring the use of a catheter, dry skin, blurred vision, unexplained falls, increased anxiety including rapid shallow breathing, tachycardia, and cardiac arrhythmias (Mintzer & Burns, 2000).

Older clients frequently take more than one medication and are often told to take them on complex dosing schedules (Kane, Ouslander, & Abrass, 1999; Nirodi & Mitchell, 2002). The number of side effects and contraindications increases dramatically with multiple medications. These individuals may see more than one physician, and one doctor may not be aware of what another has prescribed. It is not uncommon for older individuals to simply forget what prohibited foods and drinks can lead to a toxic drug reaction. A high number of medications complicates remembering what is being taken and for what purpose, and those who take many medications daily are more likely to forget whether they took them (Rost & Roter, 1987).

It is of utmost importance for social workers to be aware of any medications an older client is taking. The social worker should understand any side effects in relation to the social or interpersonal problems presented by the individual, and before beginning any type of intervention the social worker needs to explore whether the client's symptoms are medication related. Recently, for example, researchers have recognized that older individuals who take antipsychotic medications to control their dementia symptoms may show side effects of *dystonia* (slow, sustained muscular contractions or spasms) from the medication (Magnuson, Rocafort, Wengel, & Burke, 2000).

When assessing the problems of an older client, it is essential to do the following: (a) help older individuals stay as active, independent, and psychologically stable as possible (Beck, Freedman, & Warshaw, 1994); (b) keep assessment time and evaluations as brief as possible and determine the changes in behavior that have occurred over time (Beck, Freedman, & Warshaw); (c) assess cultural, religious, and spiritual beliefs that may affect adherence to treatment (Koenig, George, & Peterson, 1998; Surgeon General, n.d.); (d) discuss comorbid conditions, both physical and psychological, that may affect treatment outcomes (Noel et al., 2004; Paniagua, 2005); (e) list all medications and herbal supplements used (NIMH, 2009a); and (f) include the perceptions of family members or those in the immediate support system and recognize the effect these individuals have on the intervention regimen (Beck, Freedman, & Warshaw; Dziegielewski, 1990, 1991).

There are several important factors for social workers and other mental health professionals to consider when providing psychosocial and medication interventions to elderly clients. First, the developmental changes inherent in the aging process can often produce emotional and psychological problems unique to this population. For example, elderly patients often begin evaluating their lives, goals, and accomplishments (Newman & Newman, 2007). This requires the older client to recognize he or she is at the final developmental stages of life and that feelings and issues may emerge related to unaccomplished goals and dreams, regrets, and anxiety about changes in physical and cognitive abilities. Though not all changes during this stage have a negative impact, social workers must help the client adjust to minimize his or her suffering. Social workers can help these clients by aiding them in reevaluating their lives, by offering counseling and medication strategies, by helping them set new goals for their remaining years, and by encouraging them to pass their knowledge and wisdom on to the younger generation.

Brody and Brody (1987, p. 99) stated, “Probably no factor is of more immediate concern to older persons than physical health,” and many fear the loss of individual, unaided activity or perceived independence (Bruce, 1998). The numerous chronic medical problems experienced by these clients complicates the course of mental health assessment and treatment because many are already taking prescribed medications for medical problems, which may adversely interact with psychotropic drugs. Social workers need to conduct a thorough assessment of past and present medical and mental health problems presented by these clients. Because of cognitive and psychological difficulties, many older clients may have difficulty providing the helping professional with vital information related to their biopsychosocial functioning.

In the assessment process, it is important to note one of the most commonly reported problems by adult protective service professionals—self-neglect (Dyer, Goodwin, Pickens-Pace, Burnett, & Kelly, 2007). The most typical client to present self-neglect is an older client who has multiple deficits and problems with social and occupational functioning. Dyer and colleagues warned, however, that there is no simple and clear definition of self-neglect, so careful assessment is needed. To best assist and protect the client, it is extremely important that social workers seek out family members and members of support systems who can fill in the gaps. Whenever possible, a home visit is recommended, as it allows the client to show the social worker the medications and vitamin or herbal supplements he or she is taking. Older clients often amass and hold on

to large quantities of medications, often believing they are too important or expensive to throw away (Sorensen, Stokes, Purdie, Woodward, & Roberts, 2005).

Prescribers must be sensitive to developmental changes that affect a client's understanding of and adherence to medications as prescribed. For example, changes in vision may hinder the client's ability to read directions or identify different medications. It is important to assess whether an older client reads English or another language in order to ensure they understand dosing and the possible side effects of a medication. In these cases, it is helpful if the social worker advocates medications that are color coded; have large, easy-to-read directions; and are placed in easily distinguished containers of different sizes. In addition, it is critical that all older individuals be able to open bottles, which is especially difficult with ones designed to be child resistant.

When explaining psychotropic medications, social workers should take time to illustrate how the medication works to alleviate symptoms (sometimes graphic pictures are helpful) and have the client practice explaining the dosage, frequency of use, and side effects of the medication (Kane, Ouslander, & Abrass, 1999). Providing simple, clear, easy-to-read, and easily followed directions will facilitate medication compliance among this population (Kane, Ouslander, & Abrass),

Although they warn that there is no simple rule for prescribing medications to older people, Kane, Ouslander, and Abrass (1999) make the following observations:

1. There can be multiple age-related factors that can influence pharmacology.
2. The way individuals age, and the changes they experience, can be varied, thus making precise predictions with an elderly individual difficult.
3. The clinical (physical health) status of each client must be considered on an individual basis, including nutrition, hydration, cardiac output, and intrinsic renal or liver disease in addition to the effects of aging.
4. As research with newer drugs continues, specific attention should be given to results with older individuals; when this is done, more specific recommendations can be made.

The mental disorders and psychotropic medications discussed in other chapters are not specific to older clients, yet many of the same

principles apply. Social workers need to acknowledge the developmental changes manifested in the physical, cognitive, emotional, psychological, spiritual, and social spheres of the client's functioning. A sound knowledge of adult development will enable the social worker to conduct an accurate assessment and provide valuable input regarding the mental health medications that may benefit the client best.

Knowing the hallmarks of development and assessing the client's situation can help the practitioner determine if psychopathology is actually present and if medications are needed. Keep in mind that many medical problems may mimic psychological or emotional difficulties. For example, when older clients have vision or hearing problems, they might misinterpret information. If the professional does not carefully examine this misinterpretation, it can lead to misdiagnosis.

In one such case, an older woman reported a stranger was watching her daily in her backyard; she feared the stranger was waiting for her to fall asleep so he could rob her. During the next visit to her primary care physician, she told him of her fears and asked if anything could be done to help her. The physician interpreted her statements as paranoia, especially after her daughter stated that she lived in a very safe neighborhood. The physician was prepared to prescribe a low dose of the psychotropic medication Haldol to help alleviate the feelings of paranoia.

Fortunately, as part of an interdisciplinary approach, he notified the social worker, who was assigned a home visit. During the interview, it became obvious the client's vision was impaired. She did not notice the crumbs that had fallen on the table while she was eating her lunch, and as she wiped the table with a cloth she simply sprinkled all the crumbs to the floor. When asked about her last eye exam, she stated it had been about 10 years ago; when asked if she wore glasses, she said she had when she was younger but had stopped wearing them when they broke years ago.

The client spent a great deal of time sitting in a chair near the window, and the social worker asked her to talk about the man who was watching her. Shortly after sitting down the client became quite flustered and said, "There he is, can you see him; he is watching us now. And look, I think there is someone with him." There was no one outside, but the reflection in the window did show two people standing there: the client and the social worker. It was easy to see how this client with limited vision could mistake the reflection for someone watching. The social worker helped her get an eye exam, and the client's ability to care for herself improved dramatically. She no longer reported anyone watching her, although she

did hire someone to clean her windows. It was decided she did not need supervised placement and no medication was prescribed.

Knowing that lower-than-recommended doses of medication can often be effective with elderly clients, social workers can help clients encourage their physicians to provide more individualized care and attention. Older clients can also be educated to identify whether a medication is working, and when adverse reactions occur they can inform their physician. This type of education can facilitate medication adherence, assisting both the client and the intervention team.

Finally, the social work practitioner should educate clients and their families about the importance of combining psychosocial treatments such as counseling with medication therapy. Families can also be instructed on clients' drug regimens and can assist with compliance and structure. Practitioners should not assume that the advanced age and developmental stage of the older client prohibits counseling, in conjunction with medication therapy, to enhance the client's biopsychosocial functioning (Leon, Altholz, & Dziegielewski, 1999).

SUMMARY AND CONCLUSIONS

This chapter has provided an overview of providing mental health services and especially medication therapy to children, adolescents, and older adults. A brief discussion of the unique characteristics, challenges, and considerations when prescribing mental health medications to these populations has been provided. This chapter only begins to identify some salient considerations, motivating the reader to seek additional information on these special populations on both ends of a very unique continuum. The developmental and cultural differences identified for each of these groups provide significant information for social workers who provide mental health counseling. Social workers must be familiar with the special attributes of these populations in order to assess clients accurately, develop treatment plans, participate in medication recommendations, and help clients monitor the effects of prescribed drugs. This requires a sound knowledge of specific developmental characteristics and milestones when working with children, adolescents, and older adults.

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**Mental Health
Conditions and Social
Work Practice**

**PART
III**

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8

Treatment of Major Depression: Social Work Interventions

SOPHIA F. DZIEGIELEWSKI AND GARY DICK

Depression is an illness that affects the physical, emotional, social, and cognitive domains of individual functioning. Depression, when defined as a mood disorder, is more than simply feeling down or blue for a few days. Some common symptoms of depression include feelings of hopelessness and helplessness; loss of energy; loss of interest in pleasurable activities; a depressed mood; flattened affect; a significant change in sleep patterns and eating habits; a sense of agitation; and difficulty with memory, attention, and concentration (APA, 2000). These symptoms must represent a change in the individual's normal state of functioning and be present for at least 2 weeks (APA).

This chapter is designed to provide an overview of the medication issues and concerns social workers will encounter when treating clients who suffer from depression. Because medication is often used as part of the intervention process, it has become a practice necessity for social workers to have a basic knowledge of medication usage and misuse. This chapter includes information about major depression, the medications used to treat this disorder, short- and long-term efficacy, side effects, and other important considerations designed to increase the effectiveness of social work intervention strategies. The National Association of Social Workers' Code of Ethics requires us to remain competent by staying abreast of the latest research in our area of specialty (NASW, 1999, see

5.02 Evaluation and Research). Therefore, when a client is on psychotropic medication, it is imperative that social workers be informed of the latest research on the drug's efficacy and side effects and be able to consider individualized measurement and designs that can track targeted symptoms.

PREVALENCE OF DEPRESSION

For many social work practitioners, clients who report symptoms of depression are commonplace. Nearly 30 million of the U.S. adult population may be affected with major depression, and approximately one-third are classified as severely depressed (Nemeroff, 2007). It is reported that approximately 16% of the population will suffer from depression at some point in their lifetime (Capriotti, 2006; Hansen, Gartlehner, Lohr, Gaynes, & Carey, 2005). It is estimated that 2%–6% of children and adolescents suffer from depression (Whittington et al., 2004). About 25% of people over the age of 65 with a chronic medical illness suffer from depressive symptoms and approximately 15% suffer from major depressive disorder (Sheikh et al., 2004). These symptoms are reported so frequently during routine medical visits and throughout the course of psychological treatment that they can seem like the common cold of mental health.

Reports of depressive symptoms in older adults range from 10%–25% in community and primary care settings to 50% in nursing homes and medical settings (Skultety & Zeiss, 2006). It is estimated that 1.5 million people receive treatment for unipolar illness each year and another 4.5 to 7.5 million go untreated (Merck Research Laboratories, 1992). Some people report both manic and depressive symptoms, which warrants a diagnosis of *bipolar depression*, whereas clients who only report depression are diagnosed with *unipolar depression*. Unfortunately, approximately 50% to 80% of clients who seek treatment for depression will go unrecognized or misdiagnosed (Higgins, 1994). One reason for this may be related to the symptoms clients self-report. For example, the symptoms may include relationship problems, irritability, and work-related conflicts. For this reason, it is always important to ask clients about the perceptions of significant others, family, co-workers, and friends (Woo & Keatinge, 2008).

For the medical practitioner, clients suffering from depression may be especially frustrating to deal with as their complaints—generally so-

matic in nature—usually result in negative medical examinations that reveal no physical causes for the problem. This multifaceted disorder provides fertile ground for misunderstandings and frustration on the part of both health care providers and clients. Undetected depression in primary care settings ranges from approximately 30% to 70%; of those whose depression is detected, less than 50% receive adequate treatment (Liu et al., 2006). Liu and colleagues studied 3,559 patients at VA medical centers in six states. They found 45% of the subjects had severe symptoms of depression and 44% of those who were depressed did not have a diagnosis. They also found 13% of the veterans were classified with mild depression, 42% with moderate depression, and 45% with severe depression. Of all depressed male participants in this study, only 22% received treatment (Liu et al.).

When looking specifically at race, it appears Black Americans are one-third less likely to receive medication treatment for depression and anxiety than White Americans (Gonzalez et al., 2009). Furthermore, when working specifically with males, depressive symptoms can be masked in angry responses, and depression may be assessed as less severe although serious deficits in functioning may exist.

One of the biggest problems for many clinical professionals is lack of clarity in defining what the term *depression* actually means. For many individuals, depression can mean feeling sad, blue, or down in the dumps, whereas there are clearly established criteria that reflect consistent patterns, signs, and symptoms relative to a mood disorder (Gitlin, 1996). Furthermore, some form of depression (also referred to as *dysphoric mood*) is present in virtually all mental health conditions. The only exceptions to this are clients who suffer from mania, certain forms of schizophrenia, or dementia (Gitlin).

In a study examining 2,500 general practitioners and their knowledge of depression, Krupinski and Tiller (2001) discovered 60% felt that less than 10% of their patients were depressed. The symptoms on which the general practitioners in the study based their diagnosis of depression were sleep disturbances, insomnia, early waking (87%), loss of appetite, overeating, weight changes (56%), depressed mood, hopelessness, and sad and gloomy feelings (54%; Krupinski & Tiller). Overall, research has indicated the rate of depression to be 5%–10% for patients with multiple health care issues in primary care and 10%–14% for patients under general hospital care (Timonen & Liukkonen, 2008).

How this condition is interpreted and reported, however, can be misleading because feelings of depression can often be overstated or

understated because they reflect the definition and standards of normalcy within an individual's unique social and environmental context. The symptom of *anhedonia*, a complete loss of pleasure in all activities, may exist, but oftentimes depressed individuals maintain some capacity of experiencing pleasure (Woo & Keatinge, 2008). Therefore, the reporting of symptoms can be confusing: Is the individual feeling pleasure from certain activities or not? Is he reporting what he is feeling now, or what he remembers feeling in the past? Therefore, the first step toward effective treatment is identifying a clear, concise, psychosocial-criteria-based diagnostic standard.

All diagnostic interpretations must be sensitive to the influence of cultural and stress-related environmental and social factors. Some ethnic minority groups are exposed to tremendous contextual stressors that figure prominently in depression, including poverty, poor and rundown neighborhoods, acculturation, and loss associated with "never going home again" (White, Roosa, Weaver, & Nair, 2009). Similarly, the social context needs to be assessed when working with immigrants, as their depressive symptoms may stem from a conflict of values from their country of origin and American customs and values, problems speaking the English language, parenting stress, and conflict between children's and parents' beliefs and customs.

Therefore, in assessing depression it is important to consider not only what symptoms a client reports but also cultural influences and complexities relative to the client's cultural identity (McGoldrick, Giordano, & Garcia-Preto, 2005). McGoldrick and colleagues point out that ethnicity is not the only dimension of culture but that it is a necessary component in understanding an immigrant's adjustment to his or her new life and the losses experienced to get there. Social workers must also be willing to consider how gender, socioeconomic status, social class, geography, race, religion, and politics influence that adjustment; how important these factors are in accurately assessing depression; and how to best use a client-oriented support system as part of the treatment process.

CASE EXAMPLE: JEAN

Jean, a 70-year-old female, was admitted to the hospital after being evaluated for several medical conditions, including a fractured left hip with extensive bruising to her hip and the left side of her body. She and her family reported to the attending physician that they were expecting a

short rehabilitative stay at the hospital, and a social work consult was generated to determine if she could continue living at home after stabilization or whether a temporary rehabilitation facility would be needed.

During the interview, Jean was alert and oriented and did not appear to be in any type of physical distress. Her affect (the outward expression of her mood) appeared flat, although she did warm up considerably when engaged. Her speech was clear, and she responded appropriately to all questions. During assessment, Jean talked about many events in her life. She stated she had been raised in a rural area of Georgia, and she described her childhood relationship with her family as close. Her father was a Baptist minister, and the family had spent a great deal of time praying together. She said she had always felt very close to the church, and her greatest disappointment was that she no longer found comfort in organized religion. When asked further about this, Jean stated that her husband had died 10 years ago, and after his death she felt as though she had lost all hope. Since that time, she had had little if any contact with her family and often felt alone, without any connection except her memories. She confided that oftentimes she did not want to get out of bed and would stay there for days at a time. After not eating for a few days, she would become fearful she would die and that her death might be perceived as suicide. Not wishing to cause her own death, Jean ate everything she could find to avoid starvation. She said she always answered the phone if family members called because she did not want to be a burden to them. If she did not answer the phone, she worried her family might check on her, thinking she was dead. Although she acknowledged there had been times in her life when she hadn't wanted to live anymore, she felt her current feelings were more intense than before. She stated that she had fallen and fractured her hip after having a bad dream in which she was afraid her bed would swallow her and she would never wake up. In her fear, she ran from her bedroom and tripped in the dark. When the client was asked directly if she was feeling suicidal, she said no, but then stated she just wished she could die to join her husband.

Prior to meeting with the social worker, the client had not been assessed for depression, nor had she gotten a psychiatric examination. It was obvious to the social worker that Jean was depressed and had intense ambivalence about her desire to end her life. Based on this interview, the social worker requested a delay in discharge and an immediate psychiatric consultation. After the consult, however, the client was immediately placed on a low-dose antidepressant and discharged the next day. This course of action disturbed the social worker because she had expressed

concerns that the client was showing classic signs of depression and might not be able to handle the daily activities of living independently at home until the medication lifted her mood. After extensive debate with the team about an appropriate discharge plan, the social worker spoke with Jean and shared her perceptions and concerns related to Jean's depression. The client agreed that she was depressed, and because she did not want to be alone agreed to placement in an assisted-living facility. The social worker was relieved by this decision, and she talked with the housing supervisor and arranged for a counselor to see Jean in the facility. Jean was grateful for the intervention and completed a no-harm no-risk agreement as part of a safety plan to be implemented upon her discharge.

Situations like this are becoming more common for social workers. Many individuals, particularly older people, are uncomfortable revealing feelings of depression to a physician (Dziegielewski, 2002). As mentioned earlier, males may not present with obvious signs of depressed mood and may be more likely to report feeling anger and frustration. Females, such as in the case example, may present with sadness, loss, and feelings of hopelessness. The social worker can play an essential role in exploring subtle gender differences when assessing for mental health issues such as depression. Social workers are in an ideal position because of the rapport they establish with clients and their ability to listen deeply to the meaning behind the words. These relationship skills allow social workers to understand their clients from a personal perspective, which allows a trusting relationship to develop. In this type of relationship, clients can ask more direct questions and come to a better understanding mood, affect, and their symptoms of depression.

DEPRESSION: FORMING THE DIAGNOSTIC IMPRESSION

Two classification systems are often used for diagnostic and billing purposes by social workers whose clients who have mental health disorders. One, the *International Classification of Diseases (ICD)*, was developed by the World Health Organization; the other, the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)*, was created by the American Psychiatric Association.

In the past, social work practitioners often had difficulty establishing and separating the diagnostic criteria for major depression and other disorders because manuals differed and classification criteria did not overlap. This is no longer the case, and the *DSM-IV-TR* diagnostic categories are clearly related to the *ICD-9* and *ICD-10* (APA, 2000). These

manuals help establish the criteria for the diagnostic assessment. Social workers can then use supplemental information, such as that found in this chapter, to focus on pharmacological treatment considerations for depressive disorders.

To support and substantiate diagnostic categories as described in the *DSM-IV-TR*, mood disorder field trials that investigated the reliability and validity of the diagnostic categories were implemented (Keller et al., 1995; Keller, Hanks, & Klein, 1996). This resulted in research support for the classification system of major depressive disorders. Figure 8.1 lists and briefly describes the major depressive disorders as outlined by the *DSM-IV-TR* (APA, 2000).

Figure 8.1

DESCRIPTION OF MAJOR DEPRESSIVE DISORDERS

296.2x Major depressive disorder: single episode (presence of a single major depressive episode)

296.3x Major depressive disorder: recurrent (presence of two or more major depressive episodes)

Major depressive disorder criteria

A:—There must be a **major depressive episode** that has been present during the same 2-week period and that represents a change from a previous level of functioning, plus five other associated features (e.g., appetite disturbance, significant and unintentional weight loss or gain, sleep disturbance, fatigue, reduced ability to think or concentrate, diminished interest or pleasure in all activities, persistent thoughts of death or suicide).

B:—The mood disorder cannot be better accounted for by another mental health disorder such as schizophrenia, schizophreniform disorder, delusional disorder, or psychotic disorder not otherwise specified.

C:—There has never been another type of **mood episode** experienced, such as manic episode, mixed episode, or hypomanic episode. If a history of these other “mood-like episodes” is reported, occurrence must be related to substance use, be treatment related, or due to a general medical condition.

(Continued)

Specifiers describing major depressive disorder: recurrent

1. **Longitudinal:** These specifiers are used to describe remission patterns. The two types include “with full inter-episode recovery” (i.e., full remission was attained between the two most recent episodes) and “without full inter-episode recovery” (i.e., remission was not attained between the two most recent episodes).
2. **Seasonal pattern specifier:** These specifiers link a time of year or season directly to the depressive episode. The term seasonal affective disorder (SAD) is often used to describe this type of depression.
3. **With melancholic features:** Loss of pleasure in almost all activities and lack of reactivity to pleasurable stimuli can occur at anytime throughout the depressive episodes. In addition, three or more of the following are present: distinct quality of depressed mood, early-morning worsening, marked psychomotor agitation or retardation, disturbance in appetite with weight gain or loss, and excessive and inappropriate guilt.
4. **With atypical features:** Within this specifier there are incongruent findings to some of the established criteria (e.g., mood brightens when exposed to a pleasant event) or unusual features related to the condition (such as overeating, oversleeping, or patterns of hypersubjectivity to rejection).

Source: Mental health diagnostic categories are summarized from the information presented in the *DSM-IV-TR* classification system (APA, 2000).

To date, two types of serious depression that constitute a severe form of affective illness have been defined. The first is often referred to as *endogenous* or *melancholic depression* (Woo & Keatinge, 2008). In this type of major depression, symptoms of depressed mood are related directly to internal biologic factors such as neurotransmitter dysfunc-

tion (Sadock & Sadock, 2008; Tierney, McPhee, & Papadakis, 1997). Individuals who experience this type of depression often report a loss of pleasure in almost all their usual activities and symptoms of severe anhedonia, hopelessness, and inappropriate guilt. Suicidal symptoms may become a concern (Woo & Keatinge).

Electroconvulsive therapy (ECT), referred to historically as shock treatment, is often considered an endogenous treatment. This treatment strategy involves direct (biologic) stimulation of the neurotransmission process. Similar to ECT, antidepressant medications also are successful in lifting endogenous depression; however, they affect the neurochemical pathways chemically rather than electrically (Maxmen & Ward, 1995).

In the second type of major depression, a link generally exists between characterological, personal, or neurotic responses and precipitating events. This form of *exogenous* or environmental depression is often referred to as *reactive depression*, and its signs and symptoms are related directly to psychosocial factors or stresses such as divorce, unemployment, or injury (Tierney, McPhee, & Papadakis, 1997). Bettmann (2006) conceptualized understanding and treating depression from the framework of attachment theory. Often clients experiencing depression isolate themselves from social contact, further complicating a possible traumatic experience with loss and grief. The client who feels unlovable and unworthy may exacerbate his or her feelings of depression and insecure attachment by withdrawing, making the therapeutic relationship with the social worker an important component of treatment. Furthermore, Tierney and colleagues cautioned clinicians to differentiate between normal grief symptoms, which at first resemble major depression, and actual depression symptomatology. They believe grief and sadness are normal responses to loss, whereas depression is not. In depression, the survivor feels a marked sense of worthlessness and guilt, but with grief individual self-esteem remains intact. From a practitioner's perspective, clients who experience normal grief provoke sympathy or sadness in service providers, but clients who report general signs of depression are often met with frustration and irritation (Tierney, McPhee, & Papadakis).

It is important to recognize that not all people present with similar depressive symptoms. Many people diagnosed with depression present a variety of symptoms that may not reflect what we typically think of as a depressed individual. These include anxiety, chronic nervousness, insomnia, agitation, restlessness, and physical symptoms (Capriotti, 2006). This can lead to a confusion of depression with anxiety or bipolar

disorder. When physical signs mask depression, social workers should look beyond the anxiety and worry—beyond the headaches and the complaints of chronic pain, fatigue, and eating problems—and inquire about the emotions underneath the symptoms. One client described her husband's depression as, "He is not there. He is in a fog. We do not communicate. He shuts down or gets angry. He can't finish anything he starts. He can't bring anything to completion."

Whether depression is *endogenous* (related to internal causes), *exogenous* (related to external or environmental causes), or a combination of both, the first clinical feature usually presented in major depression is *dysphoria* (a disturbance in mood) or *anhedonia* (a loss of pleasure or interest in normally enjoyable activities; Maxmen & Ward, 1995). Besides dysphoria or anhedonia, depressed individuals present with a wide range of complaints that include feelings of guilt, the inability to concentrate, feelings of worthlessness, somatic complaints, feelings of anxiety, chronic fatigue, and loss of sexual desire (Woo & Keatinge, 2008). As with any mental health problem, an accurate diagnosis of major depressive disorder requires the client's cognitive, behavioral, and somatic complaints be clearly documented.

When documenting major depressive disorder (described in Figure 8.1), the *DSM-IV-TR* establishes diagnostic codes. In major depressive disorder (single episode or recurrent), the following coding scheme is used:

1. For the diagnosis major depressive disorder, the first three digits are always 296.

Major depressive disorder 296.xx

2. The fourth digit denotes whether it is a single (denoted with the number 2) or recurrent (denoted with a 3) major depressive episode.

296.2x single / 296.3x recurrent

3. The fifth digit indicates the severity.

- 296.x1 mild severity
- 296.x2 moderate severity
- 296.x3 severe without psychotic features
- 296.x4 severe with psychotic features
- 296.x5 in partial remission
- 296.x6 in full remission
- 296.x0 if unspecified

The other specifiers for major depressive disorder (with melancholic features, with postpartum onset, etc.) cannot be coded within the numbering system. They are to be written out and listed after the official diagnosis.

MEDICATION INTERVENTION FOR DEPRESSION

Depression has been underdiagnosed and inadequately treated in the United States; it is estimated that fewer than 10% of people suffering from major depression receive an appropriate therapeutic dose of medication (Capriotti, 2006). Patients may present with a host of physical ailments that mask the underlying depression; even those who acknowledge their depressive mood may avoid medication due to the perceived social stigma of having a mental illness. Furthermore, the practice experience of the authors has found that many clients in successful recovery from substance abuse may be reluctant to take medication because they view all medication as dangerous triggers for abuse.

Most professionals agree that normal life situations and developmental phases can create feelings of sadness or depressed moods in everyone. A depressed mood only becomes pathological when the magnitude or duration of the experience exceeds normal limits, taking into account the precipitating event (Merck Research Laboratories, 1992). Therefore, antidepressant medications are primarily used to treat individuals who suffer significantly enough from depressed mood to be classified as pathological.

Therefore, the client who responds best to these types of medications is someone who suffers from more than just the blues. A prolonged depressed mood that does not respond to short-term psychotherapy or crisis intervention and that interferes with a person's family life and mental, physical, job, and social functioning indicates the need for antidepressant medication (Rush, 1993; Shindul-Rothschild & Rothschild, 1998). Studies clearly support that neurochemical-based treatments for depression, such as antidepressant medications and ECT, are effective in lifting depressed moods (Dziegielewski & Leon, 2001). Controlled studies indicated 78% of depressed individuals improved with ECT and 70% with certain antidepressant medications (Maxmen & Ward, 1995). In comparing medication to cognitive therapy, at 8 weeks patients taking medication had response rates of 50% compared to 43% of individuals who received cognitive therapy (DeRubeis et al., 2005). In addition,

antidepressant medications can be used to treat related conditions such as obsessive-compulsive disorder and overwhelming anxiety (Brophy, 1991). These medications can also treat excessive anxiety since they block the symptoms of panic, including rapid heartbeat, terror, dizziness, chest pains, nausea, and breathing problems.

Schatzberg, Cole, and Debattista (2007) suggested that 50%–65% of patients are expected to respond to any given trial of an antidepressant. However, not all clients will respond to medication. It is estimated that between 29% and 46% of people with major depression fail to respond to antidepressants and half of those who do not respond to the first antidepressant fail to respond to a second (Corya et al., 2006).

Antidepressants work by attempting to normalize naturally occurring brain chemicals called neurotransmitters—specifically serotonin and norepinephrine (see chapter 2 for a more detailed discussion of neurotransmitters). Other antidepressants work on the neurotransmitter dopamine (Cheung, Emslie, & Mayes, 2006). These are just two of the neurochemicals that help regulate mood, making it important to be knowledgeable of the various medications used to treat depression.

Antidepressant medications have resulted in approximately 12 billion in annual sales in the United States (Schatzberg, Cole, & Debattista, 2007). Although classification systems can differ slightly, generally antidepressant drugs can be classified into three major groups: (a) tricyclic antidepressants, (b) monoamine oxidase inhibitors, and (c) newer antidepressants, which include serotonin-selective reuptake inhibitors (SSRIs) and other similar drugs (Brophy, 1991; Tierney, McPhee, & Papdakis, 1997; Woo & Keatinge, 2008). The popularity of these medications, especially the newer generation antidepressants, has risen dramatically, which can be seen in recent sales figures and profits noted by pharmaceutical companies (IMS, 2009).

When depression is severe and exercise, sleep adjustments, and diet do not seem to be working, treatment guidelines suggest drug therapy is a possibility. Drug therapy is often recommended by the medical community when depression has a genetic or familial component, particularly for those whose mothers were depressed, or when there is a first-generation family history of major depression (Goodman & Tully, 2006). Before prescribing an antidepressant, the prescriber needs to take into account factors such as drug side effect profiles, the potential for toxicity or overdose, and other client characteristics such as presenta-

tion of symptoms, other medical conditions and general health, and age (Schatzberg, Cole, & Debattista, 2007).

Psychopharmacological treatment of depression has three goals: (a) to treat an acute episode, (b) to prevent a relapse, and (c) to prevent future episodes (Gitlin, 1996). Depression is often marked by reoccurrence and chronicity (Hirschfeld et al., 1997). A general three-phase framework for understanding the treatment of depression contains the following phases: acute, continuation, and maintenance (Hirschfeld et al.). A single client could move through all three phases of treatment under the care of one clinician or three different therapists.

In the acute phase, the clinical goal is to stabilize the acute symptoms, which could be suicidal ideation, the inability to sleep, or other severe symptoms impairing daily functioning. If suicidal thoughts are present, a complete assessment and safety plan are needed. Seligman and Reichenberg (2007) warned that assessing for suicide and planning for the safety of the client should always be the first priority.

At this point, medications are often introduced. In the past, this often meant tricyclic antidepressants (Hirschfeld et al., 1997). Today, however, the most popular antidepressant medications are called SSRIs (NIMH, 2009a), which will be discussed later in this chapter.

Once the client is stabilized, the goal in the continuation phase of treatment is to sustain the stabilization that occurred during the acute phase. This is when psychotherapy is often combined with pharmacological treatment; cognitive behavioral therapy is often the treatment of choice (Rude & Bates, 2005; Vidair & Gunlicks-Stoessel, 2009). Individuals with depression have internal working models that include cognitive schemas about themselves and the world around them (McBride, Atkinson, Quilty, & Bagby, 2006). The theoretical rationale of using cognitive behavioral therapy rests with how individuals cognitively structure their view of the world and how these unique patterns of thinking influence their affect and behavior (Hamamci, 2006).

During the maintenance phase, the goal is to prevent the client from experiencing another depressive episode (Hirschfeld et al., 1997). Therefore, maintenance treatment is synonymous with prevention.

There are a multitude of studies that have examined the efficacy of antidepressants (Debonnel et al., 2006; Kennedy, Anderson, & Lam, 2005; Segal, Vincent, & Levitt, 2002); the use of medications with particular unique aspects of depression such as depressive symptoms

in posttraumatic stress disorder (Smajkic et al., 2001); the efficacy of medications on severely depressed individuals (Versiani, Moreno, Ramakers-van Moorsel, & Schutte, 2006); suicidal patients (Simon & Savarino, 2007); the use of antidepressants in the elderly (Sheikh et al., 2004); and treating children and adolescents with antidepressants (Cheung, Emslie, & Mayes, 2006; Moreno, Arango, Parellanda, Shaffer, & Bird, 2007).

TRICYCLIC ANTIDEPRESSANTS AND SIMILAR MEDICATIONS

One of the earliest developed groups of antidepressant medications were *tricyclics*, also known as TCAs. Discovered in the late 1950s, these drugs are among the oldest in the treatment of depression and once were considered the first line of medication intervention for unipolar depression (Austrian, 1995). These medications involve the neurochemicals serotonin, norepinephrine, and dopamine and serve primarily to block the reuptake process and the subsequent removal of these neurotransmitters (Larkin, 1993). Because of more adverse side effects, however, these medications have fallen into disfavor as a first-line approach for addressing depressive symptoms. Today, SSRIs and selective serotonin norepinephrine inhibitors (SSNRIs) are often preferred as first-line medications.

Generally, these medications are dosed at approximately 25–50 mg a day and increased by 25–50 mg every few days until the client has gradually adapted to the side effects (Maxmen & Ward, 1995). Peak concentrations of the drug are usually reached between 2 and 8 hours but may extend to between 10 and 12 hours (*PDR*, 2009). For most clients, a trial of at least 10 to 14 days is usually needed to get a full therapeutic dose, and the full effect might not occur for up to 6 weeks (Austrian, 1995). Since short-term effectiveness is noticeable in most clients within 2–4 weeks, the therapeutic dose can be evaluated through changes in blood levels. An increase in medication is appropriate if the client has not experienced any changes in symptoms and reports minimal side effects (Gitlin, 1996). Establishing an adequate course of treatment is considered essential for this classification of medications, especially since the most common cause of treatment failure is an inadequate trial of the medication (Tierney, McPhee, & Papadakis, 1997). See Table 8.1 for examples of tricyclics.

Table 8.1

EXAMPLES OF TRICYCLICS

MEDICATION	SEDATIVE EFFECT	DOSAGE RANGE
Elavil (amitriptyline)	Strong sedative	150–300 mg a day
Tofranil (imipramine)	Moderate sedative	150–300 mg a day
Pamelor/Aventyl (nortriptyline)	Mild sedative	50–150 mg a day
Norpramin/Pertofrane (desipramine)	Mild sedative	100–300 mg a day
The newest drug in this category, sometimes referred to as a heterocyclic:		
^a Asendin (amoxapine)	Mild/moderate sedative	150–450 mg a day
<p>^aThis antidepressant can create substantive neuroleptic activity, so prescribers must watch for tardive dyskinesia. Ranges are approximate. <i>Source:</i> These values were taken from "Psychotropics in Primary Care," by J. A. Shindul-Rothschild & A. J. Rothschild, 1998. In L. A. Eisenbauer & M. A. Murphy (Eds.), <i>Pharmacotherapeutics and Advanced Nursing Practice</i> (pp. 37–51). New York: McGraw-Hill.</p>		

Tricyclic medications have many side effects since they bind multiple unrelated receptors (Kent, 2000; see chapter 2 for a discussion of receptors). Therefore, clients who are placed on a tricyclic medication should be carefully monitored. The most common side effects include constipation, urinary retention, dry mouth, sedation, postural hypotension, cravings for sweets, and weight gain (Gitlin, 1996; Kent). Special consideration should be given to tricyclic medications such as Anafranil (clomipramine), since its powerful nature can cause typical tricyclic side effects, epileptic seizures, and serious sexual side effects (Gitlin). Of greatest concern is the toxicity of these medications. SSRIs were the most common antidepressants involved in toxic reactions to antidepressant medications reported in the United States for 2004. Tricyclic antidepressants, however, accounted for 12% of toxic reactions and were linked to 29% of all deaths due to antidepressant poisoning (Soghoian, Doty, Maffei, & Connolly, 2008). This is one reason many prescribers now prefer not to use them, especially since individuals who are severely depressed generally need increased and prolonged dosages (Fugh-Bergman, 2000). See Figure 8.2 for a list of possible side effects.

Figure 8.2

POSSIBLE SIDE EFFECTS OF TRICYCLICS**Complications**

- reactions may vary
- heart complications
 - sweating
 - dry mouth
 - headache
 - increased appetite for sweets
 - weight gain
 - unpleasant taste in mouth
 - difficulty urinating
 - changes in sexual desire
 - decrease in sexual ability
 - muscle twitches
 - fatigue
 - weakness

Interactions

- thyroid hormones
- antihypertensive medications
- oral contraceptives
- alcohol
- some blood coagulants
- tobacco
- some sleeping medications
- antipsychotic medications
- diuretics
- aspirin
- vitamin C
- antihistamines
- bicarbonate of soda

MONOAMINE OXIDASE INHIBITORS

Often considered a last resort when other antidepressants don't work, some clients may find relief from the older class of antidepressants known as monoamine oxidase inhibitors (MAOIs). MAOIs relieve depression by preventing the enzyme monoamine oxidase from breaking down the neurotransmitters norepinephrine, serotonin, and dopamine in the brain. Higher levels of these chemicals result, and the client's mood is boosted (Schimelpfening, 2009). MAO inhibitors have shown efficacy in treatment-resistant depression, dysthymia, and atypical depression, a subtype of major depressive disorder characterized by bulimia, fatigue, and hypersomnia (Bortolato, Chen, & Shih, 2008). However, due to the high risk of side effects, they are currently considered a second- or third-line treatment (Bortolato, Chen, & Shih). MAO inhibitors are also used to treat anxiety-related disorders, such as social phobia, panic disorder, posttraumatic stress disorder (PTSD), and obsessive-compulsive disorder (see Figure 8.3).

Figure 8.3

EXAMPLES OF MAOIs**Brand Name (Generic Name)**

Nardil (phenelzine)
Eldepryl (selegiline)
Parnate (tranylcypromine)

For current dosage information see the *Physicians' Desk Reference*, 2009 (63rd ed.). Montvale, NJ: Medical Economics.

A key risk among clients taking MAO inhibitors is that of suicidal overdose. In a 5-year study of suicidal overdoses among clients taking antidepressants, nearly 30% involved overdose ingestions (White, Litovitz, & Clancy, 2008). The researchers found that those taking MAO inhibitors (along with selected antidepressants and maprotiline) had the highest rates of life-threatening and lethal outcomes.

Because of their dangerous treatment-effect profiles, MAO inhibitors should only be considered after tricyclic or newer classifications of antidepressants have been tried (Tierney, McPhee, & Papadakis, 1997). There are times, however, that this group of drugs can be utilized as the first line of treatment for depression of an atypical nature (Tierney, McPhee, & Papadakis).

MAO inhibitors work by correcting chemical imbalances in the brain. During normal functioning, neurotransmitters carry signals from one brain cell to another. Some neurotransmitters, such as serotonin and norepinephrine, play important roles in controlling mood. Too little serotonin can lead to depression and other problems such as anger control (Gitlin, 1996). MAO inhibitors work by blocking the enzyme *monoamine oxidase*, which blocks the uptake of *monoamines*. An individual with depression will either secrete too little or too much of one of the neurotransmitters—serotonin, dopamine, or noradrenalin. The neurotransmitters are broken down by monoamine oxidase when it is reabsorbed in the nerve endings. The MAOIs block MAO from breaking down the neurotransmitters, thereby lifting mood (Gitlin). Other substances in the brain may interfere with mood control by breaking down

serotonin and norepinephrine, and MAO inhibitors work by blocking the chemicals that break them down as well.

MAO inhibitors carry a risk for serious reaction when mixed with many other medications, so clients should be warned about the high potential for interaction (Kent, 2000; Larkin, 1993). The social worker should remind clients to provide their prescribers with a complete account of the different medications they are currently taking as well as any medications they took in the previous few weeks. MAO inhibitors also can have serious toxic side effects related to dietary intake, so clients should be required to observe certain dietary restrictions and abstain from certain drug products while taking them (Lehne & Scott, 1996; Merck Research Laboratories, 1992; Tierney, McPhee, & Papadakis, 1997). Foods to be avoided include most cheese products (except cottage cheese, cream cheese, and fresh yogurt), any fermented or aged meats (such as salami or bologna), liver of all types, pickled herring, broad bean pods and Chinese pea pods, meat and yeast extracts, raisins, pineapples, bananas, and chocolate. Beverages to be avoided include red wine, beer, ale, vermouth, cognac, sherry, and coffee (McCabe-Sellers, Staggs, & Bogle, 2006).

Drug products to be avoided include products containing phenylpropanolamine, phenylephrine, meperidine, dextromethorphan, and pseudoephedrine. Because of the presence of many of these compounds in over-the-counter cold and allergy preparations (*PDR*, 2009), it is essential clients know about these ingredients and the overall toxicity of drug interactions.

Recommendations to assist social work professionals working with clients on MAO-type medications include the following: (a) the use of the medication should be reevaluated if the client has trouble understanding, following, or maintaining the dietary and medication compound restrictions; (b) ongoing education in regard to dietary restrictions and over-the-counter compounds that cannot be tolerated needs to be reinforced (Craig, 1995); (c) the client should be warned against taking or discontinuing any additional medications without knowing the possible interaction or withdrawal effects (Craig); and (d) the client needs to be made aware of the “wash out” time (2–3 weeks) if he or she plans to switch from one category of antidepressants to another, particularly when the change involves taking a newer generation antidepressant such as an SSRI (Tierney, McPhee, & Papadakis, 1997). (See Figure 8.4.)

Figure 8.4

COMMON SIDE EFFECTS AND POSSIBLE INTERACTIONS WITH MAOIs

- Dizziness and rapid heart rate when changing position (especially from sitting to standing)
- Interaction with certain food additives, especially monosodium glutamate (MSG)
- Interaction with over-the-counter cold and allergy preparations, antihistamines, amphetamines, insulin, narcotics, and antiparkinsonian medications
- Reactions that may not appear for several hours and can include rapid heart rate, high blood pressure, seizures, stroke, or coma
- Sleep disturbances
- Muscle twitching
- Weight gain
- Blurred vision
- Headache
- Increased appetite
- Restlessness
- Shakiness
- Trembling
- Weakness
- Increased sweating

Source: Information summarized from *Physicians' Desk Reference* (63rd ed.), 2009. Montvale, NJ: Medical Economics.

SELECTIVE SEROTONIN REUPTAKE INHIBITORS

The *selective serotonin reuptake inhibitors* (SSRIs) are considered the front line of treatment for clinical depression (Capriotti, 2006). In addition, there are other, newer compounds to treat depression such as venlafaxine, mirtazapine, nefazodone, and reboxetine (Kent, 2000). SSRIs have rapidly become the most prominent form of antidepressant medication and are the most widely prescribed antidepressants (Woo &

Keatinge, 2008). For example, consider Prozac (fluoxetine), which was first approved in 1987. Due to Prozac's ability to target the neurochemical serotonin (the neurotransmitter that affects mood), it is not surprising that numerous similar medications such as Zoloft, Paxil, Celexa, and Luvox soon followed (Lemonick, 1999).

The National Institute of Mental Health (NIMH, 2009a) identifies several types of medications that fall into the classification of SSRIs, which are commonly referred to as second-generation antidepressants. SSRIs work by inhibiting the reuptake of the neurochemical serotonin (Kent, 2000; NIMH) and preventing the nerve cells from reabsorbing this neurotransmitter, thereby increasing its presence at the synapses in the central nervous system (Lemonick, 1997). See Figure 8.5 for a list of SSRIs.

Figure 8.5

SELECTIVE SEROTONIN REUPTAKE INHIBITORS

Brand Name (Generic Name)

- Prozac (fluoxetine)
- Paxil (paroxetine hydrochloride)
- Zoloft (sertraline)
- Luvox (fluvoxamine)
- Celexa (citalopram)

For current dosage information, please see *Physicians' Desk Reference* (63rd ed.), 2009. Montvale, NJ: Medical Economics.

Introduced in 1988, Prozac is the oldest SSRI and is still often prescribed. Now available in its generic form, Prozac is a highly successful antidepressant that revolutionized the treatment of depression because of its ability to raise serotonin levels in the brain. The increased availability of this neurochemical effectively addresses the symptoms prevalent in depression. Prozac is also used to treat obsessive-compulsive disorder and bulimia. In 1999, Prozac was endorsed by the FDA as especially effective for geriatric depression (Hussar, 2000).

When compared to the older classes of antidepressants (i.e., tricyclics and MAOs), SSRIs have fewer side effects (NIMH, 2009). A major

advantage to using SSRIs is that a gradual dosage increase is not required to reach a therapeutic level. In addition, most of the side effects caused by SSRI antidepressant medications do not last long (NIMH).

The most common side effects of SSRIs include gastrointestinal complaints, nervousness and agitation, sexual dysfunction, and weight gain with long-term use (Kent, 2000). One commonly reported side effect is sexual problems in men and women. These problems include reduced sex drive and problems having and enjoying sex (NIMH, 2009). Sexual side effects can occur in 20% to 60% of clients taking these medications (Gitlin, 1996; Labbate, 1999). The sexual side effect profiles related to SSRIs often cause significant concerns among clients, yet clients may not be comfortable discussing them. Sexual side effects include anorgasmia, erectile dysfunction, and diminished libido (Csoka, Bahrck, & Mehtonen, 2008). Being aware of these side effects is important because clients may avoid discussing these sensitive issues with their prescribers (Serretti & Chiesa, 2009).

Clients who experience sexual side effects should be informed that normal sexual functioning might return after their system adjusts to the medication. Prescribing additional medications may be helpful in alleviating sexual side effects. For example, in one study, Viagra (sildenafil) was found to be effective in increasing sexual arousal in women taking SSRI antidepressants (Psychopharmacology Update, 2000). Social workers should be aware that several of these supplemental treatments are available.

One medication in particular shows promise for clients who experience sexual side effects with SSRIs. Studies of Serzone (nefazadone) revealed only mild side effects, none of which included sexual disinterest or sexual disorders (Austrian, 2005).

Another consideration when working with clients who are on an SSRI is ensuring an MAO inhibitor is not also prescribed because the interaction between the two drugs can cause a potentially fatal reaction known as *serotonin syndrome* (Gitlin, 1996). In serotonin overdose reactions, most individuals develop nausea and vomiting and can become very ill.

SEROTONIN-NOREPINEPHRINE REUPTAKE INHIBITORS

Although SSRIs are said to have revolutionized the treatment of depression, *serotonin-norepinephrine reuptake inhibitors* (SNRIs or SSNRIs) have gained in popularity. These medications are said to be equivalent

or even better to SSRIs in terms of efficacy (Kent, 2000). SNRIs differ from SSRIs in their mechanism of action and also have improved side effect profiles (NIMH, 2009). SNRIs, sometimes called *dual reuptake inhibitors*, work by increasing levels of both serotonin and norepinephrine in the brain by inhibiting their reabsorption (reuptake) into cells in the brain. It's thought that these higher levels enhance neurotransmission—the sending of nerve impulses—and so improve and elevate mood.

Two popular SNRIs in this category are Effexor (venlafaxine) and Serzone (nefazodone). Effexor is particularly convenient for clients because it comes in an extended-release version, which allows the client who may have difficulty complying with multiple dosages to take the medication only once a day (Kent, 2000). For the older client with impaired liver or kidney functioning, both Effexor and Serzone must be cautiously used since the medication may not be absorbed and filtered properly (Kent). See Figure 8.6 for a list of potential side effects with SNRIs.

Figure 8.6

POSSIBLE SIDE EFFECTS OF SNRI MEDICATIONS

■ restlessness, agitation, dizziness, dry mouth, difficulty sleeping, abnormal dreams, yawning, headache, nausea, vomiting, constipation, change in weight, gas, possible weight gain, postural hypotension, tremor, sweating, rash, itching, seizures, anxiety, confusion, suicide potential, abnormal vision, such as blurred vision or double vision, sexual dysfunction, possible decrease in fertility, sexual disinterest

Source: Information summarized from *Physicians' Desk Reference*, 2009 (63rd ed.). Montvale, NJ: Medical Economics.

Remeron (mirtazapine) is a *noradrenergic and specific serotonergic antidepressant* (NaSSA). Remeron also should be used cautiously by older people because of their decreased liver and kidney function. Because Remeron is so new to the market and long-term studies have not been thoroughly documented, physicians who prescribe this medication

should periodically evaluate its long-term use for the individual client (*PDR Health*, 2009).

Reboxetine, an antidepressant not currently approved for use in the United States, is sold under several brand names including Edoronax, Norebox, Prolift, Solvex, Daveddax, or Vestra. This medication selectively inhibits norepinephrine reuptake without inhibiting other neurochemicals, such as serotonin or dopamine; therefore, it can be combined with an SSRI (Kent, 2000; Moller, 2000). In preliminary studies, this medication appears to be particularly effective in treating severe depression by improving negative self-perceptions and motivation (Kent). Furthermore, in a study of 1,835 depressed individuals on reboxetine taking 8 mg a day, 83% of the subjects showed a 50% reduction of depressive symptoms on the Hamilton Depression Scale (Messer, Schmauss, & Lambert-Baumann, 2005). The physicians in the study rated the tolerability as good (42%) or very good (50%). More studies to support approval of this medication in the United States are encouraged.

Given these newer medications, the number of drug trials that compare types of medication should be increased and refined. To date, our understanding of the differences between these medications is limited and it is possible they are all equal in terms of effectiveness. For example, in a double-blind study with treatment-resistant depressed clients at 90 sites in 16 countries, researchers compared a combination of Zyprexa and Prozac (olanzapine/fluoxetine) with olanzapine, fluoxetine (an SSRI), and Effexor (venlafaxine, an SNRI). In the end, all subgroups showed to be similarly effective (Corya et al., 2006). In another double-blind study comparing venlafaxine and fluoxetine in a sample of 308 outpatient individuals with depression, venlafaxine was significantly more effective than the placebo on most outcomes and fluoxetine was less effective (Nemeroff & Thase, 2007). (See Figure 8.7.)

Social workers should keep in mind that with each new drug trial, more research is needed to differentiate between older and newer medications. Based on previous research on this category of antidepressants, and despite the methodological issues relative to limited testing of client responses, there are probably only minimal differences in clinical efficacy among these four newer antidepressants (Kent, 2000).

Social workers should also be aware of even newer medications on the horizon. It is expected that SSRIs and SSNRIs will soon have competition from a new category called *triple reuptake inhibitors*, which will be used to block the reuptake of serotonin, norepinephrine, and dopamine.

Figure 8.7

OTHER NEWER ANTIDEPRESSANTS

Brand Name (Generic Name)	Type of Antidepressant
Effexor (venlafaxine HCL)	SNaRI (Serotonin Noradrenergic Reuptake Inhibitor)
Serzone (nefazodone)	SNaRI (Serotonin Noradrenergic Reuptake Inhibitor)
Remeron (mirtazapine)	NaSSA (Noradrenergic and Specific Serotonergic Antidepressant)
Reboxetine	NaRI (Noradrenaline Reuptake Inhibitor)

When the clinical trials are complete, this new category will be called selective serotonin-norepinephrine-dopamine reuptake inhibitors (SNDRIs; Mitchell, 2006).

DRUG INTERACTIONS

To avoid drug interactions involving newer antidepressants, it is critical to take a comprehensive history of all the substances a client is using. This history should always include prescription and over-the-counter medications, alcohol, herbals, nutritional supplements, and illegal substances.

For example, many clients may not be aware of potential interactions between Prozac and over-the-counter cough remedies containing dextromethorphan, which can increase reactions such as dizziness, sedation, and confusion (Morris, 1999). St. John's wort, an herbal preparation often used to treat depression, should not be used in conjunction with newer antidepressants, especially SSRIs (Morris). Taking this herbal medication with an antidepressant can raise serotonin levels to a toxic level (serotonin syndrome). Another herbal preparation that can cause interaction effects is Panax ginseng, which may cause manic symptoms

when combined with antidepressants (Fugh-Bergman, 2000). Both the social worker and client need to be aware of the possibility of adverse effects from combining over-the-counter and herbal products with prescription antidepressants.

SPECIAL ISSUES IN THE TREATMENT OF DEPRESSION

Two special issues surrounding the prevalence and treatment of depression are depression in women (particularly before, during, and after pregnancy) and depression in the elderly.

Postpartum Depression

Depression during and after pregnancy is very common, and *postpartum depression* is a serious problem for both mothers and infants. In one study of 1,400 women, 13.5% met the criteria for major depression at 32 weeks of pregnancy (Bledsoe & Grote, 2006). Postpartum depression can have a lasting impact on children. It is estimated that 10% of children born to mothers who experience postpartum depression will experience depression themselves; 90% will recover from the depressive episode within 1 to 2 years (Cheung, Emslie, & Mayes, 2006). The lack of an emotionally available mother can impact the child's attachment style as well as his or her emotional development. Thus, early identification and treatment of depression in pregnant women can be a protective factor not only for the mother, but for her infant and family as well (Bledsoe & Grote). It is necessary for social workers to be informed of interventions for depression during pregnancy and the postpartum period. In a meta-analysis of treatment efficacy for nonpsychotic depressed pregnant women, Bledsoe and Grote found that medication alone or in combination with cognitive behavioral therapy, group therapy with CBT, interpersonal therapy, and CBT alone all showed promise in treating depressed pregnant women.

Many doctors are hesitant to prescribe medications to pregnant women because absolute safety to the infant cannot be assured. When medication is needed, however, additional options include support groups or making sure clients can get help through telephone hotlines (Dolan, 2005). Social workers should be aware that some mothers, particularly those who are breastfeeding, may not want to take medication, and the same warnings and considerations should apply (Dolan).

Depression and Breastfeeding Women

When working with women of childbearing age, social workers should remind their clients to discuss with their prescribers the possibility of transmitting antidepressant medications to an infant via breast milk. The majority of studies have shown that the amount of antidepressant medication (particularly SSRIs) that ends up in breast milk is very low to undetectable (Stowe et al., 2000). Though research does not appear to show a direct correlation between medication in the milk and an infant's behavior, the client should still be advised that these medications are fairly new and that conclusive and long-term effects have yet to be determined. Caution should be used when a woman is deciding whether to take antidepressant medications during pregnancy and whether to breastfeed her infant.

Women, Depression, and HIV/AIDS

Depression is a common symptom when a client is diagnosed with HIV or AIDS. Some studies have tested the efficacy of using antidepressants in treating depressed women who are HIV positive (see, e.g., Ferrando, Rabkin, de Moore, & Rabkin, 1999). The research suggests that depressed HIV-positive women can benefit from taking medications. Attention should not be diverted, however, from the need for aggressive outreach, education, and counseling for these clients.

Depression in the Elderly

Depression is common among older adults: 8% to 20% of older adults in the community, and up to 37% in primary care settings, suffer from depressive symptoms (Steinman et al., 2007). Once depression in the elderly has been treated successfully, the response rate is between 60% and 80% (Steinman et al.). Milder forms of depression are more frequent than major depression in the elderly (Steinman et al.), yet the diagnosis for minor depression is not yet standardized. The research criteria proposed in *DSM-IV* for the elderly are the same as those for major depression but with fewer symptoms and less impairment. The most serious consequence of depression in later life—especially untreated or inadequately treated depression—is suicide or somatic illness (American Association of Suicidology, 2005).

ANTIDEPRESSANTS AND THE RISK OF SUICIDE

One issue of particular concern for social work professionals is the increased risk of suicide in those taking antidepressant medications, especially children, adolescents, and young adults (FDA, 2009a). In the past, results of research studies have been mixed. Some clearly support a correlation between the use of these medications and suicide rates (Kapur, Mieczkowski, & Mann, 1992). Others state, “There is at present no convincing or consistent evidence that particular classes of psychotropic drugs provoke suicidal behavior in predisposed individuals” (Baldwin, 2000, p. 61). Regardless of the controversy (DeVane, 1994; Gitlin, 1996; Hamilton & Opler, 1992; Mann & Kapur, 1991; Tollefson, Ramphey, Beasley, Enas, & Potvin, 1994), social workers who work with depressed clients on medications need to clearly assess and address the potential for suicidal ideation and intent (Seligman & Reichenberg, 2007).

On October 15, 2004, the FDA directed the manufacturers of all antidepressant medications to add a black box warning—one of the strongest types of warning the FDA can issue. The warning describes the increased risk of suicidality in children and adolescents using anti-

Figure 8.8

BLACK BOX WARNING

In 2004, the FDA ordered one of the strongest safety warnings possible:

Antidepressants increase the risk of suicidal thinking and behavior (suicidality) in children and adolescents with major depressive disorder (MDD) and other psychiatric disorders. Anyone considering the use of [Drug Name] or any other antidepressant in a child or adolescent must balance this risk with the clinical need. (Prozac is the exception.)

In 2006, the FDA increased the safety warning by adding “young adults” to the 2004 warning.

Source: New Warnings Proposed for Antidepressants, by Food and Drug Administration (FDA), 2007c. Retrieved June 22, 2009, from <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm048950.htm>

depressant medications (FDA, 2007c). See Figure 8.8 for the text of the black box warning.

Furthermore, the warning outlines the signs and symptoms of most concern, such as anxiety, agitation, panic attacks, insomnia, irritability, hostility, impulsivity, akathisia, hypomania, mania, other unusual changes in behavior, worsening of depression, and suicidal ideation, especially early in antidepressant treatment or when the dose is adjusted (NIMH, 2009). Although a direct causal link between such symptoms and a worsening of depression or the emergence of suicidal impulses has not been clearly established, there is concern that such symptoms may represent precursors to emerging suicidality (FDA, 2007c). Therefore, it is important to recognize these signs since they may indicate increased risk for suicidal thinking and behavior and may require close monitoring and possible changes in the medication regime. Social workers, clients, and client families need to be alerted to the importance of such signs.

When these symptoms occur, the social worker should ensure the client and his or her family report the onset to the client's medical provider, especially if the symptoms are severe, their onset is abrupt, or if they were not part of the client's original presenting symptoms. When medication is used as a sole modality, caution should always be emphasized when addressing suicidal feelings. For example, newer antidepressant medications have a quick response rate, helping the depressed individual feel better and more energetic. When energy returns, most professionals will agree the client is more likely to act on suicidal thoughts or feelings. Therefore, using medication without counseling may unintentionally deprive these clients of proper care, putting them in a potentially dangerous situation.

For the most part, antidepressant medications work very effectively in treating endogenous types of depression and result in positive mood changes usually visible within 2 to 6 weeks. But suicidal clients are most vulnerable when they have more energy to act on their negative thoughts and feelings. It is recommended that a client taking any antidepressant medications, especially those in the newer category (SSRIs and others), be completely assessed for suicidal ideation and intent. In addition, social workers should assess whether the client has ever tried to commit suicide before, as this may be related to the severity of the depression and an earlier age of onset (Gibb, Andover, & Miller, 2008). Because hospitals and other mental health facilities continue to discharge patients after very short stays, the social worker serves a central role in recognizing, assessing, and creating a safety plan to address the possibil-

ity of problems after facility discharge. See chapter 5 for how to create a safety plan and implement a no-harm no-risk agreement.

The strength of social work intervention is in the planning and preparation for a client's return to his or her environment. When making arrangements for discharge, the social worker should be aware that the client's significant others may not be ready for the positive changes in his or her mood. The absence of visible depressive symptoms may give the client and his or her family a false sense of total recuperation. Family members, employers, and co-workers may expect the client to resume normal family and occupational activities, resulting in emotional overload for the client. Many times clients do not respond as actively to these expectations as they had in the past, which may result in frustration for the client and other members of the environmental support system.

There are inherent risks that clients may want to discontinue their medication regimens once symptoms of depression lift. While clients have the right to self-determination (Hepworth, Rooney, & Larsen, 2002) in medication and other aspects of treatment, it is the social worker's responsibility to educate the client about the triggers and risk of relapse. Clients should be advised to stay on antidepressants for a minimum of 16 to 20 weeks or until the stressors in their lives are under control (Maxmen & Ward, 1995). These time periods can vary; those with severe depression are recommended to take them longer (NIMH, 2009). Whenever a client stops using antidepressants, extreme caution should be taken to ensure the process is done gradually and with monitoring. Stopping a medication too quickly and without proper tapering can lead to withdrawal symptoms (NIMH). Because the risk of depression increases at certain times of the year (holidays and anniversary dates, for instance), social workers should work closely with their clients to select the least disruptive time to begin decreasing medication. Clients should be aware that they have the option to return to earlier dosages if depressive symptoms reappear.

As clients prepare to discontinue the use of antidepressants, social workers should keep the following in mind: (a) encourage and reinforce the client's awareness and identification of recurring depressive symptoms; (b) ensure the client has a good support system; (c) encourage the client to continue counseling even after discontinuing medication; (d) help the client develop a plan of action for the possible return of depressive symptoms; and (e) involve family and significant others in the early identification of relapse.

ALTERNATIVE AND SUPPORTIVE INTERVENTIONS: ELECTROCONVULSIVE THERAPY

Electroconvulsive therapy (ECT) as performed in the past was very different from the process used today in the treatment of major depressive disorder. As currently performed, ECT is a safe and effective treatment for a number of psychiatric disorders, and for some clients it may be the only treatment that really works (Pandya, Pozuelo, & Malone, 2007). In ECT, a generalized central nervous system seizure is induced by an electric current. The objective is to achieve the full seizure threshold until full therapeutic gains can be established. The exact process by which ECT works is unknown; however, the shock results in an increase in different neurotransmitter responses at the cell membrane. A general course is 4 to 12 treatments until therapeutic results are noted (Sachs, 1996).

For cases when medication and psychotherapy do not seem to work, ECT may be helpful. Comparative controlled studies using ECT instead of medication have shown that ECT is more effective (Tierney, McPhee, & Papadakis, 1997). Today, ECT remains the gold standard for treatment-resistant depression and severe depression that has lasted many years (Mathew, 2008). It is also often used for mood disorders such as bipolar depression and acute mania (Pandya, Pozuelo, & Malone, 2007). ECT is often used to treat individuals who suffer from major depression, especially those who cannot take medications due to underlying medical conditions or who do not respond to traditional antidepressant medication. For the most part, ECT is associated with the most rapid onset of action, although high relapse and cognitive side effects remain a significant concern (Mathew).

Electrical stimulation has a quick onset, is simpler to use, and can be more cost effective than medications to assist with convulsions (U.K. ECT Review Group, 2003). This procedure allows clients to be treated and released, whereas treatment with newer antidepressants has a reported relapse rate as high as 50% if the medication is discontinued in less than 6 months (Maxmen & Ward, 1995). In many states, psychiatrists perform ECT on an outpatient basis, which greatly reduces inpatient hospital stays and the prolonged monthly expense of traditional antidepressant medications. Although ECT clearly can prompt a remission of symptoms, there are no guarantees that prevent a relapse; at times, maintenance ECT may be recommended to provide ongoing stability.

Some major side effects of ECT are transient cognitive effects, or memory disturbance (Pandya, Pozuelo, & Malone, 2007). Memory disturbance is related to two factors: the number of treatments and the oxygenation provided during the treatment experience (Tierney, McPhee, & Papadakis, 1997). Unfortunately, some memory loss may be permanent, but most memory does return within several weeks of termination of the treatments. Social work professionals working with individuals who receive ECT must be supportive of the client during the treatment process, especially when verbal therapy is provided. During this process, the client may find it difficult to continue verbal interventions while experiencing compromised cognitive functioning. To avoid unwanted pressure and strain, it may prove useful to encourage the client to decline verbal therapy until ECT treatments are discontinued. Despite the prominent gains evidenced by the practice of ECT as a treatment modality, the most significant drawback remains the general lack of acceptance for the technique based on the public's ignorance and skepticism about the procedure (Maxmen & Ward, 1995; Tierney, McPhee, & Papadakis). Also, clients with certain medical conditions, especially autonomic sensitivity (cardiopulmonary conditions), anesthesia sensitivity, and cognitive sensitivity, should have a more extensive workup (Pandya, Pozuelo, & Malone).

According to Pandya and colleagues (2007), the future includes several new neuromodulatory treatments that appear promising for the treatment of mood disorders. The first is *vagus nerve stimulation* (VNS), which involves an implanted pacemaker-type device. This neuromodulatory technique is only to be tried after at least four different antidepressants have failed and is not indicated for acute or emergency treatment (Pandya, Pozuelo, & Malone).

Two other ancillary treatments that appear promising are *repetitive transcranial magnetic stimulation* (RTMS) and *deep brain stimulation* (DBS). RTMS is delivered via an induction coil over a period of days or weeks. Since this technique does not induce convulsions (as in ECT), it does not require anesthesia, thereby avoiding the side effects related to its use. Pandya and colleagues (2007) stated that DPS is delivered via electrodes implanted in specific areas in the brain and thus can be directed at precise targets.

SELF-INITIATED TREATMENTS FOR DEPRESSION

In today's evolving health care climate, many clients are taking an active role in their own physical and mental health treatment. With the

number of over-the-counter and prescription medications available, clients are given choices and can make decisions on which to try. OTC medications can be purchased without any expert guidance and can usually be dispensed in less potent dosages, but these OTC medications can easily interact with, diminish, or augment the treatment effects of prescribed medications. In addition, numerous alternative medicines and treatments designed specifically to treat depression are gaining popularity. Social workers are exposed to clients who want to rely less on traditional medications and more on alternative or holistic means (Dziegielewski, 1998). These alternate approaches can include anything from acupuncture and exercise to nutrition and herbal medicines (Lee & Carlin, 1997).

St. John's wort is a natural herbal remedy for depression that has recently gained in popularity and prevalence across the United States and has become one of the top-selling botanical products (NIMH, 2009). St. John's wort (*Hypericum perforatum*) is a lush green herb with bright yellow flowers that has traditionally been used to heal wounds and as a tea to soothe nerves and relieve melancholy. Its natural antidepressant effect enhances the neurochemicals serotonin, norepinephrine, and dopamine with few side effects (Lemonick, 1997).

The herb is native to Europe, western Asia, and northern Africa and is available at many health stores in the United States without a prescription. It costs much less than prescription antidepressant medications.

Although this botanical is very popular in Europe, its efficacy is still being studied in the United States. To date, NIMH (2009) reported that in a recent study it was not effective for severe depressive symptoms, but studies related to more mild depression are in process.

Although the FDA can monitor many of the claims of traditional medicines, the ability of clients to gain easy access to alternative forms of medicine and to self-medicate is a practice reality (Lee & Carlin, 1997). Interest in and continued use of alternative medicine and treatment strategies for depression are increasing (Ullman, 1993). The attitude within the medical community is changing, and physicians and other health care professionals are becoming more aware of alternative medicine strategies (Lee & Carlin); in the future, it may be common practice to include these strategies as part of a client's health and mental health treatment regimen (Dziegielewski, 1998). Nevertheless, until then, social workers should be aware that clients might conceal their use of herbal medications for fear of disapproval. Discussion about herbal preparations should take place in an open, supportive, and non-

judgmental way (Fugh-Bergman, 2000). The NIMH (2009) warned that St. John's wort, specifically, may not mix well with other medications. In 2000, the FDA issued a warning that the herb appears to interfere with medications used to treat heart disease, depression, seizures, certain cancers, and organ transplantation as well as oral contraceptives (as cited in NIMH, 2009).

DIRECT SOCIAL WORK INTERVENTION

Traditionally, social workers have used a biopsychosocial approach (Hepworth, Rooney, & Larsen, 2002) to understand the difficulties experienced by clients and to empower them to take charge of their lives and strive for new and improved levels of health and mental health satisfaction and functioning (Dziegielewski, 1998). When treating clients with depression, it is also important to expand the biopsychosocial model to include assessment of sexuality, spirituality, and cognition. See Table 8.2 for an assessment tool utilizing this model.

As discussed earlier in the chapter, sexual problems are often associated with antidepressant medications, particularly SSRIs (Serretti & Chiesa, 2009). Therefore, one of the most important components of assessing sexual dysfunction in clients taking medications for depression is obtaining a medical and sexual history (Fazio & Brock, 2004). Proper assessment of the impact of depression on sexuality requires the careful accumulation of data likely to affect sexual response. Age; marital status; religious beliefs; intimate relationships; socioeconomic status; the level of education of both partners; the nature of the marital relationship; the functional ability of the male partner; levels of anxiety; the type of anorgasmia (primary versus secondary); gynecological, physiological, and medical conditions; the presence of psychosis or depression; and drug and alcohol use may all have an impact on an individual's ability to reach orgasm (Dziegielewski, Jacinto, Dick, & Resnick-Cortes, 2007). In assessing sexual dysfunction in a depressed client, it is important to inquire about the level of sexual performance prior to the current onset of depression to determine changes in arousal, desire, or performance. It is important to distinguish between loss of libido versus a sexual disorder. In males, a loss of libido may be attributed to a decrease in testosterone combined with depression, anxiety, low self-esteem, work-related stress, and relationship problems (Dziegielewski, Turnage, Dick, & Resnick-Cortes, 2007). These combined factors may interact with one another in

MATRIX FOR ASSESSING DEPRESSION USING THE BIOPSYCHOSOCIAL-SEXUAL SPIRITUAL COGNITIVE MODEL

FUNCTIONAL DOMAIN	QUESTIONS TO ASK	EXPLORING PREEXISTING LEVELS OF FUNCTIONING
<i>Biological</i>	<p>How has the depression affected your energy level? Give examples.</p> <p>Have you noticed any physical symptoms since being depressed?</p> <p>Have there been any changes in your sleep, eating, or physical mobility?</p>	<p>Describe your energy level prior to the onset of the depression?</p> <p>Did you have any health worries prior to being depressed?</p> <p>Were there activities you did before that you have not been able to do because of the depression?</p>
<i>Psychological</i>	<p>Do you feel you are as emotionally accessible to close friends and family since your mood has been depressed?</p> <p>Has your image of yourself changed since being depressed? Give examples.</p> <p>Do you feel your motivation to reach your goals has changed?</p>	<p>How would you define yourself before your depression?</p> <p>What has been your biggest worry since being depressed?</p> <p>What has been the loss you are most aware of since being depressed?</p>
<i>Social</i>	<p>Explain how being depressed has had an impact on your social relationships?</p> <p>Have you rejected social invitations because of your depression?</p> <p>Are there times when you would rather be alone instead of with a group of friends?</p>	<p>Can you describe your closet friend? Have you talked with him or her about your mood?</p> <p>Do you have good friends that you used to see on a regular basis prior to being depressed? Has the frequency of contact with them changed?</p>

Sexual

Has your sexual energy changed since being depressed?

Has there been a decrease in sexual interest?

Has the frequency of your sexual activity changed over time?

For males: Is your level of erection quality changed since the onset of the depression?

For females: Have you had any changes in arousal or orgasmic responses since being depressed?

Spiritual

Do you consider yourself a spiritual person? If yes, how has your spirituality been affected by your depression?

Are you a member of an organized religion? If yes, has your involvement changed since being depressed?

Do you pray for healing?

Explain how you feel your depression has affected your sexuality.

Since taking medications, do you feel any side effects affecting your sexuality?

Have your feelings about your sexual performance shifted from how you felt prior to being depressed?

On a scale of 1 to 10, rank your level of spirituality prior to being depressed, with 10 the highest.

What comfort did you find in your earlier spirituality that is missing or diminished?

(Continued)

Table 8.2

MATRIX FOR ASSESSING DEPRESSION USING THE BIOPSYCHOSOCIAL-SEXUAL SPIRITUAL COGNITIVE MODEL (Continued)

FUNCTIONAL DOMAIN	QUESTIONS TO ASK	EXPLORING PREEXISTING LEVELS OF FUNCTIONING
<i>Sense of Self</i>	<p>What do you tell yourself about your depression?</p> <p>Does your depression conflict with how you see yourself?</p> <p>Does your depression conflict with any of your values?</p>	<p>What was your view of yourself prior to the depression?</p> <p>What has been the most dramatic shift in how you view yourself?</p> <p>What aspect of yourself do you want to reclaim?</p>
<i>Cognitive</i>	<p>Tell me some beliefs you have about yourself.</p> <p>Has your depression changed your self-image?</p> <p>Do you think less of yourself due to your depression?</p>	<p>Give me three words that describe how you saw yourself before you were depressed.</p> <p>What do you think is the cause of your depression?</p> <p>Are you willing to accept medication if it is recommended by your physician/prescriber?</p>

contributing to a sexual dysfunction; therefore, it is important to determine which came first.

Spiritual beliefs are an important functional domain for many people. Assessing the spiritual and religious affiliation of a depressed client can be a source of strength and resiliency for the client. It is important to determine if there has been a shift in the degree of spirituality; a lessening or increase in spirituality since the onset of the depression; and the extent to which organized religion, prayer, and social support networks are utilized to deal with the depression.

Cognitive therapy with a highly trained therapist can be as effective as medications in moderately and mildly depressed individuals and has been found to be as effective as older antidepressant medications—tricyclics and MAOIs (Seligman & Reichenberg, 2007). The focus of cognitive behavioral therapy is on the interaction of the individual's thoughts, emotions, and behaviors (Rude & Bates, 2005). The primary principles of cognitive therapy are teaching clients how to identify their dysfunctional thoughts and beliefs and how they contribute to their depression (Vidair & Gunlicks-Stoessel, 2009).

Today's practice environment and the acceptance of antidepressant medications have made social workers aware of medications as an essential component in health and mental health treatment. As medications continue to be used as a primary form of therapeutic intervention for depression, the role of the social work professional in understanding and monitoring medication treatment regimens must be proactive. Social workers often treat clients who are on medication by acting as physician's assistants, professional consultants, collaborators, educators, researchers, client advocates, and brokers (Dziegielewski, 1997, 1998). This means they must be able to recommend, address, interpret, and help monitor medication regimens and medication-related treatment issues with their clients.

Seligman and Reichenberg (2007) reported that individual psychotherapy alone is appropriate for mild to moderate uncomplicated forms of depression. In the more severe forms, the combination of medication and psychotherapy is almost always expected (Seligman & Reichenberg). Some professionals fear these newer antidepressants will become "as familiar as Kleenex and as socially acceptable as spring water" (Cowley, 1994, p. 41).

One concern is that primary care physicians and others who prescribe antidepressants may lack information on their effectiveness and side effects. Therefore, the verbal or sociopsychological intervention to

supplement the use of the medication will be limited. In a 1993 study, researchers at the Rand Corporation found that fewer than half of general practitioners who prescribed antidepressant medications spent 3 minutes or more discussing the problems that led to the depressive symptoms (cited in Cowley, 1994). In addition, researchers Rushton, Clark, and Freed (2000) found that primary care physicians prescribed medication for the treatment of childhood depression before they referred the child to any type of specialist for evaluation and intervention. Although these physicians reported no additional training in the area, they reported an increased level of comfort in prescribing medications for depression.

Medications are often used to supplement the treatment regimen particularly in more serious cases because they allow the client to do the necessary therapeutic work (Schatzberg & Cole, 1991; Seligman & Reichenberg, 2007; Woo & Keatinge, 2008). This is especially important when such great strides have been reported in the use of cognitive-behavioral treatments for symptoms of depression and anxiety. Because many of these interventions relate to depression and anxiety, more in-depth information on cognitive-behavioral interventions is covered in chapter 6 in the discussion of anxiety disorders.

In the health and mental health fields, social workers often serve as part of an interdisciplinary team and spend the most quality time with clients. In all likelihood, the social worker will be one of the first team members to become aware of regimen problems, possible side effects, or medication reactions. Social workers need to understand the antidepressant medications their clients are taking and assist with compliance issues, pharmacy shopping, side effect profiles, and medication insurance coverage, as well as providing education, information, and support.

DOCUMENTATION AND TREATMENT PLANNING

In order to complete the advocacy and broker functions basic to social work, an accurate assessment and referral process must be performed in regard to medication usage. Professional social workers must consider the various medications a client is taking and include treatment planning with documentation incorporating the medication regimen in treatment goals and objectives. They must stay abreast of side effect profiles and dosage routines in order to assist clients in obtaining and maintaining the most therapeutically productive treatment. In addition, they must

be able to recognize and document potential problem areas in order to refer the client for reevaluation. Once the client is placed on medication, monitoring side effects and targeting specific symptoms of the depression using self-report rating scales and goal attainment scales keeps the treatment focused.

In the case study of Jean presented earlier in this chapter, the social worker's primary task was to complete an appropriate discharge plan. She discovered the client was depressed. The social worker decided that client safety was the major consideration in this case, and her knowledge of antidepressant medications allowed her to make a proper evaluation to ensure the client's safety after discharge. When a client reports feelings of depression, the social worker should first assess the frequency, intensity, and duration of the symptoms—how often the symptoms are being experienced, how severe they are, how they impair daily functioning, and how long they have lasted. In the case study, Jean stated she had experienced periods of depression most of her life, and after the death of her husband these incidents had increased in frequency, intensity, and duration. An assessment of these factors should link the effects of these symptoms to the activities of daily living, including social and occupational functioning. The client may report difficulty sleeping—either sleeplessness (insomnia) or sleeping too much (hypersomnia). Alfano, Zakem, Costa, Taylor, and Weems (2008) believe assessment of sleep is critical as it is often linked to anxiety and depression.

If a client reports eating difficulties, the social worker should document the circumstances and the nature of the problem. Specific information with regard to recent weight gain or loss should be noted. Other signs and symptoms that need to be assessed and documented include the following: diminished interest and enjoyment in activities; lack of energy; indecisiveness; social withdrawal; feelings of hopelessness, worthlessness, or inappropriate guilt; low self-esteem; unresolved grief issues; mood-related hallucinations and delusions; and history of antidepressant medication use (APA, 2000). The documentation should include a clear history of substance abuse and the potential for medication addiction or misuse; this can help the treatment team decide which medications might be best for clients at risk. The client's history should include previous hospitalizations and treatments for depression and whether they were successful.

An integral part of social work intervention with depressed clients is the inclusion of outcome measures that provide empirical data on changes in the reported symptoms and treatment effectiveness (Seligman &

Reichenberg, 2007). Gathering objective data allows the social worker to evaluate the course of treatment, make changes in treatment, and evaluate overall practice effectiveness (Dziegielewski & Leon, 1998). Assessment instruments that provide baseline data and subsequent changes provide consistency for the entire interdisciplinary team (Seligman & Reichenberg).

In self-reported measures, the client rates his or her own symptoms. One common self-report measurement instrument is the Beck Depression Inventory (BDI) (Beck, 1967). Used in a wide range of clinical and nonclinical samples, the BDI is a scale of 21 items that assess the existence and severity of affective, cognitive, motivational, vegetative, and psychomotor components of depression. Using a three-point scale, the client rates the severity of each symptom he or she is feeling. Scales like this are standardized as to the degree of reliability (measure the same thing repeatedly) and validity (measure the concept identified) and are easy for the social worker to administer and score.

Another instrument for assessing depression is the Brief Depression Rating Scale (BDRS) (Kellner, 1986). This eight-item rating can help the social worker clearly identify and measure depressive mood, feelings of despair, somatic symptoms, lack of interest, initiative, activity, sleep disturbance, anxiety, worry and tension, appearance, depressive beliefs, and suicidal thoughts or behavior.

A third standardized measure is the Center for Epidemiologic Studies Depression Scale (CES-D) (Radloff, 1977). This scale of 20 items was first developed to measure depression in the general population for epidemiological research and was later adapted for use in psychiatric settings. The Generalized Contentment Scale (Hudson, 1992) is a self-report scale developed by a social worker to measure the degree, severity, or magnitude of nonpsychotic depression. Unlike other measures of depression, the GCS elicits the client's feelings about various behaviors, attitudes, and events related to depression.

These scales provide objective clinical data on the existence of and changes in a client's depression. Social workers should become familiar with such instruments and utilize them as pretests during the assessment phase and as posttests during different treatment intervals.

Whenever a client shows depressive symptoms, a thorough assessment for suicidal ideation and intent must be made. Direct questions should always be asked to determine the client's potential for suicide, and any current or past suicidal gestures should be documented. Because a depressed client is more likely to harm him- or herself when

the depression lifts and energy returns, the documentation of potential suicidal behavior is particularly important with the use of newer antidepressant drugs (SSRIs and SSNRIs) that help lift depression quickly.

Sample Long-Term Goals for Depression

1. Develop the ability to recognize, accept, and cope with feelings of depression.
2. Alleviate or decrease depressed mood enough to return to previous level of functioning.
3. Develop cognitive patterns and beliefs about self that will lead to control or alleviation of depressive symptoms.
4. Develop a new cognitive schema about the self that does not include negative, self-defeating beliefs but rather strengths, resiliency, and competencies.
5. Clearly assess for suicidal thoughts and feelings and ensure a plan for action is available to the client if anything should arise (see Table 8.3).

SUMMARY AND CONCLUSIONS

The last 40 years have seen tremendous progress in the treatment of depression, beginning with the discovery of the neurochemicals norepinephrine, serotonin, and dopamine and the medications that utilize them (tricyclics, MAOIs, and later SSRIs and SSNRIs; Fitzgerald, 2007). Nobody, however, could have predicted the changes and treatment gains over the last 10–15 years. The phenomenal advances made possible by the discovery of SSRIs and SSNRIs have revolutionized traditional treatments for the depressed client (Moller, 2000). This new emphasis on mental health treatment is directly linked to pharmacological strides that make the knowledge of medications a practice necessity.

Social workers who treat depressed clients must understand the importance of identifying and treating exogenous factors and emphasize the importance of these factors to all members of the health care team. Medications alone may be a simple course of action but may not be enough to bring about positive results. It has been estimated that 70% to 80% of all visits made to primary health care providers are made by individuals suffering from psychophysiological or mind–body illness

Table 8.3

SAMPLE TREATMENT PLAN FOR DEPRESSION

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME ^a
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- | | | |
|---|---|--|
| 1. Take medications responsibly as prescribed by the physician and report any side effects. | <ul style="list-style-type: none"> ☞ Assess needs for antidepressant medications and arrange for prescription if needed. ☞ Review literature for efficacy and side effects of medications to treat depression. ☞ Monitor and evaluate medication compliance and plan or intervention effectiveness with medications in regard to level of functioning. | |
| 2. Verbally identify the source of the depressed mood. | <ul style="list-style-type: none"> ☞ Ask client to make a list of what he or she is depressed about (complete in session with social worker). ☞ Encourage client to share feelings of depression in order to clarify them and gain insight. ☞ Assign participation in recreational activities and reinforce social activities and verbalizations. ☞ Write at least one positive affirmative statement each day. | |
| 3. Identify cognitive self-talk used to support depression. | <ul style="list-style-type: none"> ☞ Educate client about the condition of depression. ☞ Assist in developing awareness of cognitive messages that reinforce messages of hopelessness and helplessness. ☞ Educate client about negative thinking patterns that contribute to depression. Examples may be overgeneralization, all-or-nothing thinking, catastrophizing, etc. | |

SAMPLE TREATMENT PLAN FOR DEPRESSION (Continued)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME ^a
4. Social worker and treatment team will complete assessments of functioning (scales, GAF, GARF, SOFAS, etc.) to determine level of depression or suicide precaution.	<ul style="list-style-type: none"> ☞ Arrange or complete administration of the tests. ☞ Assess and monitor suicide intervention in relation to behaviors exhibited on the GAF. 	
5. Client will learn more about medications.	<ul style="list-style-type: none"> ☞ Client will take medications responsibly. ☞ If needed, targeted behaviors will be monitored using self-designed rating scales. ☞ Client will be made aware of and report side effects of medications. ☞ Client will agree to routine blood work and monitoring. 	

^aThe time frame is to be completed as part of the intervention plan formulation.

Source: These values were taken from "Psychotropics in Primary Care," by J. A. Shindul-Rothschild & A. J. Rothschild, 1998. In L. A. Eisenbauer & M. A. Murphy (Eds.), *Pharmacotherapeutics and Advanced Nursing Practice* (pp. 37–51). New York: McGraw-Hill.

(Corbin, Hanson, Happ, & Whitby, 1988). The importance of the interdependent relationship between the sociopsychological aspects of an illness and those that are physical, medical, or biological should not be underestimated; though antidepressant medications often have a profound effect on cognition, mood, and behaviors, they do not change the underlying disease process (Gitlin, 1996; Schatzberg & Cole, 1991). It is clear that every individual who suffers from any type of mental disorder is influenced by internal and external stresses, and medications alone do not address the social, environmental, and family factors surrounding the depressed individual (Woo & Keatinge, 2008).

Social workers must remain keenly aware and educate clients so the clients do not develop a false sense of security with regard to the curative nature of a pill for treating depression (Marano, 1999). The allure of a quick fix is strong when compared to engaging in supportive counseling, which often takes substantial time, emotional energy, and effort. The mistaken belief that antidepressants can cure creates unrealistic expectations for the client. To facilitate intervention for clients who suffer from severe types of depression, the following guidelines are suggested:

First, be aware of the different types of antidepressant medications to treat the symptoms the client is experiencing. Second, learn what behavioral changes can be expected in clients who take medication and how the medication can affect the counseling relationship. Third, monitor the client for medication compliance and make recommendations when it appears changes or adjustments are needed. Fourth, help gather and interpret information and educate clients and their families with regard to medication and potential side effects. Fifth, assist clients to express their needs and concerns about using medication in the treatment context. Last, ensure that a social-environmental assessment is completed to identify the factors and support systems that can facilitate medication compliance and ensure treatment efficacy. In the treatment of depression, professional social workers are important to the interdisciplinary team and improve communication and coordination in the health and mental health system (Dziegielewski, 2004).

This chapter cannot address all the medication concerns social workers will encounter in the treatment of depression. It was written to provide basic information for social work practitioners and encourage them to broaden their knowledge in this area. Social workers must be up-to-date on how antidepressant medications affect the depressed client's biopsychosocial functioning and how these medications influence the course of counseling.

9

Treatment of Bipolar Disorders in Adults, Adolescents, and Children

SOPHIA F. DZIEGIELEWSKI AND GARY DICK

Bipolar disorder (BPD) is a severe, recurrent psychiatric illness characterized by extreme fluctuations in mood with vacillating episodes of major depression and mania (Basco, Ladd, Myers, & Tyler, 2007). Bipolar disorder is often referred to as *manic depression* or *bipolar affective disorder* and is the second grouping of diagnoses in the mood disorders in the *DSM-IV* and the latest revision the *DSM-IV-TR*. According to Leahy (2007), bipolar disorder afflicts 3% to 5% of the U.S. population. What is most concerning to mental health professionals is that those suffering from this disorder have suicide completion rates 60 times higher than the general population, making bipolar disorder a chronic, devastating, and often underdiagnosed mental health disorder (Leahy).

Clients with bipolar disorder may suffer from recurrent psychiatric episodes with high levels of hospitalization, long-term morbidity, comorbidity, and disability (Baldessarini, Perry, & Pike, 2007). Despite the availability of psychotropic medications and increased research supporting treatment efficacy, the majority of people with bipolar disorder are not able to maintain long-term remission (Vieta et al., 2008). It is estimated that even with good medication maintenance, 75% of people with bipolar disorder relapse within 5 years (Williams et al., 2008). There is an increase in mortality rates in bipolar clients as a result of suicides, accidents, and adverse outcomes from substance abuse and

medical conditions, making individuals who suffer from bipolar disorder and the problems they experience a major concern for the health care system (Baldessarini, Perry, & Pike, 2007). This is further complicated by the fact that those who suffer from bipolar disorders are responsible for 5%–15% of new and long-term psychiatric hospitalizations (Miasso, Cassiani, & Pedrao, 2008).

This chapter will introduce the reader to the signs and symptoms of mood episodes and to the most common types of bipolar disorder. The four primary diagnostic categories in the *DSM-IV-TR* that are the focus of this chapter are bipolar I disorder, bipolar II disorder, cyclothymic disorder, and bipolar disorder not otherwise specified (APA, 1994, 2000). The purpose of this chapter is to review the basics of this diagnosis and assist clients to become empowered in their own treatment. Social work can play an important role in treating and assisting clients who suffer from this disorder, along with their support systems.

BIPOLAR DISORDER IN ADULTS, ADOLESCENTS, AND CHILDREN: FORMING THE DIAGNOSTIC IMPRESSION

Manic-depressive illness was first identified by Hippocrates and Areteus, although our understanding of the diagnosis has changed drastically in the last few decades (Fountoulakis, 2008). While approximately 9.5% of the population suffers from a type of mood disorder, between 3% and 5% of the population have been diagnosed with bipolar disorder (Leahy, 2007). Of those diagnosed with bipolar disorder, 60% will have a recurrence of mania or depression within 2 years and nearly 75% will experience a recurrence within 5 years (Miklowitz, 2007). Bipolar disorder appears to affect both men and women, with men seeming to show more manic and women more mixed or depressive episodes (Fountoulakis).

In a study of 1,469 people with bipolar disorder who were followed over a 2-year period, 48.5% experienced recurrences, and depressive episodes were twice as likely to occur than manic episodes (Perlis et al., 2006). After studying 100 adults with bipolar disorder, Goldberg and Garno (2009) found that the median number of lifetime manic episodes was two and depressive episodes was six. The pattern of recurrence tends to worsen as the individual ages (Jones, Sellwood, & McGovern, 2005).

These disorders can be diagnosed as early as adolescence and as late as age 50 (Austrian, 2005). Early onset (before age 19) has an impact on the personality structure and is linked to extensive problems within the

family, substance abuse, suicide attempts, *rapid cycling* (experiencing at least four episodes a year), and both manic and depressive episodes (Goldberg & Garno, 2009). In a study of 100 subjects with bipolar disorder, 55% experienced the onset of illness before age 19, and the first episode of polarity was depression in 56% of the subjects and mania in the remaining 44% (Goldberg & Garno).

Although the *DSM-IV* and *DSM-IV-TR* (APA, 1994, 2000) do not indicate separate criteria for diagnosing bipolar disorder in children and adolescents, the manuals consider developmental parameters when using the adult criteria of the disorder in children (Kronenberger & Meyer, 1996; Netherton, Holmes, & Walker, 1999). For example, Kronenberger and Meyer (p. 156) stated, “Mixed episodes occur when a child meets the criteria for a manic episode and a major depressive episode ‘nearly every day’ for 1 week or more, with marked impairment in functioning.” When working with children and adolescents, Fountoulakis (2008) warned that a diagnosis is often difficult because the symptoms they experience can manifest periodically. When repeated occurrences are noted, however, and result in an obvious decline, bipolarity should be suspected.

Symptoms often exhibited in this population include marked decline in school performance; restlessness; pulling or rubbing of hair, skin, and clothes; excessive complaining and shouting; crying; aggressive outbursts; and antisocial behaviors (Fountoulakis, 2008). Adults and children may both present with grandiosity, but the manifestation of the symptom can differ. In adults it often manifests in excessive spending, inflated self-esteem, and inappropriate attire. In children and adolescents, it may manifest through being argumentative, bossy, and acting superior to other children and adults (Hamrin & Pachler, 2007). Furthermore, according to Fountoulakis, these children may initially present as quite personable and well-liked by friends despite their grandiose and overconfident behaviors.

Generally, it is more common for adolescents over the age of 13 to be diagnosed with bipolar disorders (Keller & Wunder, 1990; Kronenberger & Meyer, 1996). Axelson and colleagues (2006) found that in a study of 255 children and adolescents with bipolar disorder, the mean age of onset was 12.9 years. For adults, the median age of onset has been documented as approximately 18 years, with a range from 18 to 22.7 years old (Burke, Burke, Reiger, & Rae, 1990; Colom et al., 2005; Goldberg & Garno, 2009).

Social workers are cautioned when applying the diagnosis of bipolar disorder to children or adolescents because other more common

conditions, such as ADHD or conduct disorder, can present with similar symptoms (Carlson, 1998; Netherton, Holmes, & Walker, 1999; Weller, 1995). Nevertheless, there has been a 40-fold increase in pediatric diagnosis of bipolar disorder (Baroni, Lungsford, Luckenbaugh, Towbin, & Leibenluft, 2009). Furthermore, consistent with a person-in-situation stance, social workers should ensure that a diagnosis is not reached too quickly, that it is not based solely on behaviors exhibited in isolation, and that it is not a more extreme variation of symptoms associated with ADHD, conduct disorder, anxiety, or aggression. Making an accurate diagnostic impression is important because if a child or adolescent is misdiagnosed with ADHD instead of bipolar disorder and prescribed a stimulant, the clinical picture might worsen considerably (Fountoulakis, 2008).

In both children and adults, the main goal of psychological and psychopharmacological treatment is to prevent relapse and improve psychosocial functioning. Bipolar disorder generally worsens over time, and as with other chronic illnesses the severity and frequency of episodes can increase. Individuals with bipolar disorder potentially can lose 14 years of effective living and die 9 years early (Jones, Sellwood, & McGovern, 2005).

Bipolar disorders present with a variety of symptoms that often cause major functioning problems across a vast array of psychosocial domains. This leads to frustration for the individual, his or her family, and other support systems (Jones, 2003). Clients with this disorder are often overwhelmed by the symptoms associated with their fluctuating moods, vacillating energy levels, and repeated disruptions when trying to complete the tasks of daily living. The client who suffers from bipolar disorder is faced with the challenge of understanding and tracking two separate sets of symptoms within one illness—those that arise during a manic state and those reflected in the depressive phase (Jones, Sellwood, & McGovern, 2005).

Bipolar I is recognized as the easiest form to treat with medication, while the other types of the disorder present a much greater challenge for health care providers (Fountoulakis, 2008). Individuals with bipolar disorder experience significantly greater impairment and longer recovery times from depressive episodes than from manic episodes. Due to the limited efficacy of pharmacotherapy, adjunctive psychosocial treatments are often utilized (Miklowitz et al., 2007).

It is also common for these clients to become resistant to seeking and maintaining treatment, especially those who are in the manic, or

elevated high states, of the illness. There are many comorbid disorders such as personality disorder, generalized anxiety, panic disorder, and substance abuse (Leahy, 2007). In a study of 429 individuals with bipolar, 32.9% reported having discontinued all medication at some point in the past without informing their physician (Baldessarini, Perry, & Pike, 2007). Clients in the manic phase of the illness often avoid or refuse support. When social workers understand the differences in mood states and the specific criteria that characterize each of the bipolar disorders, they are better able to assist clients and their families in accepting, monitoring, and treating this form of mental illness. Medically understanding and managing this symptomology can be difficult for clients, their relatives, and other support systems as well.

For many clients with bipolar disorders, the challenge is learning how to determine whether a cheery disposition or a depressed state is within “normal” limits or indicative of a manic swing or a depressive downtrend. The client may not be able to depend on his or her own assessment to detect changes in mood. In such cases, relatives and friends can be helpful in distinguishing mild mood fluctuations from changes that appear to represent an unusual state for the client. A thorough assessment that leads to an accurate diagnosis is only the beginning phase of the intervention. It can be difficult to convince a client with a bipolar disorder that he or she is, in fact, experiencing serious changes in mood and that help is necessary. Other reasons for treatment nonadherence include psychiatric and substance abuse comorbidities and the client’s attitudes toward the treatments and medications (Sajatovic, Valenstein, Blow, Ganoczy, & Ignacio, 2007). Miasso, Cassiani, and Pedrao (2008) reported that nonadherence can be directly related to whether patients perceive the medication as limiting their life (due to the side effects) or feel social stigma from acknowledging they suffer from the disorder.

THE ROLE OF THE SOCIAL WORKER

It is important for social workers to be abreast of the latest research supporting the efficacy of the various psychotropic medications as well as the various treatment modalities. Research has found that adjunctive therapies (such as family therapy, cognitive-behavioral therapy, and group therapy) in addition to medication have helped prevent depressive and manic recurrences, stabilize symptoms, and enhance psychosocial functioning in 1-to-2-year periods (Miklowitz et al., 2007). As with

other mental illnesses, family members frequently experience a sense of shame and disgrace because they do not understand that people with bipolar disorders do not willfully elect to display the extreme fluctuations and behavioral problems that accompany the illness. It is imperative, therefore, that social workers educate family members about the diverse facets of bipolar disorder, as bipolar clients inevitably experience problems in mood regulation that can result in alternating states with both manic and depressive features (Sadock & Sadock, 2008).

Research has shown that adults with bipolar disorder who come from high emotionally expressive families or marital relationships (where there is a high level of criticism, anger, hostility, or overemotional involvement) have higher rates of relapse and poorer symptomatic outcomes than individuals who come from environments where these expressive emotions are low (Miklowitz & Taylor, 2006). In a 5-year follow-up study, adults with bipolar I had a greater incidence of depressive episodes when they came from families where clinicians rated family functioning as low (Gitlin, Swendsen, Heller, & Hammen, 1995).

Symptoms that often plague clients with bipolar disorders include suicidal ideation, violent behaviors leading to child abuse and domestic violence, major difficulties in occupational functioning, erratic behaviors, severe fluctuations in mood, psychomotor agitation, increased grandiosity, risk-taking behavior, pressured speech, problems with concentration, and periodic antisocial behaviors (Maxmen & Ward, 1995). Mood swings can lead to serious problems such as suicide attempts and suicide. People with bipolar disorder are 15 times more likely to commit suicide than people in the general population (Miklowitz & Taylor, 2006). About 15% of people with bipolar disorder will die of suicide, and 50% of bipolar individuals attempt suicide at some point in their lives (Miklowitz, 2007). Suicide concerns are increased further with risk factors such as substance abuse, previous suicide attempts, family history of suicide, severe affective episodes, and early onset bipolar disorder (Buckley, 2008).

In clinical situations, clients will often describe the course of these symptoms and their severity as a roller-coaster ride, not knowing when to expect the next drop (Hilty, Brady, & Hales, 1999). Unlike earlier perceptions, bipolar disorder is now understood as an illness with overlapping states of mood and accompanying symptoms. Mental health professionals also recognize that clients with bipolar disorders can suffer concurrently from other forms of mental illness such as alcoholism, drug use, and anxiety disorders (Cassano, Pini, Sacttoni, & Dell'Osso, 1999).

In addition, clients with bipolar disorder often suffer from a range of relationship issues resulting from their behaviors.

Oftentimes, individuals with bipolar disorder are misdiagnosed because they present to a clinician when they are in a depressive state, which often leads to a misdiagnosis of major depressive disorder. For this reason, it is important for social workers to also inquire about the occurrence of other mood states such as bursts of energy as seen in the manic or hypomanic states. This type of inquiry is important even when the individual may not perceive their hyper mood states as pathological (Angst et al., 2005). Although listed as symptoms, clients seldom openly state to the social worker that they are experiencing grandiosity and hypersexuality (Leahy, 2007).

CASE EXAMPLE: MICHAEL

Michael is a 24-year-old Hispanic male who was admitted to the psychiatric unit after a bizarre episode that lasted several hours and was reported to the police by his roommate. When he arrived at the hospital, he reported feeling great and talked rapidly about his unique insight into God's ways. He reported that he alone had been chosen to understand God's purpose and how God would destroy the earth. In between preaching, Michael would run to the nearby water fountain, drink water, and turn to the female social worker and state, "I am a child of God, because I am a man," and "You wouldn't understand because you are a woman." He understood everything that was going on with the world and "felt mighty good about it." He repeated his frantic trips to the water fountain at least four times, breaking into his sermon each time and stating that he was thirsty.

Michael had moved in with this roommate 10 months earlier and had started attending college again. He was also employed as a part-time sales clerk in a local department store, and his history indicated no previous psychiatric, substance abuse, or behavioral problems of any kind. He appeared to have a good grasp of reality throughout the interview. When addressing his current mental status, he was oriented to person (he knew his name and gave history about himself and his family), place (he knew where he was), and time.

The police report included information provided by his 20-year-old roommate, who was quite surprised by Michael's behavior. The roommate reported Michael began acting strangely following a visit from his girlfriend and remained that way for several hours. The roommate said

that in hindsight he noticed Michael had had at least two previous episodes over the past months when he appeared depressed, wasn't eating or sleeping sufficiently, and had lost weight. When the roommate had inquired about his depressed mood, Michael would only say that he felt things would never change and that he just needed to get over it.

On at least one occasion, the roommate noticed Michael sounded paranoid, saying he knew his father had paid people in the neighborhood, at work, and at school to keep an eye on him. The roommate reported Michael had locked himself in his room for several hours on a couple of occasions. When the roommate finally convinced Michael to open the door on one of these occasions, he found Michael sitting on the bed, a pair of scissors beside him, muttering that he was "contemplating the meaning of life." After speaking to Michael for about an hour, the roommate was convinced Michael would not harm himself, and he persuaded Michael to spend some time with him in the living room watching television. To the roommate's knowledge, it was the second time he had seen Michael so down and out. Michael's quick recovery from these depressive states left the roommate feeling that perhaps they were caused by the changes of young adulthood and Michael's adjustment to a new apartment and a new roommate.

After the depressive episodes, Michael began exhibiting great energy—obsessively lifting weights, appearing quick in his thinking, and also engaged in painting on canvas, an activity he had not shown any interest in earlier. The roommate commented that his paintings were fabulous and that it was nice to see how much energy Michael had. The roommate was convinced Michael was feeling better when Michael began engaging in major shopping sprees. Michael seemed to buy a lot of clothes and went out to dinner every night with his girlfriend. The roommate later found a bill in the apartment that showed Michael had maxed out two major credit cards, and the companies wanted immediate payment on overdue balances. According to the roommate, that period of energy was very much like the one that precipitated Michael's current hospitalization. The roommate also informed the intake worker that, prior to being brought to the hospital, Michael had spent a lot of time pacing the apartment and telling his roommate that he was chosen by God because he could write backward very fast. Disbelieving, the roommate asked to see the writing, and to his surprise, Michael had written coherent, but backward, sentences about his religious beliefs. The roommate asked him to write something else, and Michael stated very proudly, "It is a gift, you know, that only I am capable of."

The roommate reported that Michael's speech was pressured and very rapid and that his thoughts, many of which sounded coherent, shot "like missiles out of his mouth" while he continuously moved around the apartment talking about how great he felt.

Not knowing what to do at first, the roommate asked another friend to watch Michael while he took a short drive to Michael's father's house to alert him about his son's condition. This second friend was reluctant to stay with Michael. After understanding the severity of Michael's problem, however, the friend agreed to stay with him until his roommate returned.

The roommate describes that he was enthusiastically welcomed at Michael's father's home by a man in his underwear who, in a grandiose manner, began a dissertation on European history. It was difficult for the roommate to interrupt Michael's father, but he managed to inform him that his son was not doing well. Without showing much interest in Michael's situation, Michael's father continued passionately discussing European history, occasionally commenting that Michael would be fine. Throughout his visit, the roommate was aware of Michael's mother in the kitchen. Not once did the woman stop her cooking to inquire on the nature of the visitor's call. The roommate left determined to call the police in order to get help for Michael.

At the hospital, Michael continued his quickened thoughts, still focused on his unique relationship with God. When questioned, he responded with pressured speech, but his responses were coherent. Michael confirmed he had not been sleeping much and had been getting along well with only 2 hours of sleep a night for the past 3 days. His eating had decreased as well, though he made it clear he did not need to eat much and felt better physically when he did not "stuff his face." He quickly added, "I have more energy to do the things I need to do, and I can get a lot of good stuff done."

After an assessment at the hospital, it was decided Michael required hospitalization so that his bipolar disorder could be further assessed and treated. He did not want to be hospitalized because he felt that there was nothing wrong with him. He commented to the intake worker, "What's wrong with having energy and being able to think so clearly about things? Could you be jealous that everything is right with my life?"

This case illustrates the significant impairments bipolar disorders can cause, especially for young clients. Someone like Michael, exhibiting a manic episode with a history of depressive episodes, is a good candidate for immediate assessment, hospitalization, and stabilization. It is important, in cases like this, to assess the client's potential for suicide,

especially once he or she begins to show depressive signs. It is also a good idea to explore the family history for evidence of bipolar disorder or depression; in Michael's case, his father appeared to exhibit similar symptoms. The case also illustrates that bipolar clients are not always the best informants, since they tend to minimize or dismiss their symptoms and their effects. In Michael's case, important information was gathered from the roommate's report, from the second friend, and from the roommate's visit with Michael's father.

Michael agreed to stay in the hospital for a 72-hour evaluation only because he was informed that his father was aware of his difficulty. Michael did not wish to see his father or be "lectured" again on getting into trouble. During the 72-hour evaluation, Michael agreed to go on medication, specifically lithium. After the initial evaluation period, Michael became friends with one of the other male patients and decided he would stay in the hospital as long as necessary. He remained there for 12 days—long enough to experience the positive effects of the lithium. During his hospital stay, Michael's parents were invited for a family therapy session. Though agitated at first about seeing his father, Michael agreed to the session and did quite well communicating with his parents. His mother recommended that Michael return home "to be taken care of," but Michael's father insisted "Michael had to get a life" and that he "was an exceptional young man who could make it on his own."

A compromise was reached, with a discharge plan that included Michael's moving into an independent living program that assisted young clients with psychiatric problems. Michael would stay there for 6 months and then decide what he wanted to do. The discharge plan also included continuing his medication and weekly sessions with a social worker. A 6-month follow-up indicated Michael had normalized his mood for about 3 months, although his social worker later identified the beginnings of another manic phase. However, early identification resulted in adjustments in Michael's medication, recognition of his need for increased therapeutic support, a recommendation for an extended stay at the independent living facility, and continued participation in a day treatment program.

UNDERSTANDING AND ANTICIPATING MOOD EPISODES

The four primary diagnostic categories in the *DSM-IV* and *DSM-IV-TR* that will be the focus of this chapter are bipolar I disorder, bipolar II

Figure 9.1

DESCRIPTIONS OF MOOD DISORDERS

- **Bipolar I disorder:** One or more manic episodes, usually with a history of depressive episodes
- **Bipolar II disorder:** One or more depressive with at least one hypomanic episode
- **Cyclothymic disorder:** Persistent mood disturbance lasting at least 2 years, no breaks for more than 2 months, less severe than bipolar
- **Bipolar disorder NOS (not otherwise specified):** Does not meet the criteria for any specific mood disorder and has symptoms of depressive disorder NOS

Source: Mental health diagnostic categories are from the *DSM-IV-TR* classification system (APA, 1994, 2000).

disorder, cyclothymic disorder, and bipolar disorder not otherwise specified (APA, 1994, 2000). Figure 9.1 summarizes each of these disorders.

Before discussing the different types of bipolar disorder, it is important to define what is commonly meant by a *mood episode*. The shifting moods of the illness are referred to as mood episodes and can range from severe depression to severe mania. Bipolar disorder mood episodes may manifest as manic, hypomanic, major depressive, or mixed episodes (APA, 1994, 2000). The ratio of depressive to manic features in bipolar I disorder has been reported as 3:1 and as much as 47:1 for depression to hypomania in bipolar II (Berk et al., 2009).

The Manic Episode

In the manic episode, the client's mood is persistently elevated. The manic episode is often accompanied by severe changes in energy and behavior. Along with elevated mood, the client must also exhibit at least three or more of the other symptoms most of the day, nearly every day, for 1 week or longer (APA, 2000):

- Increased psychomotor agitation, restlessness, and energy
- Excessively high, overly good, euphoric mood
- Distractibility, lack of concentration
- Flight of ideas, racing thoughts, rapid speech
- Decreased need for sleep
- Grandiosity, unrealistic belief in one's powers and abilities
- Extreme irritability
- Poor judgment
- Spending sprees
- A lasting period of behavior that is different from usual
- Increased sexual drive
- Abuse of drugs, particularly cocaine, alcohol, and sleeping medications
- Provocative, intrusive, or aggressive behavior
- Denial that anything is wrong

These symptoms can last less than a week if symptoms are severe enough to require hospitalization (APA, 1994, 2000). If the client's mood is elevated, at least three symptoms must be identified as present in a manic episode and can include symptoms such as increased psychomotor agitation, distractibility, flight of ideas, decreased need for sleep, and grandiosity (Dziegielewski, 2002).

The Hypomanic Episode

In a *hypomanic episode*, symptoms may initially appear similar to the manic episode: persistently elevated, expansive, or irritable mood. The period for this mood episode is approximately 4 days, and it should be clear that the client is exhibiting uncharacteristic levels of functioning. Individuals experiencing a hypomanic mood episode rarely need to be hospitalized; although symptoms may impair functioning, marked impairment is not noted. These individuals do not show evidence of psychotic features even though others are aware the behaviors they are exhibiting are uncharacteristic (APA, 1994, 2000).

It is important to recognize that clients who are depressed do not necessarily view hypomania as problematic; in fact, it may be experienced as a respite from their depressive state (Angst et al., 2005). It is also important for the social worker to differentiate normal highs—where the client is naturally enthusiastic—from hypomanic or manic symptoms. In examining criteria to diagnose hypomania in a population

of those with bipolar II or major depressive disorder, Benazzi (2009) found the following criteria differentiated those with bipolar II from those with major depressive disorder: increase in goal-directed activity, elevated mood, increased talkativeness, irritable mood, inflated self-esteem, decreased need for sleep, and excessive risky activities. Benazzi developed a “prediction rule” for diagnosing hypomania that included the aforementioned criteria.

Although the *DSM-IV-TR* provides technical definitions of manic and hypomanic episodes, it is helpful for the practitioner to know the symptoms clients often present. In order to confirm the presence of a manic or hypomanic episode during the assessment process, the social worker should ask questions to elicit information about the following areas:

- Changes in sleeping and eating habits/patterns
- Changes in energy levels
- Increased restlessness
- Increased activities, especially those considered risky or destructive
- Problems concentrating, distractibility
- Extreme feelings of happiness
- Laughing inappropriately, usually accompanied by agitation
- Increased talking
- Pressured speech
- Racing thoughts—the client may report he or she cannot keep up with the influx of thoughts
- Impaired judgment
- Grandiose thinking
- Inflated self-esteem
- Increased irritability and impatience with others
- Easily excitable
- Indications of violent behavior
- Disorientation
- Incoherent speech
- Bizarre hallucinations
- Lack of interest in personal relationships

To assist with this assessment, a checklist might be helpful. One such instrument is the hypomania checklist (HCL-32), a scale that, in addition

to a structured interview, can help distinguish clients with bipolar disorder from those with major depressive disorder (Angst et al., 2005).

The Depressive Episode

The third type of mood episode involves major depression, and it generally involves identifying at least five or more characteristic signs. Oftentimes the individual will report appetite disturbances on an almost daily basis. At times, these eating patterns will result in weight gain (5% of the client's body weight in 1 month) or weight loss. Eating patterns should always be watched and recorded, as this is a primary symptom affecting the health of the individual. To assess, simply ask the client if he or she has either gained or lost weight over the last few weeks. Weight loss may indicate anorexia (lack of desire to eat), and weight gain may indicate gluttony (excessive eating).

Another common symptom is either sleeping too much (hypersomnia) or an inability to or a disturbance in sleep (insomnia). Individuals will often report that they are so tired they cannot get out of bed or that they awaken repeatedly during the night. To assess, ask the client about his or her sleep patterns. If clients state they are sleeping 10 to 12 hours a night and are still waking up exhausted, they are most likely suffering from *hypersomnia*. If they say they cannot sleep restfully and report frequent awakenings, it is most likely *insomnia*.

Other signs and symptoms include daily bouts of depressed mood, markedly diminished interest or pleasure in activities that usually are pleasurable, psychomotor agitation or retardation nearly every day, and fatigue or loss of energy. It is not uncommon for individuals experiencing these symptoms to consider suicide, and, as discussed in chapter 5, a thorough assessment for suicide potential is always indicated. The symptoms must also be significant enough to impair occupational and social functioning, last for a period of at least 2 weeks, and involve either depressed mood or loss of interest or pleasure (APA, 1994, 2000).

The Mixed Episode

The last type of mood episode is referred to as the *mixed episode*. This episode is mixed because it generally meets the criteria for both the manic and the depressive episodes. The major difference is that it does not last for 2 weeks; rather, it only lasts for approximately 1 week. In this type of episode, the individual often experiences rapidly alternating

moods with feelings of sadness, irritability, and euphoria. In order for an individual to fall into this category, he or she must experience a combination of depressive and manic symptoms.

When completing an assessment of a client who suffers from bipolar disorder, special attention needs to be given to identifying the client's mood episodes. The variability of the client's symptoms can complicate the determination of the episode type, and the overlapping symptoms can be confusing for the beginning professional. For example, a client may appear either euphoric (elated or happy) or dysphoric (dissatisfied or angry) during either the manic or hypomanic episode (Cassidy, Murry, Forest, & Carroll, 1998). When the client presents as euphoric, he or she feels an abundance of energy, talks very rapidly, reports that his or her thoughts are racing, has grandiose thoughts, and is in love with the world. In dysphoria, however, the client experiences a high state, but his or her thoughts and activities reflect agitation, rage, anxiety, panic, and destruction. During a dysphoric state, a client also can present with rapid and pressured speech and quickened thoughts. Dysphoria can also accompany depression; this combination can easily meet the criteria for a mixed episode, which places the client at greater risk for suicide.

The client suffering from hypomanic episodes generally reports a milder version of manic symptoms. That is, the symptoms of mania can still exist within a hypomanic episode, but because the symptoms are not as severe and obvious, those close to the individual can easily ignore them. The primary difference between manic and hypomanic episodes is that the client should not report delusions or hallucinations during a hypomanic episode (APA, 1994). Early identification of symptoms characteristic of the specific mood episode can help practitioners complete more accurate diagnostic impressions, facilitating the assessment and treatment of psychiatric clients.

Research has shown that most people with bipolar disorder spend more time in the depressive phase of the illness compared to the manic or hypomanic. In the long-term National Institute of Mental Health Collaborative Depression Study, where subjects were followed for up to 12.8 years, individuals with bipolar disorder were depressed three times as often as manic. Other research has produced similar findings, which indicate subjects were in a normal mood 53% of the time, depressed 33% of the time, and manic 11% (Keck, 2005). As stated earlier, a sensitive issue in the assessment process is ensuring one does not overlook the manic or hypomanic states, which occur less frequently, as this could lead to a diagnosis of depression rather than bipolar disorder.

BIPOLAR I, BIPOLAR II, CYCLOTHYMIA, AND BIPOLAR DISORDER NOT OTHERWISE SPECIFIED

Bipolar I

Bipolar I disorder is characterized by the occurrence of one or more manic or mixed episodes. At times, there may be episodes of hypomania or major depression as well. The *DSM-IV* identifies six subgroups of bipolar I disorder. The first subgroup includes clients who have experienced a single manic episode, and the other five describe the most recent episode. In addition, there are specifiers that social workers can use to describe episode recurrence. Badger and Rand (1998, p. 83) identified these specifiers as “rapid cycling, which indicates at least four episodes in a year; the presence or absence of inter-episode recovery; and the emergence of a seasonal pattern in the depressed episodes.”

The six subgroups included in the *DSM-IV* and *DSM-IV-TR* are as follows (APA, 1994, 2000):

Bipolar I disorder single manic episode: 296.0x

- Presence of only one manic episode and no past major depressive episodes

Bipolar I disorder, most recent episode hypomanic: 296.40

- Currently (or most recently) in a hypomanic episode
- Previously at least one manic or mixed episode

Bipolar I disorder, most recent episode manic: 296.4x

- Currently (or most recently) in a manic episode
- Previously at least one major depressive episode

Bipolar I disorder, most recent episode mixed: 296.6x

- Currently (or most recently) in a mixed episode
- Previously at least one major depressive episode

Bipolar I disorder, most recent episode depressed: 296.5x

- Currently (or most recently) in a major depressive episode
- Previously at least one manic or mixed episode

Bipolar I disorder, most recent episode unspecified: 296.7

- Currently (or most recently) in a manic, hypomanic, or major depressive episode that differed in duration
- Previously at least one manic or mixed episode

When working with the bipolar I disorders, it appears depressive, manic, or mixed episodes can be involved (Maxmen & Ward, 1995). Practitioners should keep in mind that clients with bipolar I disorders will often report depressive episodes as well as the agitation and hyperactivity that often are associated with the manic episode. Often, social workers may not view a client's agitated state as manic and may misdiagnose the client as depressed. In the bipolar I condition, a full depressive episode is oftentimes reported, and 20% to 30% of clients may continue to have mood fluctuations (*lability*) between episodes that are significant enough to disturb interpersonal or occupational relations. In some cases, the development of psychotic features may occur; when this happens, subsequent manic episodes are more likely to also have psychotic features (APA, 1994, 2000).

Bipolar II

Bipolar II disorders include one or more major depressive episodes and no history of either manic or mixed episodes. Bipolar II disorders are best described as alternating episodes of major depression and hypomania (Maxman & Ward, 1995). These hypomanic symptoms include increased levels of energy and mood that are not as intense as manic episodes, and clients with bipolar II disorder generally do not become delusional or require acute hospitalization (APA, 1994, 2000).

In both bipolar I and bipolar II disorders, symptoms of persistent depressed mood, loss of interest in activities, poor concentration, feelings of hopelessness, and changes in eating and sleeping patterns characterize the depressive phase (Dziegielewski, 2002). In contrast, the hypomanic client usually exhibits increased levels of energy, irritability, changes in sleeping and eating patterns, increases in activities (including spending), and an increase in pressured verbalization (APA, 1994, 2000). Because of this increase in energy and activities, many individuals become quite creative during these spurts and only later experience the depressive trend. Bipolar II individuals remain at high risk for suicide and usually have a strong family history of bipolar or depressive disorders (McElroy, Strakowski, West, & Keck, 1997).

Cyclothymic Disorder

According to the *DSM-IV-TR*, clients with a diagnosis of *cyclothymic disorder* have milder symptoms than those who suffer from the other types of bipolar disorders, although their symptoms are more consistent and last for approximately 2 years. In order to be diagnosed with cyclothymic disorder, the client's history must indicate that he or she has not been without hypomanic and depressive symptoms for a period of 2 months (APA, 1994, 2000); a client who experiences only a clear major depressive episode should not be diagnosed with cyclothymia. Although it is a milder form of mood disorder, cyclothymia is considered chronic. Clients may experience less severe mood swings, but they are not free of symptoms for more than 2 months over a 2-year period (Austrian, 2005).

Bipolar Disorder Not Otherwise Specified

Caution should always be exercised when diagnosing bipolar disorder not otherwise specified (NOS) because of the variety of symptoms that can be included. In clinical practice this diagnosis is generally used with clients who do not meet all of the criteria described for the previous bipolar disorders yet still exhibit some of the basic symptoms evident in manic, major depressive, or mixed episodes (APA, 1994, 2000).

ASSESSMENT OF BIPOLAR DISORDER

Regardless of the type of bipolar disorder, it is important to remember that variability in the client's behavior and actions is indicative of this mental disorder. These changes in behavior and energy level can occur gradually or quite suddenly. One of the factors to consider during the assessment phase is whether the client is experiencing rapid cycling. This refers to four or more complete mood cycles within a year, within days, or in some cases within hours (Badger & Rand, 1998). A confusing aspect of the diagnosis for the client, family, and practitioner is that a client with bipolar disorder may be in a mixed state, which indicates that his mood reflects concurrent depressive, manic, or hypomanic symptoms. For those individuals who experience a mixed state, rapid cycling affects approximately 33% and is a risk factor for recurrence, suicidal behavior, comorbidity, poor outcome, decreased functioning, and resistance to lithium treatment (Hajeka et al., 2008)

If a social worker suspects that any client, regardless of age, suffers from bipolar disorder, it is critical to confirm this diagnosis using the *DSM-IV-TR* criteria (APA, 1994, 2000; Meeks, 1999). This requires determining whether the client meets the criteria for depressive, manic, hypomanic, or mixed episodes. In addition, every practitioner should also assess for critical symptoms reflective of other mental health problems and how they may be related to the experienced episodes (Cassano et al., 1999).

Clinical social workers quickly learn that, as with many other mental illnesses, the psychiatric problems inherent in bipolar disorder are complex and multifaceted. It is not unusual for clients suffering from one of the bipolar disorders to have other psychiatric problems that require attention and treatment. For example, many clients with bipolar disorder also have alcohol or drug-related problems (Carlson, Bromet, & Jandorf, 1998). Identifying other disorders is important during the assessment phase and continues to be so throughout treatment. Clients with a history of alcohol and drug use will require special considerations when prescribing medications for bipolar disorder. Failure to obtain this information during assessment can become harmful if the client uses bipolar medications while taking these substances.

Once the diagnosis has been confirmed, thorough assessments should be made of critical issues such as suicide potential, history and risk of violence, psychotic symptoms, and risk-taking behaviors, including sexual acting out and assessing for substance and alcohol abuse (Gitlin, 1996).

The assessment for suicide potential is critical, as the risk for suicide is 37 times higher when the client is in the combined mixed state followed by the depressive state and 18 times higher when the client is in the depressed state (Valtonen et al., 2008). For example, in their study of 176 individuals with bipolar disorders I and II, Valtonen and colleagues found that females were more than twice as likely to attempt suicide than males during an 18-month period. In addition, those with bipolar disorder II were twice as likely to attempt suicide than those with bipolar I (Valtonen et al.). Other risk factors related to increased suicide were anxiety disorders and comorbid personality disorders. Since research has demonstrated that depressive episodes usually follow manic phases (APA, 1994, 2000), watching for this trend can lessen the high risk of suicidal thoughts and attempts. Clients who already rely on alcohol and drugs have easy access to substances that can be used in a suicide attempt.

Social workers must understand the intricate nature of bipolar disorders as they teach clients and their families about the disorder and help clients accept intervention efforts. Social workers must help clients understand that bipolar disorder will involve periods of elated mood as well as depressed ones and that it is not an all-or-nothing mental health condition. Since most clients prefer the manic and hypomanic states of increased energy, acceptance and preparation for the probability of the depressed state is important. In fact, clients need to be helped to understand the overlapping and cyclical nature of the mood states they will experience as well as the subsequent course of the illness.

The immediate plan for the bipolar client who appears to be a danger to self or others should be to rapidly assess what appears to be occurring, protect the client from harm, begin a medication regimen, and stabilize the dangerous symptoms. Hospitalization is usually recommended because it can ensure an environment where these objectives can be met and where the client can continue his or her therapeutic work. Furthermore, allowing time to adjust medications in a supervised setting may contribute to continued medication compliance and management upon discharge. The period of hospitalization can also serve as a time when clients and family members become educated about the nature of the illness and the treatment alternatives. Having the understanding and support of family can help facilitate discharge.

INTERVENTIONS WITH CLIENTS WHO HAVE BIPOLAR DISORDERS

In the previous section, we discussed the importance of accurately assessing and diagnosing bipolar disorders and fully distinguishing between different mood states. In this section, the emphasis will be on the types of treatment interventions that are available and often used successfully to manage bipolar symptoms. It is important for social workers to have a general understanding of how bipolar disorders progress, as bipolar disorder has been referred to as a *stage illness*. Early onset is often associated with environmental stressors that trigger innate biological and genetic vulnerabilities. Later stages are more likely to be associated with endogenous factors and less closely coupled to environmental factors. The initial episodes are generally depressive with a gradual transition to hypomania (bipolar II disorder) and/or mania (bipolar I disorder) as the illness matures (Berk et al., 2009)

Although bipolar disorders are long-term illnesses that require monitoring and treatment measures, they can, in fact, be managed with psychosocial as well as psychopharmacological means (Brotter, Clarkin, & Carpenter, 1998). The most comprehensive assessment process, however, should include the client and his or her family as crucial parts of an effective treatment plan. In addition, when a serious and often reoccurring mental disorder such as bipolar disorder exists, long-term psychotherapy should not be abandoned; new evidence supports the use of long-term interventions for complex mental disorders (Leichsenring & Rabung, 2008).

The major goals of treatment are to provide the necessary interventions when the client is in an acute state and to prevent further episodes. As with other mental illnesses, prevention requires the client and his or her support systems be educated about the cyclical nature of the illness; in addition, the client must agree to utilize the necessary interventions to manage his or her illness. Educating someone about bipolar disorder is an ongoing endeavor; it will require many attempts by the social worker to dispel the stigma of the illness and to empower the client with new information.

During the education process, the client's family should be made aware of differences in levels of motivation that affect the client's desire to seek help. For example, it is not unusual for clients in a manic episode to feel they are on top of the world and do not require any assistance. During manic states, clients often accuse family members and helping professionals of being overprotective or worrying needlessly as they attempt to prepare the client for the depressive phase that follows.

Many hospitals, agencies, and mental health organizations provide educational pamphlets on bipolar disorders for clients and their families. Information from these sources can be integrated into therapeutic discussions with both the client and the client's family members. Whenever possible, social workers should graphically illustrate the cyclical nature of the illness to enable clients to grasp the complexities of the disorder. The National Institutes of Health (<http://www.nih.gov/>) has many free publications that provide a wealth of information for the individual who suffers from bipolar disorder.

The social worker should establish a therapeutic relationship that will enable the client to seek the practitioner out upon recognizing certain trigger points over the course of the illness. This disorder results in a long-term relationship where ideally the client will be instructed to follow a specific treatment protocol to avoid future mood episodes.

Throughout this therapeutic relationship, the client should feel comfortable requesting the necessary assistance when symptoms become acute. A trusting relationship with the social worker will encourage the client to seek help early in the process, enabling the client to receive help as soon as indications of a new episode arise.

Social workers can expect clients suffering from bipolar disorders to generally follow a predictable course of manic or hypomanic episodes followed by depressive states. It is during depressive episodes that the client will need to be assessed for potential suicidal thoughts and behaviors (Austrian, 2005; Maxmen & Ward, 1995). A working therapeutic relationship also ensures that the client is actively involved in his or her treatment process and is taking responsibility for monitoring a complex mental illness.

Frequent relapse is a reality for individuals with bipolar disorders, especially for those who do not comply with the treatment regimen and stop medication abruptly and without consultation (Perry, Tarrier, Morriss, McCarthy, & Limb, 1999). When all is going well, it is especially difficult for clients to fully grasp the chronic, cyclical, long-lasting nature of their illness. The exhilaration experienced during the manic phase may be appealing and the client may not want to give it up. Clients with mental illness often feel that if they take medication and seek psychosocial treatment they are validating the existence of a problem that may carry a stigma and result in alienation from others. The social worker can help the client to recognize past patterns and consequences of medication noncompliance, although the social worker should be prepared that clients suffering from bipolar disorder may have minimal insight into their behaviors and a tendency to blame others (Nassir, Boiman, & Goodwin, 2000).

It is extremely important to engage family members and other support systems to help clients maintain compliance with medications. In many instances, practitioners can develop journal logs and other tracking mechanisms to help clients and their families monitor the symptoms and identify the triggers that precipitate mood changes. Tracking mood changes can also be beneficial when clients are trying to determine the amount of structure necessary in their lives to control their mood fluctuations. For example, if a client can identify through journaling that a certain amount of sleep and rest will prevent mood changes, then the client and social worker can agree on a course of action. Clients can assess other personal activities and factors, including relationships, that may alter their moods significantly and can identify ways to avoid or de-

crease those situations or activities that have a negative effect (Ellicott, Hammen, Gitlin, & Brown, 1990). Once these precipitants have been identified, the clinical social worker can help the client work through the interpersonal dynamics that arise when the client confronts or avoids these stressors (Swendsen, Hammen, Heller, & Gitlin, 1995).

The general objectives of treating acute episodes, preventing future episodes, and restoring the client's functioning become the primary focus of treatment with clients who present with bipolar disorder symptoms. Nutrition and exercise as well as complementary practices are important factors to consider in treating these clients (Kilbourne, Copeland et al., 2007; Kilbourne, Rofey et al., 2007). For the most part, however, the use of medication can be critical as a frontline intervention with clients suffering from bipolar disorder who need to alleviate symptoms that often worsen and that affect all areas of functioning.

MEDICATION INTERVENTION

Because bipolar disorders are recurring illnesses with remissions and relapses or recurrences of both depressive and manic or hypomanic episodes, clients will often require an ongoing regimen of medication. Most people with bipolar disorder may have to take medications throughout their life. The goal of medication therapy is to (a) stabilize the depressive or manic symptoms; (b) prevent relapse of depressive or manic episodes; (c) reduce subthreshold symptoms; (d) decrease suicide risk; (e) reduce cycling frequency; and (f) improve overall functioning (Usery, Lobo, & Self, 2008). There are various categories of psychotropic medications that are used in the treatment of bipolar disorders, yet the majority of individuals with bipolar disorder need to be monitored carefully, as many are not able to maintain remission in the long-term (Vieta et al., 2008).

The medications used to treat bipolar disorder fall into four groups: (a) mood stabilizers; (b) atypical antipsychotics; (c) anticonvulsants; and (d) antidepressants. Of these medications, the most common are mood stabilizers (Dulcan, 2006), yet their efficacy can be limited and they often produce side effects.

It is important for social workers to also be aware of a client's medication noncompliance or resistance and the issues that contribute to noncompliance. The potential reasons for resistance and noncompliance are highlighted in a recent study of 429 people with bipolar disorder in which 34% reported missing one dose of psychotropic medication over

the course of 10 days, 20% missed entire daily doses at least once, and 3% missed all doses for 10 days (Baldessarini, Perry, & Pike, 2007). In their study, Baldessarini and colleagues discovered the following factors associated with noncompliance: alcohol dependence, greater mood variation, youth, side effects, comorbid obsessive-compulsive disorder, and recovering from mania or hypomania.

Another issue to consider is that clients who suffer from a bipolar disorder will experience varying moods regardless of the mood-stabilizing medication used. When they are feeling good, as they do in the manic and hypomanic phases, they may want to stop taking their medications. This is especially true during manic episodes, when the feeling of exhilaration can be influential in stopping medication. When a manic mood has receded, medication should be continued in order to help prevent cyclic recurrences (Boerlin, Gitlin, Zoellner, & Hammen, 1998).

Impulsivity is another hallmark characteristic of manic bipolar disorder. There are three characteristics of impulsivity that, independently or conjointly, have the potential to contribute to medication noncompliance: reflection, disinhibition, and inattention (Strakowski et al., 2009).

Reflection is an inability to delay gratification for a greater reward or to prevent a negative consequence. Disinhibition is an inability to restrain from doing something or reacting immediately instead of a better or correct response. Inattention is the inability to sustain enough attention to complete a particular task rather than being distracted to an alternative task (Strakowski et al., 2009). For all these reasons, social workers should pay particular attention to medication compliance during any manic or hypomanic episode.

MOOD STABILIZERS: LITHIUM

Treatment of bipolar disorder began in the 1970s and, in those days, consisted primarily of lithium (a mood stabilizer). Lithium salts are used to treat manic episodes of bipolar disorder when a person's mood swings fluctuate severely from normal to elated to depressed. Lithium has been referred to as the gold-standard mood stabilizer for bipolar disorder (Colom et al., 2005). The reason for its popularity rests primarily in its demonstrated success in reducing symptoms, managing acute mood episodes, and preventing relapse, although nonadherence remains a persistent concern (Sajatovic et al., 2007).

The recent use of lithium with all age groups (including children and adolescents) is notable (Botteron & Geller, 1995; Kafantaris, 1995). For children and adolescents with bipolar disorder, lithium can be prescribed for up to 2 years (Dulcan, 2006), and over the last few years it has been used with these populations to control behavioral outbursts or rage. When it is used for this purpose, the medication is generally prescribed only until more appropriate ways to control the child's anger (such as problem-solving and coping skills or another, safer medication) can be found (Dulcan).

Lithium can assist in providing symptomatic control of both the manic and depressive phases of bipolar disorder and in long-term prophylaxis against condition recurrence (Karper & Krystal, 1996; Lehne & Scott, 1996). Lithium is less effective in treatment of acute depressive episodes compared to manic episodes (Keck, 2005). Despite the side effects, lithium remains among the most widely used medications, along with antidepressants for depression. Lithium can reduce impulsivity and aggression, thus reducing suicidal behavior. Lithium is well established as having efficacy against recurrent manic or depressive episodes (Goldberg, 2007).

The use of lithium should diminish manic symptoms in 5 to 14 days, but it may take months before the condition is fully controlled (Dulcan, 2006). Lithium has a short half-life because it is rapidly excreted, but the drug is highly toxic and must be monitored regularly. (Half-life is discussed in detail in chapter 3.) Because lithium is excreted through the kidneys, clients with any type of renal impairment should avoid it (Lehne & Scott, 1996). With its high toxicity and excretion rate, lithium can be particularly problematic in older people (*PDR*, 2009), who should only take it if they have normal sodium intake and normal heart and kidney function.

The therapeutic range for lithium is limited, and there is a fine line between the therapeutic dose and a toxic one (Usery et al., 2008). Maintaining a safe and therapeutic dose requires routine monitoring of lithium levels and at minimum an established baseline between other recommended tests (white blood cell, calcium, kidney function, thyroid function, etc.). A lithium level is always obtained at the beginning of treatment to determine the best level for the client. Once stable, lithium levels should be checked every few months, especially since they may vary over time (Dulcan, 2006).

Lithium has been known to cause an enlarged or overactive thyroid gland, which is why the client on lithium is always monitored for thyroid

functioning (*PDR*, 2000). A thyroid hormone will often be prescribed along with lithium to restore normal functioning. Since lithium is excreted unchanged by the kidneys, any drug interactions that contribute to decreased efficacy or increased toxicity, or that affect sodium or water balance, such as diuretics, need to be carefully monitored. Several studies have found that diuretics increase lithium levels (Usery et al., 2008).

Initially, clients who begin taking lithium may report drowsiness, weakness, nausea and vomiting, fatigue, and hand tremor. These side effects usually subside quickly, although the hand tremor may remain. Other side effects include the following (NIMH, 2009c):

- Weight gain
- Muscle weakness
- Increased thirst
- Increased urination
- Diarrhea

There are some very serious toxic effects associated with too much lithium. According to Dulcan (2006), the client and his or her family should be encouraged to go to a physician's office or the emergency room immediately if these symptoms occur:

- Irregular heartbeat
- Fainting
- Staggering
- Blurred vision
- Ringing or buzzing in the ears
- Inability to urinate
- Muscle twitches
- High fever
- Seizures (fits or convulsions)
- Unconsciousness

Given these serious side effects and other potential complications, social workers treating clients on lithium should ensure the client has a thorough medical examination and blood work prior to taking the medication. A complete medical history needs to be taken to ensure other factors such as potential thyroid or renal problems and possible pregnancy have been assessed (NIMH, 2009c). In regard to women of childbearing years, Einarson (2009) believes many psychotropic drugs are generally

safe; however, he states strongly that a woman with a serious psychiatric disorder should always be considered high risk, and both she and the fetus should be monitored carefully during and after pregnancy.

In addition, there should be frequent monitoring of potential problems every 2 to 3 months while a client is taking lithium. Overdosing with lithium can be fatal (*PDR*, 2009), and the seriousness of properly educating clients and family members to the dangers of using this medication cannot be overemphasized.

Sometimes an additional medication is given in conjunction with lithium in order to stabilize mood. In a study of 1,461 people with bipolar I, subjects were given Quetiapine in combination with lithium or divalproex. The combination of these drugs increased the time between the recurrence of any mood event, including mania and depression (Vieta et al., 2008).

ANTICONSULSANT MEDICATIONS

In addition to lithium, *anticonvulsant* medications can also be used as frontline treatment of bipolar disorders. These medications were originally used for the treatment of epilepsy, but physicians and families gradually noticed they also improved affective states, social functioning, and cognitive processing (Bowden, 2009). Therefore, the use of these medications for mood disorders dates back over 40 years (Bowden). Anticonvulsant medications work by decreasing the release of catecholamines, thus neutralizing neurotransmitters such as dopamine, serotonin, and norepinephrine and decreasing the inhibitory transmitter GABA (Hamrin & Pachler, 2007).

Social workers are probably most familiar with Tegretol (carbamazepine) and Depakene or Depakote (valproate or valproic acid). Bowden (2009) reported that the anticonvulsants with the strongest evidence of clinical benefits (including adverse events and clinical use guidelines) are valproate or divalproex sodium (DIV), currently marketed as Depakote or Depakote ER; carbamazepine (CBZ), marketed as Carbatrol, Equetro, Tegretol, and Tegretol XR; and lamotrigine (LAM), marketed as Lamictal.

Generally, these medications can be used for acute and maintenance treatment of bipolar disorders. Furthermore, it appears that valproate and LAM have superior tolerability to lithium and antipsychotic drugs (Bowden, 2009). When specifically comparing valproate and LAM,

however, some differences exist. For example, Bowden reported that valproate seems to benefit both the manic states and the depressive features in both acute and prophylactic use, whereas LAM seems best in the depressive aspects only.

Anticonvulsant medicines, in general, seem particularly effective for clients who suffer from schizoaffective disorders or agitated depression of a cyclic nature. They are also the medication of choice if an individual has a history of brain damage or severe or rapid mood swings (Dulcan, 2006). Furthermore, these medications can be considered a first choice if an individual has atypical features of the mental disorder (an unusual mixture of mania and depression symptoms) or rapid cycling (Brotter, Clarkin, & Carpenter, 1998). Because of lithium's toxicity, it is not uncommon for these atypical medications to be used with children who have been diagnosed with bipolar disorder (Dulcan). These medications can also be given to individuals who do not appear to respond well to lithium or who have developed a nonresponse pattern (Bezchlibnyk-Butler & Jeffries, 1999).

These medications are generally prescribed one at a time, as physicians worry about interactions and overtaxing the liver (Brotter, Clarkin, & Carpenter, 1998). To avoid problems of this nature, blood tests are often done to ensure suitability before starting carbamazepine or valproic acid. These tests are continued every month or so to be sure the dosing is correct and that side effects are not overwhelming. Blood tests are not generally needed with clonazepam (Dulcan, 2006). When these medications are used to treat bipolar disorder, it is likely they will be continued for many years. If they are used to treat impulse-control disorders, however, the course of the medication is much shorter and is discontinued when behavioral approaches appear to be helping (Dulcan; see Table 9.1).

One of the most important roles of the social worker is to help monitor for drug side effects and interactions with other drugs. For example, common side effects for Tegretol (carbamazepine) that often occur when the medication is first started include dry mouth and throat, constipation, and impaired urination. Driving hazards include double or blurred vision, sleepiness, dizziness, drowsiness, and possible disequilibrium (Rybacki, 2006). Some behavioral or emotional side effects for social workers to be aware of are anxiety and nervousness, agitation and mania, impulsive behavior, irritability, increased aggression, possible hallucinations, and motor and vocal tics (Dulcan, 2006). Serious but rare side effects include liver and lung reactions, and sexual side effects can include decreased libido and impotence (Rybacki).

Table 9.1

SELECTED COMMON ANTICONVULSANT MEDICATIONS

BRAND NAME (GENERIC NAME)	TYPICAL DOSAGE	SYMPTOM RELIEF
Depakote (valproate)	Initial dosing of 750 mg daily, in divided doses, for acute mania	Variable mood or mixed states, reduction in drug and alcohol
Tegretol (carbamazepine)	Maintenance treatment for bipolar disorder with most people responding to 600–1,600 mg/day; those who rapid cycle may need higher doses	Nonclassical forms of mania, such as presentations involving mixed states or dysphoria, mood incongruent to present state, delusions, or acute bipolar depression
Lamictal (lamotrigine)	Maintenance treatment and slow building (6 weeks) to dose of 200 mg/day for acute bipolar depression	Reduces depression, modest efficacy for mania, efficacy for internal symptoms related to depression

Source: Symptom relief information summarized from “Anticonvulsants in Bipolar Disorders: Current Research and Practice and Future Directions,” by C. L. Bowden, 2009, *Bipolar Disorders: An International Journal of Psychiatry and Neurosciences*, 11(s2), 20–33; dosage information summarized from *The Essential Guide to Prescription Drugs 2006: Everything You Need to Know for Safe Drug Use*, by J. J. Rybacki, 2006. New York: HarperCollins.

The side effect profile for Depakene or Depakote (valproate or valproic acid) generally appears early in the course of treatment and can include drowsiness, lethargy, and excessive lowering of blood pressure on standing (Rybacki, 2006). Other possible side effects that can worsen as the dosage increases include nausea, vomiting, diarrhea, abdominal pain, dizziness, indigestion, sedation and sleepiness, and weight gain (Silverman, 2008). The two biggest behavioral or emotional side effects involve increased aggression and irritability (Dulcan, 2006). Serious but rare side effects are very similar to Tegretol except valproic acid has not been noted to decrease the number of blood cells or lead to lung irritation (Rybacki; Silverman). It is important to warn clients that uncomfortable

withdrawal symptoms may occur if the medication is stopped suddenly, and a planned course for discontinuance of the medication should always be implemented (Bezchlibnyk-Butler & Jeffries, 1999).

The side effect profile for lamotrigine includes somnolence, weight gain, and blurred vision, which may be frequent (Rybacki, 2006). Other possible side effects include nausea, vomiting, tiredness, and problems with coordination (Silverman, 2008). One behavioral manifestation involves emotional upset (Dulcan, 2006). Serious but rare side effects are very similar to the other anticonvulsant drugs, and liver and kidney function should always be monitored.

The side effects of Klonopin (clonazepam) include drowsiness, difficulty with muscle control, poor balance, and behavioral changes (Silverman, 2008). Social workers need to be aware of behavioral and emotional side effects including irritability, excitement, increased anger and aggression, trouble sleeping or nightmares, and memory loss (Dulcan, 2006). These side effects can be very disturbing to the client as well as to family members, and it is critical that families be educated about the problems that can occur and how to handle them. The most serious side effect with Klonopin is probably its increased sedative effect when combined with other drugs; these types of interactions with alcohol or other drugs can result in sleepiness and increase the depressive effects of the medicine (Silverman).

Anticonvulsant Medications and the Potential for Suicide

In December 2008, the FDA announced it would require the manufacturers of antiepileptic drugs to add the warning that the use of these medications can increase suicidal thoughts and behaviors (FDA, 2008). These warnings cover the use of these drugs for psychiatric disorders (such as bipolar disorder) and other medical conditions such as migraine headaches and epilepsy. In addition to the warning, manufacturers must now also offer medication guides. These guides can be helpful in explaining the warning signs related to the risk of suicidal thoughts and behaviors.

The warning suggests that the worsening of suicidal thoughts and feelings should be monitored, especially if they involve any unusual changes in behavior. The advisory also requires health care professionals to notify clients taking these medications, as well as their families and caregivers, of the potential for an increased risk of suicidal thoughts or behaviors.

This warning was based on the results of clinical trials. According to the FDA advisory, a review of 199 clinical trials of 11 different antiepilep-

tic drugs showed that clients taking these medicines had almost twice the risk of suicidal behavior or thoughts (0.43%) when compared to patients receiving a placebo (0.24%). In this review, four clients who received an antiepileptic drug committed suicide, while none of the individuals in the placebo control group did. Based on this information, manufacturers were told to add the warnings and provide the medication guides but were not required to add the black box warning seen on antidepressant medications. See Figure 9.2 for the antiepileptic drugs affected by the warning.

Figure 9.2

ANTIEPILEPTIC DRUGS REQUIRED TO ADD WARNINGS ABOUT THE RISK OF SUICIDALITY

Carbamazepine (marketed as Carbatrol, Equetro, Tegretol, Tegretol XR)
Clonazepam (marketed as Klonopin)
Clorazepate (marketed as Tranxene)
Divalproex sodium (marketed as Depakote, Depakote ER)
Ethosuximide (marketed as Zarontin)
Ethotoin (marketed as Peganone)
Felbamate (marketed as Felbatol)
Gabapentin (marketed as Neurontin)
Lamotrigine (marketed as Lamictal)
Lacosamide (marketed as Vimpat)
Levetiracetam (marketed as Keppra)
Mephenytoin (marketed as Mesantoin)
Methsuximide (marketed as Celontin)
Oxcarbazepine (marketed as Trileptal)
Phenytoin (marketed as Dilantin)
Pregabalin (marketed as Lyrica)
Primidone (marketed as Mysoline)
Rufinamide (marketed as Banzel)
Tiagabine (marketed as Gabitril)
Topiramate (marketed as Topamax)
Trimethadione (marketed as Tridione)

(Continued)

Valproic Acid (marketed as Depakene, Stavzor Extended Release Tablets)
Zonisamide (marketed as Zonegran)

Source: Retrieved from “FDA Requires Warnings About Risk of Suicidal Thoughts and Behavior for Antiepileptic Medications,” by FDA, 2008. *FDA News*. Retrieved June 28, 2009, from <http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm100197.htm>

As of April 2009, updated labeling has been implemented and approved for the following products: Carbatrol, Celontin, Depakene, Depakote ER, Depakote sprinkles, Depakote tablets, Dilantin, Equetro, Felbatol, Gabitril, Keppra, Keppra XR, Klonopin, Lamictal, Lyrica, Mysoline, Neurontin, Peganone, Stavzor, Tegretol, Tegretol XR, Topamax, Tranxene, Tridione, Trileptal, Zarontin, Zonegran, and generics (FDA, 2009c).

ANTIDEPRESSANTS

Since mood stabilizers such as lithium, divalproex, and carbamazepine appear to reduce manic symptoms more than depressive symptoms, an antidepressant can also be prescribed to supplement the psychopharmacologic treatment (Goldberg, 2007). Since practice guidelines often recommend further treatment options when monotherapy is not enough, it makes sense that antidepressants and antipsychotics would be used to supplement lithium and other mood stabilizers as part of the treatment regime (Valenstein et al., 2006). Furthermore, when summarizing the changing tide of best practice strategy recommendations, it appears that careful consideration of the risks and benefits of use should be handled on an individual basis, taking into account the different phases of the disorder (Harel & Levkovitz, 2008). Therefore, although often used in supplementation, using antidepressant medications for individuals with bipolar depression needs to be done carefully. Special caution is noted to avoid increasing the risk of switching from hypomania to mania (Keck, 2005).

In addition, since most people with bipolar I or bipolar II spend more time in depressive states than manic states, it is logical that antidepressants are utilized to treat bipolar disorder. The ratio of depression to hypomania in bipolar II disorder is extraordinarily high—about 37 to 1 (Goldberg, 2007).

Caution is advised, however, because as with all medications there is the potential for negative side effects. Some of the safety concerns regarding antidepressants include the risk of inducing mania or accelerating cycling frequency in some people with bipolar disorder. Goldberg and Truman (2003) found that with certain antidepressants (tricyclics and venlafaxine), there are patient-specific risk factors including a diagnosis of bipolar I versus II, a past history of antidepressant-induced mania, alcohol or substance abuse, and a mixed depressive and manic episode. While antidepressant medications may assist with the condition of bipolar disorder, especially in the depressive stage, they should be used cautiously to avoid triggering a manic or hypomanic episode. See chapter 8 for more details regarding antidepressant medications and their usage to treat the symptoms of depression.

ATYPICAL ANTIPSYCHOTIC MEDICATIONS

Although antipsychotic medications are used as short-term adjunctive therapy for acute psychosis or agitation, they have shown efficacy in reducing manic symptoms in acute bipolar disorder (Keck, 2005). As reported by Domino and Swartz (2008), the rate of antipsychotic medication use has increased significantly, starting with a significant increase from 1996–1997 and once again spiking from 2004–2005; these increases include greater numbers of these medications being prescribed to children. This increase in use, however, is not related to mental disorders such as schizophrenia, as one might suspect, but rather attributed to newer on-label conditions such as bipolar disorder and a high yet constant rate of off-label use (Domino & Swartz).

When a client is on an atypical antipsychotic medication, it is important that cessation of the medication be gradual once the acute symptoms of mania subside in order to avoid a relapse (Goldberg, 2007). See chapter 11 for more detail on these specific atypical antipsychotic drugs and how they are used for symptoms of severe psychotic or disruptive behavior. Some of the most commonly used atypical (second-generation) antipsychotic medicines used with bipolar disorders are listed in

Table 9.2

ATYPICAL ANTIPSYCHOTIC MEDICATIONS

BRAND NAME (GENERIC NAME)	TYPICAL DOSAGE	SYMPTOM RELIEF
Zyprexa (olanzapine)	Bipolar mania: 10–15 mg/day initially; range: 5–20 mg/day	Acute mania, mixed mania, maintenance treatment of bipolar I disorder
Abilify (aripiprazole)	Once daily dosing: 30 mg/day; range: 15–30 mg/day	Acute mania or mixed mania, maintenance of effect
Risperdal (risperidone)	Initially, 2–3 mg/day; range: 16 mg/day (once daily dosing)	Acute mania, mixed mania
Geodon (ziprasidone)	Bipolar mania: day 1, 40 mg twice daily; day 2, 60–80 mg twice daily; dose range: 40–80 g twice daily; better absorption with food	Acute mania or mixed mania

Source: Symptom relief and dosage recommendations from *The Pill Book* (13th ed.), by H. M. Silverman, 2008. New York: Bantam Books/Random House.

Table 9.2. Since the cost of these second-generation antidepressants is quite high and their efficacy has been questioned, it has been suggested that the dramatic increase in prescribing these medicines needs more careful study to clearly outline the benefit/risk ratio (Buckley, 2008; Domino & Swartz, 2008).

PSYCHOPHARMACOTHERAPY AND SOCIAL WORK TREATMENT

When working with medications used to treat bipolar disorders, the most important factor to remember is their high potential for interacting with other drugs (Goldberg, 2007). The increased emphasis on polytherapy

as a component of best practice can involve using multiple agents to address symptoms, which increases the risk of possible drug interactions (Sajatovic et al., 2007). For children and adolescents, in particular, a course of treatment involving two mood stabilizers or an anticonvulsant and an antipsychotic to help control acute manic symptoms and psychosis may be helpful (Hamrin & Pachler, 2007).

When polypharmacy is used to address symptoms, careful observation for potential for interaction effects between medications is essential. For example, carbamazepine can interact with several types of mental health medications, including some antidepressants, antipsychotics, and benzodiazepines (often used to treat anxiety) as well as lithium. When in doubt, it is always best to look up medication information rather than risk interaction effects (Bezchlibnyk-Butler & Jeffries, 1999).

PSYCHOSOCIAL INTERVENTIONS

Research often supports providing medication therapy to clients with bipolar disorders before (or concurrently with) any psychosocial interventions (Brotter, Clarkin, & Carpenter, 1998; Keck, 2005). Biologically controlling the various symptoms presented by these clients enables them to proceed with psychosocial strategies that will complement the medication regimen. Clients with bipolar disorder are better helped when the medication component of their overall treatment is identified, assessed, and implemented with that individual client in mind. Even when a medication is first tried, it may be necessary to make changes in drug choice or dosage until an appropriate regimen is established.

Once the medication regimen is established, social workers may use various psychosocial interventions, such as individual and group therapy, in the treatment of the bipolar disorder. Of equal importance are specialized groups designed to treat coexisting disorders, such as substance abuse (Weiss et al., 2000). Clients whose bipolar illness is stabilized can make more effective use of specialized support groups.

Cognitive therapy can assist in relapse prevention by modifying beliefs emanating from both the depressive and manic states (Lam et al., 2003). In a study by Lam and colleagues that compared patients receiving medication alone versus those receiving medication and cognitive therapy, the clients in cognitive therapy had significantly fewer bipolar episodes. In addition, these clients had fewer days in a bipolar episode, and fewer admissions for this type of episode, than

the group that did not receive cognitive therapy. They also had higher social functioning, showed fewer mood symptoms, displayed less fluctuation in manic symptoms, and coped better than the control group (Lam et al.).

Additional therapies that may be used in conjunction with psychopharmacology include psychoeducation, family-focused treatment, interpersonal therapy, and systematic care. Interpersonal and other types of therapies are used to focus on four problem areas: grief, interpersonal role transition, role dispute, and interpersonal deficits (Jones, 2003). Miklowitz (2008) found that when these types of psychotherapies were used adjunct to pharmacotherapy in both relapse and prevention, there was a 30%–40% relapse reduction over a 12–30-month period. These treatment approaches can vary; however, all identify the salient problem areas, taking into account family and supportive components, and focus on providing practical alternatives and potential solutions to the problematic behaviors of bipolar disorder. Jones reported that the focus of supportive treatment is to build a sense of structure and routine into the daily life of the individual suffering from bipolar disorder and provide alternative courses of action designed to stabilize the moods that result from frustrating life events that appear beyond the client's control (Jones, 2003). Miklowitz found that family therapy, interpersonal therapy, and systemic care were most beneficial when initiated after an acute episode, whereas behavioral therapy and group psychotherapy was most beneficial during a period of recovery.

DOCUMENTATION AND TREATMENT PLANNING

Treatment interventions for bipolar clients should be structured clearly and should delineate strategies for handling the problems associated with bipolar symptoms. Self-designed rating scales, which allow clients to monitor their moods and target behaviors, are very useful. Not only do they assist in assessment, but they also allow the social worker to track any changes and modify interventions accordingly once an intervention has been implemented.

Social workers will often encounter resistance from clients with bipolar disorders, especially those experiencing a manic or hypomanic episode where energy, creativity, and feelings are at an all-time high. Regardless of the resistance, it is the practitioner's responsibility to help the client and family members formulate, implement, and monitor the

interventions necessary to address, control, and, whenever possible, eliminate the bipolar symptoms.

In developing the treatment plan, special attention must be given first to any critical or harmful symptoms presented by the client, such as suicidal ideation, violent behavior, substance abuse, and risk-taking behaviors. As with any mental illness, the accurate assessment and treatment of these issues will enable the social worker to help the client and the client's family focus on the basic, non-crisis-oriented symptoms that cause the client's overall impairment. The goal is to eliminate those immediate, acutely harmful symptoms to ensure the client's safety and eventual return to a more productive level of functioning.

Throughout the treatment-planning process, social workers must involve the client and the family in identifying problem areas and viable strategies to address them. Since adherence rates to taking mood-stabilizing compounds can be poor, with nearly one in two individuals not taking their medication as prescribed, addressing nonadherence needs to be part of each treatment plan (Sajatovic et al., 2007).

Involving family members and other significant support systems is important for those times when the client experiences hypomanic symptoms or manic states and is not able to identify his or her fluctuations in mood. Because hypomanic symptoms present in less severe ways, the client will need to rely on those in his or her support system who can distinguish normal moods from the more mild symptoms related to hypomania or the more intense ones prevalent in mania. During a manic episode, family members and others who can identify the extreme highs will be very important because the client may feel comfortable and will therefore not seek help for his or her symptoms. Family members can also encourage clients to continue taking their medication and stress how important medication adherence is to continued success.

Once problems are identified, it is important to document them in concrete and measurable terms that will allow the practitioner, client, and family members to assess whether objectives and outcomes have been met. Identifying problems leads to prioritizing goals to be worked on by the client and the practitioner. Each of these broad goals is then addressed through a series of objectives, and each objective indicates the target behavior to be changed, who will work on the change, the measurable outcome desired, specific dates by which the change will be visible, and the measures or instruments that will show the objective has been met. Accompanying the objectives are action tasks—the specific steps the client and his or her family members will take in order to ensure the objective is met.

Examples of identified problem behaviors often include the following:

- Depressed feelings that can lead to suicidal ideation
- Difficulty managing feelings of anger, which can include irritability, hostility, explosive outbursts, and violent behaviors
- Feelings of low self-esteem evident in fear of rejection, feeling disliked by others, and blaming oneself
- Manic or hypomanic symptoms, which include pressured speech, grandiosity, changes in sleeping or eating patterns, inability to concentrate, increased agitation, and impulsive behaviors
- Evidence of psychotic thought processes

Identification of these problems should lead to targeting appropriate objectives and action steps to decrease or eliminate the behaviors. For example, if the treatment-plan goal is to decrease manic or hypomanic symptoms, one of the objectives would be to have the client sleep a specific number of hours per night (Berghuis & Jongmsma, 2008a). Ensuring a specific amount of sleep, for instance, should indicate the period for accomplishing this goal and the specific way the client will monitor the activity (perhaps by keeping a sleep log). It should also specify how (e.g., with a glass of warm milk), when (e.g., 10 p.m.), and where (e.g., getting into bed) the target behavior would be changed. Effective treatment planning must include a medication regimen that enables the client to follow through on objectives.

It is essential that social workers develop treatment plans that are tailored to and realistic for the individual client. Involving the client in what he or she can accomplish and setting realistic time frames helps ensure success in treatment planning. See appendix E for a sample treatment plan for bipolar 1 disorder.

SUPPORTIVE INTERVENTIONS WITH BIPOLAR DISORDERS

Treatment planning is not only a sound way to coordinate all the services needed by clients, but it is also a required component of health care policies. Social workers need to be ready to integrate a case management function into their therapeutic work with clients suffering from bipolar disorder and be available to coordinate with an outside case manager. Because clients with bipolar disorder present with symptoms that af-

fect all aspects of their functioning, they will require different health and mental health services to ensure they return to a productive level of functioning and stay there. Some of these services include medical exams, ongoing lab testing to monitor the effects of medication, vocational counseling, securing possible disability benefits, and identifying of specialized support groups in the community.

Clients suffering from bipolar disorders can present with other existing problems that may exacerbate manic, hypomanic, or depressive symptoms. Some of these include anxiety disorders, substance abuse and dependence, and alcoholism. Since many clients who suffer from bipolar disorder can demonstrate patterns of cyclic behavior (i.e., a biological rhythm) that are somewhat predictable, helping to clearly document the occurrence of high-risk times or events can be helpful.

As with all mental illnesses, involving family members in the treatment of bipolar disorder is an important and useful strategy. Family members can often support the client and help monitor fluctuations in mood episodes, and it is essential that family members be educated about the nature and course of the illness and given opportunities to express their own feelings of frustration and anger (Brennan, 1995). Clients and family members alike can feel the strain on interpersonal relationships when clients begin to demonstrate active symptoms of bipolar disorder. If family members are not helped to understand how the illness affects all parties involved, this strain will increase. In particular, family members need to understand that clients with this disorder will behave strangely and will often act intensely and inappropriately.

Throughout the therapeutic relationship, the social worker continuously works with the client via case management, family therapy, and individual therapy. The focus of individual therapy is helping the client monitor his or her mood changes and, more importantly, identify ways he or she can meet the treatment plan objectives. This means the social worker needs to be acutely aware of subtle changes in the client's moods; this early identification will prompt the social worker to assess and change the current course of treatment. Sometimes this will require a change of medication or evaluating medication compliance. Since the social worker sees the client more frequently than the prescribing psychiatrist, she or he may be able to provide vital information to the prescriber (Dziegielewski & Leon, 1998).

In summary, Leahy (2007) recommended eight lessons essential for clinicians working with clients who suffer from bipolar disorder.

1. Be able to adequately diagnose hypomania and mania prior to medication.
2. Bipolar has a high genetic component, which helps to medicalize the problem, normalize the use of medication, and reduce moralization.
3. Realize that psychological therapy involves recognizing and treating the specific episode while working toward maintenance treatment goals over the long-term.
4. Pharmacological treatment is important for bipolar disorder.
5. A psychoeducational component is necessary so the client understands the illness.
6. Social workers should work closely with the prescribing psychiatrist in addressing the specific problems of the current episode.
7. Despite the strong genetic component to bipolar disorder, life events, coping skills, and family environment may play a part in the expression of depressive and manic episodes.
8. Cognitive therapy can help the client understand aspects of both their depressive and manic episodes.

SUMMARY AND CONCLUSIONS

Dealing with any form of mental illness is a major challenge for clients, social workers, and family members. Bipolar disorders, with their varying mood episodes, present a unique challenge because symptoms may not be addressed until clients reach acute episodes of mania. In addition, the client with this disorder often presents with coexisting psychiatric disorders that require concurrent attention.

The assessment process in diagnosing bipolar disorder is an essential component of treatment. Assessing the client for critical or harmful problems such as suicidal ideation during a depressive episode may require addressing these problems first as a way of securing the client's safety. Assessment also includes the appropriate use of the criteria provided by the *DSM-IV* and *DSM-IV-TR* manuals and the inclusion of medication as the first priority in treatment strategy.

Clients suffering from bipolar disorder cannot be helped until they have been thoroughly assessed for appropriate medication. Once the need for medication is determined, the goal is to identify the appropriate medication and dosage. Clients with bipolar disorder, and for that mat-

ter any client with a serious psychiatric illness, should not be prescribed medication as the sole treatment intervention. Although major advances have been made in the field of psychotropic medication, clinical practice and research literature have always emphasized multifaceted approaches for multidimensional problems and adjunctive psychotherapy approaches for bipolar disorder (Miklowitz, 2008). It is important to remember that all mental illnesses have an impact on the biological, social, and psychological spheres of a client's life and functioning (Walsh, 1989).

Psychological, social, and family dynamics are important influences on the onset, course, and outcome of bipolar disorder and need to be considered in conjunction with psychopharmacological therapy. It is well documented that life events often precede illness episodes and are independent of medication compliance (Jones, Sellwood, & McGovern, 2005). Psychosocial interventions have an appropriate place in treatment planning once the client's acute symptoms have been stabilized by medication. In the case of bipolar disorders, psychosocial interventions should address the individual client and the family system. Families are encouraged to ventilate their frustration and anger at the client's behaviors (Simoneau, Miklowitz, Richards, Saleem, & George, 1999). This is done by using case management to obtain and coordinate the necessary health and mental health services needed by the client and through family education and family sessions where members learn to understand the illness. In addition, the individual client is assisted in tracking and monitoring his or her bipolar symptoms. Clients are assisted with basic living functions to enable them to relate to people appropriately, obtain and hold employment, and improve their overall social skills.

Social workers developing treatment plans with clients suffering from bipolar disorder must recognize and understand the role of medication in the treatment of this disorder. Because medication will always be prescribed for clients with bipolar disorders, it is essential social workers be aware of the different types of medications and their dosages, side effects, and the potential health problems they may present. Social workers are also in a position to provide important information about the client's functioning to those health care professionals who prescribe and potentially change a client's medication regimen. Therefore, the social work professional should have a working knowledge of medications and of the rapid changes in the field of psychopharmacology.

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10

Treatment of Anxiety Disorders

SOPHIA F. DZIEGIELEWSKI AND GARY DICK

Anxiety is a subjective emotional and physical state experienced by all at some point. Anxiety becomes problematic when it cannot be controlled and begins to interfere with an individual's ability to work, sleep, or concentrate. Anxiety disorders are among the most prevalent psychiatric disorders in the United States (Medical News Today, 2009). The National Comorbidity Survey Replication (NCS-R) found that 28.8% of the general population meets criteria for at least one of the five types of anxiety disorders (Himle, Baser, Taylor, Campbell, & Jackson, 2009). More than one-third of all clients who seek mental health treatment present with some type of anxiety-related problem, yet due primarily to diagnostic error only one in four people with anxiety disorders receive adequate intervention (Hales, 1995). Furthermore, Black Americans with depressive or anxiety disorders were one-third less likely to have used antidepressants than White Americans (Gonzalez et al., 2008). It is alarming that so many individuals who suffer from anxiety are incorrectly diagnosed or inadequately treated because most anxiety disorders respond to intervention with short-term success rates as high as 70% (Roth & Fonagy, 1996).

It is essential for social workers to recognize that there are several different types of anxiety disorders and that the medications used to treat these disorders are usually taken regularly because symptoms can occur

with random frequency (Koerner, 1999; Nordenberg, 1999b). When medication alone is not enough, psychosocial interventions can assist the client in controlling anxious feelings. Medication, together with therapy, has proven very successful (Austrian, 2005).

Most professionals would agree that a combined approach—using medications as well as proven psychotherapies and other cognitive behavioral techniques such as exposure and systematic desensitization—is required to reduce or eliminate an anxiety disorder (Balon, 2004). Cognitive behavioral treatment, virtual reality exposure therapy, group treatment, motivational interviewing, family therapy, and herbal and dietary supplements are some therapies used to treat anxiety disorders. This chapter emphasizes the importance of being familiar with the medications and supplemental psychosocial interventions that can be effective in treating these disorders.

CASE EXAMPLE: OBSESSIVE-COMPULSIVE DISORDER

Ron, a practicing forensic pathologist, was well respected in his field as a conscientious professional and scientist. Originally seen by a psychiatrist principally for compulsive symptoms that were increasingly interfering with his practice and social life, Ron decided to see a social worker about changing some of his behavior patterns.

The client's history consisted of distressing and intrusive thoughts (referred to as obsessions) that led to anxiety-reducing behaviors (compulsions) that appeared to be fairly consistent throughout his life. In the last 6 months, however, these behaviors had worsened to the point that they were significantly impairing his occupational and social functioning. When describing himself, Ron stated he had always been a systematic and somewhat rigid person who believed in establishing concrete plans and designating a proper place for everything. His obsessive-compulsive tendencies had served him well in medical school, as he channeled his anxiety into disciplined study habits. He did admit there were times he resented not having fun with his friends because he was so worried about passing a test, even though he almost always scored at the top of his class. He reported that his "perfectionist nature" proved expensive in college because it forced him to move out of the dormitory and into his own apartment. He could not stand to live in the dormitory because of his lack of control over the disorganization.

When discussing his childhood, Ron stated he was an only child who was rewarded for keeping his room clean. He described his mother as a neat freak and his father as frequently absent from home. He always maintained a clean and tidy bedroom because he knew that neatness would gain his mother's approval and praise. One of his greatest fears was that he would catch diseases or germs from the people he was exposed to, especially women.

When questioned about this, Ron stated he believed women were dirty and needed to be monitored routinely for cleanliness. His way of guaranteeing and monitoring their cleanliness was to require the women he dated to maintain certain hygiene habits. He always asked the women to wear cotton because it could be cleaned with bleach and disinfected. When asked whether men also were basically dirty, Ron agreed that they could be but not in the same way as women. Ron reported an earlier incident in which he realized how dirty women could be and how their outward appearances could be deceiving.

He described something that had occurred approximately 10 years earlier while he was stationed with the military in Hong Kong. He had started dating a very beautiful woman whom he considered marrying but was devastated to learn he had contracted a venereal disease from her. Soon after dating her, he began to have discharge from his penis and immediately sought medical treatment. He had no complications from the treatment for the venereal disease, but he considered this event a significant turning point in his life. He stated he had learned that although women looked clean, they could still harbor and transmit diseases. At that time, he decided to stop dating unless he could ensure the woman he dated could be trusted. He began purchasing women's cotton clothing. From that point on, when he would invite a female over to his apartment, he would ask her to remove her street clothes and wear the cotton clothing he had purchased. He would change into comfortable cotton clothing as well.

According to Ron, the majority of the women he dated were not offended and actually liked the pampering they received when donning the cotton robe and slippers. He also cooked dinner and served it because he did not trust that outside sources would be sanitary. He also wanted to monitor what went into the food he ate to be sure it did not contain any potentially toxic substances. He stated that this arrangement generally worked well but that recently things had gotten worse, and he described several stresses in his life that had intensified his rituals and routines.

First, his previous girlfriend had decided she was not going to wear the cotton clothing anymore and refused to see him again if he continued to insist on it. He felt his girlfriend was just trying to punish him because she had brought over takeout that he had immediately thrown in the trash, accusing her of trying to poison him. He also became extremely upset when his colleagues teased him about being infected after conducting an autopsy on an HIV-positive victim. He later verified the victim was not HIV positive, but he was infuriated that his colleagues would even consider teasing him about such a thing when they knew of his intense desire to remain free of germs and disease.

Since the autopsy, his cleaning behaviors had intensified. Each day when he returned home, he would spend hours bathing to ensure he was clean. His skin was beginning to show the effects and appeared to be peeling and scaling over. Ron was so concerned about cleanliness that he frequently went back into the bathroom to make sure the water had drained from the tub, reducing the danger of standing water. He also found himself repeating many ritualistic behaviors, particularly at work, where he would spend hours checking and rechecking the storage of chemicals and supplies.

Several weeks earlier, Ron had gone to see a physician friend and began taking Paxil, an antidepressant medication (SSRI) approved by the FDA for obsessive-compulsive disorder. The physician felt Ron was depressed and that Paxil might help with the behaviors he was exhibiting. The physician also suggested he see someone to provide counseling and help him work on some of his behavioral symptoms and patterns. Since taking the medication, Ron reported that he felt relief, but at certain times he felt his anxiety heighten. When this happened, it would take him a few minutes to compose himself and control his feelings of anxiousness and agitation. Ron asked the social worker her opinion of the medication and asked if there was anything she could suggest from a behavioral perspective that could control the compulsive behaviors that were still distressing him.

Upon assessment, it was evident that Ron's symptoms were consistent with a type of anxiety disorder known as obsessive-compulsive disorder (OCD). The person who suffers from obsessive-compulsive disorder frequently has reoccurring obsessions (thoughts that interfere with action) and compulsions (behaviors that help ease current anxiety levels) that are related to a traumatic event. In OCD, the fourth most common psychiatric disorder in the United States, there appears to be a wide spectrum of symptoms (Cohen & Steketee, 1998). These symp-

toms can range from mild to severe, yet if left untreated they can impair an individual's previous level of functioning at work, school, or home (De Silva & Rachman, 1998).

Social workers should be aware of the diagnostic symptoms of this type of anxiety disorder, as the symptoms can leave the client feeling insecure and frightened. Unfortunately, no matter how educated a client is, he or she may feel uncomfortable and unsure about how to address and handle what is happening. Being driven by a pattern of repetitive thoughts that lead to anxiety-reducing behaviors can appear senseless and distressing to clients like Ron. At the same time, these thoughts and behaviors are significantly difficult to overcome. In addition, many individuals in the client's support system may not understand the condition or the client's behaviors. This can result in the client becoming the object of jokes or teasing that inevitably leave the client more anxious and unsure. Therefore, before any psychopharmacological intervention is implemented, a comprehensive assessment and intervention plan are needed to clearly identify the client's behaviors as well as his or her environment's reactions to the behaviors. See appendix E for a sample treatment plan for obsessive-compulsive disorder.

ANXIETY DISORDERS: FORMING THE DIAGNOSTIC IMPRESSION

Anxiety is often a normal reaction to stress, and there will always be situations that create stress and discomfort (Newman & Newman, 2007). These unavoidable situations create feelings of anxiety that represent appropriate reactions to the stressor (Woo & Keatinge, 2008). Generally speaking, anxiety characterizes a response to a threat and alerts the individual to danger, preparing him or her for the challenges ahead. Anxiety can create feelings of uneasiness and tension as well as a sense of immediate danger or conflict. The symptoms indicative of anxiety can involve a combination of cognitive, behavioral, and somatic responses that include nervousness, sweating, irritability, sleeplessness, fear, muscular tension, obsessive thoughts, poor concentration, compulsive actions, feelings of depression, and other types of general discomfort (APA, 2000). It is important for the social worker to assess the intensity of the anxiety and the degree to which the anxiety motivates the client into action or immobilizes him or her into cognitive, behavioral, and somatic conflicts and complaints (Dziegielewski, 2002; see Figure 10.1).

Figure 10.1

ANXIETY

An unpleasant state characterized by subjective feelings of worry, apprehension, difficulties concentrating, restlessness, irritability, insomnia, sweat, shortness of breath, and so forth. Everyone experiences anxiety; it only becomes pathological when the magnitude and/or duration exceed normal limits (taking into account the preceding event).

Source: Diagnostic and Statistical Manual of Mental Disorders (4th ed. text revision), by American Psychiatric Association, 2000. Washington, DC: Author.

In adults, some degree of anxiety is considered normal and, in some cases, may mobilize individuals into creative action or problem-solving modes; however, when these feelings impair occupational or social functioning, some degree of attention and concern is warranted. Anxiety only becomes pathological when it interferes with an individual's daily, social, interpersonal, or emotional functioning (APA, 2000). For example, checking to see if the stove has been left on is generally a good safety measure. It becomes dysfunctional when the client is so concerned about the stove, for instance, that he or she checks repeatedly or makes numerous telephone calls to ensure no one has accidentally left it on. This type of obsessive behavior is clearly disruptive to an individual's daily functioning.

Clients can be exposed to uncertainty and are expected to address many problems that include health and wellness issues, finances, recent and multiple medical problems, and the death of loved ones. Fear is the body's response to a real threat, and anxiety is an exaggerated response to something unrealistic or unknown. Social workers should assess the anxiety by exploring whether its origins are internal or external. Sometimes anxiety stems from both sources. Internal anxiety may include psychic conflicts, which are often unconscious, whereas external anxiety may include a real threat in the environment,

such as encountering a grizzly bear while hiking in the northern Rocky Mountains.

Anxiety over a test is a situation in which both the external and internal origins are present and merge to contribute to a feeling of uneasiness, fear, and dread. The person has an upcoming test, yet internal messages and psychic conflict about competency feed into the anxiety about the external test. The young adult moving out of the family home is another example in which the actual external event of moving is accompanied by intense psychological distress. This type of anxiety is known as *separation anxiety*. Internal origins of anxiety may cause fears such as social phobias, panic attacks, and obsessive-compulsive behaviors. External anxiety may cause avoidant behaviors and a litany of cognitions, behaviors, and somatic complaints most often seen in posttraumatic stress syndrome. Considering the internal and external merging of perceived threats, it is easy to see why cognitive behavioral therapy is often combined with psychopharmacological approaches to treat anxiety.

Human beings all have experiences that result in either pleasure or pain. As people develop, most seek to restore a *homeostatic balance* where pleasure dominates and pain is avoided at all costs (Newman & Newman, 2007). For many, the avoidance of pain is critical, and early theorists such as Erikson (1963) identified the tension created when an individual has to resolve the conflict between his or her individual needs and those of the environment. Erikson made it clear that a certain amount of tension, conflict, and anxiety is sometimes necessary to precipitate human growth and development. Yet an individual's internal needs, wants, and desires frequently come into contact with what ego psychologists call reality. For some individuals, there is more conflict between internal desires and the environment, thus creating a different kind of anxiety—one in which the expression of an internal desire becomes a dreaded fear because of the social environment values, norms, and customs. Culture has the potential for modulating the intensity of anxiety.

Although anxiety is considered a normal part of development, it can cause very uncomfortable feelings that prompt individuals to seek relief or alternative ways of avoiding it. Although psychotropic medications can provide relief from anxious symptoms, they do not address the underlying problems nor do they provide the coping skills needed to prevent future anxiety (Stein, 1998). Anxiety involves an interacting

process of our attentional, conceptual, imaginal, affective, behavioral, and psychodynamic systems within a constantly changing environment (Borkovec & Costello, 1993). Therefore, the most effective treatments for anxiety disorders involve medication therapy in conjunction with psychosocial interventions usually of a cognitive-behavioral nature. Anxiety can affect multiple domains of human functioning, and the client's environmental triggers provide clues to the worries, fears, and cognitive schemas that can often intensify the sense of anxiousness and powerlessness.

THE PRESENTATION OF ANXIOUS CLIENTS

- Anxious clients usually present to the primary care physician before seeing a mental health professional. Young, Klap, Sherbourne, and Wells (2001) found that in a recent study with adults, 1.9% of U.S. adults with anxiety and depression visited a mental health specialist first.
- Few clients say the actual problem is anxiety or nervousness; they often attribute what they are feeling to other factors. It is by attributing their feelings to medical factors that often leads them to the primary care physician first, rather than the mental health specialist (Price, Beck, Nimmer, & Bensen, 2000).
- Many individuals present with physical or mental symptoms (tremors, dyspnea, dizziness, sweating, irritability, restlessness, hyperventilation, pain, heartburn, etc.). Somatic symptoms of anxiety are similar to those of organic disease; generally, however, the symptoms seem unrelated or involve two or more organs (e.g., headache and back pain). Therefore, when these clients do present to the primary care physician, they often have considerable impaired functioning and reported disability (Roy-Byrne et al., 1999). Since the majority of clients suffering from an anxiety disorder go directly to the emergency room, this pattern can clearly lead to increased health care costs (Nutt, 2005).

All social workers should be familiar with the *DSM-IV-TR* diagnostic criteria that distinguish when anxiety is problematic enough to impair functioning (APA, 2000). Anxiety becomes problematic when (a) the client feels powerless to address what is happening to him

or her; (b) feelings of anxiety force the client to develop alternative physiological or cognitive strategies to prepare for or avoid a threat or danger that is not realistic (Nordenberg, 1999b); (c) the client becomes physically or psychologically exhausted by constantly preparing to face his or her fears; and (d) self-attention or self-absorption consume the client, preventing him or her from responding appropriately to situations.

Figure 10.2 provides a list of the mental health diagnoses that can manifest in anxiety-like symptoms. Rather than describe each of these disorders in detail, we present general information and the treatment strategy related to most of these disorders.

Figure 10.2

ANXIETY DISORDERS AND RELATED CONDITIONS

Panic disorder with or without agoraphobia: Attacks involving intense anxiety and apprehension lasting several minutes, with or without agoraphobia

Agoraphobia with history of panic disorder: Fear of being in places where the fear of having a panic attack becomes pronounced and escape may be difficult—because panic disorder is random, it is impossible for the person to predict the onset of an attack, and clients may fear going into any location they suspect may trigger the attack

Social phobia: Persistent fear of one or more social situations

Specific phobia (formerly simple phobia): Fear of an object or stimulus, not generalized fear

Obsessive-compulsive disorder: Recurring obsessions (thoughts) and compulsions (behaviors) severe enough to affect social/occupational functioning

Posttraumatic stress disorder (PTSD): Symptoms must last at least 1 month (if more than 6 months after event it is delayed-onset PTSD); must be outside range of usual experience; individuals frequently report they relive the traumatic situation

(Continued)

Acute stress disorder: A new category in *DSM-IV* to address acute reactions to extreme stress, this occurs within 4 weeks of the stressor and lasts from 2 days to 4 weeks; may help predict the development of PTSD

Generalized anxiety disorder: Undue persistent worry about two or more life circumstances for at least 6 months (overanxious disorder of childhood was placed in this category in *DSM-IV*)

The definitions for these categories are adapted from the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed. text revision), by American Psychiatric Association, 2000. Washington, DC: Author.

PREVALENCE OF ANXIETY DISORDERS

It is estimated that the lifetime prevalence of any anxiety disorder is 24.9% (Oakley Browne, Wells, Scott, & McGee, 2006). The lifetime prevalence rate of generalized anxiety disorder (GAD) is 5.1%, whereas the lifetime prevalence rate for social phobia is 13.3% (Vasile, Bruce, Goisman, Pagano, & Keller, 2005). The onset of social anxiety disorder (social phobia) most often occurs before the age of 18 (Hedges, Brown, Shwalb, Godfrey, & Larcher, 2007).

It is estimated that the prevalence rate of anxiety disorders in children is 10%, making it one of the most common problems affecting children and adolescents (Compton, Kratochvil, & March, 2007). These numbers may continue to rise in part because the past few decades have shown significant improvements in the diagnostic criteria and recognition of anxiety disorders and how the symptoms are manifested in children (Muris & Broeren, 2009). Anxiety disorders in children are commonly associated with social and academic problems and are a predictor of adult difficulties (Flannery-Schroeder, Choudhury, & Kendall, 2005). Prevalence rates of anxiety disorders in older adults are often complicated by medical conditions, medication use, and the client's functional status. It is estimated that anxiety disorders range from 2% to 19% in the elderly population, with the best estimate at approximately 10% (Ayers, Sorrell, Thorp, & Wetherall, 2007). Anxiety disorders are found across the life cycle, making it important for social workers to be knowledgeable of the assessment strategy for these disorders as well as how to treat them.

PANIC DISORDER

Although there are numerous specific anxiety disorders, most clients who experience anxious feelings will also develop symptoms of panic. When these symptoms are severe, *panic disorder* (PD) may develop. A panic attack involves an intense fear and discomfort in the absence of real danger where the individual thinks they are going to die, accompanied by at least 4 of 13 symptoms listed in the *DSM-IV*, including shortness of breath, chest pain, and fear of losing control. It is common for individuals experiencing a panic attack to think they are having a heart attack. The symptoms come quickly and usually peak within 10 minutes (Kinley, Cox, Clara, Goodwin, & Sareen, 2009).

This disorder is characterized by the spontaneous, unexpected occurrence of panic attacks. It appears that panic attacks may not be truly spontaneous (Wilhelm & Margraf, 1997) but rather related to a combination of physical sensations and fearful cognition that give rise to thoughts of danger and anxiety. These attacks are differentiated from genuine fear because the cause for the anxiety may not be externally precipitated or even known. Panic is considered a disorder in itself, and when a person experiences repeated attacks together with anticipatory concern or fear about impending attacks, a diagnosis of panic disorder is suggested (APA, 1994, p. 397). In order to be classified as a true panic disorder, the individual must worry about having future attacks or show concern about symptoms that may have precipitated a behavior change (Silva, Gallagher, & Minami, 2006).

Furthermore, these panic symptoms are sometimes combined with *agoraphobia*. Agoraphobia is an anxiety disorder in which the individual has a morbid fear of open places. The fear is so intense it may trigger a panic attack. The fear may involve public places, crowds, and social situations in which there is no easy means of escape. In order to manage the fear, the person simply avoids these public places. According to the *DSM*, panic disorder and agoraphobia are not considered codeable mental health disorders when experienced alone (APA, 2000). Therefore, the condition is noted as panic disorder with or without agoraphobia or with a history of agoraphobia (APA). It is important to note that individuals who experience panic attacks are vulnerable to other mental health problems. Of those who experience panic attacks, 17.8% report poor mental health, 31.3% report low psychological well-being, and 33.2% report high distress (Kinley et al., 2009).

In agoraphobia with or without panic or with a history of panic disorder, the client engages in a desperate habitual attempt to avoid the specific anxiety-producing stimulus (Nordenberg, 1999b). Many times these attempts at avoidance cluster around situations such as being outside the home, in a crowd, in an automobile or other mode of transportation, or on a bridge (APA, 2000).

When completing an assessment for panic or the symptoms of agoraphobia, it is essential to include information on the frequency, intensity, and duration of the attacks (Barlow, O'Brien, & Last, 1984). The Panic Attack Questionnaire (PAQ) provides richer and more detailed data regarding multiple aspects of panic such as the frequency, intensity, spontaneity, onset, controllability, and duration of typical, worst, and most recent panic attacks (Norton, Zvolensky, Bonn-Miller, Cox, & Norton, 2008). The PAQ also assesses the emotional aspects of panic disorder, such as anticipatory anxiety; the feared consequences of the panic attacks; avoidance; the likelihood of attacks in various situations; and the first and most frightening symptoms in typical attacks (Norton et al.). Symptom variation occurs especially among individuals who have multiple attacks during a single day and those who have only a few attacks a year.

A common characteristic of all anxiety disorders is the client's misinterpretation of symptoms, which results in unrealistic fears or dread of common situations. The diagnostic criteria as outlined in the *DSM-IV-TR* delineate the different symptoms present and can enable the mental health professional to develop differential treatment interventions (APA, 2000). Symptoms that frequently exist are palpitations or pounding of the heart, sweating, trembling, shaking, a sensation of choking, nausea or abdominal distress, feeling faint, and derealization (the feeling that what is occurring is not real).

The symptoms of panic tend to be chronic in nature (Mattick, Peters, & Clark, 1989), and the severity reported during the pretreatment phase should always be considered. In addition, measuring the pretreatment level of anxiety, which yields baseline information, is critical. In today's social work environment, there is increasing recognition that our practice should be based on evidence; along with this comes a growing emphasis on measuring intervention success by using outcome indicators such as the degree of improvement or symptom reduction (Yunong & Fengzhi, 2009). The prognosis is guarded for individuals who suffer from panic disorder with agoraphobia, and some studies report that fewer than half of those who are treated achieve symptom-free status (Bums,

Thorpe, & Cavallaro, 1986; Cohen, Monteiro, & Marks, 1984; Munby & Johnston, 1980).

It is expected that only 50% of all individuals treated for panic disorder will respond positively to intervention, so it is important to anticipate and plan for the possible recurrence of anxiety symptoms (Jacobson, Wilson, & Tupper, 1988). Social workers need to recognize the extent to which somatic symptoms are associated with panic disorder. Many people presenting with panic disorder see a physician first (Price, Beck, Nimmer, & Bensen, 2000), and the underrecognition of the prevalence of somatic symptoms may lead to unnecessary and costly diagnostic procedures and inappropriate referrals to specialists (Teng, Chaison, Bailey, Hamilton, & Dunn, 2008).

PHOBIC DISORDERS

In general, a *phobia* is best defined as an intense, unrealistic fear of an object, event, or feeling (Plaud & Vavrovsky, 1998). Fear is an aversive emotional state that serves a protective purpose; the fear signals danger and prepares us to deal with it. A phobia is fear related to the presence or anticipation of a particular object or situation—for example, the fear of spiders. The fear is pathological when it interferes with a person's ability to cope with everyday situations, such as a client unable to go to bed for fear spiders are in the room (Pflugshaupt et al., 2005).

It is estimated that 18% of the American adult population suffers from some type of phobia (Hall, 1997). Yet exactly how phobias develop and what triggers and sustains the phobic response remains elusive. There are three primary types of phobias: (a) *agoraphobia*, the fear of being in a public place with no escape; (b) social phobia, the fear, embarrassment, and avoidance of social situations; and (c) specific or simple phobia, the fear of an object other than a social situation (APA, 2000).

According to the *DSM-IV-TR*, when an individual suffering from a phobia is exposed to an anxiety-provoking stimulus, an immediate anxiety response develops. This reaction is far beyond the nervousness associated with a stressful situation. The fear is intense and generally prevents the individual's engaging in many of his or her usual activities (Nordenberg, 1999b). Similar to those who suffer from panic, phobic individuals also adopt avoidance behavior in a desperate attempt to escape the feared stimulus (Stein, 1998). They try to rearrange their lives in order to sidestep what they believe to be the personal triggers that lead

to frightening, panicked reactions. If the situation cannot be avoided, it is endured with discomfort and dread. In order to be diagnosed with a phobic disorder, the fear or anxiety must be severe enough to interfere with an individual's daily routine or social and occupational functioning (APA, 2000; Hall, 1997).

Individuals with fears have an attentional bias toward the feared object or situation. This hypervigilance and sense of the feared object cause the person to scan the environment for any signs of threat (Pflugshaupt et al., 2005). Individuals who engage in this behavior are at risk for increased tension and anxiety; they see the world as a dangerous place. The hypervigilance-avoidance behavior can intensify the anxiety to pathological levels.

It is essential for social workers to ensure a functional behavioral assessment is completed. According to Plaud and Vavrovsky (1998), some of the critical clinical information to be gathered includes the following: (a) all the problems the client is experiencing; (b) how regularly the problem is occurring and what occurs before and after the anxiety-provoking situation; (c) the client's preexisting strengths and coping skills for handling the anxiety-provoking situations; (d) previous treatment and the nature of such treatment; and (e) resources for help.

POSTTRAUMATIC AND ACUTE STRESS DISORDERS

In *posttraumatic stress disorder* (PTSD), the person generally has directly experienced, witnessed, or heard of a traumatic event and must express feelings of intense fear, hopelessness, or horror (APA, 2000). Reported discomfort frequently persists, creating difficulty in falling asleep and temper-control problems such as irritability or angry outbursts. Individuals who suffer from this condition frequently want to avoid thoughts, feelings, or conversations associated with the stressful event (APA, 1995, 2000). PTSD can be caused by any life-threatening event that severely threatens the emotional stability of the client, including an automobile accident, mugging, or rape; surviving a natural disaster; receiving news of a serious illness; or witnessing marital violence, a terrorist attack, a kidnapping, or any other life-threatening event. There are three groups of symptoms necessary for a diagnosis of PTSD: (a) continually reexperiencing the trauma, (b) avoidance of places that remind one of the trauma, and (c) chronic physical signs of hyperarousal (Dryden-Edwards, 2007). What can be most disturbing is when the cli-

ent recalls the traumatic event with the same emotions that were present at the original event (Ehlers & Clark, 2006). In the United States, significant numbers of military personnel who are returning from deployment appear to be suffering from PTSD. Prevalence of PTSD among military veterans returning from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) have been estimated at 17%, and estimates up to 52% have been found in veterans with at least one mental health disorder who are treated in primary care facilities (Corso et al., 2009). Unfortunately, few military personnel reporting mental health symptoms seek treatment (Gavrilovic, Schutzwahl, Fazel, & Priebe, 2005). In a study exploring who seeks treatment following trauma, which examined 24 studies of 17,000 individuals, researchers found that those who sought treatment were more often White females, living in an urban area, married, of higher education, covered by insurance, and with a host of somatic complaints (Gavrilovic et al.).

In the *DSM-IV-TR*, there is a category similar to PTSD called *acute stress disorder* (ASD), which was added to address acute reactions to extreme stress. The onset of the stress reaction is expected to last for a period of 2 days and for a period not to exceed 4 weeks of exposure to the stressor (APA, 2000). If the symptoms happen right after the event, the full criteria is met, and the problematic responses related to the stressor continue for over the 1-month time frame required for the diagnosis of acute stress disorder, this disorder may lead to the heightened and prolonged symptoms seen in PTSD. There is a growing body of research supporting the efficacy of various treatments for PTSD, including psychotherapies and psychopharmacological interventions. For example, in a 2-year follow-up study of combat-related PTSD, researchers found cognitive group therapy to be effective in outcome measures on anxiety, depression, abuse, social dysfunction, somatic complaints, family functioning, anger arousal, intrusion, and avoidance (Creamer, Elliott, Biddle, & Hawthorne, 2006). Therefore, social workers working with clients with PTSD are encouraged to review the vast amount of literature emerging on this population.

In the assessment process, social workers need to assist clients in the following ways: (a) convey an understanding of the most effective treatment approaches for the specific trauma-related event; (b) help the client monitor and identify side effects of any medications being taken to reduce symptoms; (c) help the client gain a cognitive understanding of the trauma, thereby reducing feelings of guilt and self-blame; (c) educate the client on the condition of PTSD; (d) identify client strengths

and increase coping skills; and (e) take into account factors relevant to the client's environment that may lead to problems at work or home.

See appendix E for a sample treatment plan for PTSD.

GENERALIZED ANXIETY DISORDER

Generalized anxiety disorder (GAD) involves an undue persistent worry about two or more life circumstances that occur for at least 6 months (APA, 1994). The main feature of GAD is uncontrollable, excessive worry that crosses multiple areas of life, such as work, health, and relationships. Other symptoms of anxiety, such as inattention and muscle tension, may be present, but the excessive chronic worry becomes a barrier to happiness (Covin, Ouimet, Seeds, & Dozois, 2008). Many professionals believe GAD is extremely difficult to treat because clients frequently report marked fluctuations in symptoms that last most of their adult lives (McLellarn & Rosenzweig, 1998). Since the course of the illness is so long, some professionals believe it would be better termed a personality disorder (Beck & Emery, 1985).

When comparing the rates of anxiety disorders between African Americans, Caribbean Blacks, and Whites, researcher found that, in a 12-month period, Whites were at an elevated risk for generalized anxiety disorder, panic disorder, and social anxiety compared to Caribbean Blacks and African Americans (Himle et al., 2009). GAD usually has an onset in a client's late teens or early twenties. Females are more likely than males to experience GAD, and in the study by Himle and colleagues, females were not only more likely to have GAD but also higher rates of social anxiety, panic disorder, and PTSD than males.

In assisting clients who suffer from this type of anxiety, the first task is to assess whether the symptoms are serious enough to disrupt daily functioning. If so, the intensity, pervasiveness, and persistence of the symptoms should be carefully documented (McLellarn & Rosenzweig, 1998). Once the symptoms are identified, careful attention should be given to establishing a clear plan to address and alleviate them. Second, in most anxiety disorders, and especially GAD, it is critical to determine whether the client is exhibiting the primary symptoms of anxiety or depression. According to Barlow, Esler, and Vitali (1998), the fewer coping mechanisms a client has, the more likely the client is to develop depression along with anxiety when faced with an extreme stressor. This interrelationship between anxiety and depression

explains why many of the medications used to treat anxiety can also be used as antidepressants (Marshall, 1994). In the Himle and colleagues study, preexisting depression or concurrent depression was found to be strongly associated with all five of the anxiety disorders. This indicates that individuals who had developed a mood disorder at a given age were significantly more likely to develop an anxiety disorder at that same age or later. This is particularly true for PTSD but much less so for agoraphobia.

The symptoms of GAD can be so varied they can directly affect managing daily affairs, from work-related issues to family relationships. Furthermore, McLellarn and Rosenzweig (1998) warned that the problems these individuals encounter may become more chronic with poor treatment outcomes. Because current approaches to treating GAD need to remain individualistic and based on reported symptoms, relying solely on medications for the sake of convenience could lead to limited treatment that does not address the client's cognitive-behavioral, family, and environmental concerns.

See appendix E for a sample treatment plan for generalized anxiety disorder.

INTERVENTIONS FOR CLIENTS WHO HAVE ANXIETY

Assessing a particular anxiety disorder can be challenging, especially since the majority of people with anxiety disorders do not seek treatment. Another challenge during the assessment phase is that many symptoms of depression and anxiety overlap. Anxiety is often present in depression, and people with depression often present as anxious, which is why antidepressants originally expected to treat depression also treat anxiety (NIMH, 2009a).

Once the client seeks treatment for a particular anxiety disorder, the social worker needs to be knowledgeable about the medications that are effective in reducing levels of anxiety and panic symptoms. Results have not been as promising when working with phobias, including agoraphobia (Marshall, 1994). Regardless of the type of anxiety, however, prescribed psychopharmacologic agents appear to be most effective when accompanied by some type of psychosocial intervention (Cohen & Steketee, 1998).

For example, agoraphobia is often treated with a psychotherapeutic technique that includes real-life exposure to the stimulus that triggers

the panic or anxiety (Ost, Salkovskis, & Hellstrom, 1991). This method could also be used for other anxiety conditions with a combination of cognitive-behavioral interventions, deep breathing, and stress-reduction techniques.

PSYCHOPHARMACOLOGIC ASSESSMENT STRATEGY

The increased use of medications in the treatment of anxiety has led many professionals to question why these medications appear to work so well. Based on the study of medications and how they enhance neurochemical responses, it appears that anxiety is an integral part of human physiology (Marshall, 1994). In some individuals, the normal biological process that controls levels of anxiety becomes disturbed, and the anxiety becomes so intense it upsets the usual patterns of coping. Therefore, it is common for those who plan to implement psychosocial strategies to initially start a course of medication therapy (Marshall). Weisberg, Dyck, Culpepper, and Keller (2007) warned that, since so many people with anxiety disorders are not treated, it is important for social workers to follow up with primary care physicians, who may be the first to see the client. Once the medication is started at the physician's visit, the social worker should always encourage the client to use additional psychosocial strategies to specifically address problem behaviors.

More in-depth information on the medications most frequently used to treat anxiety will be discussed later in this chapter, but the primary categories include benzodiazepines, which address the symptoms of anxiety and panic; atypical medications such as BuSpar, which do not fall in the benzodiazepine category; and other types of medications, such as antidepressants (including SSRIs and SSNRIs; NIMH, 2009). When working with clients who are taking medications to treat anxiety, social workers should keep the following in mind regardless of the medications used.

First, clients may believe taking a pill for a quick fix is the sole course of treatment. Social workers must convey that supplementing medications with other types of cognitive or behavioral interventions can prove most effective (Cohen & Steketee, 1998). Clients should be educated about the role of cognition in anxiety and should explore the dynamics of their anxiety and what can be changed in their environment. For this reason, a behavioral-based contract should be initiated early in the intervention process, preferably before medication is prescribed; this way,

the client remains aware that medication is only one facet of a multidimensional approach to treatment.

Second, the intervention should be related directly to the identified stressor. This means some agreement must be reached between the client and the practitioner as to the cause of the anxiety and how to address it. Helping the client understand that there may be multiple stressors contributing to his or her current level of anxiety is important both in terms of planning solutions and in determining how the client's perception may distort the perceived sources of the anxiety.

Third, a clearly defined contract with goals and specific objectives can help both the social worker and the client stay on task (Plaud & Vavrovsky, 1998). This will help the client know what to expect from treatment and can also serve as a road map for the intervention. Clients usually present with some identified problem areas where their anxiety has disrupted their daily functioning. These concerns then become target behaviors for the focus of an intervention.

Fourth, during the contracting phase, social workers should identify and plan for addressing exogenous, or external, factors rather than endogenous, or internal, ones. This requires identifying the stresses in the client's environmental and family system that can be changed. In the case example, intervention would involve helping Ron identify his obsessive-compulsive rituals and how to change them, rather than rooting around for the cause of the behavior. Although it is important for clients to develop some insight into their behaviors, approaches that actively focus on changing symptoms may provide the client with a sense of hope and accomplishment (Marshall, 1994). This is not intended in any way to diminish the value of helping the client develop an understanding into the causes of his or her behavior, but rather to suggest that this type of insight may come later in the treatment.

The fifth important consideration is the potential for addiction when using certain antianxiety medications, especially benzodiazepines (Stein, 1998). It is important for social workers to recognize the potential for reliance and addiction with these medications because they are often prescribed at the beginning of an intervention process. These drugs should be used for anxiety related to an identified stressor and not as a permanent solution.

Finally, the social worker may want to use a specific measurement tool to diagnose and assess a particular form of anxiety disorder. The following are some measurement tools that can be used to help the clinician identify and assess anxiety:

- *Social Phobia and Anxiety Inventory (SPAI)*: The SPAI comprises two scales, the 32-item social phobia (SP) subscale and the 13-item agoraphobia subscale (Turner, Beidel, Dancu, & Stanley, 1989).
- *Social Anxiety Scale for Adolescents (SAS-A)*: The subscales include measures on fear, worries of negative evaluations from peers, social avoidance and distress, and one subscale specific to new social situations or unfamiliar peers (La Greca & Lopez, 1998).
- *Anxiety Disorders Interview Schedule for DSM-IV (ADIS-IV)*: This semistructured interview is used to assess current and lifetime anxiety, mood, and substance abuse (Di Nardo, Brown, Lawton, & Barlow, 1995).
- *Clinician-Administered PTSD Scale (CAPS)*: This 30-item structured interview corresponds to the *DSM-IV* criteria for PTSD. The CAPS assesses the 17 symptoms of PTSD and the impact of PTSD on functioning (Blake et al., 1995).
- *Multidimensional Anxiety Scale for Children (MASC)*: The MASC is a 39-item self-report for youth ages 8–18 years of age. The scale measures five aspects of anxiety: physical symptoms, harm avoidance, social anxiety, separation/panic, and total anxiety (March, Parker, Sullivan, Stallings, & Conners, 1997).
- *Hamilton Anxiety Scale (HAMA)*: The HAMA is a 14-item scale measuring the severity of anxiety symptoms (cited in Hamilton, Schutte, & Malouff, 1995).

TYPICAL ANTIANXIETY MEDICATIONS

In the 1970s, benzodiazepines were the most widely prescribed medications in the treatment of anxiety disorders (see Figure 10.3). This trend slowed considerably, however, in the 1980s, when prescribers began noting difficulties from withdrawal and discontinuance (Ashton, 1997). Currently, it is estimated that approximately 12.5% of the adult population uses a prescribed anxiolytic in the course of a year, while 2% takes one every day (Suzuki, Sola, & Akinsoto, 2006).

Benzodiazepines are depressants used to produce sedation, induce sleep, relieve anxiety and muscle spasms, and prevent seizures (Barker, Greenwood, Jackson, & Crowe, 2004). They also act as hypnotics in high doses, anxiolytics (agents for the treatment of anxiety symptoms)

Figure 10.3

COMMON BENZODIAZEPINES (USUALLY USED TO TREAT ANXIETY, PANIC, AND NIGHT TERRORS)

Brand name (generic name)
Ativan (lorazepam)
Klonopin (clonazepam)
Librium (chlordiazepoxide)
Valium (diazepam)
Xanax (alprazolam)
Dalmane^a (flurazepam)
Tranxene (clorazepate)
Paxipam (halazepam)
Serax (oxazepam)
Centrax (prazepam)

^aThis medication is usually used to treat sleep problems.

Source: Medication listing information was taken from *The Pill Book* (13th ed.), by H. M. Silverman, 2008. New York: Bantam Books/Random House.

in moderate doses, and sedatives in low doses. These medications can work quickly to address anxiety symptoms that frequently lead to fear and panic, calming the parts of the brain that become overly excited in anxious individuals (Paris, 2008). One of the best-known examples of a benzodiazepine is the anxiolytic diazepam, which is sold under the brand name Valium.

As mentioned earlier, a major consideration with benzodiazepines is the potential for addiction and abuse. Although sedative-hypnotic medications such as secobarbital and pentobarbital have a higher likelihood for abuse (Suzuki et al., 2006), the addictive properties of benzodiazepines and the potential for withdrawal symptoms can be of particular concern. In addition, since sedatives/hypnotics and benzodiazepines are all central nervous system depressants, when combined with another depressant, such as alcohol, they can result in significant depression or even a lethal effect (Huang et al., 2006).

It has been estimated that benzodiazepines, particularly Valium (diazepam), are the drugs of choice in 65% of cases of self-poisoning (Baca-García, Diaz-Sastre, Saiz-Ruiz, & de Leon, 2002). Although these medicines will not generally lead to death when taken alone, even in overdose, they can be deadly when combined with other central nervous system depressants, such as alcohol or sleeping pills. When these substances are mixed, the danger of death due to slowed respiratory function becomes much higher. For this reason, it is essential that the clinical social worker be aware when clients with a history of substance abuse are given these medications. These clients, especially those 18 to 25 years old, have a greater tendency to abuse these medications for nonmedical use (Suzuki et al., 2006). Furthermore, although this class of drugs is not directly linked to suicide, the withdrawal symptoms, both psychological and physical, can be intense and can occur after only 4 weeks of continuous use (Neale & Smith, 2007). This makes assessment for the potential for suicide important, especially if the client has a history of suicidal tendencies (Neale & Smith).

This category of drugs should not be taken for longer than 4 weeks and should not be prescribed to anyone under the age of 18. Because of the potential for abuse, it is illegal for anyone to give or sell these medications to someone for whom the medication has not been prescribed. Clients who suddenly decide to stop taking their benzodiazepines may experience dizziness, tremors, seizures, muscle cramping, vomiting, and sweating (Silverman, 2008). It is important for social workers to discuss the side effects of each of these medications with their clients. The abrupt cessation of these medications can be dangerous, and, especially after long-term use, factors related to tolerance, dependence, and withdrawal should always be discussed with the prescriber (Suzuki et al., 2006).

ATYPICAL MEDICATIONS

BuSpar (Buspirone)

BuSpar, a popular medication used to treat anxiety, is not related to benzodiazepines, barbiturates, or other sedative/anxiolytic drugs. It is also used as part of the detoxification treatment of several substance disorders (National Association of State Alcohol and Drug Abuse Directors [NASADAD], 2002). This medication helps control the symptoms

of irritability, dizziness, and pounding heart commonly occurring with anxiety (Silverman, 2008). BuSpar has a chemical composition different from benzodiazepines and does not have the same hypnotic, muscle relaxant, and anticonvulsant actions (Silverman). BuSpar is different from benzodiazepines in two ways: (a) it does not cause sedation, and (b) it can be used longer (Silverman). Side effects with BuSpar include dizziness, nausea, headache, nervousness, lightheadedness, and excitement (Sadock & Sadock, 2008; Silverman). This medication is not considered to have a high potential for abuse; however, minor improvements may occur in 7–10 days but the full effect may not be felt for 3 to 4 weeks (Silverman).

Catapres (Clonidine Hydrochloride USP) and Tenex (Guanfacine Hydrochloride)

Two medications that have been considered for the treatment of anxiety disorders such as social phobia and posttraumatic stress disorder, as well as the resulting symptoms of anxiety and panic, are Catapres (clonidine) and Tenex (guanfacine; Sadock & Sadock, 2008). It is also possible that clonidine can be used for substance abuse and dependence, especially alcohol and opiate detoxification (NASADAD, 2002). These medications were first used to treat high blood pressure but now have been explored as a potential treatment for a variety of disorders. Generally, both of these medicines can decrease symptoms of hyperactivity, impulsivity, anxiety, irritability, temper tantrums, explosive anger, conduct problems, and tics (Sadock & Sadock). When used with adults, it appears these medications can help improve self-control as well as increase cooperation with treatment regimens.

According to Sadock and Sadock (2008), common side effects when the medication is first prescribed include a slow pulse rate, trouble sleeping (which may be due to the medicine wearing off), ringing in the ears, and redness and itching when using Catapres skin patch. Other side effects, as the dose increases, include sleepiness, fatigue, low blood pressure, headache, mild dizziness or lightheadedness, and stomachache. Some of the most common side effects that should be reported immediately to physicians are fainting, irregular heartbeat, trouble breathing, increased frequency of nighttime urination, itching, rapid swelling of the feet, and sudden headaches with nausea and vomiting.

Before prescribing these medications, a physician may decide to order blood tests or an electrocardiogram (ECG), which measures heart

rhythm. As a general rule, a thorough physical exam is always recommended regardless of the medication for a client. This type of exam may ease the client's feelings of anxiousness by providing reassurance they are physically stable enough to begin the medication and subsequent treatments.

ANTIDEPRESSANTS IN THE TREATMENT OF ANXIETY

Antidepressants, particularly SSRIs and SSNRIs, as discussed in chapter 8, are used in the treatment of anxiety. These medications help block the signs of panic experienced by clients who suffer from anxiety (Internal Medicine Review, 1999). Since there are often overlapping symptoms between anxiety and depression and these medications are used for both conditions, the reader is advised to see chapter 8 for more specific information.

Over the past several decades, PTSD has gained interest in the health care community, especially in regards to treating it with medication (Stein, Ipser, & McAnda, 2009). SSRIs, in particular, have been gaining in popularity for use with clients suffering from PTSD. Historically, PTSD has been very difficult to treat pharmacologically because many clients experience clusters of symptoms that influence the anxiety they experience. These cluster symptoms can include avoidance, numbing, and hyperarousal. It has been reported that certain antidepressant medications, such as Paxil (paroxetine) and Zoloft (sertraline), can assist in addressing the complex anxiety related to these cluster symptoms (Marshall et al. 2007).

In treating anxiety, there is often an overlap of symptoms that makes it hard to say which symptoms are related to anxiety. This is why veterans with PTSD are often prescribed antidepressants, used to address the symptoms of depression, as well as antipsychotic medications because of the possible related symptoms that occur in schizophrenia and/or bipolar disorder.

Since many antidepressants have demonstrated antianxiety properties independent of their antidepressant properties, they may be used more often with clients who are depressed if there is an anxiety component to the depression. For example, Effexor (venlafaxine) and Effexor XR, both SSNRIs, are often prescribed for individuals with symptoms of anxiety, generalized anxiety disorder, and social anxiety disorder (PDR, 2009). Effexor (venlafaxine) has been shown to de-

crease the reexperiencing and avoidance/numbing, but not hyperarousal, that can occur in this disorder (Davis, Frazier, Williford, & Newell, 2006).

When looking specifically at pharmacotherapy treatment for PTSD, it appears both SSRIs and SSNRIs hold promise for maintaining long-term treatment gains and improving quality of life (Davis et al., 2006). While no drug has emerged as the gold standard of treating PTSD, it is important for the social worker to monitor the symptoms of PTSD as well as the client's ability to tolerate side effects. Due to the strong psychological impact of PTSD, it is important that psychotherapeutic approaches—such as cognitive behavioral therapy, group treatment, and brief psychodynamic therapy—be considered in order to reduce the strong feelings of anger, shame, and guilt associated with surviving trauma.

SSRI antidepressants have also been considered the drug of choice for panic disorder (Ballenger, Lydiard, & Turner, 1995), in part because the side effects of other antidepressants, such as tricyclics and MAO inhibitors (discussed in chapter 8), are more pronounced.

For OCD, the SSRIs frequently prescribed include Prozac (fluoxetine), Zoloft (sertraline), Paxil (paroxetine), and Luvox (fluvoxamine; Cohen & Steketee, 1998). Luvox has also been approved for treating OCD in children.

Unfortunately, many of these medications take up to 6 weeks to have significant antianxiety effects (Reid, 1997), so quicker-acting benzodiazepine anxiolytics (antianxiety agents) are still commonly prescribed. Furthermore, Pato, Zohar-Kadouch, Zohar, and Murphy (1988) warned that when these medications are withdrawn, previous symptoms may return, thereby requiring clients to remain on these medications for longer periods.

As previously suggested, treatment plans that supplement medication with psychosocial intervention should be clearly outlined before a client is put on a medication. Clients should be instructed as to whether the medications are to be taken on an as-needed or routine basis. It is always important to remind clients that these medications should never be stopped abruptly and that consultation should be sought when planning to discontinue a medication (Sadock & Sadock, 2008). Tapering off these medications will almost always be indicated. Furthermore, recent research supports that relapse rates as high as 90% have been indicated when withdrawing clients from some of SSRIs used to treat anxiety (Pato et al., 1988).

TREATING ANXIETY: MEDICATIONS ALONE MAY NOT BE ENOUGH

Research suggests that medication alone may not be the most effective treatment modality for anxiety. In a study of clients who were treated with SSRIs or benzodiazepines, researchers found that 24% of subjects with generalized anxiety disorder and 30% with social phobia were still on the medication at a 12-year follow-up (Vasile et al., 2005). A significant number of subjects continued to meet the full criteria for GAD and social phobia.

To further complicate the use of medications as supplements to intervention, Wardle (1990) found that using antianxiety medications (particularly benzodiazepines) in the treatment of anxiety could actually interfere with the psychosocial intervention process. This has led to further exploration of how medication can affect cognitive-behavioral interventions. Since many of the medications prescribed for anxiety lessen physical symptoms, behavioral interventions that emphasize exposure to fear-provoking stimuli may be compromised. Therefore, client gains resulting from behavior-based attempts at overcoming fears may be falsely attributed to medications. This detracts from the primary purpose of implementing psychosocial interventions, which is to empower clients to develop the confidence to overcome their fears. Falsely attributing changes to medication fosters the belief that medications are solely responsible for major symptom decreases. The client may start to question the validity of psychological interventions, leading to an unnecessary dependence on the medication in order to prevent the return of anxiety symptoms that limit functioning ability.

PSYCHOLOGICAL INTERVENTIONS

There are several factors that should be considered when providing psychosocial interventions for the client who suffers from anxiety. First, unless it is excessive, anxiety is considered a natural part of life. If a client is diagnosed with a medical condition, some degree of anxiety is expected and even beneficial in creating a discomfort to prepare the client for action or acceptance. For example, prior to surgery people often experience pre-op anxiety. Therefore, psychosocial interventions may be suggested but generally are not considered essential unless the anxiety is so pronounced that it affects occupational and social function-

ing. Sometimes life events and transitions—such as a wedding, job interview, job loss, or graduating from college—produce mild anxiety. In those instances, brief therapy or even a supportive conversation with a close friend can help reduce symptoms of anxiety.

Second, when dealing with an individual who suffers from anxiety, the first course of action is to refer the client for a complete physical exam. The symptoms of anxiety are multifaceted (cognitive, behavioral, and somatic), and it is important that the client have a proper medical assessment to rule out physical causes of or medical complications from the disorder (Weisberg et al., 2007). It is important for the physician to be able to assess anxiety, possibly prescribing medication and/or referring the client to a mental health provider such as a social worker for psychotherapeutic interventions.

Third, although the social worker does not prescribe medications, an accurate medication history is needed to assist the prescriber in determining the need for and duration of medication use (Lam, 2006). This history should include prescribed medications, over-the-counter medications, and alternate therapies such as herbal preparations that may be used to control the anxiety (American Neuropsychiatric Association Committee on Research, 2000). Social workers should also screen the client with regard to any history of previous substance abuse. If substance abuse has been or is present, it may be more effective to recommend a medication like BuSpar, which does not have the same addiction profile as the benzodiazepines.

The last point with regard to assisting clients who suffer from anxiety is probably the most frustrating for social workers who implement verbal therapies. Many times, clients who are placed on a medication—benzodiazepines in particular—start to feel better fairly quickly. This feeling sometimes leads clients to believe they no longer need any intervention for the exogenous factors that are troubling them. To help avoid discontinuance of the intervention efforts, some attempt should be made to formalize and contract for the continuation of psychosocial counseling.

One popular intervention that can supplement the treatment of anxiety is cognitive-behavioral therapy (Kornor et al., 2008). Cognitive-behavioral interventions are considered a primary supportive intervention for those who suffer from anxiety-related conditions (Saeed, Bloch, & Antonacci, 2007). In this therapy, the social worker formulates the client's problems in cognitive terms and defines how worry, catastrophic thoughts, and overgeneralization feed into and increase the client's

levels of anxiety. Cognitive-behavioral therapy has been found to be a consistently effective treatment for anxiety. In a systematic review of nine studies for treating late-life anxiety, eight were effective in reducing anxiety symptoms (Ayers et al., 2007). Other studies have found cognitive-behavioral therapy a complement to medication, especially in relieving the symptoms of PTSD and OCD (Basco, Glickman, Weatherford, & Ryser, 2000). When specifically assessing cognitive behavioral therapy alone, similar to medications alone, most interventions are not curative and clients are likely to need additional help and monitoring in the form of reassessment or booster sessions.

Typically, cognitive-behavioral treatment for anxiety symptoms includes cognitive restructuring and breathing retraining such as relaxation training and applied relaxation (Craske & Waikar, 1994). Variations exist in the implementation of these techniques, but combining them into a treatment package proves useful in clinical settings (Reid, 1997).

Cognitive restructuring shows clients how identifying aberrant cognitive structures and challenging misinterpretations and biases through reasoning and experience can eliminate anxiety. Challenging dysfunctional ideas and helping the client formulate rational thoughts is an essential step in the process.

Relaxation training can be an important component of most cognitive-behavioral interventions with clients who are troubled by anxiety. People suffering from anxiety spend a great deal of time worrying about life situations and events or bodily sensations that accompany the early symptoms of their attacks. Teaching clients how to relax successfully can help them direct their energy in more productive ways, thereby reducing anxiety levels (Ost, Salkovskis, & Hellstrom, 1991). Learning to identify the indicators and reduce the physiological manifestations of stress are important precursors to exposing the clients to the source of their anxiety. Breathing retraining is of particular interest for those treating panic disorder because nearly 50% of these clients report hyperventilation symptoms (Craske & Waikar, 1994).

Applied relaxation teaches clients how to use progressive relaxation skills in times of anxiety and apprehension. This method requires the application of relaxing thoughts to stressful situations. A client is helped to identify stressful cues and address them while in a relaxed state. To start, the individual is instructed to assume a restful position. It is important to educate the client about diaphragmatic breathing and to encourage deep, slow breaths. Many times, clients prefer to use a mantra (or saying) as they breathe in and out. Other restful suggestions are made once the

client has entered a relaxed state to help the client to become aware of the following bodily sensations: a feeling of heaviness, a feeling of warmth and tingling, a calmness of the heart, and a calmness of breathing. Generally, a minute or so is spent allowing the individual to notice each sensation. The individual is then asked to focus on the overall feeling of being relaxed. When the social worker senses the client is truly relaxed, a statement is initiated to anchor this state of mind, such as, “My body is calm,” or, “I am relaxed” (Feltman, 1996; Gottlieb, 1995). This relaxing phrase will be used continually to anchor further relaxation training.

The client is instructed to repeat the diaphragmatic breathing and relaxing phrases at home, and clients usually contract to “exercise” five times a day (Dziegielewski & MacNeil, 1999). Because clients sometimes weaken the effectiveness of the exercise by engaging in negative self-talk, a stress-reduction tape can supplement the exercises.

EXPOSURE INTERVENTIONS AND SYSTEMATIC DSENSITIZATION

Systematic desensitization and *exposure techniques* are generally regarded as the treatment of choice for specific phobias (Plaud & Vavrovsky, 1998). One perspective in treating phobias is that we must face our fears in order to conquer them.

In systematic desensitization, the client and the social worker develop a hierarchy of anxiety-producing situations relating to the panic symptoms. Usually, the social worker tries to help the client find 5 to 10 situations that represent progressively more exposure to the source of anxiety. These situations are ranked from the least anxiety-producing response to the greatest and can range from seeing, touching, or handling the target. These situations form the hierarchical steps by which the client will overcome the phobic reaction (Beck, Stanley, Baldwin, & Deagle, 1994).

For each situation, three phases are suggested: (a) relaxation training; (b) the visualization of the situation, while maintaining a relaxed state; and (c) actually confronting and coping with the situation. Using this in combination with *in vivo* techniques (real-life experiences) appears to have an even greater effect than simulating an experience in the office setting only (Marshall, 1988). Utilizing behavioral therapy that involves exposure and response prevention can be particularly effective in reducing panic symptoms (O’Sullivan & Marks, 1990). Some clients

find systematic desensitization particularly helpful when exposure to the anxiety-producing stimuli has been long enough to allow the anxiety to be markedly reduced (Marshall, 1996). Similarly, exposure to the feared stimulus is thought to be most effective when internal and external distractions from the phobic object or situation are minimized (Foa & Kozak, 1986).

There are many variations of *in vivo* exposure treatment, and no single model has emerged as superior to others; however, long sessions are generally thought to be more successful than shorter or interrupted sessions (Chaplin & Levine, 1981; Marshall, 1985). Establishing a plan where sessions or exercises are conducted on a daily basis is considered superior to spacing the sessions out on a weekly schedule (Foa, Jameson, Turner, & Payne, 1980). Although Feigenbaum (1988) found a high-intensity (flooding) method effective, most practitioners favor the progressive model. Research suggests that exposure-based interventions can be administered by the social worker or by the client (Al-Kubalsy, Marks, Logsdail, & Marks, 1992; Dziegielewski & MacNeil, 1999), and there are clear cost benefits to having the client self-direct the intervention.

INTERVENTION AND TREATMENT PLANNING

The following is a brief summary of recommendations for treating a client with anxiety disorder:

- A physical exam is essential to determine and address the symptoms that often coexist in individuals who suffer from anxiety disorders. For example, it can be difficult to differentiate symptoms related to anxiety from those related to medical conditions such as heart difficulties, asthma, and hypertension (Weisberg et al., 2007). These medical conditions can produce anxiety-like symptoms that confuse both the client and the health care professional. Professionals agree that a thorough medical examination is needed to rule out potential physiological difficulties and to prepare for the psychosocial strategies that will follow.
- Many people experience anxious events in their lives, and dealing with these types of situations can be very difficult. Psychosocial intervention strategies can assist individuals who are having difficulties adjusting to stress and coping with anxiety. The impor-

tance of suggesting the client utilize such strategies in addition to medication intervention is apparent.

- The social worker can assist the intervention team by taking an accurate history of prescribed and over-the-counter medications, alternate therapies, and herbal preparations, which should then be shared with the prescribing professional.
- Because many medications used to treat anxiety are addictive, it is essential to screen the client for potential substance abuse and adjust the medication regimen accordingly.

Lastly, the medications used to assist with anxious feelings can also lead to the development of a false sense of security (Marshall, 1994). When clients feel better quickly, they may not want to commit the time and energy required to approach relaxation or cognitive therapy interventions. To help with treatment compliance, it is suggested that whenever possible a client agree to continue psychosocial treatment even after medication has been started.

ESTABLISHING THE TREATMENT PLAN

Because anxiety involves cognitive, behavioral, and somatic responses, documenting the client's experience in these areas is essential. Good record keeping needs to be problem oriented and as specific as possible. For example, does the client seem to worry excessively about certain circumstances in his or her life? If so, what specific things? It is important to be specific and to give examples of how these anxious thoughts lead to the exhibited behaviors. Making a connection between the thought and the resulting behavior is critical, and later the thoughts and behaviors can be addressed in the contract and intervention plan.

In addition to cognitive-behavioral responses, a connection to bodily or somatic responses should also be made. The social worker should document concrete examples of symptoms of motor tension (restlessness, tiredness, shakiness, or muscle tension), autonomic hyperactivity (palpitations, shortness of breath, dry mouth, trouble swallowing, nausea, or diarrhea), or hypervigilance.

In the case example, Ron was constantly worried about whether the chemicals at his workplace had been put away, and because of this dread he felt an uncontrollable desire to check and recheck them. Once this behavior was identified and outlined, a plan can be established to address

it. In this case, cognitive restructuring can be used to assure Ron that re-checking is not necessary. When he feels he is becoming anxious, he can begin deep-breathing exercises to initiate relaxation. Because his behavior is so predictable, a preplanned contract can provide a plan of action when the anxiety increases. For example, after checking two times, he must breathe deeply and reassure himself it is done. Once this is completed, he can contract to walk away and immediately begin another project.

Although this may sound simple, changing a behavior that has been ritualized into a habit is anything but easy for an obsessive client. It will take a sincere effort to institute another, more constructive pattern of behavior in its place. In addition, anxious individuals, including those who are depressed, may have trouble eating and sleeping. These behaviors should be documented and identified as part of the treatment. Table 10.1 offers a sample treatment plan.

All medications should be documented and monitored. Do the medications appear to be helping the client relax and address treatment issues? When dealing with anxiety disorders, social workers should note previous anxiety treatments as well as medications taken in the past and any history of substance abuse. Since addiction potential is high with many of these medications and withdrawal symptoms can occur after 4–6 weeks of continuous use (Neale & Smith, 2007), assessing for the medical complications of withdrawal and the possibility for suicide are necessary (NASADAD, 2002). Document any current suicidal thoughts or gestures, which is particularly important for the client who has a history of such gestures.

See Table 10.1 for a sample treatment plan for anxiety. In addition, appendix E contains sample treatment plans for generalized anxiety disorder, PTSD, and OCD.

SUMMARY AND CONCLUSIONS

All social workers should know the different anxiety conditions, current treatment strategies, and the most recent studies supporting the interventions selected. Since many social workers have clients who are taking at least one or more psychotropic medications in conjunction with other prescribed medications, it is essential to understand how these medications work and how they affect treatment regimens. It is important to discuss the side effects with the client, since it is common for people with anxiety to worry and overreact to side effects of a medication.

Table 10.1

SAMPLE TREATMENT PLAN FOR ANXIETY**LONG-TERM GOALS**

1. Stabilize anxiety level while increasing client's ability to complete own activities of daily living.
2. Assist to reduce overall frequency, intensity, and duration of anxiety symptoms.

SHORT-TERM OBJECTIVES**PLAN OR INTERVENTION****TIME FRAME^a**

- | SHORT-TERM OBJECTIVES | PLAN OR INTERVENTION | TIME FRAME ^a |
|---|---|-------------------------|
| 1. Have client take medications responsibly as prescribed by the physician and report any side effects. | Assess needs for antianxiety medications and arrange for prescription if needed. | |
| | Monitor and evaluate medication compliance and the effectiveness of medications in regard to level of functioning.
Carefully monitor for potential abuse or suicidal tendencies.
Contract at beginning of medication treatment to continue treatment regimen while taking medication. | |
| 2. Verbally identify the source of the anxiety. | Have client make a list of what he/she is anxious about in past and present (complete in session with social worker). | |
| | Encourage client to share feelings of anxiety and develop healthy self-talk as a means of handling anxiety. | |
| | Assign participation in recreational activities and reinforce social activities and verbalizations.
Train client in guided imagery and biofeedback as means of stress reduction. | |

(Continued)

Table 10.1

SAMPLE TREATMENT PLAN FOR ANXIETY (Continued)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME ^a
3. Identify cognitive self-talk that supports irrational thoughts.	<p>Have client write at least one positive affirmative statement each day.</p> <p>Have client identify at least one irrational thought and one way to address it.</p> <p>Educate client about the condition of anxiety.</p> <p>Assist in developing the client's awareness of cognitive messages and fears that reinforce control, and address the issue of irrational fears.</p>	
4. Complete assessments of functioning (scales, GAF, GARF, SOFAS, etc.)	<p>Arrange or complete administration of the tests.</p> <p>Assess and monitor suicide intervention; determine level of anxiety or suicide precaution.</p>	

^aIn treatment planning, an individualized time frame should be established for each client.

Social work professionals can provide important services—including assessment and diagnostic and treatment services—to those who suffer from anxiety conditions. They can also create an environment for improved communication and coordination between clients and other health care professionals. In terms of direct intervention efforts, many of the techniques described in this chapter can also be used to help clients suffering from depression because the symptoms of anxiety and depression frequently overlap.

Regardless of the anxiety-related condition, social workers need to complete an accurate assessment and referral process for all clients served. This requires taking an active role in advocating for their clients, particularly when medications are used to supplement intervention strategy. The confounding nature of anxiety conditions requires social workers to become aware of the psychological, sociological, and physiological practice implications of treating these disorders. Social workers must be able to recognize potential problem areas related to medication usage and misuse, as well as effective psychosocial interventions, in order to recommend changes in the client's course of treatment.

Regardless of the type of therapy used to assist individuals suffering with anxiety, the degree to which clients are cured remains questionable. Although the controlled studies described in this chapter have documented statistically significant improvements, they may not be clinically significant or may not provide enduring effects. Literature suggests that, while anxious clients improve over the course of treatment, most remain below the mean of the general population on fear measures (Marks & Mathews, 1979; Mattick & Newman, 1991; Mattick & Peters, 1988). This requires professionals to accept there are no guarantees clients will be cured regardless of treatment modality. The ultimate therapeutic outcome rests in helping clients regain previous levels of functioning. The hope is that all therapeutic efforts will produce lasting effects, yet social workers must be aware and help prepare their clients for the possibility of relapse. Physicians who provide concrete medical services are not distressed when clients return for additional services, and social workers must not be disturbed by clients returning for checkups or booster sessions. This type of follow-up should be expected.

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11

Schizophrenia and Psychotic Disorders

The conditions characteristic of psychotic disorders such as schizophrenia can be devastating due to the prevalence of symptoms such as hallucinations, delusions, and bizarre or inappropriate behaviors. Schizophrenia not only disrupts the individual's life and alienates the client from his or her family and support systems but also creates tremendous stress and frustration for families (Dziegielewski, 2007). Many social workers and other helping professionals are reluctant to work with these individuals because of their unpredictable and uncertain behavior.

This is complicated further by what is often referred to as *treatment-resistant schizophrenia*. From 10% to 30% of patients prescribed anti-psychotic medications have little if any response, and an additional 30% have only a partial response (APA, 2004). This makes using medication alone problematic and supportive care essential. Many individuals with schizophrenia, especially those with treatment resistance, may have such poor responses to medications they may be destined to suffer chronic yet variable courses of illness.

Schizophrenia is often considered one of the most devastating of all psychotic disorders (Breier, 1996), and despite recent improvements many patients with schizophrenia remain symptomatic even with treatment (Compton, 2005). Clients with schizophrenia and their family members are faced daily with the stigma attached to mental illness.

People not knowledgeable about the condition may view mentally ill individuals, especially people with schizophrenia, as dangerous. The use of words like *maniac*, *schizo*, and *psycho* by an uninformed media enforces this viewpoint. The media do these individuals a disservice when they present the mentally ill as dangerous individuals, when in reality people without such illnesses commit 95% of all homicides (Ferimann, 2000). Those with schizophrenia are more likely to harm themselves than someone else (Ferimann). Furthermore, it is possible that this tendency to harm themselves rests with the guilt many clients feel for the burdens they put on their family, as many clients blame themselves for their illness. The negative portrayal by the media has only recently started to change (Frese, Knight, & Saks, 2009).

Clients who suffer from psychosis vary greatly in their responses to medication and other interventions. Therefore, a multidimensional response is needed; when patients do not respond to a particular medication, a review of the diagnosis is recommended, along with assessing for psychiatric or substance abuse problems, other potential medical problems, and past and present psychopharmacology (Compton, 2005). This makes it almost impossible for the general medical physician to simply provide the client with a psychotic disorder prescription and send them home. After assessing the client, this multidimensional perspective suggested by Compton requires extensive monitoring and support when needed, which many primary care physicians may not be interested in providing. Supportive interventions are required to assist these clients with the unpredictable course of their illnesses, their varied responses to medication and treatment, and the severe levels of impairment they may experience.

Among professionals, social workers included, the role of medications as a primary treatment of schizophrenia remains controversial. Many social workers hold complex views about the delicate balance between viewing medications as beneficial or harmful, with the majority supporting use in a judicious manner (Moses & Kirk, 2006). In addition, antipsychotic drugs are now given for more than just psychotic conditions and can be used for disruptive, angry, or delusional types of behavior. The evidence of how these medications can help children who suffer from schizophrenia or bipolar disorder is limited, and more research is needed (Fonagy, Target, Cottrell, Phillips, & Kurtz, 2005). This prescription pattern in itself has brought about new areas of concern that require careful monitoring.

CASE EXAMPLE: EVA

Eva is a 76-year-old female with a long and consistent history of psychotic episodes that have interfered with her functioning and have disturbed her entire life. Her first pronounced episode occurred when she was in her middle 20s, after the birth of her fourth child. Eva was raised in the Catholic faith and believed abortion was a sin. In describing her past, she stated she felt overwhelmed by the birth of each child and the care required to raise them. She described her husband as an alcoholic who spent little time at home and even less time supporting her and helping raise the children. She did say, however, that her husband was a good provider and often worked long hours in a blue-collar job.

At age 25, Eva, who had no previous history of mental illness, was admitted to a state hospital for what she described as a complete and total nervous breakdown. According to medical records, Eva reported hearing voices that told her to harm her children and kill her husband, and she believed her husband was trying to kill her. Eva said she deliberately lit the gas oven in her home, exposing herself and her children to the deadly fumes, because the voices told her to. Fortunately, she and her children were saved when her husband returned from work early. She was diagnosed with schizophrenia and was immediately admitted to the state hospital. When discussing the admission, Eva disagreed with what was written in her medical record. She stated that now that she was thinking more clearly, it was her husband who lit the gas stove.

During the current discussion, her affect was initially flat as evidenced by a lack of emotional expressiveness. Yet, as she continued to talk about the event, her affect changed to agitation and irritability, and soon she refused to discuss it further. At times, she would seem depressed but would start to giggle and smile inappropriately relative to the conversation. According to the medical record, she did not ask about the condition of her children after the experience. After 6 months of minimal improvement and subsequent shock treatments, Eva was discharged and sent home. In the current interview, she reported that she remembered the shock treatments and thought they were a horrible punishment for running away from her responsibilities. To date, she has had 25 admissions since her first approximately 40 years earlier. Many of these occurred in the same year.

With the advent of deinstitutionalization, Eva spent shorter intervals in state hospitals that would accept her without insurance. She had a

long history of repeatedly being admitted and within weeks being discharged. The most noted problem for Eva, according to previous hospitalization records, was that she often refused to continue taking her medicines. When she stopped taking her medications it usually led to her readmission.

For approximately 40 years, Eva had been given the highly sedative medication Thorazine. She often complained of feeling tired and being unable to function. During this time, she had numerous episodes of violence related to paranoia, frequently stopped taking her medicines, and was often labeled as medication noncompliant. Eva was found wandering the streets in a state of disarray numerous times, and on at least one occasion was the victim of a violent rape resulting in her hospitalization. After 10 years, Eva's husband told his family and friends that he was overwhelmed by his wife's condition and the care of his four young children. After many additional violent episodes and repeated hospitalizations, he filed for divorce and took custody of the children. He refused to maintain contact with her after he remarried. Meanwhile, Eva's problems continued to escalate. She often refused to take her medicines and reported paranoid beliefs and ideas, including that her husband often followed her and threatened her life. Furthermore, she believed her children were crying for her because they were being neglected and needed care. This seemed highly unlikely, however, as her husband was reportedly living with her children in another state.

Eva described her life as horrible both before and after her divorce. She was unable to work since she could not concentrate on a task. At one point, she got a job in a department store but was quickly fired because she insisted that voices were coming over the public-address system saying her youngest child was being abused. She never applied for disability, as she had such a sporadic work history, and she had no income other than what she was able to borrow or beg on the streets. Eva moved frequently, and her living arrangements alternated between boarding homes, relatives, and boyfriends. She did not stay in one place very long, as she often got into trouble for her erratic and unpredictable behaviors. Eva never received any case management or counseling services on a consistent basis because she often moved or refused to see anyone affiliated with the mental health system.

Most of her history was obtained from medical records from her repeated admissions to mental health facilities. Eva herself was considered an unreliable historian. When questioned directly, her explanation of dates, times, and events was not consistent with the records. Eva often

felt that people persecuted her deliberately and that she had to defend herself from family and neighbors. She stated that she had no friends and over the years had managed to alienate every family member she had. At one point, her son came to stay with her in a small, one-bedroom apartment. He was later found guilty of trying to sell her Cogentin (a medication prescribed to control the side effects of her antipsychotic medicines) on the street. He moved out after he was placed on court-ordered probation, and she was readmitted to the hospital for stabilization. Later, she was discharged to a supervised group home sponsored by the community mental health center.

Today, however, new advances in pharmacotherapy offer Eva many opportunities for an improved quality of life. Much of her recent success can be attributed to the support she received in the environment and the best combination of medicines. In 1994, Eva was placed on an atypical antipsychotic medicine called Risperdal (risperidone). After a short trial, Eva reported the risperidone had a significantly diminished side effect profile in terms of sedation when compared to Thorazine. Eva contracted with the social work case manager to take the medicine because it made her feel more alive. She was placed on a combination-effect medication often noted for its antidepressant and antianxiety properties called Wellbutrin and a mood-stabilizing medication called Depakote. Upon assessment, her case manager had suggested to the treatment team that Eva needed something to stabilize her mood. Although Eva was never diagnosed with bipolar or schizoaffective disorder, a disorder explained later in this chapter that has aspects of both mood episodes and schizophrenia, she often had unpredictable mood swings in the supervised living facility, triggering violent outbursts toward those around her. Based on this history and documented evidence of her mood swings, the mood-stabilizing medication was added. After close observation and with readjustments as needed, this combination appeared to be working for Eva. Eva reported she really liked her case manager; she could tell the case manager what she was feeling and the case manager understood, thereby enabling her to better communicate her needs to others.

Now, she quickly describes her mood as “less dazed” and “more alive,” and she no longer hears voices. Eva has not been hospitalized since 2005, and with the help of her case manager has moved from the supervised living facility. She is currently living with her sister. Eva is also participating in a day-treatment program and sees her social work case manager once every 6 months. She is working on improving her problem-solving and daily living skill. Her sister says they are doing their

best and she is getting used to the “rough spots.” According to her sister, Eva still has some problems with her mood and the way she relates to people, but is nothing like she was before.

This case serves to demonstrate how tortured and alienated the client with schizophrenia can feel. It also describes many behaviors characteristic of this condition and how they present an impossible-to-ignore scenario that requires intervention. The unpredictable nature of the condition, and the reactions Eva and other clients who suffer from schizophrenia exhibit, often make family support and participatory case management difficult (Stomwall & Robinson, 1998).

This case illustrates the importance of exploring alternatives and utilizing newer or atypical antipsychotic medications as treatment options. Yet, as will be discussed later in this chapter, these medicines are not without concerns. Eva was constantly monitored for what she referred to as “sugar” (hyperglycemia), and she experienced weight gain. Regardless, clients such as Eva will tell you these medications have helped them take control of their lives. These medications offer many who suffer from chronic schizophrenia a chance at a new life that otherwise would be impossible (Apfeldorf & Alexopoulos, 1999). Unfortunately, without case management and supportive services, cases like this one may not reach such a satisfactory ending. The importance of case management services to assist with adaptation and other needs is essential.

Medication is critical but should not be used as the only mode of intervention. The newer antipsychotic medications described in this chapter may bring a new ray of hope when supplemented by effective counseling and case management services. They clearly hold promise for helping clients, but they are not without risk. However, medications such as antipsychotics can be a good choice for the first episode of the disorder because they assist with common symptoms such as delusions, hallucinations and thought disorders, and *asociality* (lack of desire to associate and communicate with others; Robinson et al., 2006).

SCHIZOPHRENIA: FORMING THE DIAGNOSTIC IMPRESSION

Two factors related to formulating a diagnostic impression for this disorder must be understood clearly. First, clients with schizophrenia often have co-occurring disorders (McGrath, 1999). In professional practice, clinicians quickly realize there is no such thing as the single-problem cli-

ent. Clients often have multiple problems and require a multifaceted approach. The same can be said for the client with schizophrenia who can also have multiple mental health conditions such as affective disorders (bipolar and depression), anxiety, dementia or delirium-based disorders, and substance abuse (Buckley, Miller, Lehrer, & Castle, 2009). In addition, when looking specifically at treatment guidelines recommended for psychiatrists, topics such as substance abuse, psychosocial education, and treatment are almost always discussed (Compton, 2005).

Because the etiology of this tragic illness is not yet fully understood, the use of medications is essential to control what little we do understand. As we learn more about the causes and origins of schizophrenia and other psychotic disorders, we will be better able to address the illness. A study by Brzustowicz, Hodgkinson, Chow, Honer, and Bassett (2000) found a susceptibility point for schizophrenia on a particular gene. This finding lends significance to the theory that schizophrenia is related to genetics and not solely to the environment.

The diagnosis of schizophrenia is often complicated by the fact that symptoms are likely to change during subsequent assessment. It becomes obvious that the disorder itself is multifaceted and that there are many positive and negative symptoms to be considered (APA, 2000). Basically, a *positive symptom* involves the development of delusions, conceptual disorganization, hallucinatory behavior, excitement, grandiosity, suspiciousness, persecution, and hostility. Generally, positive symptoms fall into two groups: hallucinations and delusions; and disorganized thinking, speech, and behavior (Woo & Keatinge, 2008). These symptoms are often obvious and easy to detect during the assessment process (Dziegielewski, 2002). In the lay community, the word *positive* as it refers to symptoms may be confusing. All social workers should be aware that the term “positive symptoms” might confuse clients as well as family members. They should explain that positive, in this sense, refers to the hallucinations, delusions, and psychotic behaviors an individual may experience.

Negative symptoms, however, are often more common and harder to detect than positive symptoms. These symptoms often involve *avolition* (lack of goal directed behavior), blunted affect, emotional withdrawal, poor rapport, passivity, apathy, social withdrawal, difficulty in abstract thinking, lack of spontaneity, and stereotyped thinking patterns (Dziegielewski, 2007). Malhotra, Pinsky, and Breier (1996) warned that negative symptoms, which are often subtle, can be stumbling blocks for clients trying to lead fruitful and productive lives. Individuals who display

negative symptoms often appear disconnected and “zombie-like,” making connecting with others in any meaningful way difficult (Woo and Keatinge, 2008).

These negative features, which can also include reduced appetite, lack of energy, lack of pleasure, and inattention, appear in both schizophrenia and depression. Depression and its symptoms occur in 25% of cases of schizophrenia (Siris, 2000). In order to provide the best care, social workers must realize that negative symptoms of schizophrenia can be easily confused with other mental health conditions such as depression. For the most part, studies suggest that medications only show modest improvements in negative symptoms, most notably in avolition, apathy, and asociality-anhedonia (Robinson et al., 2006). This lack of response makes these symptoms particularly problematic to treat.

Additionally, these symptoms tend to be so arbitrary and susceptible to change that many individuals remain symptomatic even with treatment (Compton, 2005). The social worker must not only be aware of current and past symptoms but must also anticipate changes during the course of the illness and the intervention process. Understanding this becomes particularly important as we gain more knowledge about the disease process and the mechanisms that lead to the development of difficulties (Dziegielewski, 2007).

Many clients who receive both medication and counseling only experience limited relief and are often referred to as *partial responders*. Research supports that as many as 40% to 50% of patients suffering from psychotic symptoms could be treatment resistant or intolerant when treated with psychopharmacologic means (Maina, Albert, Pesina, Salvi, & Bogetto, 2005). Therefore, medication guidelines need to be flexible, as many individuals with this disorder are not substantially helped by a traditional course of medication intervention. For those who partially respond to intervention, the prognosis appears even dimmer: Only 15% will attain maximum or optimal symptom relief or functional restoration (Breier, 1996).

Schizophrenia involves exhibiting psychotic symptoms such as delusions, hallucinations, uncooperativeness, and thought disorders (Sadock & Sadock, 2008), which can make these clients difficult to help. The specific conditions usually treated with antipsychotic medications include schizophrenia, delusional disorders, depressive psychoses, mania, and drug-induced psychoses (Sadock & Sadock). See Figure 11.1 for a list and brief description of schizophrenia and other primary psychotic disorders.

Figure 11.1

SCHIZOPHRENIA AND OTHER PRIMARY PSYCHOTIC DISORDERS**Five Types of Schizophrenia**

- *Disorganized type*: marked incoherence; lack of systematized delusions; blunted, disturbed, or silly affect
- *Catatonic type*: stupor, negativism, rigidity, bizarre posturing, and excessive motor activity
- *Paranoid type*: one or more systematized delusions or auditory hallucinations with a similar theme
- *Undifferentiated type*: contains aspects of the other prominent types
- *Residual type*: symptoms of schizophrenia not currently displayed but have been in the past

Primary Psychotic Disorders

- *Brief reactive psychosis*: historically called “3-day schizophrenia” because symptoms generally last at least a few hours but no longer than a month, and sudden onset is generally linked to some type of psychosocial stressor
- *Schizophreniform disorder*: usually considered a provisional diagnosis, it is generally related to a client’s first episode of psychosis; if and when the episode lasts longer than 6 months, the diagnosis should be changed to schizophrenia
- *Schizoaffective disorder*: includes the signs and symptoms prevalent in both schizophrenic disorder and the mood episodes consistent with a mood disorder
- *Shared psychotic disorder (a.k.a. induced psychotic disorder)*: often found among isolated individuals and historically has been referred to as *folie a deux*; in this disorder, two people generally share the same delusional system

Note: Definitions are based on the *Diagnostic and Statistical Manual for Mental Disorders* (4th ed. text revision), by American Psychiatric Association, 2000. Washington, DC: Author.

A general understanding of schizophrenia and its resulting behaviors is necessary for social workers to accurately facilitate and complete the diagnostic impression. Furthermore, a client with schizophrenia with stressful life circumstances will often show more exacerbated psychotic symptoms (Docherty, St-Hilaire, Aakre, & Seghers, 2009). Regardless, most individuals who suffer from schizophrenia often experience a characteristic deterioration in adaptive functioning that accompanies their psychotic symptoms.

The first psychosis, or break with reality, usually occurs between the ages of 17 and 30 in males and between 20 and 40 in females (Carpenter, Conley, & Buchanan, 1998). The course of this illness remains extremely variable, and some individuals may not become psychotic again after the first episode. The majority improve after the first episode but continue to manifest symptoms, and future occurrences remain unpredictable. Docherty and colleagues (2009) clarified further that the positive, psychotic symptoms are the most variable, whereas the negative and disorganized features seem more stable. Positive symptoms can range from very severe to fully remitted. The active phase of the disorder generally lasts a minimum of 6 months, with active symptoms lasting for at least 1 month (APA, 2000). The course of the illness can be further complicated by clients who use prescription or street drugs to self-medicate or when extended noncompliance becomes a pattern (Seligman & Reichenberg, 2007).

Social workers should identify how negative symptoms influence the intervention process. *Associative disturbances* directly relate to how the client interacts or associates with the environmental context (Dziegielewski, 2002). Oftentimes, individuals experiencing negative symptoms are unsure how to relate to others (see Figure 11.2). At times, a client may invade another's social or personal space, and at other times, he or she may withdraw from social contact. Taken together, these behaviors might disturb family and friends. These associative disturbances can clearly impede social functioning and may result in the client's isolation within his or her environmental context.

Affective disturbances are a prevalent feature of the disorder and cause the client to exhibit unpredictable moods and emotions, which can be unsettling to everyone involved. Traditionally this is referred to as a *splitting of mood*. The client with schizophrenia exhibits polarities in emotions—angry one minute and laughing the next. The client's emotional reactions may have no relevance to what is actually happening, a symptom that may alarm family and friends as well as mental health

Figure 11.2

THE SIX A's OF SCHIZOPHRENIA

1. *Associative disturbances* affect how the client responds and relates to others.
2. *Affective disturbances* are disturbances in the client's mood.
3. *Autism* involves the client's isolation and potential inability to communicate or understand his or her environment.
4. *Ambivalence* hampers the client's ability to make decisions or complete tasks.
5. *Avolition* refers to a lack of goal-directed behavior.
6. *Alogia* refers to a poverty of speech (a limited ability to communicate his or her needs) (Dziegielewski, 2002).

professionals. It is hard for many to understand that the individual is suffering from something beyond his or her control because schizophrenic clients often appear in control of their behaviors.

The term *autism* was once often referred to as “childhood schizophrenia.” When used in this context, however, it is important not to confuse it with the diagnosis of autistic disorder. In schizophrenia, autism refers to a lack of responsiveness (Dziegielewski, 2002), which makes it difficult to communicate with the client or to determine exactly how much the client is able to comprehend. Autism can be particularly frustrating for professionals and family because it limits the client's ability to follow an intervention program or participate in counseling.

Ambivalence is indecisive behavior often displayed by schizophrenic clients that causes difficulty in making decisions or adhering to an intervention plan. Furthermore, it may be unclear how much of the plan the client is able to comprehend. Clients may express willingness to do something but change their minds moments later. Completing simple tasks, such as dressing or deciding whether to go outside, may become daunting tasks for some clients.

Avolition, which involves a lack of goal-directed behavior, can be one of the most difficult to address. In this negative symptom the client may not have the desire or energy to complete tasks. This can involve tasks as simple as taking a shower or as complex as balancing a check book.

Family members may become increasingly frustrated with this lack of initiative for at times the client appears to have energy and may be capable of making choices but they just do not act on them.

The term *alogia* is often defined as poverty of speech where the individual has difficulty responding to prompted cues considered a normal part of conversation. This is most often evident when displayed by short, concise, limited, or delayed speech. It can be very frustrating to the family member because when the loved one is asked to do something, he simply does not respond verbally. For example, when working with the social worker and the client is asked “what would you like to change about your behavior?” the client may respond with “nothing” or “don’t know” or he may just hang his head unable to respond.

Secondary symptoms may also be present and must be considered as part of the diagnostic impression. The first and probably most common are *delusions*. A delusion is a belief a client holds despite evidence to the contrary. Delusions are often fragmented and have no basis in reality (Healthyplace.com, 2007). Schizophrenics may hold numerous beliefs so disturbing that their functioning is impaired. Often these delusions are systematized and involve family and friends. These may be difficult for loved ones to tolerate because they cannot see any real or external basis for such behavior or cannot understand why it is so difficult to control.

It is essential to differentiate between *delusions of reference* common in schizophrenic conditions and *ideas of reference* as experienced in some personality disorders, especially schizotypal personality disorder. An idea of reference is much more individualized than a delusion of reference. An idea of reference often refers to a specific individual, event, or item that encompasses magical thinking or involves a certain degree of exaggerated importance. An example is the client who believes she is so worthless that a physician would come into her home and offer to assist in ending her life. Other areas of her life are not affected by such beliefs. Delusions of reference are more extensive. An example would be a person who thought that everyone who wears green is sending messages to take over the world. These delusions of reference are much more obvious and affect almost every aspect of the client’s life.

Individuals who suffer from schizophrenia often experience *hallucinations*, which can be particularly problematic for the social worker to address. Most often, medications are used to help control this aspect of the illness. Auditory hallucinations, such as hearing voices, are the most

common, making up almost 70% of all reported hallucinatory symptoms (Hoffman, 2000). Many clients who hallucinate often report they hear voices and may be commanded by these voices to engage in certain behaviors.

Individuals who report visual hallucinations often see nonexistent images; those with tactile hallucinations often report feeling itchy. Some clients report a burning sensation, but this is less frequent (Healthyplace.com, 2007). Less common forms of hallucinations include tactile (touch) and olfactory (taste and smell) sensations. When these types of hallucinations occur, a comprehensive physical is recommended to rule out other causes. For example, a client who reported bugs were crawling on him or her could be affected by medication side effects or other types of substance abuse. (It may help the social worker to remember the saying that when a client complains of “bugs crawling on them,” bugs could be drugs, so be sure to assess for medications, legal or illegal.) The client should be referred immediately for a drug screen or physical examination to determine if the psychosis is related to substance abuse or another type of delirium.

Clients with chronic types of schizophrenia can experience disturbances in motor behavior such as bizarre posturing, *catalepsy* (a state of stupor), and *waxy flexibility* (Moore & Jefferson, 1997). In *waxy flexibility*, a client may appear somewhat rigid and may seem stuck or frozen in certain positions for a long period. *Waxy flexibility* and *catalepsy* are both characterized by a state of continual and unusual muscle tension (Moore & Jefferson) in which a client appears to be stuck, soldered in place, and unable to move. To the inexperienced social worker, family member, or friend, this type of behavior can be very frightening. It can often result in posturing and an inability to respond, which may cause family members to withdraw their support. Therefore, it is essential to educate the client, his or her family, and professionals about the signs and symptoms of schizophrenia and the interventions that work best to address them.

Schizophrenic clients are usually thought to be out of touch with reality and to have impaired ability to evaluate their environments. Oftentimes, they are not receptive to interventions, even though they require help. Overall, modern understanding of schizophrenia and other related psychotic disorders has improved; however, the illness still remains a significant challenge for those who try to provide therapeutic treatment.

INTERVENTION WITH CLIENTS WHO SUFFER FROM PSYCHOSIS

Intervention for clients with schizophrenia can be varied; there is no standard intervention strategy that fits all clients. When planning the intervention, the unique needs of each client should always be considered (Dziegielewski, 2007; Kane, 1996). Intervention generally involves the use of medication and medication management and monitoring as well as supportive interventions such as training in daily living, problem-solving, and psychosocial skills; supportive counseling; family education; community treatment or case management; and, when warranted, vocational rehabilitation. Kern, Glynn, Horan, and Marder (2009) warned that a focus on medication alone is not enough and that psychosocial treatments enable clients to better cope with all aspects of their illness, thus raising their functionality.

Most professionals agree that medication is often a critical component for those individuals with psychotic disorders. For this reason, medications are generally the first line of intervention, regardless of the intervention strategy used (Kane, 1996). This requires social workers to be well versed in these medications and how they can affect the intervention process. Many different types of medications in addition to antipsychotic drugs may be used. These include lithium, mood stabilizers and anticonvulsants (e.g., valproic acid), beta blockers, and benzodiazepines. These will be discussed later in the chapter.

CLIENT SYSTEMS AND BUILDING SUPPORT

This complex and difficult-to-control disease often disrupts the patient's support system, thereby alienating his or her friends and family. The closure of asylums and institutions where the mentally ill often reside has pushed many of these individuals into the community, where they are now being served by community-based mental health teams (Malone, Marriott, Newton-Howes, Simmonds, & Tyrer, 2009). The symptoms of the disease—such as changes in mood and splitting of affect responses—may scare family and friends, making residing and seeking care within the community difficult. Often, this pressure to live outside a structured environment creates strained relationships for both family and community supports. For community-based care to succeed, recognizing education and support are critical. Once families are made aware, they may

become more tolerant of the eccentricities common with this condition. Education includes learning about the condition and what to expect from a loved one who is afflicted, becoming aware of medication regimes and the side effects that can result, and the best ways to handle resistance and possible rejection by the patient. Problem behaviors, which create problems for the patient and his or her family system, need to be identified. Bridging the connection to the support system is strongly encouraged, as the family can share valuable input, provide stability, and assist in intervention progress and success.

HISTORY AND DEVELOPMENT OF ANTIPSYCHOTIC MEDICATIONS

The term *schizophrenia* was first introduced by Swiss psychiatrist Eugen Bleuler (1857–1939; Bleuler, 1950). Many medications used today to treat schizophrenia first became available in the 1950s (NIMH, 2009d). Traditionally, these drugs were used to calm down the violent or combative client, addressing symptoms such as hallucinations, delusions, and abnormal thought patterns (Paris, 2008). The calming effect afforded by the first antipsychotic medicine of the time, Thorazine (chlorpromazine), was particularly important in state institutions or asylums because chemical restraints afforded staff the ability to exercise what seemed like a more inexpensive, less invasive, and more humane form of intervention (Lindamood, 2005).

Paris (2008) stated that although lithium was created in 1949 by Australian psychiatrist John Cade, it was not until 15 years later that it was proven beneficial for the treatment of bipolar disorder. According to Paris, prior to that time many individuals were overdiagnosed with schizophrenia because of the benefits of using psychotropic medications to treat the symptoms of both illnesses. Therefore, the use of these neuroleptic (another name for antipsychotic) medications helped create a climate that calmed and controlled the symptoms of the disease, relieving cash-strapped, overcrowded hospitals and preventing long-term institutionalization (Lindamood, 2005). The development of antipsychotic medications and the control they afforded actually encouraged deinstitutionalization and our current emphasis on community-based outpatient care (Breier & Buchanan, 1996; Empfield, 2000).

It was not until the early 1950s that the first medication was introduced to treat the hallucinations, delusions, and psychotic depression

of schizophrenia. Thorazine (chlorpromazine) and its powerful effects were discovered by accident, as it was originally to be used as a surgical anesthetic (Lindamood, 2005). Later it was learned that the potential sedative effect of the medication could be beneficial in reducing agitation. The results were quite surprising. Although Thorazine did not decrease body temperature, it did appear to lessen many of the psychotic symptoms of schizophrenia, and it was marketed as a wonder drug for treatment of the condition (Bentley, 1998; Berstein, 1995). Soon drugs such as Thorazine began to fall from favor due to their side effect profiles, and numerous other drugs followed (see Table 11.1); antipsychotics eventually became common for treating schizophrenia and other related mental health disorders (Lindamood).

Numerous studies show that schizophrenia has an effect on various parts of the brain, including the frontal lobes, temporal lobes, limbic system, and basal ganglia (Farmer & Pandurangi, 1997). Other researchers are attempting to understand the role of the neurochemical dopamine. The *dopamine hypothesis* has been offered as a probable explanation

Table 11.1

SELECTIVE ADJUNCTIVE MEDICATIONS IN THE TREATMENT OF SCHIZOPHRENIA

TYPE/GENERIC NAME	USE IN SCHIZOPHRENIA
Mood stabilizers such as the lithium salts	May be used to supplement treatment or for treatment-resistant schizophrenia
Mood stabilizers/anticonvulsants such as carbamazepine and valproic acid	Anticonvulsant medications used primarily for treatment of bipolar affective disorder with psychosis
Benzodiazepines such as alprazolam	Used in treatment-resistant schizophrenia
Antidepressants such as the tricyclics imipramine and clompiramine and some support the use of the SSRIs such as fluoxetine, sertraline, and citalopram	Used to address the depressive episodes often found in schizophrenia

Note: Information summarized from *Physicians' Desk Reference* (63rd ed.), 2009. Montvale, NJ: Medical Economics.

for the development of the disease (Buchanan, Brandes, & Breier, 1996; Karper & Krystal, 1996). According to this hypothesis, there is a functional excess of dopamine in the central nervous system, and traditional antipsychotic drugs are beneficial because they block dopamine receptors in the brain (Farmer & Pandurangi).

According to Carpenter, Conley, and Buchanan (1998), stimulants such as cocaine and amphetamines activate the dopaminergic system in the brain, which explains why the abuse of stimulants can induce a paranoid psychosis that mimics some symptoms of schizophrenia. In turn, if a person with schizophrenia is given stimulants of this type, his or her psychosis may be exacerbated (Carpenter, Conley, & Buchanan). It follows, therefore, that typical antipsychotic medications act by blocking dopamine receptors.

Some researchers believe that the involvement of dopamine alone is not comprehensive enough to explain the complex changes that occur in schizophrenia. Although dopamine does seem to be directly involved in the positive symptoms of the condition, it appears to have little effect on the negative symptoms (Carpenter, Conley, & Buchanan, 1998). Other neurotransmitters, such as serotonin, also need to be taken into account when dealing with schizophrenia (Karper & Krystal, 1996).

TRADITIONAL OR TYPICAL ANTIPSYCHOTIC MEDICATIONS

Traditional or typical antipsychotics are *dopamine inhibitors* that block other neurotransmitters, including acetylcholine, histamine, and norepinephrine. Table 11.2 lists some of these medications.

Extrapyramidal symptoms (EPS), which affect the motor system, are a common side effect with these medications, and the social worker must be able to recognize them. *Dystonia*, characterized by sudden and painful muscle stiffness (National Alliance on Mental Illness [NAMI], 2003), may present as grimacing, difficulty with speech or swallowing, *oculogyric crisis* (upward rotation of the eyeballs), muscle spasms of the neck and throat, and extensor rigidity of the back muscles (Carpenter, Conley, & Buchanan, 1998). These reactions will often occur within the first few days of treatment. Clients may also complain of a thick or stiff tongue that impairs their ability to speak.

Akathisia is less obvious than dystonia, although it is the most common form of EPS. Akathisia is an extreme form of motor restlessness

Table 11.2

TYPICAL ANTIPSYCHOTIC AGENTS

MEDICATION BRAND NAME (GENERIC NAME)	SIDE EFFECT /BENEFIT PROFILE
Thorazine (chlorpromazine)	High sedation
Mellaril (thioridazine)	High sedation High anticholinergic effects
Stelazine (trifluoperazine)	Low sedation Moderate EPS ^a
Prolixin (fluphenazine)	Minimal sedation
Prolixin Decanoate (fluphenazine decanoate)	High EPS
Permitil Fluphenazine	
Haldol (haloperidol)	Moderate sedation
Haldol Decanoate (haloperidol decanoate)	High EPS
Loxitane (loxapine)	Moderate EPS
Navane (thiothixene)	Lower EPS for a high potency medication
Moban (molindone)	Less weight gain than other typical medications

^aEPS stands for *extrapyramidal side effects*, such as hand tremor and motor restlessness.

Sources: NIMH, 2009a, and *Physicians' Desk Reference* (63rd ed.), 2009. Montvale, NJ: Medical Economics.

that may be mistaken for agitation (NAMI, 2003). The individual feels compelled to a constant state of movement, and many times clients will report an “inner restlessness” evidenced by a shaking leg or constant pacing. During assessment, these clients cannot sit still and often exhibit restless legs or uncontrollable foot tapping. Although akathisia generally appears early in the course of treatment and can be related to other EPS, it can also occur independently (Carpenter, Conley, & Buchanan, 1998).

Another form of EPS, which results from long-term treatment with older antipsychotic medications, is a condition called *tardive dyskinesia*

(TD). This condition involves pronounced involuntary movements of any group of muscles, most commonly the mouth and tongue (NIMH, 2009c). This syndrome generally occurs with elderly individuals, especially women (NIMH). Tardive dyskinesia is a negative consequence of taking long-term conventional antipsychotic medications, with intervention duration being the primary developmental factor (Carpenter, Conley, & Buchanan, 1998).

Awareness of the development of TD is particularly important because preventing it is far more desirable than treating it, as it can be nonreversible (NAMI, 2003). One way to address this issue is to prescribe the medication in lower doses, but for chronic schizophrenia this may not be an option. Newer or atypical antipsychotics may offer a more hopeful course of treatment because they seem to cause fewer EPS side effects, especially when given in low doses (Lambert, 1998).

A less frequent side effect associated with the older or traditional antipsychotic medications is *neuroleptic malignant syndrome* (NMS). Recognizing this syndrome can be difficult, as it often includes serious medical complications and illness (pneumonia, etc.) and untreated or unrecognized symptoms related to the EPS mentioned above (PDR, 2009). Benzer (2007) reported that, although NMS occurs in only 0.1% to 0.04% of cases, one out of four cases of NMS can end in death. This condition is typically more common in males. The symptoms include severe rigidity of the muscles, a high fever, confusion, pallor, sweating, and a rapid heart rate. One early sign of the condition is high blood pressure. Because of the extreme severity of this condition, it is imperative that social workers with clients who have schizophrenia be aware of the symptoms and the potentially lethal consequences. According to Benzer, when NMS occurs it usually lasts 5 to 10 days. Once a client has been assessed with this condition, drug treatment needs to be monitored closely by the medical team. Generally, the medical team will immediately discontinue the antipsychotic drugs and any other nonessential drugs.

The medications often prescribed to decrease or control movement-related side effects are referred to as *anti-Parkinson medications*. When a client is receiving a traditional or typical antipsychotic medicine, it is essential to determine if other medication has been prescribed to assist and counter the side effects that might result. The medications that are often used to address the side effect profiles are listed in Figure 11.3.

Figure 11.3

TYPICALLY USED ANTI-PARKINSON MEDICATIONS**Brand Name (Generic Name)**

Cogentin (benztropine)

Akineton (biperiden)

Benadryl (diphenhydramine)

Artane (trihexyphenidyl)

Several factors social workers must consider when dealing with clients using anti-Parkinson medications include whether a client has a history of substance abuse and who might try to sell these drugs on the street. This is particularly true for the drugs Cogentin and Artane, which have a high potential for abuse. When the potential for abuse is suspected, it might be best for the social worker to share this information with the treatment team or with the prescriber and consider an over-the-counter medication, such as Benadryl, to help control the symptoms of EPS.

NEWER OR NONTRADITIONAL ANTIPSYCHOTIC MEDICATIONS

The 1990s saw the development of several new drugs to treat schizophrenia and other psychotic disorders. These are known as *atypical* or *nontraditional antipsychotic medications* (NIMH, 2009). For examples of these medications, see Table 11.3. These medications have gained popularity because they appear to have lower EPS profiles than traditional antipsychotics; they also help individuals think more clearly, follow directions better, learn new facts and master new skills, and interpret emotion more accurately (Lambert, 1998). For these reasons, they are often used as the first line of treatment.

Special attention should be given to clozapine because of potential problems in its use. Although some authors consider clozapine to be a newer atypical antipsychotic medication, it has a long history and in

Table 11.3

SELECTED NONTRADITIONAL OR ATYPICAL ANTIPSYCHOTIC MEDICATIONS**BRAND NAME (GENERIC NAME)**

Clozaril (Clozapine)
Risperdal (released 1994) (Risperidone)
Serlect (Sertindole)
Zyprexa (Olanzapine)
Seroquel (Quetiapine)
Geodon (released in 2001) (Ziprasidone)
Abilify (released in 2003) (Aripiprazole)
Invega (Paliperidone)

Note: Dosage information is not included; different sources may report slightly different dosages, and dosage recommendations can vary. See glossary for a dosage information.

some texts may be listed as a traditional antipsychotic. Known by the brand name Clozaril, clozapine was originally synthesized in 1957 and in 1960 was one of the first antipsychotics released on the European market (Hippius, 1989). It was believed to be more successful than typical antipsychotics because it did not seem to have the same negative side effect profiles. Years later, eight documented deaths were attributed to infections secondary to clozapine-induced *agranulocytosis*, and the product was withdrawn from unrestricted use (Davis & Casper, 1977). (Agranulocytosis causes a severe reduction in the number of granulocytes, a type of white blood cell. Without these granulocytes, the body is unable to fight life-threatening infections.) Based on later studies supporting the success of clozapine with strict monitoring for treatment-resistant schizophrenia, the FDA approved it for use in the United States in 1990 (Barnes & McEvedy, 1996; NIMH, 2009).

Social workers with clients on Clozaril should be aware of two factors. First, this medication is usually dosed 1 week at a time to ensure client compliance with the medical regimen; second, clients must have a blood count every week to ensure that agranulocytosis (loss of white blood cells) does not develop (NIMH, 2009). While only 1% to 2% of all

clients taking this medication may develop agranulocytosis, it still needs to be monitored closely, and the expense and regular monitoring may be restrictive for some clients (NIMH, 2009). In 2000, Sandoz Pharmaceuticals suggested that weekly monitoring be done for the first 6 months and every 2 weeks thereafter if the white blood count remains stable (PDR, 2000).

If agranulocytosis occurs, the drug must be promptly discontinued and cannot be used again. Because of its effectiveness and side effect profile when monitored correctly, Clozaril can assist with symptoms resistant to other medications (NIMH, 2009). The expenses related to the repeated blood tests and the cost of the medication, as well as the inconvenience for clients who take it, however, has made its use very limiting (NIMH). Weekly or biweekly monitoring can be inconvenient for clients, especially those who live in rural areas, who cannot get to a medical provider, pharmacy, or lab regularly. Assistance may be needed to help the client gain weekly access to the drug.

Some early signs of agranulocytosis infection that need to be reported immediately to health care providers include fever, sore throat, fatigue, and mucous membrane ulcerations (PDR, 2009). The most common side effects of Clozaril are seizures, tonic and clonic convulsions, drowsiness, sedation, dizziness, and postural hypotension. Clozaril should never be used with drugs that can suppress bone marrow, such as anticancer drugs (PDR, 2009). It is also important to know that several individuals have died despite weekly hematological monitoring. For these reasons, a trial of at least two other standard antipsychotic drugs is recommended prior to using Clozaril (McGrath, 1999). It is easy to see why Clozaril is rarely used; the other newer atypical medications comprise more than one-quarter of all prescriptions for antipsychotic medications (Schulz, 2000).

Social workers also need to be aware of other atypical antipsychotic medications, including Risperdal, Zyprexa, and Seroquel.

Risperdal (risperidone) was introduced as the first official atypical antipsychotic medication in 1992 (Schulz, 2000). In studies, risperidone seems more effective in reducing positive and negative symptoms than older, more traditional medications such as Haldol (Armenteros, 1997). Risperidone has been used with schizotypal personality disorder to decrease the psychotic-like, or positive, symptoms of the condition as well as negative symptoms such as cognitive impairment (Saklad, 2000).

Another atypical antipsychotic, Zyprexa (olanzapine), was also developed and marketed after risperidone. Zyprexa appears to be well

tolerated and readily accepted by clients, especially because of its low incidence of EPS and its ability to address the negative symptoms of schizophrenia when given at higher doses (Harvard Mental Health Letter, 1999). Social workers should be aware, however, that Zyprexa and any of the other newer atypicals listed on Table 11.3 may increase blood glucose levels in individuals with diabetes (*PDR*, 2009; Saklad, 2000). Neither Zyprexa nor risperidone have been associated with the condition of agranulocytosis.

Seroquel (quetiapine) is an atypical antipsychotic medication that was introduced in the United States in 1998. Quetiapine has fewer side effects but does cause considerable sedation in the early stages of treatment (Schulz, 2000).

Newer atypicals include Geodon (zispridone), Abilify (aripiprazole), and Invega (paliperidone). When using these antipsychotic medications with the elderly, it is important to note that the FDA has issued a public health advisory regarding an increased incidence of death with elderly individuals who suffer from dementia. Therefore, these medications are no longer prescribed for elderly individuals who have problematic behavioral symptoms and suffer from dementia (NIMH, 2009).

Recently, a new medication called Symbyax (flouxetine and olanzapine) has been introduced. This medication is unusual in that it combines the active ingredients of two well-known brand medications: Prozac and Zyprexa. This medication was approved for treatment-resistant depression in 2006. Prior to 2006, it was used for schizophrenia symptoms and the down phase of bipolar disorder (NIMH, 2009). Since this medication is a fairly new treatment for bipolar- and schizophrenia-related symptoms, its use needs to be monitored and any resultant side effects reported. Since it combines both Prozac and Zyprexa, the same warnings and concerns for those drugs hold true for Symbyax. For example, neither Symbyax nor Zyprexa are approved for use with elderly individuals who suffer from dementia (NIMH).

It is critical that social workers inform clients and their families that taking these medicines will not result in a quick fix. Antipsychotic medications do not cure but only help control symptoms. Depending on the specific medication, peak concentrations in the system can vary, as well as the time until therapeutic effects can be detected. The side effect profiles of these medications show a lower incidence of EPS than traditional antipsychotics, but there can be other side effects. Female clients may experience disturbances in their menstrual cycles, which is particularly important for women of childbearing age. In some cases, women

taking these medications may become pregnant yet not be aware of it because of an irregular menstrual cycle. This delayed awareness may prevent them from seeking early prenatal care and professional advice about whether to continue their medication.

Pregnancy rates appear to be rising among women with schizophrenia, and it is best to avoid all medications during the first trimester of pregnancy (Empfield, 2000). Pregnant women can benefit from counseling and assistance on healthy lifestyle patterns and choices regarding their medication regimens. Unfortunately, the chance of clinical decompensation increases when these medications are discontinued. Current literature indicates it is possible for a mother with schizophrenia to maintain low doses of atypical medication without causing harm to the fetus (Empfield). Immediate hospitalization is always advised if a client becomes acutely psychotic during pregnancy.

There are multiple drug interactions with this new classification of atypical medications. For this reason, the prescriber needs to be aware of all medications a client is taking, including prescription and nonprescription drugs, vitamins, minerals, and herbal remedies (NIMH, 2009). Since all these medications are still fairly new, there may be side effects and interactions not yet discovered. It is imperative that potential drug interactions be recorded and monitored closely for changes in efficacy, toxicity, and, if applicable, drug concentration (Lam, 2000).

These atypical medications are less likely to produce EPS; however, they can cause increased weight gain, perhaps up to 26 pounds per year (NIMH, 2009). In addition, they may result in an increased risk of diabetes and high blood cholesterol (NIMH). As mentioned earlier, these medications are best avoided in elderly patients who suffer from dementia and any resultant behavioral disorders.

General side effects with all antipsychotic medications include the following (*PDR*, 2009):

- Drowsiness
- Rapid heart rate
- Orthostasis (dizziness when changing position)
- Anxiety
- Somnolence (feeling sleepy and sluggish)
- Constipation
- Dyspepsia (indigestion, disorder of digestion in the lower chest area)
- Urinary retention

- Psychosexual dysfunction
- Weight gain
- Decreased sexual ability or interest
- Problems with menstrual cycle
- More prone to sunburn or skin rashes

EPS side effects include the following symptoms:

- Dystonia (acute contractions of the tongue; stiff or thick tongue)
- Akathisia (inner restlessness; most common form of EPS)

ANTIPSYCHOTIC MEDICATIONS USED FOR DISRUPTIVE OR PSYCHOTIC BEHAVIORS

Increasingly, children, adolescents, and young adults who have not been diagnosed with schizophrenia are being prescribed antipsychotic medications for multiple reasons, including disruptive behavior and agitation not easily controlled with other types of intervention (National Resource Center on AD/HD, 2005). Disruptive behavior can occur in conditions such as conduct disorder, oppositional defiant disorder, and disruptive behavior disorder not otherwise specified (see chapter 7). These disruptive symptoms may also occur with diagnoses such as ADHD.

Regardless of whether medications will be approved specifically for these behaviors in the future, this prescription trend currently warrants immediate attention. Many researchers feel that more controlled clinical trials are needed to closely monitor the problems of poor impulse control and aggression (Ipser & Stein, 2007). Certain types of pharmacotherapy are being used to control these behaviors. For example, some prescribers are using both lithium and atypical antipsychotics such as risperidone to reduce aggression (Ipser & Stein). Findling (2008) warned, however, that if these types of medications are used in children, adolescents, or young adults, proper dosing and monitoring is essential.

DOCUMENTATION AND TREATMENT PLANNING

Treatment plan formulation and execution with clients who have schizophrenia or other related psychotic disorders can be difficult since these

clients may resist or have difficulty participating in interventions. It is important that each treatment plan be individualized to reflect the general as well as the unique symptoms and needs of the client. The importance of a formal treatment plan cannot be overestimated, as it will help determine, structure, and focus any type of social work intervention. A clearly established treatment plan can help deter any litigation by a client or concerned family member. When the treatment plan clearly delineates the intended intervention, families and friends of the client may feel more at ease and may actually agree to participate and assist in any behavioral interventions.

In developing a treatment plan for the client with schizophrenia or other psychotic disorders, there are several critical steps that need to be taken (Berghuis & Jongsma, 2008a, 2008b). First, the problem behaviors that interfere with functioning must be identified, particularly those that impair independent living or cause difficulty with daily tasks. It is essential the client and his or her family participate and assist in this process as much as possible. The client needs to remain a part of the plan as much as possible, particularly in identifying the issues that cause the client the most discomfort. Furthermore, facilitating educational and communicative interventions can enhance communication between the client and his or her family. This is especially helpful because the bizarre nature of the client's unpredictable symptoms and concerns for the client's physical and psychological safety may leave family members searching for the cause of and cure for schizophrenia.

As the client's symptoms worsen, family members find themselves in an environment characterized by increased tension, frustration, fear, blame, and helplessness. To address these issues, family members can be made aware of the treatment plan goals and objectives. Family and friends can be encouraged to become involved and to share valuable input and support in order to ensure intervention progress and success. Involved families feel their input is important and essential for intervention progress.

Next, it is critical to state the identified problem behaviors in behavioral-based outcomes (Dziegielewski, 2009). In completing this process, the assessment data that led to the diagnostic impression as well as the specific problems experienced by the client need to be outlined. Once identified, the client's problems should be prioritized so that goals, objectives, and action tasks can be developed. Then the goals of treatment—which constitute the basis of the intervention plan—must be outlined and applied. These goals must be broken down into specific

objective statements that reflect the target behaviors that need to be changed and ways to measure the client's progress on each objective. Action tasks must delineate the steps to be taken by the client and the social worker to ensure successful completion of each objective.

Identified problem behaviors often include the following:

- Ambivalent feelings that impair general task completion related to independent living skills
- Affect disturbances such as feelings of depression or difficulty controlling anger
- Poor concentration
- Autism, in terms of feeling isolated or detached from others
- Associative disturbances, particularly in terms of being touched or approached by others
- Auditory hallucinations (hearing voices that berate, torture, or degrade the client)
- Paranoid ideation (the client's belief that someone is trying to harm him or her)
- Avolition (lack of goal-directed behavior such as daily self-care and activities of daily living [ADLs])

Once the problem behaviors have been identified, the social worker must identify the goals and behaviorally based objectives used to measure whether the identified problems have indeed been addressed and resolved. For example, if the problem behavior is ambivalent feelings that impair general task completion, the main goal may be to help the client decrease his or her feelings of ambivalence. It is important, therefore, to document a behavioral objective that clearly articulates a behavioral definition of ambivalence, ways that the ambivalence will be decreased, and the mechanisms used to determine if the behavior has changed.

The therapeutic intervention involves assisting the client in developing specific and concrete tasks geared toward decreasing this behavior and meeting the objective. The outcome measure simply becomes establishing whether the task could actually be completed. Table 11.4 provides a sample intervention plan for dealing with the schizophrenic client. It is important to note that this intervention is not designed to be all-inclusive, but rather to provide the social worker with guidelines for effective documentation of the assessment and intervention process. See appendix E for a treatment plan for schizophrenia, paranoid type.

SAMPLE INTERVENTION PLAN

OBJECTIVE	INTERVENTION	TIME FRAME	RESPONSIBILITY
Assist client to verbally identify task that needs to be completed.	<ul style="list-style-type: none"> ■ Assist client in planning how and when task can be completed. 	Upon admission assessment (insert date)	Social worker, intervention teams, client
Help client establish and verbalize trust in the support/care role of staff.	<ul style="list-style-type: none"> ■ Assist client in developing list and writing down support/care issues the client will allow. ■ Probe possible causes for outbursts or noncompliant behaviors. 	Date	Social worker, team, client
Encourage client to take antipsychotic medications consistently, with or without supervision.	<ul style="list-style-type: none"> ■ Assist in arranging for follow-up of medication regimens. ■ Monitor side effect profiles that might decrease compliance. ■ Educate client about importance of taking medications, side effects, and benefits. 	Ongoing	Team, client
Communicate necessity of taking medication.	<ul style="list-style-type: none"> ■ Educate client about medicines that are being taken. ■ Help client understand the importance of taking medications. ■ Help client establish plan or routine for taking medications (identify rewards). 	Date	Team, social worker

Report diminishing or absence of hallucinations.

- Monitor medication effects and need for readjustment.
- Explore feelings or events that might trigger episodes.
- Assist in restructuring irrational beliefs by using reality-based approach.

Date

Social worker,
team, client

Increase family or system support for client's needs.

- Provide education about client's needs to family/support system.
- Encourage family/support system and participation in care.
- Refer for family therapy.
- Conduct formal discharge problem-solving session prior to discharge.

Date

Social worker

Help client to recognize and verbalize that symptoms experienced are related to an illness, not a deliberate act.

- Provide one-on-one supportive therapy to address fears and reduce feelings of isolation.
- Refer for group therapy to increase skills and socialization.

Date

Team, social
worker

SUPPORTIVE INTERVENTIONS WITH SCHIZOPHRENIA

Many social workers are challenged by the task of how to best assist the client with schizophrenia. Most agree, however, that medication treatment for the active symptomology of schizophrenia and other psychotic disorders is an absolute necessity. Most types of verbal therapy by social workers or other mental health professionals are not productive until the client is stabilized, his or her psychosis is reduced, and some semblance of reality is restored (Sensky et al., 2000). Once stabilized, social work interventions that emphasize problem-solving methods may be used to address the significant problems that affect the daily lives of schizophrenic clients. Strict behavioral-intervention strategies may be employed to help clients become aware of the consequences of their actions on their levels of daily functioning (Sensky et al.).

Interventions that involve the client's family or support system are considered essential because, at times, many clients unknowingly alienate friends and family (Dziegielewski, 2007). The aspects of the disease itself can be isolating as well. The disease's characteristic splitting of mood or response may scare family and friends, and simply dealing with disturbances of affect and mood can be problematic. This may prevent the client's family or support system from assisting the client or demonstrating the affection and support so desperately needed. These strained relationships are based on a lack of understanding, an inability to control the symptoms of the disease, and a failure to make education a critical component of any intervention strategy. Once made aware, families and support systems may become more tolerant of the eccentricities common in this condition. Social workers must understand the complexities of schizophrenia, the medications most often used, the resistance that may be exhibited by the client, and the best ways to help the client adjust to his or her situation.

SUMMARY AND CONCLUSIONS

For the client with schizophrenia or suffering from extensive disruptive behavior, the unpredictable nature of the condition repeatedly alienates family and friends and often exhausts any type of support system.

One glimmer of hope is the development of newer antipsychotic medications. To effectively help clients with schizophrenia, social workers must be familiar with side effect profiles, dosage routines, and the

potential for noncompliance with these medications. They must be able to recognize potential problems in order to refer the client for adequate or revised treatment. Social workers must understand how these new medications can affect the client and the therapeutic relationship. Social workers can be important health care team members who provide advice and recommendations on medications to complement the current therapy (Dziegielewski & Leon, 1998) and, therefore, need to be familiar with the current diagnostic guidelines and medications used in the treatment of schizophrenia.

It is important to remember, however, that despite the value of these medications, drug therapy alone may never be enough. To rely on medication intervention alone denies the importance of the behavioral, biological, and social factors inherent in the individual. After the negative and positive symptoms of the illness have been controlled by drug therapy, individuals can benefit from therapeutic counseling in order to achieve effective levels of functioning. Essential ingredients provided by counseling modalities include education and problem-solving skills for both the client with schizophrenia and his or her family. Families need support during this difficult time, and all of the client's social, biological, psychological, and spiritual needs must be considered.

Social workers need to understand the inherent dynamics of blame and stigma experienced by both clients and their families. Family members, especially parents, often feel responsible for the client's illness and need to be reassured and educated to increase their understanding of the complex etiology of schizophrenia and other psychotic disorders. In these situations, it is important that social workers stress the essential role that families play in caregiving, emotional support, and problem solving (Walsh, 1996). Frustrating experiences with previous mental health agencies and helping professionals often leave clients and family members feeling skeptical and powerless in any new attempts to address the illness. This anger and frustration can complicate the implementation of new and different types of intervention that might prove productive for the client.

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12

Conclusion: Social Workers as Proactive Professionals

The overriding message in this text for social workers and mental health counselors is clear: Knowledge of medications is essential to deliver and monitor effective and efficient services. The social worker's position is unique; the trust social workers often gain from their clients allows them to discuss issues and concerns that may not be shared with other members of the health care team. Therefore, they can make important contributions in completing assessments, documenting the general mental health status of the client, medications that may be indicated, and side effect profiles that can trigger recommendations for change. An assessment can also open the door to much-needed psychotherapy and social interventions that can be easily overlooked during the short time spent in the psychiatrist's office (Paris, 2008). The role of the social worker is multifaceted and complements the diverse skills of the interdisciplinary team. This is particularly true in modern brief office visits as well as in rural areas where a social worker with a wide range of skills can assist in providing improved communication, coordination, and referral between primary health, mental health, and community-based programs.

THE IMPORTANCE OF LIFESTYLE FACTORS IN MENTAL HEALTH

Social workers are responsible for taking the initiative to assess and identify environmental concerns. It is this unique outlook that makes social work intervention an essential component for interdisciplinary success. Simply prescribing medications and throwing resources at a client can be shortsighted. To fully assist individuals who suffer from mental illness, a transformative holistic perspective that moves beyond simply providing marginal care is needed. Social workers need to convey the message that mental illness is treatable and that recovery is possible (Davidson, Tondora, Lawless, O'Connell, & Rowe, 2009).

The notion of a quick fix to give us a boost and alleviate stress and emotional problems has resulted in an abundance of medications and remedies that can be obtained in prescription, over-the-counter, or natural and herbal formats. Our society has become used to identifying and using medications to treat numerous chronic medical problems, including headaches, heartburn, coughs, allergies, and colds, as well as more complicated routine health problems. According to IMS (2009), U.S. prescription drug sales grew 1.3% in 2008 to \$291 billion. Furthermore, herbal medications now represent a multibillion-dollar business (Tyler, 2000).

However, several other safer and more natural means are available to improve mental health. The first is increasing exercise. The second is getting adequate sleep and following a consistent routine in terms of sleeping and waking times. Lastly, diet can have a big impact on health. Are meals well-balanced or filled with fast food? The use of caffeine should also be monitored. In conjunction with medications, most prescribers often suggest these simple lifestyle changes—making exercise, sleep, and diet critical factors for achieving health and wellness. Yet, many professionals do not actually take the time to see how and if these changes are being implemented. Good rest and relaxation are central to health and wellness.

THE IMPORTANCE OF PSYCHOSOCIAL INTERVENTIONS

This book has stressed the important supportive role of the social worker as counselor and educator. Fulfilling this role is not an easy task because many clients want immediate solutions to their health and mental health

problems. However, clients need to be educated on the disadvantages of taking medications for the sole purpose of numbing painful emotions and thoughts. Instead, clients should be encouraged to examine their problems, make changes, and develop new coping skills. Oftentimes, emotional pain can generate energy for growth and learning that would otherwise be stunted by relying exclusively on mental health medication. For social workers, the medicalization of bodily phenomena such as stress must be anticipated. It is important to help clients and other members of the interdisciplinary team understand the effects of this medicalization of symptoms.

Clients may question why they need counseling or other interventions, particularly if they think medications will cure their mental illnesses. As mentioned in previous chapters, psychotropic medications can help alleviate and control the blatant symptoms of many mental disorders—but rarely cure them. Furthermore, we really still do not know exactly how medications work, nor do we understand the direct relationship between medications and subsequent behaviors (Paris, 2008). Attention must always be paid to the underlying dynamics, causes, and feelings related to or caused by the illness.

Let us imagine, for a moment, that we could indeed give a client a pill and cure the mental illness he had been suffering from for many years. Everyone, including his family and friends, would be thrilled that he is feeling better. On the surface, the client appears to be improving, but the impact of the mental disorder on the client's environment and social spheres must be taken into account. This is particularly true for the client's significant other, who has been handling most of the family obligations and responsibilities throughout his mental illness. Now that the client is feeling better, she is disconcerted when he starts taking a more active role in the family system. At work, the client's supervisors and co-workers may expect an increase in the client's workload and performance. None of these social, psychological, and environmental factors will be addressed by pharmaceuticals alone. This makes the relationship between a provider and a client essential to treatment success (Davidson et al., 2009).

The field of psychopharmacology is further complicated by the fact that research methodology on the efficacy of medication intervention by itself is limited. As stressed in this book, it is important for social workers to look critically at the claims made by pharmaceutical companies and not be afraid to ask questions to support and protect the clients they serve. Pharmaceutical companies have a tremendous influence on

all aspects of medication use that should not be underestimated (Paris, 2008).

Lastly, although specialization allows for refined skills in an area, it can also result in an artificial isolation between mind, body, and the environment. For example, if a physician specializes in the treatment of a specific mental disorder, is it more likely his or her clients will be diagnosed and treated for that specific illness? On the other hand, when a physician/prescriber skilled in primary care is not a specialist, could problems result when he or she also serves as a gatekeeper for both health care and medication? Many primary care physicians have not been extensively trained in available mental health medications, nor have they had ample experience with clients who present mental health problems. This lack of training may leave these primary care doctors at the mercy of high-pressured sales campaigns sponsored by drug companies seeking to market their products (Paris, 2008). This can lead physicians to prescribe something unsuited for the special mental health needs of the client.

In the case of children diagnosed with ADHD, parents find that a referral to a neurologist is quickly followed by confirmation of the diagnosis and a recommendation to begin medication immediately, often without trying other psychosocial interventions that might prove effective and that could eliminate the need for medication. Although some cases require medication, there are also instances in which psychosocial interventions with the family and school environments should be attempted first. This also highlights the need to perform a thorough assessment confirming the ADHD condition. In these situations, the role of the social worker is important as a bridge between the client and his or her return to the community. The social worker can become an essential part of the team by drawing attention to cultural and diagnostic issues and providing education and support on medication-related issues while helping clients decide on the best course of treatment.

RESPECTING CULTURAL MORES

There are special considerations related to inequities in the patterns of medication prescribing among certain client populations. Social workers need to ensure that factors such as ethnicity, gender, or age do not determine the accessibility or overprescribing of medications. For example, elderly people regularly get more medications than younger

ones. This can be particularly problematic, as these individuals often have slower metabolisms, numerous developmental changes, and more chronic illnesses. Regardless of the client's age, it is important that medication not be prescribed to the exclusion of other psychosocial counseling strategies.

Ethical and culturally sensitive practice requires the recognition of the factors that emerge when providing psychosocial services to a client from a different cultural background. Interethnic issues inherent in the client–social worker dyad must be addressed. Culture refers to the norms of conduct, beliefs, and traditions within a society (Lum, 2007). The effects of a culture can affect life choices, help-seeking behavior, and the appropriateness or inappropriateness of practice approaches (Potocky-Tripodi, 2009). Therefore, clients who are unfamiliar with a certain helping system or facility may react with a sense of overcompliance and friendliness. They may feel that health care professionals have privileged knowledge and authority and that this makes them all knowing and somewhat omnipotent. This can become problematic if clients rely heavily (or exclusively) on the information provided by health care professionals rather than developing their own right to self-determination, asking questions, or proposing alternative approaches. In such cases, the role of the social worker is critical in validating the client's questions, fears, and concerns about medications. The social worker can also help the client develop enough assertiveness to seek information from the medication prescriber.

It is essential to preserve the ethical values of respect and dignity for all clients and to incorporate the client's cultural context into the helping process. This may be complicated when clients are struggling with acculturation issues or when their cultural backgrounds influence their behaviors, symptoms, or approach to treatment.

When a provider does not show respect and support for indigenous healing practices and strategies, individual and community acceptance will decline considerably (Evans-Campbell, 2009). This is illustrated by an incident experienced by the author on a trip to Poland. The author's aunt was suffering from pneumonia and was given a prescription for antibiotics; she also practiced a treatment called cupping that was culturally accepted and encouraged. (This practice uses a heated, thick-rimmed glass placed on the person's back proximal to the lung.) The physician who prescribed the antibiotic also prescribed this procedure. This physician understood that, in order to encourage the client's compliance, he had to demonstrate acceptance of her own faith and beliefs.

By prescribing the cupping treatment, he showed the client he had faith in her cultural practices.

It is also important to realize that clients often distrust a practitioner who looks or acts differently from them. Therefore, it is important for social workers to discuss cultural differences and be aware of their beliefs and mores and how they may conflict with those of the client. The social worker can be a vital link in ensuring the use of culturally based ethnic practices and encouraging clients to maintain their right to establish self-determination in regard to health and mental health treatments. A range of culturally responsive interventions will allow clients who suffer from mental illnesses to become empowered to participate and plan their own recovery (Davidson et al., 2009).

A second major consideration involves the relationship between the client and his or her cultural system. Resistance or lack of support may develop within the family system of a client seeking a health intervention such as medication. What if a client's family does not believe in the treatment or intervention prescribed? What if they do not understand or support it? When the client's network is not supportive, will the client be as likely to follow the regime? In the case of the author's aunt, her relatives did endorse the cupping procedure although not all agreed the treatment would be effective for treating pneumonia. These family members endorsed the intervention by providing emotional support and performing the treatments.

Whether or not certain cultural practices actually treat the medical or mental health conditions for which they are prescribed becomes less important than the client's and the family's *belief* that they can help.

An extremely helpful perspective, when working with culturally diverse clients, is to start where the client is. From this perspective, the helping activities of the social worker include educating the client to learn more about his or her own needs and the treatments available to alleviate the client's symptoms and problems. Psychoeducation involves a range of services that focus on educating participants about life situations and challenges and helping them achieve adequate social support and coping skills (Walsh, 2009). Both medications and psychosocial interventions should be clearly integrated into the client's frame of reference, and social workers should always encourage the client to express how these two fit or do not fit together. Social work practitioners cannot assume that the medication and psychosocial intervention strategies used will be acceptable for a particular client. Advocacy provided to the culturally diverse client must involve maximizing the client's

support systems and using individuals and organizations in the client's ethnic and cultural environment. From a strength-and-resiliency perspective, social workers must remember that culturally diverse clients have developed coping skills and systems in order to survive whatever difficulties they encountered prior to seeking formal help. These existing coping strategies should not be discarded but instead should be integrated into whatever new approaches the practitioner and client identify.

Lastly, effective intervention skills include those that help clients understand the systems responsible for medication prescribing and the delivery of psychosocial services. Clients must be helped to understand how, when, and why medications need to be taken. Forcing clients to take prescriptions without recognizing individual and cultural differences is a recipe for medication noncompliance and violates the basic self-determination rights of clients.

When working with ethnic or culturally diverse clients, it is critical to identify and evaluate (a) diet and nutritional factors, as they can directly influence metabolic activity; (b) consumption of cigarettes, caffeine, alcohol, herbs, and other psychoactive substances, as they can influence drug metabolism and response patterns and rates; (c) sleep or activity/rest patterns, as they can influence when a medication should be taken; (d) exposure to environmental toxins or pollutants; (e) previous reactions and exposures to psychological stress; and (f) ethnic community perceptions, resources, and characteristics. For example, what does health and wellness mean to the client? What is he or she willing to do to obtain it?

In summary, all individuals can be influenced by the concept of culture, whether based on ethnicity, race, gender, or age. The scarcity of studies on how culture influences psychopharmacology indicates that more research is needed.

SOCIAL WORK IN THE ERA OF MANAGED CARE

Social work involves direct work with clients and their families in diverse settings, including clients' homes, communities, hospitals, clinics, private practice offices, and other health and mental health care institutions. However, changes in health care service and delivery have presented social workers with numerous challenges and opportunities that must be embraced (Dziegielewski, 2004).

The emphasis on outcome-based service delivery requires that social workers empirically demonstrate the effectiveness of their interventions. They must be able to demonstrate that concrete and identifiable therapeutic gain was achieved in the most cost-effective way. This means the treatment provided by social workers must be therapeutically effective and professionally competitive with other disciplines that use similar treatment strategies and techniques. Social workers must become more proactive in acquiring as much knowledge as possible in all areas of mental health interventions, including medication therapy (Dziegielewski, 2004). The acronym PROACTIVE contains the following components essential for effective social work practice:

P: PRESENT and POSITION oneself as a competent professional with a POSITIVE attitude in all health care service settings, regardless of the service provided by one's area of PRACTICE.

R: RECEIVE adequate training and continuing education in current and future practice areas of health and mental health social work. This means being prepared to work with and assist clients who are taking prescription medication, over-the-counter preparations, and self-help remedies.

RESEARCH evidence-based and time-limited treatment approaches that can provide quality service while cutting cost. These strategies should be encouraged and supported and must accompany any pharmaceutical or medical interventions provided.

O: ORGANIZE individuals and communities to help clients receive safe, accessible, and affordable health services. Help these individuals feel comfortable questioning medication and intervention strategies while encouraging their active participation in intervention planning. From this perspective, access and engagement are enhanced and barriers to care are identified.

ORGANIZE other social workers to develop strategies to provide ethical, cost-effective service.

A: ADDRESS and identify the policies and issues relevant to providing ethical, effective, efficient, and cost-effective service. Help clients address their own needs and feel secure in questioning prescribed medication regimens.

C: COLLABORATE with other health care professionals to utilize an interdisciplinary team approach for addressing client concerns and needs. Assist with medication monitoring and compliance issues for the team while helping the client take a more active role in his or her own treatment regimen.

COMPLEMENT orthodox medical practices and techniques by utilizing holistic practices and alternative strategies (when appropriate) that can help clients achieve increased health and wellness. The social worker should remain aware of cultural mores and beliefs and how these can affect the client's adherence and continuance with treatment.

T: TEACH others about the value of social work services and techniques. Educate clients and team members about respecting the worth and dignity of clients while maximizing their self-determination.

TAKE TIME to prevent professional burnout. Social workers need to remain productive and receptive professionals who can serve as good role models for the clients and other professionals.

I: INVESTIGATE and apply innovative and empirical approaches to current client-care problems and issues.

INVOLVE and make all social workers aware of the changes in health and mental health social work.

INTERVENE on behalf of clients to ensure they receive swift and uncomplicated access to care. In this way, they will not only get access to the services they need but they will also become empowered to use their own helping networks and support systems to utilize such services in the future if the social worker is not available.

V: VISUALIZE and work toward positive outcomes for all who are affected by behavioral managed-care health strategies. **VALUE** the role of other health care professionals and support them as they face similar challenges and changes.

E: EXPLORE supplemental therapies and strategies that clients can self-administer at little or no cost to treat chronic conditions and to preserve and enhance health and wellness. Most important, **EMPOWER** one's clients and oneself by stressing the importance of **EDUCATION** to help clients obtain the most effective and

appropriate interventions while also encouraging clients to ask relevant questions related to medication and psychosocial interventions. ENGAGE the client, where the focus is not on the mental health condition but rather on the client and what he or she is experiencing.

As health and mental health care continues to evolve, social workers can remain viable contributors. Medication alone may not completely address a client's needs. The importance of utilizing psychosocial interventions should not be underestimated especially when combined with drug therapy (Perodeau & du Fort, 2000). In providing psychosocial intervention, the social work code of ethics ensures that reasonably affordable services are provided (NASW, 1999). Applying this concept allows social workers to offer similar treatments at fees lower than those charged by other mental health professionals. This fee structure can provide an incentive to managed-care agencies to contract with social workers instead of other professionals. Having knowledge of medications provides an additional valuable skill to the social worker's repertoire and may make social work practitioners more appealing to managed-care companies who require continuous monitoring of client medications. Knowledge of medications is essential, as it truly can affect psychosocial interventions and successful treatment outcomes.

SUMMARY AND CONCLUSIONS

In closing, it is important to stress that this book is not meant to be inclusive of all information related to medications or preparations used by clients; rather, it is written with the intention that social work practitioners develop an appreciation for the importance of acquiring and integrating such knowledge into the psychosocial intervention process. In 2003, the Surgeon General, in the New Freedom Commission on Mental Health, criticized our current mental health system as "fragmented and in disarray" and said that the lack of coordinated service only seemed to manage symptoms, resulting in unnecessary and costly disability (Department of Health and Human Services [DHHS], 2005, p. 1). Likewise, Davidson and colleagues (2009) remain critical of the current mental health system and its limited ability to help the people most in need of service. All professionals should recognize the importance of recovery and extend its meaning beyond its traditional definitions. To maximize mental health,

“in recovery” entails a comprehensive process designed to minimize the illness and its life-disturbing effects, helping clients move forward and manage an illness that may affect them for an extended period of time, if not the remainder of their life (Davidson et al., 2009, p. 11).

Treating mental health problems with medication without psychotherapy and/or supportive counseling is, as Paris (2008, p. xiii) stated, like “throwing out a healthy baby with the bath water.” The multiple skills of the social worker, and the knowledge of the client and his or her support system, put the social worker in a unique position to make changes that those practicing through a myopic lens may not see. Since medications are such an important part of mental health treatment, a working knowledge of the different types of medications, their side effects, and their benefits can help social work practitioners monitor such issues as medication compliance and medication-related problems. In addition, use of multifunctional psychotropic medications (agents with more than one therapeutic mechanism) appears to be increasing and social workers must explore how they can affect the client and his or her mental health conditions (Stahl, 2009). Knowledge of the types of medications being used and awareness of new trends in psychopharmacology, along with familiarity with current supportive and other types of psychotherapy, can prepare the social worker to educate clients and their families about the responsible use of mental health medications. For social workers, creating a collaborative helping environment characterized by genuineness and warmth is central to achieving effective and efficient services (Bentley & Walsh, 2009).

Of all health care professionals, social workers often have the most regular contact with clients. This continued contact is particularly important because information gathered during these meetings could and should be shared with the consulting physician/psychiatrist or the interdisciplinary team members. As a member of the team who has established rapport with the client and is also aware of pertinent social, emotional, family, and environmental concerns, the social worker’s input on the medication regimen, tolerance, and compliance should not be underestimated. The social worker serves a pivotal role by obtaining the family’s help and support throughout treatment while also allaying the client’s and family’s fears (Dziegielewski, 2007).

Moreover, with the increased availability and popularity of medication information, clients and their families have become increasingly assertive in questioning social workers about the use of prescription medications as well as over-the-counter and herbal preparations. Oftentimes, clients

and family members have limited knowledge in these areas and are uncomfortable admitting they believe another mode of treatment might be better. The well-informed social worker can correct misinformation and foster cooperation in the treatment plan and among treatment-team professionals. When social workers are knowledgeable or know where or how to get additional knowledge, they can prepare as well as educate clients and family members about the responsible use and expectations of psychiatric medications.

Social work educators must continue to include medication knowledge into the social work curriculum as a way of preparing students to practice effectively. Social work students need updated information on the integration of medications in social work practice and should be encouraged to integrate this knowledge from both the curriculum and their field internship experiences. This type of learning, if even offered, is often viewed as an elective course in specialized medications or as integrating medication knowledge and recent evidence-based research on medication rather than requiring it as one of the core curriculum courses.

Schools of social work are strongly encouraged to always include this type of course work in their curriculum and to encourage students to use clinical, educational, case management, research, and advocacy skills actively in response to the medication dilemmas of their clients. Regardless of how this information is conveyed, it requires that social work educators and professionals stay abreast of newer drugs (Dziegielewski, 1997, 1998). Through their readings in other disciplines, social workers must remain conversant on some of the more controversial issues in the field of psychopharmacology (Paris, 2008). Information regarding medications and their effects on clients should not be obtained by chance; program administrators, educators, and practitioners must periodically arrange for dialoguing and sharing of current medication knowledge and expertise.

More education is needed about medication use in order for the fast-growing field of social work to compete in the professional arena. The knowledge of medications in the psychosocial counseling environment can only help social work professionals as they strive to achieve the highest standards of the profession and assume a PROACTIVE stance.

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Appendix A: Resources and Web Sites

Academy for Guided Imagery

10780 Santa Monica Blvd.,

Suite 290

Los Angeles, CA 90025

800-726-2070

<http://www.academyforguidedimagery.com>

Alternative Therapies in Health and Medicine

<http://www.alternative-therapies.com/>

Alzheimer's Association

225 N. Michigan Ave.,

Floor 17

Chicago, IL 60601

800-272-3900 (24/7 help line)

<http://www.alz.org>

**Alzheimer's Disease Education
and Referral Center**

PO Box 8250

Silver Spring, MD 20907-8250

800-438-4380

<http://www.nia.nih.gov/alzheimers>**American Association of Professional
Hypnotherapists**

16055 SW Walker Road, Suite 406

Beaverton, OR 97006

<http://www.aaph.org/>**American Botanical Council**

6200 Manor Rd

Austin, TX 78723

512-926-4900

512-926-2345 (fax)

<http://www.herbalgram.org>**American Dietetic Association**

120 South Riverside Plaza, Suite 2000

Chicago, IL 60606-6995

800-877-1600

<http://www.eatright.org>**American Geriatrics Society**

The Empire State Building

350 Fifth Avenue, Suite 801

New York, NY 10118

212-308-1414

212-832-8646 (fax)

<http://www.americangeriatrics.org>**American Heart Association**

7272 Greenville Avenue

Dallas, TX 75231

800-AHA-USA1

<http://www.americanheart.org>

American Herbalists Guild

141 Nob Hill Road
Cheshire, CT 06410
203-272-6731
203-272-8550 (fax)
ahgoffice@earthlink.net
<http://www.americanherbalistsguild.com>

American Herbal Pharmacopoeia

PO Box 66809
Scotts Valley, CA 95067
831-461-6318
831-475-6219 (fax)
ahpadmin@got.net
<http://www.herbal-ahp.org>

American Psychiatric Association

1000 Wilson Boulevard, Suite 1825
Arlington, VA 22209-3901
703-907-7300
apa@psych.org
<http://www.psych.org>

American Psychological Association (APA)

750 First Street, NE
Washington, DC 20002-4242
800-374-2721, 202-336-5500
<http://www.apa.org>

**American Public Health
Association (APHA)**

<http://www.apha.org>

American Sleep Disorders Association

110 W. Ninth Street, Suite 826
Wilmington, DE 19801
940-234-3357 (fax)
<http://www.sleepassociation.org>

Anxiety Disorders Association of America

8730 Georgia Ave., Suite 600
Silver Spring, MD 20910
240-485-1001
240-485-1035 (fax)
<http://www.adaa.org>

**APA Division 28 (Psychopharmacology
and Substance Abuse)**

<http://www.apa.org/divisions/div28/>

**Association for Applied Psychophysiology
and Biofeedback**

10200 West 44th Avenue, Suite 304
Wheat Ridge, CO 80033
800-477-8892, 303-422-8436
<http://www.aapb.org>

Centers for Disease Control and Prevention (CDC)

1600 Clifton Road
Atlanta, GA 30333
<http://www.cdc.gov>

Food and Drug Administration (FDA)

10903 New Hampshire Ave.
Silver Spring, MD 20993
888-INFO-FDA
<http://www.fda.gov>

FDA Center for Drug Evaluation and Research

<http://www.fda.gov/Drugs/default.htm>

FDA Center for Food Safety and Applied Nutrition

<http://www.fda.gov/Food/default.htm>

FDA MedWatch

<http://www.fda.gov/medwatch>

FDA MedWatch Voluntary Reporting Form (3500)

<https://www.accessdata.fda.gov/scripts/medwatch>

FDA Office of Women's Health

<http://www.fda.gov/womens/tttc.html>

Information for Practice

<http://www.nyu.edu/socialwork/ip>

Institute for Safe Medication Practices

200 Lakeside Drive, Suite 200

Horsham, PA 19044-2321

800-324-5723

<http://www.ismp.org>

MediLexicon

Information from multiple sources regarding medical affairs, included but not limited to medical conditions, medications, patient resources, current and latest health news, and free Web-based tools

<http://www.medilexicon.com>

**Menninger (Center for Mood, Personality,
and Addictive Disorders)**

<http://www.menningerclinic.com>

**Mental Health America (formerly National
Mental Health Association)**

2000 N. Beauregard Street, 6th Floor

Alexandria, VA 22314-22311

<http://www.nmha.org>

Merck Manuals Online Medical Library

Private pharmaceutical company providing access to information for health care providers and patients, including company-based manuals for mental health conditions and overviews of treatment, products, and medications

<http://www.merck.com/mmpe/index.html>

NARSAD: The Mental Health Research Association

60 Cuttermill Rd, Suite 404

Great Neck, NY 11021

800-829-8289
516-487-6930 (fax)
info@narsad.org
<http://www.narsad.org>

National Alliance on Mental Illness

2107 Wilson Blvd., Suite 300
Arlington, VA 22201-3042
703-524-7600
800-950-6264 (help line)
<http://www.nami.org>

**National Association of Social Workers (NASW)
New York Chapter: Social Work in Health Care**

<http://www.naswnyc.org/SocialWorkinHealthCare.html>

**National Center for Complementary
and Alternative Medicine**

9000 Rockville Pike
Bethesda, MD 20892
<http://nccam.nih.gov>

National Institute of Mental Health (NIMH)

Government research site designed to provide
publications related to topics in mental health
and medications
<http://www.nimh.nih.gov/index.shtml>

National Institute on Aging

Building 31, Room 5C27
31 Center Drive, MSC 2292
Bethesda, MD 20892
301-496-1752
800-222-4225 (TTY)
301-496-1072 (fax)
<http://www.nih.gov/nia>

**National Institute on Alcohol Abuse
and Alcoholism (NIAAA)**

<http://www.niaaa.nih.gov>

National Library of Medicine

<http://www.nlm.nih.gov>

**Office of Disease Prevention and Health
Promotion, U.S. Department of Health
and Human Services**

Office of Public Health and Science, Office of the Secretary

1101 Wootton Parkway, Suite LL100

Rockville, MD 20852

240-453-8280

<http://odphp.osophs.dhhs.gov>

Quackwatch

<http://www.quackwatch.org>

Royal Society for Public Health

<http://www.rsph.org.uk>

Social Work Today

<http://www.socialworktoday.com>

U.S. Pharmacopoeia

12601 Twinbrook Pkwy.

Rockville, MD 20852-1790

<http://www.usp.org>

World Health Organization

<http://www.who.int/en>

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Appendix B: Sample Assessment for Medication Use

Name: _____

Social worker: _____

Date: _____

1. I am taking the following prescription medications. (Please list the medications you have taken over the last 6 weeks. Give the dose, times per day, and when generally taken. Also include why you are taking the medication.)
2. I am taking the following over-the-counter medications. (Please list the OTC medications you have taken over the last 6 weeks. Give the dose, times per day, and when generally taken. Also include why you are taking the medication.)
3. I am taking the following herbal or natural preparations. (Please list the preparations you have taken over the last 6 weeks. Give the dose, times per day, and when generally taken. Also include why you are taking the preparation or what it is for. Don't forget to include teas, etc., if they are used for a specific health reason.)

4. I am taking the following vitamins and mineral supplements. (Please list the supplements you have taken over the last 6 weeks. Give the dose, times per day, and when generally taken. Also include why you are taking the supplement.)
5. List each medication or herbal supplement you are taking and how it makes you feel. Overall, my medications/herbal supplements help me:
 - Feel less sad. Yes ____ No ____
 - Feel less nervous. Yes ____ No ____
 - Feel less bothered by bad thoughts I cannot control. Yes ____ No ____
 - Other (list any other benefits). _____
6. Before drinking alcohol or taking over-the-counter/herbal preparations, I should:
 - Talk to my physician/prescriber about whether it is safe to mix alcohol with this medicine. (It is better to discuss this before you are put in the situation and consider taking a drink.)
 - Discuss any herbal preparations I am interested in taking in advance with my prescriber.
 - Read the label on the bottle or package to see what I should do.
7. If you have any of the conditions below, be sure to inform your health care provider.
 - I have a history of an eating disorder.
 - I have a history of seizures.
 - I am pregnant or want to become pregnant.
 - I am breastfeeding.
 - I am taking other medications.
 - I have certain allergies.
 - I have a history of heart problems or high blood pressure or have had a recent heart attack.
 - I have a history of kidney disease.
 - I have diabetes.
8. If a friend asks me for a dose of my medications or herbal preparations, I should:
 - Refuse and explain that the medicine may make him or her sick.

- Explain that what works for me may not work for him or her, as we are different people with different medical histories and needs.
9. If my medication can be habit forming, I should:
- Take the medication exactly as my doctor tells me to.
 - Read any information/package inserts and watch for signs of addiction and or dependence.
 - Listen to what family members say and discuss any concerns with my provider, as I may be too close to see a potential problem.
10. There are some side effects I should immediately tell my doctor about. Which of the following fall into that category? (Check all that apply.)
- a. High fever, chills, sore throat
 - b. Change in skin color
 - c. Unusual bleeding
 - d. Swelling of feet and lower legs
 - e. Headache
 - f. Diarrhea

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Appendix C: Glossary of Terms

The definitions in this glossary were modified from several sources, including the *Physicians' Desk Reference* (2009), the *PDR for Herbal Medicines* (2007), the *PDR for Nonprescription Drugs* (2003), Dulcan's information handouts printed by the American Psychiatric Publishing (Dulcan, 2007), and the *Diagnostic and Statistical Manual of Mental Disorders* (APA, 2000).

Absorption: The basic process by which the bloodstream metabolizes a drug.

Acetylcholine: A type of neurotransmitter released by all neurons, acetylcholine controls bodily functions such as skeletal muscles, heartbeat, some glandular functions, mood, sleep, and memory. It is important in the transmission of brain and spinal cord messages.

Acute: A disease process in which a marked intensity or sharpness in symptoms subsides over a short period of time.

Affect: An outward manifestation of a person's feelings or emotions; the general expression of mood (e.g., flat, blunted, etc.).

Agonist: A drug or substance with a specific cellular affinity that produces a predictable response.

Agoraphobia: An incapacitating panic disorder that occurs when an individual becomes anxious about being alone, generally when away from home. In addition, the individual suffering from agoraphobia can also fear having an unexpected panic attack in a public setting where withdrawal is difficult or embarrassing.

Agranulocytosis: A dramatic decrease in the number of infection-fighting white blood cells, which usually fight infections. Agranulocytosis is a rare side effect directly linked to the antipsychotic drug Clozaril (clozapine), although agranulocytosis affects only 1% to 2% of its users.

Akathisia: A side effect of the typical or traditional antipsychotic medications that results in an extreme internal sense of restlessness.

Akinesia: A feeling of fatigue or weakness in the arms or legs.

Alternative medicine: A form of treatment often referred to as Eastern medicine. It is based on ancient beliefs and traditions such as faith healing and herbal remedies. The effectiveness of these treatments is unproven and not scientifically tested.

Alternative practices: The use of techniques such as acupuncture, acupressure, herbals, chiropractic techniques, magnets, and others.

Antagonist: Any agent, such as a drug, that exerts an opposite action to that of another or competes for the same receptor sites.

Antianxiety drugs: Generally, these groups of drugs are used to treat the symptoms of anxiety (nervousness), and some can assist with sleep disorders as well. These medications can help address and decrease fears and excessive worry, allowing individuals minimal improvement in occupational and social functioning.

Anticholinergic effects: Adverse effects that result from the suppressive action of certain mental health medications (antipsychotics and antidepressants) as well as other general medications (antihistamines). This involves the action of acetylcholine in the brain and peripheral nervous system. The actual side effects include dry mouth, blurred vision, constipation, and urinary hesitancy and can present a particular problem when working with older people.

Anticonvulsants: Medications generally used to treat seizures (fits or convulsions) but also to address behavior problems regardless of whether the client has seizures or not. If a client has a history of brain damage, these may be the medications of choice for addressing mood changes related to the behavioral problems. It is believed that anticon-

vulsants can help reduce anger, aggression, and severe mood swings. Examples of commonly used medications in this area include Tegretol (carbamazepine), Depakene or Depakote (valproate or valproic acid), and Klonopin (clonazepam).

Antidepressants: A major class of psychotropic drugs with diverse chemical configurations, antidepressants include monoamine oxidase inhibitors (MAOIs) and heterocyclic drugs (composed of mono-, di-, tri-, and heterocyclics); serotonin reuptake inhibitors (fluoxetine, paroxetine, sertraline, trazodone, and venlafaxine) and bupropion are more recent innovations. Antidepressants usually must be taken for several weeks to have the desired effect, and they must be closely monitored because they often have a low therapeutic index.

Antihistamines: A class of drugs that can impede the effects of naturally occurring chemical compounds in the body—histamines—that can dilate the capillaries, produce headaches, and decrease blood pressure. Antihistamines may be employed for their sedative and hypnotic properties and can be utilized to help address extrapyramidal symptoms.

Antipsychotics: A major classification of drugs, most of which are dopamine receptor antagonists (with the exception of newer antipsychotic medications) and are used to address disturbances in affect and mood, such as psychosis, delusions, and psychotic depression.

Anxiety: A response that occurs without the presence of real threat; it is differentiated from fear, which is generated when the threat is considered serious. Anxiety must be negative enough to impair psychological, occupational, or social functioning.

Anxiety disorders: A classification of disorders often characterized by persistent worry.

Anxiolytics: Medications used to treat anxiety, agitation, or tension. Also known as antianxiety drugs.

Arteriosclerosis: An age-related condition in which the walls of the arteries become thickened and more rigid; also called hardening of the arteries.

Benzodiazepines: This category of drugs, historically referred to as tranquilizers, serve to depress the central nervous system. Common reasons why clients are prescribed these drugs include: anxiety, insomnia, and alcohol withdrawal.

Bipolar disorders: A group of mental disorders historically referred to as manic depression or bipolar affective disorder and characterized by extreme fluctuations in mood. There are multiple forms of this disorder but the major diagnoses that fall in this area are: bipolar I, bipolar II, cyclothymia, and bipolar disorder NOS.

Bipolar I disorders: There are six subgroups of bipolar I disorder identified in the *DSM-IV*. Bipolar I involves a recurring illness of elevated mood that impairs psychosocial functioning (a manic episode) and a depressed affect that also impairs psychosocial functioning (a depressed episode). These subgroups include criteria to determine if a client is experiencing a single manic episode, and describe the most recent episode. The specifiers describe the episode recurrence. The six subgroups included in the *DSM-IV* are bipolar I disorder, single manic episode; bipolar I disorder, most recent episode hypomanic; bipolar I disorder, most recent episode manic; bipolar I disorder, most recent episode mixed; bipolar I disorder, most recent episode depressed; and bipolar I disorder, most recent episode unspecified.

Bipolar II disorders: Mental disorders where the client has had one or more major depressive episodes yet no history of a manic or mixed episode. Bipolar II disorders are best described as a client's alternating experiences with episodes of major depression and periods of hypomania.

Bipolar disorder not otherwise specified (NOS): A type of bipolar disorder that does not meet all of the criteria described for the bipolar disorders yet exhibits some of the basic symptoms evident in manic, major depressive, or mixed episodes.

Blood level: The measure of a drug's presence in blood plasma at a given time.

Blood-brain barrier: A wall-like separation between the brain and the bloodstream that carefully modulates which substances, including drugs, cross into the brain.

Bromides: Medications with a strong sedative effect.

Cardiovascular agents: Drugs that act on the heart or peripheral blood vessels for the treatment of hypertension (high blood pressure), angina, heart failure, or cardiac arrhythmia. Some examples include beta blockers, nitroglycerin, and digoxin.

Catalyst: A substance that influences the rate of a chemical reaction without being permanently changed or consumed in the process.

Central nervous system: The system of neurons comprising the brain and spinal cord. It serves as the body's major nerve-control system, directing and regulating all parts of the body to receive stimuli from external and internal environments and interpreting those stimuli, causing the body to react.

Cerebellum: Controls bodily functions that operate below the level of consciousness, including posture, balance, and movement through space. It receives information directly from sense organs, muscles, and joints.

Cerebral cortex: The folded, outermost region of the cerebrum. It is responsible for primary sensory functioning, visual processing, long-term memory, motor and perceptual coordination and integration, language, thinking, and problem solving. It is entirely made up of so-called gray matter and consists of four lobes (the frontal lobe, the temporal lobe, the parietal lobe, and the occipital lobe) that manage all functions.

Cerebral hemorrhage: Escaping of blood from an artery into the cerebrum; a form of stroke.

Chronic: A disease process that often develops slowly and progresses for a long period of time.

Cold maceration: A process of preparing a mixture (usually tea) by combining it with cold tap water. Generally, the preparation is covered and left to stand for 6 to 8 hours and is then strained.

Colocalization: The process of more than one neurochemical stimulating a response.

Compliance: The extent to which an individual follows the treatment prescribed by a physician or other health care professional.

Cultural bias: The tendency of psychometric tests to include questions involving content or skills more familiar to some cultural groups than to others.

Cyclothymic disorder: A form of depressive disorder typified by mood swings, hypomania, and depression. In this mental disorder, clients have milder experiences than those who suffer from bipolar disorder, although the symptoms are more consistent and last for approximately 2 years.

Decoction: A process of preparing a mixture (usually tea) by combining with cold water, covering and boiling, and later simmering and straining.

Defense mechanisms: Mental processes that help protect a person from anxiety, guilt, or unacceptable thoughts.

Delusion: A false belief strongly held despite the contrary evidence of a commonly agreed-upon reality. Common types are persecutory delusions (belief of threat or harm from others), delusions of grandeur (inflated sense of self), delusions of being controlled (external agents impose thoughts or feelings), and delusions of reference (external events are significant or reflective of self).

Dementia: Deterioration of mental processes such as memory, personality, abstract thinking, and impaired judgment. There are numerous causes of dementia, the two most common being Alzheimer's disease and vascular dementia (stroke).

Depression: A state of sunken mood where an individual feels impairment in daily living and functioning.

Desipramine (brand name Norpramine): A tricyclic antidepressant sometimes prescribed because it has the fewest anticholinergic effects of the heterocyclic drugs.

Diagnostic and Statistical Manual of Mental Disorders (DSM): A publication developed by the American Psychiatric Association that is used to clarify mental health disorders. The manual identifies the specific symptoms and criteria used to determine the mental health diagnostic impression.

Diastolic pressure: Denotes arterial pressure while the heart is resting between beats.

Diazepam (brand name Valium): A benzodiazepine used to treat anxiety that may act as a sedative. It provides short-term relief for mild to moderate anxiety and is used to treat epilepsy and alcohol withdrawal symptoms.

Dopamine: A type of neurotransmitter thought to be involved in disorders of cognition (such as schizophrenia), motor control systems, and limbic activity (emotional behavior).

Drug tolerance: A person's lessening response to the same dosage of medication as time passes.

Drug-drug interaction: An adverse drug reaction when a second drug modifies the way the body handles or reacts to the first.

Duration: In this context, duration refers to the time of starting or discontinuing a substance or a medication regime (e.g., how long the symptoms of an illness continue, or how long a medication affects the human system).

Dysthymia: Depression that is chronic (all day or most of the day) but not acute and lasts for at least 2 years.

Dystonia: Dystonia involves uncoordinated, involuntary twisting movements of the jaw, tongue, or entire body and is produced by sustained muscle spasms generally associated with neuroleptic medications. Very often clients will complain of having a thick tongue.

Efficacy: The ability of a drug to address and control an illness based on how well it works and how much is needed to make it work effectively.

Electroconvulsive therapy (ECT): A procedure used in the treatment of severe depression where an electric current is briefly applied through electrodes to one or both sides of the brain. Temporary side effects may include convulsions, unconsciousness, and memory loss.

Elimination: Bodily processes that act to lower the concentration of a drug and other substances in the body.

Enzyme: A protein produced by living cells that catalyzes chemical reactions in organic matter within the cell structure.

Extracts: Liquid, powdered, or viscous concentrations derived from dried plant parts that can be prepared by either maceration or percolation.

Extrapyramidal symptoms (EPS): Numerous negative side effects experienced by clients as a result of taking several types of medications, especially typical antipsychotic medications used to treat psychotic disorders.

Fat-soluble vitamins: Those vitamins that are soluble in fat, including A, D, K, and E.

Fear: An individual's response to a real threat.

Fluoxetine hydrochloride (brand name Prozac): An antidepressant that functions as an SSRI and is prescribed for depression severe enough to impair daily functioning. This medication is also used to treat obsessive-compulsive disorder (OCD). It should not be used with MAO inhibitors. Some common side effects include abnormal dreams, abnormal ejaculation, decreased orgasmic functioning, agitation, and headaches.

Fluphenazine (brand name Prolixin): A high-potency antipsychotic drug used for the treatment of disorganized and psychotic thinking, delusions, and hallucinations.

Fluvoxamine (brand name Luvox): An SSRI often prescribed for obsessive-compulsive disorder.

Gamma-aminobutyric acid (GABA): A general amino-acid-type neurochemical often linked to exciting, stimulating reactions within the human body. General neurotransmitters make up the majority of neurotransmissions in the human body. The most common examples are GABA, glycine, and glutamate.

Hallucinations: False perceptions of external objects that do not exist. The most common type is auditory (hearing), followed by visual (sight), tactile (touch), somatic (internal organs), olfactory (smell), and hypersensitivity (hyperacute sight, sound, and smell).

Haloperidol (brand name Haldol): A high-potency antipsychotic drug used for the treatment of schizophrenia, haloperidol can also be used to treat the neurological condition of Tourette's syndrome, which involves both motor and vocal tics.

Herbal medicines: Products generally derived from plants, leaves, roots, and flowers.

Hypervitaminosis: An excess of one of more vitamins in the human body.

Imipramine (brand name Tofranil): Often referred to as the grandfather of all antidepressants. It is the oldest tricyclic antidepressant and has traditionally been used for the treatment of depression and panic attacks. It is sometimes used to assist with withdrawal from cocaine addiction and in obsessive-compulsive disorder.

Infusion: A type of preparation for herbal medications that most commonly involves boiling in hot water, steeping, and straining the concoction.

Lag time: The amount of time required for a drug to have its desired effect, depending on factors such as the body's tolerance of the drug, the drug's absorption, protein binding and metabolizing rate, and individual differences in physiology.

Major depression: A severely depressed mood featuring a total loss of interest or pleasure in life with a significant change in the usual quality of life functioning. Characteristic symptoms include marked weight changes, daily psychomotor disturbances, sleep disturbances, loss of concentration, loss of energy, and recurring thoughts of death or suicide. Major depression requires two or more major depressive episodes, separated by at least 2 months of regular functioning.

Mania: A psychological and emotional state where an individual experiences increased excitement and persistent elevated mood.

Manic episode: A state of mood that features euphoria, irritability, and a lack of inhibition and is often accompanied by substance abuse. There is a distinct period of consistently elevated or irritable mood followed by significant problems in psychosocial functioning that may require hospitalization.

MAO inhibitors: *See* Monoamine oxidase (MAO) inhibitors.

Medication half-life: The time it takes for a medication to fall to 50% of its previous peak level.

Medicinal herbal preparations: Preparations that are said to have some type of therapeutic effect.

Megadoses: Doses of a nutrient or chemical in excess of the normal requirement.

Metabolism: The process by which the body breaks down a drug into chemical form, enabling it to be excreted from the system later.

Mirtazapine (brand name Remeron): An antidepressant that functions as an SSNRI used for the treatment of depression.

Monoamine oxidase (MAO) inhibitors: A class of drugs developed as the first antidepressants. They differ from more recent antidepressants in that they inhibit enzyme actions that metabolize norepinephrine and serotonin in the nervous system. They are not widely used today because of their strict dietary restrictions. They have been shown to relieve some depressions that are not responsive to other antidepressant drugs.

Monoamines: Biogenic amines with a single amine (an organic compound), this group includes dopamine, norepinephrine, epinephrine (a catecholamine), acetylcholine (quaternary amine), and serotonin (an indoleamine).

Mood disorders: Characterized by disturbances in affect that are typical of psychotic disorders and depression. The disturbances in mood are reflected by severely flattened affect and extreme emotional ambivalence.

Mood episodes: When diagnosing a mood disorder, there are four types of mood episodes that are identified to distinguish the type of mood disorder the client is suffering from. The four types are: manic, hypomanic, major depressive, and mixed episodes. The mood episodes cannot be diagnosed as separate mental disorders and it is identifying and combining them that constitute the building blocks of the mood disorders.

Mood episodes, hypomanic: Mood episodes in which symptoms may initially appear similar to the manic episode and may involve persistently

elevated, expansive, or irritable mood. The time frame is approximately 4 days, and it must be clear that the individual is exhibiting signs that remain uncharacteristic of previous levels of functioning. Individuals experiencing a hypomanic mood episode rarely need to be hospitalized because, although their symptoms may impair functioning, marked impairment is not noted. These individuals also do not show evidence of psychotic features even though others are aware that the behaviors they are exhibiting are uncharacteristic.

Mood episodes, major depressive: Mood episodes that involve at least five or more characteristic signs such as appetite disturbances with weight gain or loss, sleeping disturbances (hypersomnia, or sleeping too much; insomnia, an inability to sleep; or disturbance in sleep), daily bouts of depressed mood, markedly diminished interest or pleasure in activities that usually are pleasurable, psychomotor agitation or retardation nearly every day, fatigue or loss of energy, and other related symptoms.

Mood episodes, manic: Mood episodes where a client's mood is persistently elevated. Other symptoms, such as increased psychomotor agitation, distractibility, flight of ideas, decreased need for sleep, and grandiosity, may be noted. These symptoms should last for at least a week.

Mood episodes, mixed: Mood episodes that generally meet the criteria for manic and depressive episodes. The major difference is that they only last for approximately 1 week, rather than 2. In this type of episode, the individual often experiences rapidly alternating moods of sadness, irritability, and euphoria.

Mood-stabilizing drugs: Drugs aimed at keeping a client's mood within a stable range and lowering moods from a manic state. Included in this grouping are tricyclics, MAOIs (for depression), and lithium (for bipolar disorders). Mood stabilizers work to keep moods regular, avoiding either extreme.

Neuroleptics: A group of medications known as antipsychotics that used to be referred to as major tranquilizers. Generally, these medications are used to treat psychosis as seen in conditions such as schizophrenia, mania, or very severe depression. These medications can help reduce auditory and visual hallucinations (hearing or seeing things that are not there) as well as delusions (beliefs held in view of false or contradictory evidence). These medications can also reduce motor and vocal tics (fast repeated movements or sounds) in conditions like Tourette's

syndrome. They are being used now to reduce severe aggression problems such as those seen in children with conduct disorder, mental retardation, and autism. These medications are very powerful and require constant monitoring for side effects. Overall, these medications can help clients feel less agitated or upset. Examples of brand-name medications in this category are Clozaril, Haldol, Loxitane, Mellaril, Moban, Navane, Orap, Prolixin, Risperdal, Stelazine, Thorazine, Trilafon, and Zyprexa.

Neurons: Basic nerve cells.

Neurotransmitters: Chemicals found in the nerve cells that act as messengers, carrying electrical impulses through the cells.

Over-the-counter medications (OTCs): Medications that can be purchased in a pharmacy without a prescription (analgesics, laxatives, cold remedies, etc.).

Parkinsonism: A slowing or rigidity in muscular activity.

Pharmacokinetics: The management of a drug within the body, including absorption, distribution, metabolism, and excretion.

Pharmacotherapy: Medications used to maximize the physical or mental health of the client, and utilizing medication education in combination with counseling support.

Phobic avoidance: Attempts to avoid coming into contact with a specific object or stimulus in an individual who has severe anxiety. This type of avoidance behavior is also known as stimulus avoidance.

Photosensitivity: A reaction to the exposure of ultraviolet lights from the sun that can be a side effect of certain medications.

Placebo: An inactive sugar pill used in research to be compared with new medications that are being tested.

Plant juices: Freshly harvested plant parts that are generally prepared through maceration in water or by pressing.

Polypharmacy: The use of more than one drug for the treatment of the same ailment. This includes the concurrent administration of several psychotropic drugs.

Positive symptoms of psychosis: The presence of bizarre and frequently affect-laden experiences ordinarily absent from a person's normal experience. Symptoms include hallucinations, delusions, and bizarre thinking or behavior. *See* schizophrenia symptoms, positive.

Postsynaptic membrane: The wall of the dendrite cell body, located at the opposite side of the synaptic cleft from the axon, on which receptor sites are located to receive neurotransmitter input and pass the impulse through the rest of the cell.

Postural (orthostatic) hypotension: A drop in blood pressure that occurs suddenly after sitting or standing and results in faintness and dizziness.

Potency: A drug's relative strength in standard units of measurement. For example, low-potency drugs such as chlorpromazine are given in higher milligram doses, while high-potency drugs such as haloperidol are given in lower milligram doses. Potency should not be directly linked to the presence or absence of medication side effects.

Psychopharmacology: The study of drugs that affect cognition, behavior, and bodily responses.

Psychotropics: Drugs that alter psychological functioning or mood, thoughts, motor abilities, balance, movement, and coordination.

Pyramidal: One of two long nerve pathways that stretch from the cerebral cortex to the spinal cord (the other is known as extrapyramidal). Pyramidal pathways carry messages to and from the central nervous system and control groups of muscles that contract simultaneously (for instance, grasping an object with the hand).

Reuptake: The process through which a neuron reabsorbs a chemical neurotransmitter.

Rhizome: The bark of a root often used in herbal preparations.

Schizoaffective disorder: A continuous period of illness during which there are some symptoms of schizophrenia such as delusions, hallucinations, or grossly disorganized behavior concurrent with either a major depressive, manic, or mixed episode.

Schizophrenia: A major mental disorder lasting more than 6 months and characterized in part by thought disturbances, misinterpretations of reality, mood changes (including blunted affect and inappropriate moods), communication problems (poverty of speech and coherence), and bizarre, withdrawn, or regressive behaviors. The five subtypes are disorganized, catatonic, paranoid, undifferentiated, and residual.

Schizophrenia symptoms, negative: These symptoms are harder to detect than positive symptoms and often involve blunted affect, emotional withdrawal and poor rapport, passive apathetic social withdrawal,

difficulty in abstract thinking, lack of spontaneity, and stereotyped thinking patterns.

Schizophrenia symptoms, positive: These symptoms involve the development of delusions, conceptual disorganization, hallucinatory behavior, excitement, grandiosity, suspiciousness or persecution, and hostility. These symptoms are often very obvious and easy to detect in the assessment process.

Secondary side effects: Adverse reactions that are indirect consequences of a drug's action but nevertheless predictable (e.g., lowered potassium with diuretics, nausea with Digoxin, dry mouth with antidepressants).

Selective serotonin norepinephrine reuptake inhibitors (SSNRIs): The newest group of medicines that have successfully been used to treat emotional and behavioral problems such as depression, panic disorder, and obsessive-compulsive disorder (OCD); SSNRIs are similar to their counterparts, SSRIs. Some examples of SSNRIs include Effexor, Serzone, and Remeron.

Selective serotonin reuptake inhibitors (SSRIs): A relatively new group of medicines that have been used successfully to treat emotional and behavioral problems such as depression, panic disorder, OCD, bulimia, and PTSD in adults. These medications are now being used to treat the same types of behavior in children. Some examples of SSRIs include Prozac (fluoxetine), Zoloft (sertraline), Luvox (fluvoxamine), and Paxil (paroxetine).

Serotonin: A specific type of neurotransmitter.

Short acting: A medication considered to be quickly eliminated or excreted from the body.

Side effects: Any unintentional and nontherapeutic effect of a drug on the body. Also called adverse effects, side effects are frequently due to the interaction of the brain, drug, and body.

Standardization: The procedures used to evaluate a medication or a treatment. Medications that are standardized have been evaluated for efficacy and safety.

Standardized extracts: When the unwanted components of a preparation are removed, what remains is a more concentrated mixture that contains active ingredients (see extracts). This is known as a standardized extract.

Synapse: The bridge across the gap from one nerve cell to the next.

Synthesis: The process that results when a neurochemical is stimulated by an enzyme that in turn stimulates the production of the neurochemical.

Systolic pressure: The force exerted when the heart beats, sending blood to the arteries.

Tardive dyskinesia: A side effect of traditional or typical antipsychotic medications thought to be irreversible and serious. Most professionals agree that the longer an individual is on typical antipsychotic medication, the greater his or her likelihood of developing tardive dyskinesia. Those who have this disorder often exhibit coordinated but involuntary rhythmic movements such as facial movements, grimacing, and lip tremors, as well as involuntary movement of the fingers, hand, and trunk.

Teas: Herbs capable of being infused.

Therapeutic index: The relative measure of a drug's toxicity or safety level; the difference between the median effective dose and the median toxic dose is the safety margin of a drug.

Thorazine: Considered the first antipsychotic drug, Thorazine was discovered more than 40 years ago.

Time-release medications: Medications coated so they can be released in planned graduated doses. Tablets and capsules should not be broken or chewed.

Tinctures: Alcohol/hydroalcohol solutions derived from botanicals where the concentration of the herbal product generally remains very low.

Tricyclic antidepressants: Antidepressant drugs with a central three-ring molecular structure, tricyclics are increasingly grouped under the larger heading of heterocyclic drugs. Tricyclic antidepressants are now used to treat enuresis (bedwetting), ADHD, school phobia, separation anxiety disorder, panic disorder, OCD, some sleep disorders such as night terrors, and tricotillomania (compulsive pulling of one's own hair) in children and adolescents. Examples of these medications include Tofranil (imipramine), Pamelor or Aventyl (nortriptyline), Norpramin or Pertofrane (desipramine), Elavil or Endep (amitriptyline), and Anafranil (clomipramine).

Tyramine: An amine found in fermented foods, especially cheese. Its effects on the body resemble that of epinephrine and can be dangerous in individuals taking MAO inhibitors by causing an increase in blood pressure.

Volatile oils: Concentrates of active plant parts derived from distillation that tend to evaporate quickly.

Water-soluble vitamins: Vitamins that can be dissolved in water, such as vitamin C and the B complex.

Withdrawal symptoms: Symptoms that result when a drug or medication is discontinued.

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Appendix D: Medication and Herbal Preparation Glossary

This glossary lists medications and herbal preparations commonly used in the treatment of mental health conditions.

First, the directory lists medications in alphabetical order by brand name and cross-references them to their generic name. Herbal preparations are also listed.

The second part of this glossary offers a description and general usage for many popular medications (both prescription and over-the-counter) and herbal preparations. Some off-label uses are noted and FDA approval information is provided.

References used for this glossary include the *PDR* (2009), Silverman (2008), NIMH (2009a), and Rybacki (2006).

BRAND NAME TO GENERIC NAME DIRECTORY

Abilify

see Aripiprazole

Adapin

see Doxepin hydrochloride

(Continued)

Adderall, Adderall XR		see Amphetamine or Dextroamphetamine
Aloe	(herbal)	see Aloe vera
Amytal		see Amobarbital
Anafranil		see Clomipramine
Aricept		see Donepezil
Asendin		see Amoxapine
Astragalus	(herbal)	see Astragalus
Ativan		see Lorazepam
Atretol		see Carbamazepine
Aventyl		see Nortriptyline
Black cohosh	(herbal)	see Black cohosh
BuSpar		see Buspirone
Carbatrol		see Carbamazepine
Catapres		see Clonidine
Celexa		see Citalopram
Centrax		see Prazepam
Chamomile	(herbal)	see Chamomile
Cibalith-S		see Lithium carbonate
Clozaril		see Clozapine
Cognex		see Tacrine
Concerta		see Methylphenidate
Cranberry	(herbal)	see Cranberry
Cylert ^a		see Pemoline
Cymbalta		see Duloxetine
Dalmane		see Flurazepam
Daytrana Patch		see Methylphenidate
Demerol		see Meperidine
Depakene		see Valproic acid
Depakote, Depakote ER, Depakote Sprinkle, Stavzor		see Valproic acid (divalproex sodium)
Desoxyn		see Methamphetamine hydrochloride
Desyrel		see Trazodone

Dexedrine		see Dextroamphetamine
Dextrostat		see Dextroamphetamine
Diastat		see Diazepam
Diazepam Intensol		see Diazepam
Doral		see Quazepam
Echinacea	(herbal)	see Echinacea
Effexor		see Venlafaxine
Elavil ^b		see Amitriptyline
Eldepryl		see Selegiline
Emsam		see Selegiline
Endep		see Amitriptyline
Epitol		see Carbamazepine
Equetro		see Carbamazepine
Eskalith, Eskalith CR		see Lithium carbonate
Exelon		see Rivastigmine
Feverfew	(herbal)	see Feverfew
Focalin, Focalin XR		see Dexmethylphenidate
Garlic	(herbal)	see Garlic
Gen-Xene		see Clorazepate
Geodon		see Ziprasidone
Ginger	(herbal)	see Ginger
Ginkgo	(herbal)	see Ginkgo
Ginseng	(herbal)	see Ginseng
Goldenseal	(herbal)	see Goldenseal
Halcion		see Triazolam
Haldol		see Haloperidol
Invega		see Paliperidone
Kava-Kava	(herbal)	see Kava-Kava
Klonopin		see Clonazepam
Lamictal, Lamictal CD		see Lamotrigine
Lexapro		see Escitalopram oxylate
Librax		see Chlordiazepoxide
Libritabs		see Chlordiazepoxide

(Continued)

Librium		see Chlordiazepoxide
Lidone		see Molindone hydrochloride
Lithane		see Lithium carbonate
Lithobid		see Lithium carbonate
Lithonate		see Lithium carbonate
Lithotabs		see Lithium carbonate
Loxitane		see Loxapine
Ludiomil		see Maprotiline
Luvox		see Fluvoxamine
Marplan		see Isocarboxazid
Mellaril		see Thioridazine
Metadate, Metadate ER		see Methylphenidate
Methylin		see Methylphenidate
Moban		see Molindone hydrochloride
Nardil		see Phenelzine
Navane		see Thiothixene
Nembutal		see Pentobarbital
Neurontin		see Gabapentin
Niravam		see Alprazolam
Noni	(herbal)	see Noni
Norpramin		see Desipramine hydrochloride
Orap		see Pimozide
OxyContin		see Oxycodone hydrochloride
Pamelor		see Nortriptyline hydrochloride
Parnate		see Tranylcypromine
Paxil, Paxil CR		see Paroxetine hydrochloride
Paxipam		see Halazepam
Percocet		see Acetaminophen and oxycodone hydrochloride
Permitil		see Fluphenazine hydrochloride

Pertofrane	see Desipramine hydrochloride
Pexeva	see Paroxetine mesylate
Prolixin	see Fluphenazine hydrochloride
ProSom	see Estazolam
Provigil	see Modafinil
Prozac, Prozac Weekly	see Fluoxetine hydrochloride
Razadyne, Razadyne ER	see Galantamine
Remeron	see Mirtazapine
Restoril	see Temazepam
Risperdal	see Risperidone
Ritalin	see Methylphenidate
Rohypnol	see Flunitrazepam
Sarafem	see Fluoxetine hydrochloride
Seconal	see Secobarbital
Serax	see Oxazepam
Serentil	see Mesoridazine
Seroquel, Seroquel XR	see Quetiapine
Serzone	see Nefazodone
Sinequan	see Doxepin hydrochloride
Solfoton	see Phenobarbital
Sonazine	see Chlorpromazine
Sparlon	see Modafinil
Stelazine	see Trifluoperazine
St. John's wort (herbal)	see St. John's wort or <i>Hypericum perforatum</i>
Strattera	see Atomoxetine
Surmontil	see Trimipramine
Symbyax	see Olanzapine and fluoxetine combination
Taractan	see Chlorprothixene
Tegretol, Tegretol XR	see Carbamazepine
Tenex	see Guanfacine

(Continued)

Teril	see Carbamazepine
Thorazine	see Chlorpromazine
Tofranil, Tofranil PM	see Imipramine
Topamax	see Topiramate
Tranxene, Tranxene SD, Tranxene T-Tab	see Clorazepate
Trilafon	see Perphenazine
Trileptal	see Oxcarbazepine
Tylox	see Acetaminophen oxycodone and hydrochloride
Valium	see Diazepam
Valrelease	see Diazepam
Vanatrip	see Amitriptyline
Vesprin	see Triflupromazine
Vicodin	see Acetaminophen and hydrocodone
Vivactil	see Protriptyline
Vyvanse	see Lisdexamfetamine dimesylate
Wellbutrin	see Bupropion
Xanax, Xanax XR	see Alprazolam
Zelapar	see Selegiline
Zoloft	see Sertraline
Zyprexa, Zyprexa Zydys	see Olanzapine

^aCylert: FDA alert posted 2005, updated 2009, says to transition any clients taking this medication and other generic pemoline products to an alternate therapy (see below).

^bElavil is no longer available in the United States.

Acetaminophen and hydrocodone Vicodin

Type of Drug: Narcotic and analgesic (pain reliever) combination

Prescription Medication: Yes

General Purpose: Used to relieve mild to moderate pain

Acetaminophen and oxycodone hydrochloride**Percocet**

Type of Drug: Narcotic and analgesic (pain reliever) combination; opioid analgesic and nonopiate analgesic (the acetaminophen portion)

Prescription Medication: Yes

General Purpose: A schedule II controlled substance used to treat pain-related symptoms. The degree of pain can vary from mild to moderately severe pain; if pain is severe at times or the client is tolerant of the medication, the prescriber might use it at higher-than-prescribed levels.

Tylox

Type of Drug: Narcotic and analgesic (pain reliever) combination

Prescription Medication: Yes

General Purpose: Used to treat mild to moderate pain

**

Aloe***Aloe vera***

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: Ointment for minor burns and abrasions

**

Alprazolam**Niravam, Xanax, Xanax XR**

Type of Drug: Benzodiazepine sedative

Prescription Medication: Yes

General Purpose: Generalized anxiety disorder and anxiety associated with depression; also used for panic disorder with or without agoraphobia

Xanax—FDA approved for use with age 18 and older

**

Amitriptyline**Vanatrip, Elavil^a, Endep**

Type of Drug: Tricyclic antidepressant

Prescription Medication: Yes

General Purpose: For general symptoms related to depression

^aElavil is no longer available in the United States; *had a black box warning; check FDA MedWatch for more details*

**

Amobarbital

Amytal

Type of Drug: Barbiturate

Prescription Medication: Yes

General Purpose: Used for the treatment of insomnia and as a sedative to relieve the symptoms of anxiety and tension; may also be used in the treatment of epilepsy

**

Amoxapine

Asendin

Type of Drug: Tricyclic antidepressant

Prescription Medication: Yes

General Purpose: To treat depression, anxiety, and agitation

Asendin—*Has a black box warning; check FDA MedWatch for more details*

Asendin—FDA approved for use with age 18 and older

**

Amphetamine or dextroamphetamine

Adderall, Adderall XR, Dexedrine,

Dextrostat

Type of Drug: Central nervous system (CNS) stimulant

Prescription Medication: Yes

General Purposes: Address symptoms related to ADHD and narcolepsy (a sleep disorder characterized by difficulty staying awake and excessive sleepiness)

Adderall—FDA approved for children age 3 and older

Adderall XR (extended release)—FDA approved for use with children age 6 and older

Dexedrine—FDA approved for use with children age 3 and older

Dextrostat—FDA approved for use with children age 3 and older

**

Aripiprazole**Abilify**

Type of Drug: Antipsychotic

Prescription Medication: Yes

General Usage: Addresses psychotic symptoms and mental health conditions such as schizophrenia, bipolar disorder, and depressive disorders, particularly when agitation or behavioral disruptions are noted

Abilify—FDA approved for use with children age 13 to 17 for schizophrenia and bipolar; 18 and older for schizophrenia, bipolar mania, and depression

**

Astragalus

Other Names: *Astragalus membranaceus*,
huang qi, bei qi, hwanggi, milk vetch

Type of Drug: Herbal preparation

Prescription Medication: No

General Usage: Generally used as an immune system booster; may benefit heart function

**

Atomoxetine**Strattera**

Type of Drug: Selective norepinephrine reuptake inhibitor

Prescription Medication: Yes

General Purpose: Often used to treat ADHD in children, teenagers, and adults; unlike most other medicines used for ADHD, it is not a stimulant

Strattera—FDA approved for use with age 6 and older

**

Black Cohosh

Other names: *Actaea racemosa*, *Cimicifuga racemosa*,
black snakeroot, bugban, bugwort, rattleroot,
rattleweed, macrotys

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: One of the most popular herbs known for the treatment of symptoms associated with menopause

**

Bupropion
Wellbutrin

Type of Drug: Antidepressant, smoking deterrent

Prescription Medication: Yes

General Purpose: Treatment of depression, seasonal affective disorder, and nicotine addiction

Wellbutrin—FDA approved for use with age 18 and older; Wellbutrin (Bupropion HCl)—*Has a black box warning; check FDA Med-Watch for more details*

**

Buspirone
BuSpar

Type of Drug: Minor sedative and antianxiety

Prescription Medicine: Yes

General Purpose: Used for anxiety and generalized anxiety symptoms; also can be used for aches and cramps related to premenstrual syndrome (PMS)

BuSpar—FDA approved for use with age 18 and older

**

Carbamazepine
Atretol, Carbatrol, Epitol, Equetro,
Tegretol, Tegretol XR, Teril

Type of Drug: Anticonvulsant

Prescription Medication: Yes

General Purpose: Used to treat seizure disorders as well as trigeminal and other neuralgias and can also be used to treat pain-related symptoms. Used to treat depression, bipolar disorder, intermittent explosive disorder, borderline personality disorder, PTSD, psychotic disorders, and schizophrenia. Also used in the treatment of withdrawal from alcohol, cocaine, or benzodiazepines.

Tegretol—FDA approved for use with any age for seizures

**

Chamomile
Matricaria recutita,
Chamaemelum

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: Generally used with digestive ailments, sleep disturbances (because of its sedative effects), skin irritations (including eczema), and anxiety

**

Chlordiazepoxide
Librax, Libritabs, Librium

Type of Drug: Benzodiazepine sedative

Prescription Medication: Yes

General Purpose: Generally prescribed for anxiety, tension, fatigue, agitation, and withdrawal symptoms of alcoholism; also used for the treatment of irritable bowel syndrome and panic attacks

Librium—FDA approved for use with age 18 and older

**

Chlorpromazine
Thorazine, Sonazine

Type of Drug: Phenothiazine antipsychotic

Prescription Medication: Yes

General Purpose: Prescribed for psychotic disorders, moderate to severe depression with anxiety, agitation or aggressiveness in disturbed children, intractable pain, and senility

Thorazine—FDA approved for use with age 18 and older

**

Chlorprothixene
Taractan

Type of Drug: Antipsychotic

Prescription Medication: Yes

General Purpose: Historically used for the treatment of psychotic disorders, especially conditions such as schizophrenia and acute mania

occurring as part of bipolar cycling (manic phase); can also used to treat hallucinations or delusions

**

Citalopram
Celexa

Type of Drug: Selective serotonin reuptake inhibitor (SSRI)

Prescription Medication: Yes

General Purpose: Often prescribed for depression, eating disorders such as bulimia, OCD, social anxiety disorder, generalized anxiety disorder, panic disorder, and PTSD; other uses include premenstrual dysphoric disorder and migraine headaches

Celexa—FDA approved for use with age 18 and older.

Celexa—*Has a black box warning; check FDA MedWatch for more details*

**

Clomipramine
Anafranil

Type of Drug: Tricyclic antidepressant

Prescription Medication: Yes

General Purpose: Used to address severe symptoms in OCD or to treat depressive symptoms with or without symptoms of anxiety, agitation, or sleep disturbance; can also be used to address symptoms of panic and some phobic reactions

Anafranil—FDA approved for use with children age 10 and older for OCD only

Anafranil—*Has a black box warning; check FDA MedWatch for more details*

**

Clonazepam
Klonopin

Type of Drug: Anticonvulsant

Prescription Medication: Yes

General Purpose: Generally used to treat petit mal and other seizures and panic attacks; also prescribed to treat speaking difficulty associated with Parkinson's disease, nerve pain, and schizophrenia

Klonopin—FDA approved for use with age 18 and older

**

Clonidine

Catapres

Type of Drug: Alpha receptor that stimulates the alpha adrenergic receptors in the brain

Prescription Medication: Yes

General Purpose: Often used for high blood pressure; other uses include ADHD, Tourette's, psychosis, restless legs, migraines, hot flashes related to menopause, and smoking cessation; can be used for methadone and opiate detoxification and to address symptoms related to withdrawal from alcohol and benzodiazepines (e.g., Valium)

**

Clorazepate

Azene, Gen-Xene, Tranxene, Tranxene SD, Tranxene T-Tab

Type of Drug: Benzodiazepine sedative

Prescription Medication: Yes

General Purpose: Used for anxiety, tension, fatigue, and agitation; also used for symptoms of acute alcohol withdrawal, partial seizures, and may be prescribed for irritable bowel syndrome and panic attacks

Tranxene—FDA approved for use with age 18 and older

**

Clozapine

Clozaril

Type of Drug: Antipsychotic

Prescription Medication: Yes

General Purpose: Used to treat psychosis generally related to severe schizophrenia, especially when clients do not respond to other types of medications; must be monitored regularly for the side effect profile of agranulocytosis (rapid drop in white blood cell count)—if it occurs, Clozaril use must be stopped

Clozaril—FDA approved for use with age 18 and older

**

Cranberry***Actinium macrocarpon***

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: Generally used for a variety of ailments including urinary tract infection, dental plaque, stomach ailments, and liver problems

**

Desipramine hydrochloride**Norpramin, Pertofrane**

Type of Drug: Tricyclic antidepressant

Prescription Medication: Yes

General Purpose: To treat depression with or without symptoms of anxiety, agitation, or sleep disturbance

Norpramin—FDA approved for use with age 18 and older

Norpramin (desipramine HCl)—*Has a black box warning; check FDA MedWatch for more details*

**

Dexmethylphenidate**Focalin, Focalin XR**

Type of Drug: Mild CNS stimulant

Prescription Medication: Yes

General Purpose: Used for attention and concentration problems in ADHD; also used for social disorders, narcolepsy, and mild forms of depression, especially in the elderly

Focalin—FDA approved for use with children age 6 and older

Focalin XR (extended release)—FDA approved for use with children age 6 and older

**

Diazepam**Diastat, Diazepam Intensol, Valium, Valrelease**

Type of Drug: Benzodiazepine sedative

Prescription Medication: Yes

General Purpose: Generally prescribed for anxiety, tension, fatigue, agitation (particularly due to alcohol withdrawal), and panic attacks;

medical symptoms include muscle spasm and seizures as well as irritable bowel syndrome

Valium—FDA approved for use with age 18 and older

**

Donepezil

Aricept

Type of Drug: Cholinesterase inhibitor (works by increasing certain receptors in the brain that are stimulated by the hormone acetylcholine)

Prescription Medication: Yes

General Purpose: Generally used to help improve memory and for cognitive enhancement; can be used for treatment of Alzheimer's disease and several other types of dementia (e.g., Parkinson's and vascular) or other memory-related conditions such as problems with language in poststroke aphasia and to help improve memory in multiple sclerosis

**

Doxepin hydrochloride

Adapin, Sinequan

Type of Drug: Tricyclic antidepressant

Prescription Medication: Yes

General Purpose: To treat depression with or without symptoms of anxiety, agitation, or sleep disturbance

Sinequan—FDA approved with children age 12 and older; *has a black box warning; check FDA MedWatch for more details*

**

Duloxetine HCL

Cymbalta

Type of Drug: antidepressant, Selective Serotonin and Norepinephrine reuptake inhibitor (SNRI)

Prescription Medication: Yes

General Purpose: originally approved for the treatment of nerve pain and diabetic neuropathy or fibromyalgia. Currently it is often used to treat depression, generalized anxiety disorder, and general anxiety related feelings.

Cymbalta—*Has a black box warning; check FDA MedWatch for more details*

**

Echinacea

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: Generally known as an immune-system booster and therefore used for the treatment of viral and bacterial infections; most commonly used for the treatment of the common cold

**

Escitalopram oxylate**Lexapro**

Type of Drug: Selective serotonin reuptake inhibitor (SSRI)

Prescription Medication: Yes

General Purpose: See Citalopram

Lexapro—FDA approved for use with age 18 and older; 12–17 for major depressive disorder *Has a black box warning; check FDA Med-Watch for more details*

**

Estazolam**ProSom**

Type of Drug: Benzodiazepine sedative

Prescription Medication: Yes

General Purpose: For insomnia and sleep disturbances

**

Feverfew

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: Generally used for migraines, allergies, and rheumatic diseases

**

Flunitrazepam**Rohypnol**

Type of Drug: Hypnotic

Prescription Medication: NA; no medical use in the United States

General Purpose: Rohypnol has never been approved for medical use in the United States; however, it can be legally prescribed in over 50 other countries such as Mexico, Colombia, and most European nations. When prescribed in these countries, it is generally used in the treatment of insomnia and as a preanesthetic.

**

Fluoxetine hydrochloride
Prozac, Prozac Weekly, Sarafem

Type of Drug: Antidepressant, selected serotonin reuptake inhibitors
Prescription Medication: Yes

General Purpose: Prescribed for depression, bulimia, OCD, social anxiety disorder, generalized anxiety disorder, panic disorder, and PTSD as well as migraine headaches; fluoxetine has been approved for treating major depressive disorder and OCD in children

Prozac—FDA approved for use with children age 8 and older

Prozac (fluoxetine HCl)—*Has a black box warning; check FDA MedWatch for more details*

Sarafem—FDA approved for use with age 18 and older for premenstrual dysphoric disorder (PMDD)

Sarafem (fluoxetine HCl)—*Has a black box warning; check FDA MedWatch for more details*

**

Fluphenazine hydrochloride
Prolixin, Permitil

Type of Drug: Antipsychotic
Prescription Medication: Yes

General Purpose: Generally used for the treatment of schizophrenia and the mood changes that occur in the manic phases of bipolar disorder

Fluphenazine (generic only)—FDA approved for use with age 18 and older

**

Flurazepam
Dalmane

Type of Drug: Benzodiazepine sedative
Prescription Medication: Yes

General Purpose: Generally this drug can be used with anxiety, especially when the individual reports problems with sleep such as insomnia and sleep disturbances

**

Fluvoxamine

Luvox

Type of Drug: Antidepressant

Prescription Medication: Yes

General Purpose: Generally used for the treatment for OCD; other uses include depression, eating disorders such as bulimia, episodes of binge eating, panic attacks, and social anxiety disorder

Luvox—FDA approved for use with children age 8 and older for OCD only

**

Gabapentin

Neurontin

Type of Drug: Anticonvulsant and analgesic (pain reliever)

Prescription Medication: Yes

General Purpose: Generally used to address partial seizures but may also be used for the treatment of pain associated with herpes zoster (shingles) infection, nerve pain, tremors associated with multiple sclerosis, hot flashes in women receiving chemotherapy for breast cancer, and the prevention of migraine headaches; mental health conditions include bipolar disorders and their related symptoms

Neurontin—FDA approved for use with age 18 and older

**

Galantamine

Razadyne, Razadyne ER

Type of Drug: Cholinesterase inhibitor (works by increasing certain receptors in the brain that are stimulated by the hormone acetylcholine)

Prescription Medication: Yes

General Purpose: See Donepezil

**

Garlic

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: Most commonly used for high cholesterol, diseases of the heart, high blood pressure, and some cancers

**

Ginger

Zingiber officinale

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: Can help with upset stomach; it is most often used for the nausea associated with chemotherapy, postsurgery, and pregnancy, as well as nausea caused by motion, rheumatoid arthritis, osteoarthritis, and joint and muscle pain

**

Ginkgo

Ginkgo biloba

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: Generally used to treat the ailments and conditions of asthma, bronchitis, fatigue; to improve memory; and to prevent or treat Alzheimer's disease and other types of dementia

**

Ginseng

Other Names: *Panax ginseng*, also called Asian, Korean, or Chinese ginseng; and *Panax quinquefolius*, also called American, Canadian, or North American ginseng

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: Known for enhancing energy, calming the body, and reducing stress; since it does have stimulant properties, it should be used with caution with children. Other possible clinical applications include its use as a possible immune-system booster and to lower blood sugar levels with diabetes. Use caution with glucose-lowering medications.

**

Goldenseal

Other Names: *Hydrastis canadensis*, yellow root, orange root, puccoon, ground raspberry

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: Most often used to treat colds, other respiratory tract infections, and eye infections, but may also be applied to the skin for wounds and canker sores; some people believe it can mask the presence of marijuana in an individual's system, but research does not support this claim

**

Guanfacine

Tenex (also known as Estulic or Dipresan in several other countries)

Type of Drug: Antihypertensive

Prescription Medication: Yes

General Purpose: Generally used to treat high blood pressure but can also help individuals focus, which is why it has gained some popularity for treating ADHD; when used to treat ADHD, it can be used alone or in combination with other stimulants. It can also be used for social phobia or other anxiety-related conditions.

**

Halazepam

Paxipam

Type of Drug: Benzodiazepine

Prescription Medication: Yes

General Purpose: Generally used to relieve anxiety, nervousness, and tension associated with anxiety disorders

**

Haloperidol

Haldol

Type of Drug: Butyrophenone antipsychotic

Prescription Medication: Yes

General Purpose: Used for the treatment of psychotic symptoms, often with schizophrenia and other psychotic disorders, including Tourette's. It is also being used for treatment of severe behavior prob-

lems in children, or as a short-term treatment of hyperactive children. It can also be used to help control vomiting and treat acute psychiatric situations and the resulting psychosis caused by drugs such as phencyclidine (PCP).

Haldol—FDA approved for use with children age 3 and older

**

Imipramine

Tofranil, Tofranil PM

Type of Drug: Tricyclic antidepressant

Prescription Medication: Yes

General Purpose: To treat depression with or without symptoms of anxiety, agitation, or sleep disturbance; other uses include the prevention of bedwetting in children over age 6

Tofranil—FDA approved for use with children age 6 and older for bedwetting

Tofranil—*Has a black box warning; check FDA MedWatch for more details*

Tofranil PM—FDA approved for use with children age 18 and older

Tofranil PM—*Has a black box warning; check FDA MedWatch for more details*

**

Isocarboxazid

Marplan

Type of Drug: Antidepressant

Prescription Medication: Yes

General Purpose: Used to treat depression; sleep and appetite are affected quickly but other symptoms may take 4 to 6 weeks to see improvement. This is not considered a first choice and is usually only given after trials with other medications have failed.

Marplan—FDA approved for use with age 18 and older; *has a black box warning; check FDA MedWatch for more details*

**

Kava-Kava

Piper methysticum

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: Used for anxiety and insomnia (the term *Piper* is Latin for pepper and *methysticum* is Greek for intoxicating). This is a popular ancient crop in the western Pacific, and it can be called by different names, such as ‘awa (Hawaii), ‘ava (Samoa), yaqona (Fiji), and sakau (Pohnpei). Kava root is a tranquilizer primarily consumed for relaxation without disrupting mental clarity; although traditionally chewed or made into a beverage, kava is now available in capsule, tablet, beverage, tea, and liquid-extract forms. It can be used to help people relax, calm down, or induce a relaxed state conducive for restful sleep.

**

Lamotrigine
Lamictal, Lamictal CD

Type of Drug: Anticonvulsant
 Prescription Medication: Yes

General Purpose: Generally used for adult epilepsy and partial seizures but has also been used to treat the cycling often seen in bipolar disorders. Other uses may include treatment of Lennox-Gastaut syndrome, also referred to as Lennox syndrome; this form of childhood epilepsy is often considered difficult to treat and is often accompanied by mental retardation and difficult-to-control behavioral problems.

Lamictal—FDA approved for use with age 18 and older

**

Lisdexamfetamine dimesylate
Vyvanse

Type of Drug: CNS stimulant
 Prescription Medication: Yes

General Purpose: Generally prescribed for ADHD and narcolepsy (uncontrollable desire to sleep)

Vyvanse—FDA approved for use with children age 6 and older

**

Lithium carbonate
Cibalith-S, Eskalith, Eskalith CR, Lithane,
Lithobid, Lithonate, Lithotabs

Type of Drug: Antipsychotic and antimanic
 Prescription Medication: Yes

General Purpose: Generally used for bipolar (manic-depressive) disorder, particularly to suppress or reduce the amount and intensity of manic attacks; other uses of this medication are to treat cancer patients, those with HIV, and premenstrual tension

Eskalith—FDA approved for use with children age 12 and older

Lithobid—FDA approved for use with children age 12 and older

Lithium citrate (generic only)—FDA approved for use with children age 12 and older

**

Lorazepam

Ativan

Type of Drug: Benzodiazepine, mild tranquilizer

Prescription Medication: Yes

General Purpose: Generally used for the relief of anxiety, agitation, and irritability; to relieve insomnia; to calm mania/schizophrenia; intravenously as a sedative; for nervous tension; to relieve anxiety prior to surgery; or to prevent severe alcohol withdrawal symptoms

Ativan—FDA approved for use with age 18 and older

**

Loxapine

Loxitane

Type of Drug: Tricyclic antipsychotic

Prescription Medication: Yes

General Purpose: Generally used for psychosis and treating conditions such as schizophrenia and bipolar disorder

Loxitane—FDA approved for use with age 18 and older

**

Maprotiline

Ludomil

Type of Drug: Antidepressant

Prescription Medication: Yes

General Purpose: Generally prescribed for major depressive disorder

Ludomil—FDA approved for use with age 18 and older; *has a black box warning, check FDA MedWatch for more details*

**

Meperidine**Demerol**

Type of Drug: Narcotic analgesic (pain reliever)

Prescription Medication: Yes

General Purpose: Prescribed for moderate to severe pain

**

Mesoridazine**Serentil**

Type of Drug: Antipsychotic

Prescription Medication: Yes

General Purpose: Generally used for the treatment of schizophrenia after a person has failed to respond to at least two other antipsychotic medications. This drug can be given in multiple forms—tablets, oral solution, or by injection—and carries a warning of severe and possible life-threatening effects related to heart rhythms (arrhythmias) and the potential for sudden death. The latest warnings and interaction effects with other drugs should always be checked, especially when used with older adults.

**

Methamphetamine hydrochloride**Desoxyn**

Type of Drug: Stimulant

Prescription Medication: Yes

General Purpose: Generally used for attention and concentration problems, as in ADHD, and weight reduction

Desoxyn—FDA approved for use with children age 6 and older

**

Methylphenidate

Concerta, Daytrana Patch, Metadate, Metadate ER (also Metadate CD, extended release), Methylin (also Methylin ER, extended release), Ritalin (also Ritalin LA, Ritalin SR)

Type of Drug: Mild CNS stimulant

Prescription Medication: Yes

General Purpose: See Dexmethylphenidate

Concerta (long acting)—FDA approved for use with children age 6 and older

Daytrana Patch—FDA approved for use with children age 6 and older

Metadate ER (extended release) and Metadate CD (extended release)—FDA approved for use with children age 6 and older

Methylin (oral solution and chewable tablets)—FDA approved for use with children age 6 and older

Ritalin, Ritalin SR (extended release), and Ritalin LA (long acting)—FDA approved for use with children age 6 and older

**

Mirtazapine

Remeron

Type of Drug: Antidepressant

Prescription Medication: Yes

General Purpose: Generally prescribed for major depressive disorder

Remeron—*Has a black box warning; check FDA MedWatch for more details*

**

Modafinil

Provigil, Sparlon

Type of Drug: Stimulant

Prescription Medication: Yes

General Purpose: Generally used for narcolepsy (uncontrollable desire to sleep), obstructive sleep apnea, and shift-work sleep disorder; it can also be used for ADHD in children and adolescents, generally from ages 6–17

**

Molindone hydrochloride

Lidone, Moban

Type of Drug: Antipsychotic

Prescription Medication: Yes

General Purpose: Generally used in the treatment of schizophrenia

Moban—FDA approved for use with age 18 and older

**

Nefazodone**Serzone**

Type of Drug: Antidepressant

Prescription Medication: Yes

General Purpose: Treatment of depression

Serzone—FDA originally approved for use with age 18 and older

Serzone (nefazodone HCl)—The brand-name medication may no longer be available, if used read cautions carefully as the generic version *has a black box warning; check FDA MedWatch for more details*

**

Noni

Other Names: *Morinda citrifolia*, Nono,
Indian mulberry, cheese fruit, ba ji tian

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: Generally known as an antioxidant and immune system booster

**

Nortriptyline hydrochloride**Aventyl, Pamelor**

Type of Drug: Tricyclic antidepressant

Prescription Medication: Yes

General Purpose: To treat depression with or without symptoms of anxiety, agitation, or sleep disturbance

Aventyl—FDA approved for use with age 18 and older

Pamelor—FDA approved for use with age 18 and older

Aventyl and Pamelor—*Have a black box warning; check FDA MedWatch for more details*

**

Olanzapine**Zyprexa, Zyprexa Zydis**

Type of Drug: Antipsychotic

Prescription Medication: Yes

General Purpose: Used to treat schizophrenia and bipolar disorder, agitation associated with schizophrenia and bipolar disorder, and depression or mania associated with bipolar disorder; may be prescribed for symptoms related to agitation and psychosis that are acute or chronic

Zyprexa—FDA approved for use with age 18 and older

**

Olanzapine and fluoxetine combination

Symbyax

Type of Drug: Antidepressant and antipsychotic combination drug

Prescription Medication: Yes

General Purpose: Generally used for treatment-resistant depression, or the acute treatment of depressive episodes associated with bipolar I disorder in adults

Symbyax—FDA approved for use with age 18 and older; *has a black box warning; check FDA MedWatch for more details*

**

Oxazepam

Serax

Type of Drug: Benzodiazepine

Prescription Medication: Yes

General Purpose: Generally used to treat anxiety disorders and alcohol withdrawal symptoms

Oxazepam (generic only)—FDA approved for use with age 18 and older

**

Oxcarbazepine

Trileptal

Type of Drug: Anticonvulsant

Prescription Medication: Yes

General Purpose: Used to treat partial seizures in adults and children age 2–16 with epilepsy

Trileptal—FDA approved for use with children age 4 and older

**

Oxycodone hydrochloride**OxyContin**

Type of Drug: Narcotic and analgesic (pain reliever) combination

Prescription Medication: Yes

General Purpose: A schedule II controlled substance used to treat pain-related symptoms; the degree of pain can vary from mild to moderately severe

**

Paliperidone**Invega**

Type of Drug: Atypical antipsychotic

Prescription Medication: Yes

General Purpose: Generally used for acute and maintenance treatment of schizophrenia

Invega—FDA approved for use with age 18 and older

**

Paroxetine hydrochloride**Paxil, Paxil CR, Paroxetine-Mesylate, Pexeva**

Type of Drug: Selective serotonin reuptake inhibitor (SSRI)

Prescription Medication: Yes

General Purpose: Used to treat depression, bulimia, OCD, social anxiety disorder, generalized anxiety disorder, panic disorder, migraine, and PTSD

Paxil—FDA approved for use with age 18 and older

Pexeva^a (Paroxetine-Mesylate)—FDA approved for use with age 18 and older

Paxil (Paroxetine HCl)—*Has a black box warning; check FDA MedWatch for more details*

Pexeva (Paroxetine-Mesylate)—*Has a black box warning; check FDA MedWatch for more details.*

^aPexeva is similar to Paxil (Paroxetine hydrochloride) except it uses paroxetine mesylate, which means that the inactive portion of the drugs differ; short-term effects may differ because of how it is absorbed within the blood stream.

**

Pemoline**Cylert**

Type of Drug: CNS stimulant

Prescription Medication: Yes

General Purpose: Generally used to treat ADHD, Cylert is one of the older ADHD drugs on the market; it has carried a box warning for liver risks since 1999 and was approved and used with children age 6 and older

Cylert—No longer available in the United States. Due to risk of liver injury, the FDA has recommended that those taking this medication and other pemoline products be transitioned to another safer alternative for ADHD. Retrieved September 7, 2009, from <http://www.fda.gov/Drugs/DrugSafety/PostmarketDrugSafetyInformationforPatientsandProviders/ucm126461.htm>

**

Pentobarbital**Nembutal**

Type of Drug: Barbiturate

Prescription Medication: Yes

General Purpose: Approved to treat seizures and used in preoperative procedures for sedation as well as to treat insomnia and as a short-term hypnotic decreasing tension and anxiety. This medication has also been linked to cases of physician-assisted suicide in the United States and is approved for euthanasia in animals; in the Netherlands it has no medical usage but has been used for euthanasia. T sodium pentobarbital is also used for death-penalty lethal injections in some countries but not the United States. Since it is a CNS depressant, caution should always be used when mixing it with alcohol, opioids, and antihistamines.

**

Perphenazine**Trilafon**

Type of Drug: Antipsychotic

Prescription Medication: Yes

General Purpose: Generally used to treat acute and chronic psychotic disorders such as schizophrenia with symptoms related to agitated depression; it is also used as a tranquilizer for agitated and

disruptive behavior or for treatment of severe nausea and vomiting. The medication can also cause tardive dyskinesia (for more information see chapter 11).

Perphenazine (generic only)—FDA approved for use with age 18 and older

**

Phenelzine

Nardil

Type of Drug: Monoamine oxidase inhibitor (MAOI)

Prescription Medication: Yes

General Purpose: Generally prescribed for atypical depression and depression that does not respond to other drugs, it can also be used for treatment of symptoms of eating disorders such as bulimia, bipolar depression, panic disorder, PTSD, and sleep disturbances such as night terrors; since this is an MAO inhibitor, severe dietary precautions should be considered

Nardil—FDA approved for use with age 18 and older

Nardil—*Has a black box warning; check FDA MedWatch for more details*

**

Phenobarbital

Solfoton

Type of Drug: Hypnotic, sedative, and anticonvulsant

Prescription Medication: Yes

General Purpose: Prescribed for those with epileptic and other seizures and convulsions; sedation may occur when given in the daytime, and at the beginning of treatment many clients experience a short duration of sleeplessness

**

Pimozide

Orap

Type of Drug: Antipsychotic

Prescription Medication: Yes

General Purpose: High-potency antipsychotic medication used to treat symptoms related to psychosis such as hallucinations and delusions. It can also be used to assist with the suppression of tics associated with Tourette's syndrome; it is recommended for severe problems and is reserved for patients whose development and/or daily life function is severely compromised by the presence of motor and phonic tics.

Orap—FDA approved when used for Tourette's with children age 12 and older

**

Prazepam

Centrax

Type of Drug: Benzodiazepine

Prescription Medication: Yes

General Purpose: Used to treat anxiety

**

Protriptyline

Vivactil

Type of Drug: Tricyclic antidepressant

Prescription Medication: Yes

General Purpose: To treat depression with or without symptoms of anxiety, agitation, or sleep disturbance; has mild stimulant properties so may be helpful for individuals who are withdrawn and feel lifeless

Vivactil—FDA approved for use with age 18 and older; *has a black box warning; check FDA MedWatch for more details*

**

Quazepam

Doral

Type of Drug: Benzodiazepine sedative

Prescription Medication: Yes

General Purpose: Generally used with anxiety, especially when the individual reports problems with sleep such as insomnia and sleep disturbances

**

Quetiapine**Seroquel, Seroquel XR**

Type of Drug: Antipsychotic

Prescription Medication: Yes

General Purpose: Generally prescribed for psychotic disorders, bipolar disorder, and schizophrenia

Seroquel—FDA approved for use with age 18 and older

**

Risperidone**Risperdal**

Type of Drug: Antipsychotic

Prescription Medication: Yes

General Purpose: Generally used for psychotic disorders and schizophrenia; also for bipolar disorders, symptoms of Alzheimer's disease, and treatment-resistant depression

Risperdal—FDA approved for use with age 13 and older for schizophrenia, 10 and older for bipolar mania and mixed episodes, 5 to 16 for irritability associated with autism

**

Rivastigmine**Exelon**

Type of Drug: Cholinesterase inhibitor (works by increasing certain receptors in the brain that are stimulated by the hormone acetylcholine)

Prescription Medication: Yes

General Purpose: See Donepezil

**

Secobarbital**Seconal**

Type of Drug: Barbiturate

Prescription Medication: Yes

General Purpose: Used for short-term relief of sleep-disturbance symptoms such as insomnia; also used as a sedative before surgery

**

Selegiline**Eldepryl, Emsam, Zelapar**

Type of Drug: Antiparkinsonian and selective MAOI

Prescription Medication: Yes

General Purpose: Generally used for Parkinson's disease and also to treat depression

Emsam—FDA approved for use with age 18 and older

**

Sertraline**Zoloft**

Type of Drug: Selective serotonin reuptake inhibitor (SSRI)

Prescription Medication: Yes

General Purpose: See Paroxetine hydrochloride

Zoloft—FDA approved for use with children age 6 and older for OCD only

Zoloft (sertraline HCl)—*Has a black box warning; check FDA Med-Watch for more details*

**

St. John's wort***Hypericum perforatum***

Type of Drug: Herbal preparation

Prescription Medication: No

General Purpose: Used to treat mild to moderate depression, St. John's wort comes from the flower *Hypericum perforatum*, which is a bushy, wild-growing plant. Clinical studies to date have not been overly positive on its effects on treating depression; although its effectiveness is questionable, some studies say it can also interfere with other medications, including those used to treat HIV infection. In 2000, the FDA issued a warning that it can interfere with heart disease, depression, seizures, certain cancers, organ transplants, and medications such as oral contraceptives.

**

Tacrine**Cognex**

Type of Drug: Cholinesterase inhibitor (works by increasing certain receptors in the brain that are stimulated by the hormone acetylcholine)

Prescription Medication: Yes
 General Purpose: See Donepezil

**

Temazepam
Restoril

Type of Drug: Benzodiazepine sedative
 Prescription Medication: Yes
 General Purpose: Generally used with anxiety, especially when the individual reports problems with sleep such as insomnia and sleep disturbances

**

Thioridazine
Mellaril

Type of Drug: Tranquilizer/Antipsychotic
 Prescription Medication: Yes
 General Purpose: Relieves tension and anxiety at low and medium doses and helps address multiple symptoms (e.g., agitation, depression, sleep disturbances) related to nonpsychotic mental disorders; at higher doses, it is effective in controlling the symptoms of psychotic disorders
 Thioridazine (generic only)—FDA approved for use with children age 2 and older

**

Thiothixene
Navane

Type of Drug: Antipsychotic
 Prescription Medication: Yes
 General Purpose: Generally used for the treatment of schizophrenia
 Navane—FDA approved for use with age 18 and older

**

Topiramate
Topamax

Type of Drug: Anticonvulsant, mood stabilizer
 Prescription Medication: Yes

General Purpose: Mental health uses include treatment of alcohol dependence, bipolar disorder, bulimia, and obesity; medical uses include partial-onset seizures, tonic-clonic seizures, cluster headaches, migraine prevention, and infantile spasms. Other uses may include treatment of Lennox-Gastaut syndrome, also referred to as Lennox syndrome; this form of childhood epilepsy is considered difficult to treat and is often accompanied by mental retardation and difficult-to-control behavioral problems.

Topamax—FDA approved for use with age 18 and older

**

Tranlycypromine

Parnate

Type of Drug: Monoamine oxidase inhibitor (MAOI)

Prescription Medication: Yes

General Purpose: Prescribed for treatment-resistant depression or what is often referred to as atypical depression; other mental health conditions include bulimia, bipolar depression, panic disorder, PTSD, and social anxiety disorder. It can also be used for chronic migraine pain and sleep disturbances such as night terrors, in which an individual will often wake up fearful, not able to remember his or her dreams, and is afraid of going back to sleep.

Parnate—(Tranlycypromine) FDA approved for use with age 18 and older

Parnate—(Tranlycypromine Sulfate) *Has a black box warning; check FDA MedWatch for more details*

**

Trazodone

Desyrel

Type of Drug: Antidepressant

Prescription Medication: Yes

General Purpose: Often used to treat signs of depression with or without the symptoms of anxiety; other uses are cocaine withdrawal, alcoholism, panic disorder, agoraphobia, insomnia, and aggressive behaviors

Desyrel—FDA approved for use with age 18 and older

Desyrel (trazodone HCl)—*Has a black box warning; check FDA MedWatch for more details*

**

Triazolam
Halcion

Type of Drug: Benzodiazepine sedative

Prescription Medication: Yes

General Purpose: Generally used with anxiety, especially when the individual reports problems with sleep such as insomnia and sleep disturbances

**

Trifluoperazine
Stelazine

Type of Drug: Antipsychotic

Prescription Medication: Yes

General Purpose: Used to treat anxiety and psychotic disorders such as schizophrenia

Stelazine—FDA approved for use with age 18 and older

**

Trifluopromazine
Vesprin

Type of Drug: Antipsychotic

Prescription Medication: Yes

General Purpose: Used for the treatment of psychotic disorders, Vesprin is particularly used to control violent behaviors during acute episodes of psychotic symptoms

**

Trimipramine
Surmontil

Type of Drug: Tricyclic antidepressant

Prescription Medication: Yes

General Purpose: To treat depression with or without symptoms of anxiety, agitation, or sleep disturbance; also used to treat symptoms related to depressive disorders with psychotic symptoms, depressive symptoms mixed with anxiety and depression, or anxiety associated with substances such as alcohol abuse or dependence

Surmontil—FDA approved for use with age 18 and older; *has a black box warning; check FDA MedWatch for more details*

**

Valproic acid (divalproex sodium)
Depakene, Depakote, Depakote ER,
Depakote Sprinkle, Stavzor

Type of Drug: Anticonvulsant and antimanic

Prescription Medication: Yes

General Purpose: Used primarily for seizure disorders; can also be used in the treatment of mood disorders, particularly for mood regulation, anger management, and symptoms of anxiety

Depakote—FDA approved for use with children age 2 and older for seizures

**

Venlafaxine
Cymbalta (Generic Ingredient: Duloxetine),
Effexor, Effexor XR

Type of Drug: Antidepressant

Prescription Medication: Yes

General Purpose: Used to treat depression, anxiety, social anxiety disorders, PMS, and PTSD. Cymbalta (duloxetine) is often used for pain management related to diabetes.

Cymbalta—FDA approved for use with age 18 and older

Effexor—FDA approved for use with age 18 and older

Cymbalta and Effexor (venlafaxine HCl)—*Have a black box warning; check FDA MedWatch for more details*

**

Ziprasidone
Geodon

Type of Drug: Antipsychotic

Prescription Medication: Yes

General Purpose: Used to treat schizophrenia and acute agitation in schizophrenia; also used for bipolar disorder

Geodon—FDA approved for use with age 18 and older

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Appendix E: Sample Treatment Planners

CARMEN P. CHANG-ARRATIA AND SOPHIA F. DZIEGIELEWSKI

MAJOR DEPRESSION SOCIAL WORK INTERVENTION: SAMPLE TREATMENT PLANNER

Long-Term Goals for Major Depression

- Develop the ability to understand, recognize, and positively cope with symptoms of depression
- Develop cognitive beliefs and behavioral patterns to control, alleviate, and manage depressive symptoms
- Increase capability to self-regulate
- Sustain and improve level of functioning

SAMPLE TREATMENT PLANNER—MAJOR DEPRESSION

SHORT-TERM OBJECTIVES

PLAN OR INTERVENTION

TIME FRAME

Take medications as prescribed.

- Schedule an appointment with physician to rule out medical conditions.
- Schedule an appointment with psychiatrist/prescriber for medication management.
- Provide medication education regarding medication effectiveness and adverse effects, including information on dependence, questions to ask, self-empowerment and possible right to refuse, and increasing compliance strategy.
- Encourage client to report all medicinal treatments and medications, including any herbal preparations, to address potential interaction effects, contraindications, and synergistic effects.
- Assess for compliance, side effects, and contraindications of medications and notify as appropriate.

■ Intake

Reduce at-risk or harm factors.

- Conduct a mental status examination.
- Assess for suicidal ideation (with plan) and/or homicidal ideation, differentiating from morbid ideation.
- If presenting conditions meet classification for harm to self or others, arrange for hospitalization and/or duty to warn.
- Assess for external factors contributing to and/or influencing an altered mental status (e.g., substance abuse and/or chemical dependency).

■ Intake

SAMPLE TREATMENT PLANNER—MAJOR DEPRESSION (*Continued*)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Complete assessment of functioning scales (GAF, GARF, SOFAS, etc.) to determine level of functioning.	<ul style="list-style-type: none"> ■ Assess level of functioning to determine levels of support required. ■ Determine ability to engage in activities of daily living (ADL) and arrange for supportive services, if necessary. ■ Acquire written authorization from client to engage and acquire support from client's identified support system. 	<ul style="list-style-type: none"> ■ Intake; ongoing
Identify the source of the depressed mood.	<ul style="list-style-type: none"> ■ Conduct a biopsychosocial assessment to address genetic, psychological, and social factors contributing to or causing depressed mood. ■ Encourage client to identify and specify length of time these factors have contributed, exacerbated, and/or perpetuated symptomology. ■ Assist client to identify and rate level of distress and intensity associated with depressed mood. ■ Assist client to identify, verbalize, and prioritize the severity of causal and/or contributing factors of depressed mood. ■ Assist client to determine what signs and symptoms may be medication and/or mood related. 	<ul style="list-style-type: none"> ■ Intake
Identify cognitive mechanisms used to increase and/or maintain depressive symptomology.	<ul style="list-style-type: none"> ■ Encourage client to identify and verbalize thoughts causing and contributing to depressive symptomology. ■ Encourage client to connect thoughts causing negative feelings and emotions contributing to depressive symptomology. 	

(Continued)

SAMPLE TREATMENT PLANNER—MAJOR DEPRESSION (Continued)**SHORT-TERM OBJECTIVES****PLAN OR INTERVENTION****TIME FRAME**

Identify behavioral mechanism used to increase and/or maintain depressive symptomology.

- Encourage client to verbally connect thoughts, feelings, and how these contribute to depressed mood.
- Provide education regarding how healthy positive thoughts influence changes in mood and behaviors.
- Encourage client to identify and verbalize thoughts to alleviate unhealthy emotions contributing to depressed symptomology.
- Encourage client to make a positive statement about him- or herself in each session.
- Encourage client to identify behaviors that can contribute to depressive symptomology.
- Encourage client to connect identified behaviors and how they contribute to depressive symptomology.
- Provide education regarding healthy and positive behaviors and their relation to achieving positive mental health.
- Encourage client to identify behavior(s) that he or she can engage in to alleviate depressive symptomology per designated time interval.
- Encourage client to identify and verbalize benefits of how behavior alleviated depressive symptomology.
- Encourage client to increase frequency and duration of behavior(s) alleviating depressive symptomology per designated time interval.

SAMPLE TREATMENT PLANNER—MAJOR DEPRESSION (*Continued*)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
<p>Reintegrate individual functioning to environmental functioning.</p>	<ul style="list-style-type: none"> ■ Encourage client to identify one positive achievement per session. ■ Encourage client to participate in social activities of choice per designated time interval. ■ Encourage client to resume his or her desired occupational activity incrementally until full functional capacity is achieved. ■ Encourage client to establish new and/or resume healthy and positive relationships. 	<ul style="list-style-type: none"> ■ Determined in sessions

BIPOLAR I DISORDER SOCIAL WORK INTERVENTION: SAMPLE TREATMENT PLANNER

Long-Term Goals for Bipolar I Disorder

- Develop the ability to understand, recognize, and cope positively with mood swings
- Develop the ability to self-regulate to positively manage moods
- Develop cognitive beliefs and behavior patterns to control, decrease frequency, and positively manage impulsive actions
- Increase sustainable and/or improved level of functioning

SAMPLE TREATMENT PLANNER—BIPOLAR I DISORDER

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Take medications as prescribed.	<ul style="list-style-type: none"> ■ Schedule an appointment with physician to rule out medical conditions. ■ Schedule an appointment with psychiatrist/prescriber for medication management. ■ Provide medication education regarding medication effectiveness and adverse effects, including information on dependence, questions to ask, self-empowerment and possible right to refuse, and increasing compliance strategy. ■ Encourage client to report all medicinal treatments and medications, including any herbal preparations, to address potential interaction effects, contraindications, and synergistic effects. ■ Assess for compliance, side effects, and contraindications of medications and notify as appropriate. 	<ul style="list-style-type: none"> ■ Intake

SAMPLE TREATMENT PLANNER—BIPOLAR I DISORDER (Continued)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Reduce at-risk and harm factors.	<ul style="list-style-type: none"> ■ Conduct a mental status examination. ■ Assess for suicidal ideation (with plan) and/or homicidal ideation, differentiating from morbid ideation. ■ If presenting conditions meet classification for harm to self or others, arrange for hospitalization. ■ Assess for external factors contributing to and/or influencing an altered mental status (e.g., substance abuse and/or chemical dependency). 	<ul style="list-style-type: none"> ■ Intake; as needed
Complete assessments of functioning (scales, GAF, GARF, SOFAS, etc.) to determine level of function.	<ul style="list-style-type: none"> ■ Assess level of functioning to determine levels of support required. ■ Determine ability to engage in ADL and arrange for supportive services, if necessary. ■ Acquire written authorization from client to engage and acquire support from client's identified support system. 	<ul style="list-style-type: none"> ■ Intake
Identify the frequency and duration of mood swings and impulsive actions.	<ul style="list-style-type: none"> ■ Conduct a biopsychosocial assessment to address genetic, psychological, and social factors contributing to or causing affective and behavioral changes. ■ Encourage client to identify and specify length of time these factors have contributed, exacerbated, and/or perpetuated symptomology. ■ Assist client to identify and rate level of distress and intensity of associated mood swings contributing to impulsive actions. 	<ul style="list-style-type: none"> ■ Intake

(Continued)

SAMPLE TREATMENT PLANNER—BIPOLAR I DISORDER *(Continued)*

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
<p>Identify cognitive mechanisms associated with affective changes.</p> <p>Sustain client's positive self-image.</p>	<ul style="list-style-type: none"> ■ Assist client to prioritize factors exacerbating his or her condition according to level of distress and intensity and address in sessions. ■ Provide education about bipolar disorder, its biological causes, and corresponding psychological and physical symptoms. ■ Encourage client to identify and verbalize thoughts associated with moods. ■ Encourage client to identify and connect cognitive changes in relation to affective changes. ■ Educate client on positive problem-solving strategies and help client create and develop these to reduce impulsive behaviors. ■ Encourage client to chart and connect how negative behaviors are associated to moods charted during time interval provided. ■ Educate and encourage client to differentiate between his or her condition versus personal traits. ■ Encourage client to develop unconditional self-acceptance. ■ Encourage client to connect his or her unconditional self-acceptance to the acceptance of others. ■ Encourage client to identify and verbalize a positive statement about him- or herself in each session. 	<p>Determined in sessions</p>

SAMPLE TREATMENT PLANNER—BIPOLAR I DISORDER *(Continued)*

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Identify the types of behaviors associated with affective changes.	<ul style="list-style-type: none"> ■ Provide education about bipolar disorder, its biological causes, and corresponding psychological and physical symptoms. ■ Educate client on positive problem-solving strategies and help client create and develop these to reduce impulsive behaviors. ■ Encourage client to chart behaviors engaged in during time interval provided. ■ Encourage client to identify and verbalize behaviors engaged in and contributing to negative consequences (individual and/or social) during time interval provided. ■ Encourage client to identify and connect how negative behaviors are associated to moods charted during time interval provided. ■ Encourage client to implement positive problem-solving strategies, developed in connection to behavioral consequences related to cognitive and affective changes, during time interval provided. 	<ul style="list-style-type: none"> ■ Ongoing
Reintegrate individual functioning to environmental setting	<ul style="list-style-type: none"> ■ Encourage client to participate in social activities of his or her choice per designated time interval. ■ Encourage client to resume his or her desired occupational activity incrementally until full functional capacity is achieved. ■ Encourage client to establish and/or resume healthy and positive relationships. 	Determined in sessions

GENERALIZED ANXIETY DISORDER SOCIAL WORK INTERVENTION: SAMPLE TREATMENT PLANNER

Long-Term Goals for Generalized Anxiety Disorder

- Develop the ability to understand, recognize, and positively cope with symptoms of anxiety
- Develop cognitive beliefs and behavioral patterns to control, alleviate, and reduce the frequency, intensity, and duration of anxiety symptoms
- Increase capability to self-regulate
- Increase ability to complete activities of daily living

SAMPLE TREATMENT PLANNER—GENERALIZED ANXIETY DISORDER

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Take medications responsibly as prescribed.	<ul style="list-style-type: none"> ■ Schedule an appointment with physician to rule out medical conditions. ■ Schedule an appointment with psychiatrist/prescriber for medication management. ■ Provide medication education regarding medication effectiveness and adverse effects, including information on dependence, questions to ask, self-empowerment and possible right to refuse, and increasing compliance strategy. ■ Encourage client to report all medicinal treatments and medications, including any herbal preparations, to address potential interaction effects, contraindications, and synergistic effects. ■ Assess for compliance, side effects, and contraindications of medications and notify as appropriate. 	<ul style="list-style-type: none"> ■ Intake

SAMPLE TREATMENT PLANNER—GENERALIZED ANXIETY DISORDER (Continued)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Reduce at-risk and harm factors.	<ul style="list-style-type: none"> ■ Conduct a mental status examination. ■ Assess for suicidal ideation (with plan) and/or homicidal ideation, differentiating from morbid ideation. ■ If presenting conditions meet classification for harm to self or others, arrange for hospitalization. ■ Assess for external factors contributing to and/or influencing an altered mental status (e.g., substance abuse and/or chemical dependency). 	<ul style="list-style-type: none"> ■ Intake; as needed
Complete assessments of functioning (scales, GAF, GARF, SOFAS, etc.) to determine level of function.	<ul style="list-style-type: none"> ■ Assess level of functioning to determine levels of support required. ■ Determine ability to engage in ADL and arrange for supportive services, if necessary. ■ Acquire written authorization from client to engage and acquire support from client's identified support system. 	<ul style="list-style-type: none"> ■ Intake
Identify frequency and duration of activating anxiety-causing factors.	<ul style="list-style-type: none"> ■ Conduct a biopsychosocial assessment to address genetic, psychological, and social factors contributing to or causing anxiety. ■ Encourage client to identify and specify length of time these factors have contributed to symptomology. ■ Assist client to identify and rate level of distress and intensity associated with factors contributing to and/or causing anxiety. ■ Assist client to prioritize factors causing anxiety according to level of distress and intensity and address in sessions. 	<ul style="list-style-type: none"> ■ Intake
Identify anxiety-causing and/or anxiety-producing cognitive mechanisms.	<ul style="list-style-type: none"> ■ Provide education to client about factors and symptoms pertinent to generalized anxiety disorder, including but not limited to psychological and physical symptoms. 	

(Continued)

SAMPLE TREATMENT PLANNER—GENERALIZED ANXIETY DISORDER (Continued)**SHORT-TERM OBJECTIVES****PLAN OR INTERVENTION****TIME FRAME**

Identify behaviors exacerbating and/or in response to anxious symptoms.

- Provide education on cognitive distortions (e.g., catastrophizing, personalizing, overgeneralizing) and how these increase and/or cause anxiety-producing symptoms.
- Encourage client to identify and verbalize anxiety-producing cognitions.
- Reality test cognitions, assisting client to differentiate between functional or dysfunctional beliefs.
- Encourage client to identify and replace nonfunctional beliefs with functional and positive beliefs.
- Encourage client to identify physical symptoms experienced in relation to symptomology.
- Encourage client to connect physical symptoms in relation to events/situations and symptomology.
- Encourage client to identify actions in response to physical symptoms experienced.
- Encourage client to connect actions in response to cognitions and physical symptoms experienced.
- Encourage client to identify consequences of actions in response to anxious mechanisms.
- Assist client in identifying behaviors that lessen anxious symptoms.
- Assist client in implementing behaviors to lessen anxious symptoms.
- Assist client to develop plans that client can implement in response to expected and unexpected stressful events.
- Assist client to identify an exercise routine or activity to participate in regularly each week.

Develop positive problem-solving strategies to accomplish the following:

SAMPLE TREATMENT PLANNER—GENERALIZED ANXIETY DISORDER (Continued)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Sustain and maintain self-regulation and develop internal locus of control.	<ul style="list-style-type: none"> ■ Assist client to identify a relaxing social activity to participate in once each week. ■ Assist client to identify a positive hobby to participate in once per week. ■ Educate client about self-relaxation techniques and how they alleviate anxious symptoms. ■ Assist client in practicing self-relaxation techniques in session. ■ Encourage client to implement self-relaxation techniques once per week, or as needed. 	
Implement self-relaxation techniques.		

OBSESSIVE-COMPULSIVE DISORDER SOCIAL WORK INTERVENTION: SAMPLE TREATMENT PLANNER

Long-Term Goals for Obsessive-Compulsive Disorder (OCD)

- Develop the ability to understand, recognize, and positively cope with symptoms of OCD
- Develop cognitive beliefs and behavioral patterns to control, alleviate, and reduce the frequency, intensity, and duration of anxiety symptoms
- Increase capability to self-regulate
- Increase ability to complete activities of daily living

SAMPLE TREATMENT PLANNER—OBSESSIVE-COMPULSIVE DISORDER

SHORT-TERM OBJECTIVES

PLAN OR INTERVENTION

TIME FRAME

Take medications responsibly as prescribed.

- Schedule an appointment with physician to rule out medical conditions.
- Schedule an appointment with psychiatrist/prescriber for medication management.
- Provide medication education regarding medication effectiveness and adverse effects, including information on dependence, questions to ask, self-empowerment and possible right to refuse, and increasing compliance strategy.
- Encourage client to report all medicinal treatments and medications, including any herbal preparations, to address potential interaction effects, contraindications, and synergistic effects.
- Assess for compliance, side effects, and contraindications of medications and notify as appropriate.

■ Intake

Reduce at-risk and harm factors.

- Conduct a mental status examination.
- Assess for suicidal ideation (with plan) and/or homicidal ideation, differentiating from morbid ideation.

■ Intake; as needed

SAMPLE TREATMENT PLANNER—OBSESSIVE-COMPULSIVE DISORDER (Continued)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Complete assessments of functioning (scales, GAF, GARF, SOFAS, etc.) to determine level of function.	<ul style="list-style-type: none"> ■ If presenting conditions meet classification for harm to self or others, arrange for hospitalization. ■ Assess for external factors contributing to and/or influencing an altered mental status (e.g., substance abuse and/or chemical dependency). ■ Assess level of functioning to determine levels of support required. ■ Determine ability to engage in ADL and arrange for supportive services, if necessary. ■ Acquire written authorization from client to engage and acquire support from client's identified support system. 	<ul style="list-style-type: none"> ■ Intake
Identify frequency, duration, and intensity of factors exacerbating and/or contributing to anxiety.	<ul style="list-style-type: none"> ■ Conduct a biopsychosocial assessment to address genetic, psychological, and social factors contributing to or causing anxiety. ■ Encourage client to identify and specify length of time these factors have contributed to symptomology. ■ Encourage client to identify number of contributing and/or perpetuating repetitive responses related to symptomology. ■ Assist client to identify and rate level of distress and intensity associated with factors contributing to and/or causing symptomology. ■ Assist client to prioritize factors causing anxiety according to level of distress and intensity and address in sessions. 	<ul style="list-style-type: none"> ■ Intake
Identify anxiety-causing and/or anxiety-producing cognitive mechanisms.	<ul style="list-style-type: none"> ■ Provide education to client about factors and symptoms pertinent to OCD, including but not limited to psychological and physical symptoms. ■ Encourage client to identify and verbalize anxiety-producing cognitions. 	<ul style="list-style-type: none"> Determined in sessions

(Continued)

SAMPLE TREATMENT PLANNER—OBSESSIVE-COMPULSIVE DISORDER (Continued)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
<p>Introduce cognitive tapes to modify and extinguish obsessive thoughts.</p>	<ul style="list-style-type: none"> ■ Encourage client to identify feelings and emotions associated with anxiety-producing cognitions. ■ Encourage client to rate level of distress experienced due to anxiety-producing cognitions. ■ Reality test cognitions, assisting client to differentiate between functional and dysfunctional thoughts. ■ Engage client in anxiety-producing cognition paired with thought-stopping exercises. ■ Provide education on cognitive tapes, their function and production of memory, and how they increase, cause, and/or alleviate symptomology. ■ Assist client in introducing cognitive tapes during thought-stopping exercises. ■ Encourage client to rate level of distress experienced post exercises. ■ Encourage client to practice thought-stopping exercises paired with cognitive tapes, minimum once per week and incrementally increasing. 	
<p>Implement self-relaxation techniques.</p>	<ul style="list-style-type: none"> ■ Educate client about self-relaxation techniques and how they can alleviate anxious symptoms. ■ Assist client in practicing self-relaxation techniques in session. ■ Encourage client to implement self-relaxation techniques once per week, or as needed. 	
<p>Identify behaviors in response to cognitive mechanisms.</p>	<ul style="list-style-type: none"> ■ Provide education to client about factors and symptoms pertinent to OCD, including but not limited to psychological and physical symptoms. ■ Encourage client to identify and verbalize anxiety-producing cognitions and identify actions utilized in response to these. 	<p>Determined in sessions</p>

SAMPLE TREATMENT PLANNER—OBSESSIVE-COMPULSIVE DISORDER *(Continued)***SHORT-TERM OBJECTIVES****PLAN OR INTERVENTION****TIME FRAME**

Desensitize client to engaging in compulsive actions.

- Encourage client to identify feelings and emotions to actions in response to not responding to anxiety-producing cognitions.
- Encourage client to rate level of distress experienced due to anxiety-producing cognitions.
- Provide education on systematic desensitization, its mechanisms, and its application to ceasing repetitive and compulsive actions in response to cognitions.
- Assist client to sustain negative emotions, feelings, and physical symptoms in response to not engaging in compulsive actions in sessions.
- Assist client to incrementally increase the duration of sustaining negative reactions in response to not engaging in compulsive actions until symptoms cease.

POSTTRAUMATIC STRESS DISORDER SOCIAL WORK INTERVENTION: SAMPLE TREATMENT PLANNER

Long-Term Goals for Posttraumatic Stress Disorder (PTSD)

- Develop the ability to understand, recognize, and positively cope with symptoms of PTSD
- Develop cognitive beliefs and behavioral patterns to control, alleviate, and reduce the intensity and duration of flashbacks
- Increase capability to self-regulate
- Increase ability to complete activities of daily living

SAMPLE TREATMENT PLANNER—POSTTRAUMATIC STRESS DISORDER

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Take medications responsibly as prescribed.	<ul style="list-style-type: none"> ■ Schedule an appointment with physician to rule out medical conditions. ■ Schedule an appointment with psychiatrist/prescriber for medication management. ■ Provide medication education regarding medication effectiveness and adverse effects, including information on dependence, questions to ask, self-empowerment and possible right to refuse, and increasing compliance strategy. ■ Encourage client to report all medicinal treatments and medications, including any herbal preparations, to address potential interaction effects, contraindications, and synergistic effects. ■ Assess for compliance, side effects, and contraindications of medications and notify as appropriate. 	<ul style="list-style-type: none"> ■ Intake
Reduce at-risk and harm factors.	<ul style="list-style-type: none"> ■ Conduct a mental status examination. ■ Assess for suicidal ideation (with plan) and/or homicidal ideation, differentiating from morbid ideation. 	<ul style="list-style-type: none"> ■ Intake; as needed

SAMPLE TREATMENT PLANNER—POSTTRAUMATIC STRESS DISORDER (Continued)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Complete assessments of functioning (scales, GAF, GARF, SOFAS, etc.) to determine level of function.	<ul style="list-style-type: none"> ■ If presenting conditions meet classification for harm to self or others, arrange for hospitalization. ■ Assess for external factors contributing to and/or influencing an altered mental status (e.g., substance abuse and/or chemical dependency). ■ Assess level of functioning to determine levels of support required. ■ Determine ability to engage in ADL and arrange for supportive services, if necessary. ■ Acquire written authorization from client to engage and acquire support from client's identified support system. 	<ul style="list-style-type: none"> ■ Intake
Identify frequency, intensity, and duration of symptoms present.	<ul style="list-style-type: none"> ■ Conduct a biopsychosocial assessment to address genetic, psychological, and social factors contributing to or causing PTSD. ■ Encourage client to identify events and/or situations contributing to symptomology, specifying onset and length of time these factors have contributed to symptomology. ■ Encourage client to identify number of episodes contributing to and/or perpetuating related symptomology. ■ Assist client to identify and rate level of distress and intensity associated with factors contributing to and/or causing symptomology. ■ Assist client to prioritize factors according to level of distress and intensity and address these in sessions. 	<ul style="list-style-type: none"> ■ Intake; complete within 3 days
Identify anxiety-causing and/or anxiety-producing cognitive mechanisms.	<ul style="list-style-type: none"> ■ Provide education to client about factors and symptoms pertinent to PTSD, including but not limited to psychological and physical symptoms. 	<ul style="list-style-type: none"> ■ Determined in session

(Continued)

SAMPLE TREATMENT PLANNER—POSTTRAUMATIC STRESS DISORDER (Continued)**SHORT-TERM OBJECTIVES****PLAN OR INTERVENTION****TIME FRAME**

Increase client's capacity for self-regulation.

- Encourage client to identify and verbalize content of anxiety-producing cognitions.
- Encourage client to identify and verbalize emotions and feelings in response to anxiety-producing cognitions.
- Assist client to identify and recognize physical symptoms in association with flashbacks.
- Provide education on present-focus cognitive strategies to increase daily functioning, self-control, and self-regulation.
- Assist client to implement present-focus cognitive strategies to achieve client's completion of daily activities.

Sustain client's positive self-image.

- Assist client to develop and utilize healthy cognitive strategies to increase overall self-control and self-regulation.
- Educate and encourage client to differentiate between his or her condition versus personal traits.
- Encourage client to develop unconditional self-acceptance.
- Encourage client to connect his or her unconditional self-acceptance to the acceptance of others.
- Encourage client to identify and verbalize a positive statement about him- or herself in each session.

Identify anxiety-causing and/or anxiety-producing behavioral mechanisms.

- Provide education to client about PTSD, including but not limited to psychological and physical symptoms.
- Encourage client to identify situation-specific behaviors in response to flashbacks.
- Assist client to identify and recognize physical symptoms in association with behaviors and flashbacks.

SAMPLE TREATMENT PLANNER—POSTTRAUMATIC STRESS DISORDER *(Continued)***SHORT-TERM OBJECTIVES**

Implement self-relaxation techniques.

PLAN OR INTERVENTION

- Encourage client to identify and recognize behaviors utilized in response to flashbacks as functional or nonfunctional.
- Assist client to identify, develop, and implement healthy situation-specific behaviors in response to symptomology.
- Assist client to identify, develop, and implement healthy behaviors to increase self-regulation and self-control.
- Encourage client to participate in a physical exercise activity, of choice and capacity, minimum once per week.
- Educate client about self-relaxation techniques and how they alleviate anxious symptoms.
- Assist client in practicing self-relaxation techniques in session.
- Encourage client to implement self-relaxation techniques, minimum once per week, or as needed.

TIME FRAME

SCHIZOPHRENIA, PARANOID TYPE, SOCIAL WORK INTERVENTION: SAMPLE TREATMENT PLANNER

Long-Term Goals for Schizophrenia, Paranoid Type

- Develop the ability to understand, recognize, and cope with positive and negative symptoms of schizophrenia
- Develop self-regulation to positively manage positive symptoms
- Develop behavior patterns to control, decrease frequency, and positively manage negative symptoms
- Increase ability to achieve a functional level of independent living

SAMPLE TREATMENT PLANNER—SCHIZOPHRENIA, PARANOID TYPE

SHORT-TERM OBJECTIVES

PLAN OR INTERVENTION

TIME FRAME

Take medications responsibly as prescribed.

- Schedule an appointment with physician to rule out medical conditions.
- Schedule an appointment with psychiatrist/prescriber for medication management.
- Provide medication education regarding medication effectiveness and adverse effects, including information on dependence, questions to ask, self-empowerment and possible right to refuse, and increasing compliance strategy.
- Encourage client to report all medicinal treatments and medications, including any herbal preparations, to address potential interaction effects, contraindications, and synergistic effects.
- Assess for compliance, side effects, and contraindications of medications and notify as appropriate.

■ Intake

Reduce at-risk and harm factors.

- Conduct a mental status examination.
- Assess for suicidal ideation (with plan) and/or homicidal ideation, differentiating from morbid ideation.

■ Intake; complete within 3 days

SAMPLE TREATMENT PLANNER—SCHIZOPHRENIA, PARANOID TYPE (Continued)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Complete assessments of functioning (scales, GAF, GARF, SOFAS, etc.) to determine level of function.	<ul style="list-style-type: none"> ■ If presenting conditions meet classification for harm to self or others, arrange for hospitalization. ■ Assess for external factors contributing to and/or influencing an altered mental status (e.g., substance abuse). ■ Assess to see if positive and negative symptoms are impairing functioning. ■ Assess level of functioning to determine levels of support required. ■ Determine ability to engage in ADL and arrange for supportive services, if necessary. ■ Acquire written authorization from client to engage and acquire support from client's identified support system. 	<ul style="list-style-type: none"> ■ Assessment as needed ■ Intake
Identify onset, duration, and intensity of symptoms and factors related to presenting problem.	<ul style="list-style-type: none"> ■ Conduct a biopsychosocial assessment to address determinants of schizophrenia. ■ Encourage client, if applicable with authorized consenting family and/or support system, to identify and specify length of time symptomology has been present. ■ Encourage client, if applicable with authorized consenting family and/or support system, to identify severity of factors affected by present symptomology. ■ Assist client, if applicable with authorized consenting family and/or support system, to prioritize factors to be addressed in session. 	<ul style="list-style-type: none"> ■ Intake; complete within 3 days
Identify positive symptoms of schizophrenia.	<ul style="list-style-type: none"> ■ Provide education to client about positive symptoms of schizophrenia and their impact on cognitive processes. ■ Encourage client to identify and verbalize the types and frequency of positive symptoms. 	<ul style="list-style-type: none"> ■ Ongoing

(Continued)

SAMPLE TREATMENT PLANNER—SCHIZOPHRENIA, PARANOID TYPE (Continued)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Sustain client's positive self-image.	<ul style="list-style-type: none"> ■ Encourage client to verbalize the content of hallucinations experienced. ■ Encourage client to verbalize the content of delusions experienced (e.g., commanding type). ■ Encourage client to identify and verbalize emotions associated with hallucinations and delusions (e.g., paranoia). ■ Engage client to reality test the content of positive symptoms with positive and supportive reassurance. ■ Educate and encourage client to differentiate between his or her condition versus personal traits. ■ Encourage client to develop unconditional self-acceptance. ■ Encourage client to identify and verbalize a positive statement about him- or herself each session. 	
Identify negative symptoms of schizophrenia.	<ul style="list-style-type: none"> ■ Provide education to client regarding the negative symptoms of schizophrenia, subsequent bodily conditions, and associated behaviors (e.g., related to affective flattening, alogia, avolition, anhedonia). ■ Assist client to identify, connect, and adapt bodily responses to environmental indicators (e.g., self-regulate body temperature). ■ Teach, encourage, and reinforce client to make consistent eye contact during session. ■ Teach, encourage, and reinforce client to use speech patterns with a consistent rhythm, tone, and pitch. 	<ul style="list-style-type: none"> ■ Ongoing
Increase and maintain client's social support.	<ul style="list-style-type: none"> ■ Engage client's family and/or support system to attend counseling sessions to address all social and psychological impacts. 	<ul style="list-style-type: none"> ■ Determined in sessions

SAMPLE TREATMENT PLANNER—SCHIZOPHRENIA, PARANOID TYPE (Continued)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Increase client's ability to engage in independent living.	<ul style="list-style-type: none"> ■ Encourage client to identify one positive activity client can participate in with identified social support system once per week. ■ Encourage client to identify and engage in one positive volunteer activity, applicable to client's capacity level, per week. ■ Assist client to create, develop, and execute a plan of activities of daily living functions to complete weekly. ■ If medications are prescribed, assist client to identify and verbalize names of medications and their uses. ■ If medications are prescribed, assist client to memorize psychiatrist-recommended medications. ■ If medications are prescribed, assist client to self-sustain execution of psychiatrist-recommended medication management schedule per week. ■ Assist and encourage client to perform incrementally more self-sustained personal hygiene care per week. ■ Encourage client to perform incrementally self-sustained meal preparations per week. ■ Encourage client to perform incrementally household cleaning functions per week. 	<ul style="list-style-type: none"> ■ Determined in sessions

ATTENTION DEFICIT HYPERACTIVITY DISORDER INTERVENTION: SAMPLE TREATMENT PLANNER

Long-Term Goals for Attention Deficit Hyperactivity Disorder (ADHD)

- Develop the ability to understand, recognize, and cope with symptoms of ADHD
- Develop the ability to self-regulate to positively increase attention span
- Develop behavior patterns to control, decrease the frequency, and positively manage disruptive actions

SAMPLE TREATMENT PLANNER—ATTENTION DEFICIT HYPERACTIVITY DISORDER

SHORT-TERM OBJECTIVES

PLAN OR INTERVENTION

TIME FRAME

Take medications as prescribed.

- Schedule an appointment with medical physician to rule out medical conditions.
- Schedule an appointment with psychiatrist/prescriber for medication management.
- Provide medication education regarding medication effectiveness and adverse effects, including information on dependence, questions to ask, self-empowerment and possible right to refuse, and increasing compliance strategy.
- Encourage client to report all medicinal treatments and medications, including any herbal preparations, to address potential interaction effects, contraindications, and synergistic effects.
- Assess for compliance, side effects, and contraindications of medications and notify as appropriate.
- Work closely with parents, family, and others in support system in terms of compliance if client is a child.

■ Intake

SAMPLE TREATMENT PLANNER—ATTENTION DEFICIT HYPERACTIVITY DISORDER (*Continued*)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Reduce at-risk and harm factors.	<ul style="list-style-type: none"> ■ Conduct a mental status examination. ■ Assess for suicidal ideation (with plan) and/or homicidal ideation, differentiating from morbid ideation. ■ If presenting conditions meet classification for harm to self or others, arrange for hospitalization. ■ Assess for external factors contributing to and/or influencing an altered mental status (e.g., environmental stressors, substance abuse). ■ Assess for symptoms such as agitation, as it often occurs in children and adolescents who are depressed. 	<ul style="list-style-type: none"> ■ Intake; complete within 3 days ■ Assessment as needed
Complete assessments of functioning (scales, GAF, GARF, SOFAS, etc.) to determine level of function.	<ul style="list-style-type: none"> ■ Assess level of functioning to determine levels of support required. ■ Determine ability to engage in ADL and arrange for supportive services, if necessary. ■ Acquire written authorization from client to engage and acquire support from client's identified support system. 	<ul style="list-style-type: none"> ■ Intake
Identify onset, duration, and intensity of symptoms and factors related to presenting problem.	<ul style="list-style-type: none"> ■ Conduct a biopsychosocial assessment to address determinants of ADHD. ■ Encourage client, with authorized consenting family and/or support system, to identify and specify length of time symptomology has been present. ■ Encourage client, with authorized consenting family and/or support system, to identify, specify, and/or rule out developmental factors in relation to symptomology. ■ Encourage client, with authorized consenting family and/or support system, to identify, specify, and/or rule out any environmental stressors contributing to and/or causing symptomology. ■ Assist client, with authorized consenting family and/or support system, to prioritize factors and stressors to be addressed in session. 	<ul style="list-style-type: none"> ■ Intake; complete within 3 days

(Continued)

SAMPLE TREATMENT PLANNER—ATTENTION DEFICIT HYPERACTIVITY DISORDER (*Continued*)

SHORT-TERM OBJECTIVES

PLAN OR INTERVENTION

TIME FRAME

Monitor dietary regimen and activity.

- Provide education to client and client's authorized consenting family and support system regarding eating habits, types of foods, and their role in ADHD.
- Schedule an appointment with a certified dietician to address dietary concerns and condition.
- Encourage client and client's authorized consenting family and support system to diminish sugar and caffeine intake in response to condition and treatment.
- Assist client to engage in an age-appropriate physical exercise activity of choice, minimum once per week or more, to increase and sustain focus and self-regulation.

Identify developmentally inappropriate behaviors.

- Provide age-appropriate education regarding ADHD, including but not limited to psychological and physical symptoms.
- Assist client, with authorized consenting family and/or support system, to identify behaviors client engages in that are disruptive.
- Assist client to develop awareness, with authorized consenting family and/or support system, of identifying how these disruptive behaviors negatively affect client's emotional and social surroundings secondary to symptoms.

Implement a behavioral chart.

- Provide education regarding behavioral charts, their applications and mechanisms, and utilization to problem area.
- Assist client, with authorized consenting family and/or support system, to develop a contingent behavioral chart of target behaviors client will modify.
- Encourage client, with authorized consenting family and/or support system, to develop rewards and consequences in response to target behaviors.

SAMPLE TREATMENT PLANNER—ATTENTION DEFICIT HYPERACTIVITY DISORDER *(Continued)*

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
<p>Coordinate at-home treatment with client's educational setting.</p>	<ul style="list-style-type: none"> ■ Coordinate meeting between classroom personnel and client's authorized consenting family/support system to address education and implementation of treatment. ■ Provide education to educational and classroom personnel on childhood ADHD, including but not limited to psychological and physical symptoms. ■ Encourage classroom personnel to identify client's behaviors that are disruptive or not age and/or developmentally appropriate to address in conjunction to treatment. 	
<p>Implement a behavioral chart.</p>	<ul style="list-style-type: none"> ■ Provide education regarding behavioral charts, their applications and mechanisms, and utilization to problem area. ■ Assist classroom personnel, client, and authorized consenting family and/or support system to develop concurrent target behaviors to be modified utilizing the behavioral chart. ■ Encourage classroom personnel, client, and authorized family and/or support system to develop rewards and consequences in response to target behaviors and in conjunction with at-home treatment. ■ Address seating arrangements with client, classroom personnel, and authorized consenting family and/or support system as a component of behavioral changes to increase and sustain attention span. ■ Engage classroom personnel, client, and authorized consenting family and/or support system to meet monthly or as needed to address concerns and/or progress. 	

(Continued)

SAMPLE TREATMENT PLANNER—ATTENTION DEFICIT HYPERACTIVITY DISORDER (*Continued*)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Develop healthy communication between client and support system.	<ul style="list-style-type: none"> ■ Provide safe environment for client and client's authorized consenting family and/or support system to express associated difficulties and stressors. ■ Encourage healthy and conducive communication between client and all parties involved. ■ Provide education to client and authorized consenting family and/or support system regarding healthy and effective communication and communication patterns. 	
Identify developmentally appropriate peer relations.	<ul style="list-style-type: none"> ■ Provide age-appropriate education to client regarding positive peer associations that encourage client's emotional, scholastic, and behavioral well-being. ■ Encourage client to identify negative consequences associated with peer relations in response to client's condition (e.g., bullying, substance use/abuse). ■ Assist client to develop creative problem-solving techniques to address negative peer relations and their effect. ■ Engage client in role-playing exercises that facilitate problem-solving and communication in negative peer situations. ■ Assist client to develop creative and positive extracurricular activities to encourage positive individual and group participation and peer affiliation. 	
Sustain client's positive self-image.	<ul style="list-style-type: none"> ■ Educate and encourage client to differentiate between his or her condition versus personal traits. ■ Encourage client to develop unconditional self-acceptance. ■ Encourage client to identify and verbalize a positive statement about him- or herself each session. ■ Encourage client to identify and verbalize one personal achievement each session. 	

DEMENTIA SOCIAL WORK INTERVENTION: SAMPLE TREATMENT PLANNER

Long-Term Goals for Dementia

- Develop the ability to understand, recognize, and cope with symptoms of dementia
- Develop the ability to self-regulate depressive moods
- Increase ability to sustain a functional level of independent living

SAMPLE TREATMENT PLANNER—DEMENTIA

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Take medications responsibly as prescribed.	<ul style="list-style-type: none"> ■ Schedule an appointment with physician to rule out medical conditions. ■ Schedule an appointment with psychiatrist/prescriber for medication management. ■ Provide medication education regarding medication effectiveness and adverse effects, including information on dependence, questions to ask, self-empowerment and possible right to refuse, and increasing compliance strategy. ■ Encourage client to report all medicinal treatments and medications, including any herbal preparations, to address potential interaction effects, contraindications, and synergistic effects. ■ Assess for compliance, side effects, and contraindications of medications and notify as appropriate. ■ Get permission from client to involve family if client is having cognitive dysfunction that can affect judgments. 	■ Intake
Reduce at-risk and harm factors.	<ul style="list-style-type: none"> ■ Conduct a mental status examination. 	■ Intake

(Continued)

SAMPLE TREATMENT PLANNER—DEMENTIA (Continued)**SHORT-TERM OBJECTIVES****PLAN OR INTERVENTION****TIME FRAME**

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
	<ul style="list-style-type: none"> ■ Assess for suicidal ideation (with plan) and/or homicidal ideation, differentiating from morbid ideation. ■ If presenting conditions meet classification for harm to self or others, arrange for hospitalization. ■ Assess for external factors contributing to and/or influencing an altered mental status (e.g., substance abuse). ■ Assess support system to ensure client is supported especially when cognitive difficulties can impair functioning. 	<ul style="list-style-type: none"> ■ Assessment as needed
Complete assessments of functioning (scales, GAF, GARF, SOFAS, etc.) to determine level of function.	<ul style="list-style-type: none"> ■ Assess level of functioning to determine levels of support required. ■ Determine ability to engage in ADL and arrange for supportive services, if necessary. ■ Acquire written authorization from client to engage and acquire support from client's identified support system. 	<ul style="list-style-type: none"> ■ Intake
Identify onset, duration, and intensity of symptoms and factors related to presenting problem.	<ul style="list-style-type: none"> ■ Conduct a biopsychosocial assessment to address determinants of dementia. ■ Encourage client, if applicable with authorized consenting family and/or support system, to identify and specify length of time symptomology has been present. ■ Encourage client, if applicable with authorized consenting family and/or support system, to identify severity of factors affected by present symptomology. ■ Assist client, if applicable with authorized consenting family and/or support system, to prioritize factors to be addressed in session. 	<ul style="list-style-type: none"> ■ Intake

SAMPLE TREATMENT PLANNER—DEMENTIA (Continued)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Identify changes in cognitive mechanisms contributing to changes in mood.	<ul style="list-style-type: none"> ■ Provide education to client regarding dementia, including but not limited to psychological and physical symptoms ■ Encourage client to identify and verbalize thoughts in response to self-changes contributing to mood change. ■ Encourage client to differentiate the impact of thoughts in response to self-changes. ■ Encourage client to differentiate between thoughts focused on client's limitations rather than strengths (e.g., physical limitations, time limitations). ■ Assist client to identify the functional and nonfunctional aspects of deficit-focused thinking with respect to self-awareness. ■ Assist client to recognize how thoughts affect mood and physical well-being. ■ Encourage client to identify a positive strength-focused thought to share in each session. 	
Sustain client's positive self-image.	<ul style="list-style-type: none"> ■ Educate and encourage client to differentiate between his or her condition versus personal traits, extrinsic factors, and/or spiritual concerns. ■ Encourage client to develop unconditional self-acceptance. ■ Encourage client to identify and verbalize a positive statement about him- or herself each session. 	

(Continued)

SAMPLE TREATMENT PLANNER—DEMENTIA (Continued)

SHORT-TERM OBJECTIVES	PLAN OR INTERVENTION	TIME FRAME
Increase and maintain client's social support.	<ul style="list-style-type: none"> ■ Engage client's family and/or support system to attend counseling sessions to address all social, financial, and psychological impacts. ■ Encourage client to identify one positive activity client can participate in with identified social support system once per week. ■ Encourage client to identify and engage in one positive volunteer activity, applicable to client's capacity level, per week. ■ Encourage client to participate in a physical activity, of capability and choice, that promotes well-being and social interaction. 	<ul style="list-style-type: none"> ■ Determined in sessions
Increase ability to engage in independent living.	<ul style="list-style-type: none"> ■ Assist client to create, develop, and execute a plan of ADL functions to complete weekly. ■ Assist and encourage client to perform self-sustained personal hygiene care per week. ■ Encourage client to perform self-sustained meal preparations per week. ■ Encourage client to perform household cleaning functions per week. ■ Assist client to identify, verbalize, and memorize names of psychiatric medications and their uses. ■ Encourage client to self-sustain execution of psychiatrist-recommended medication management schedule per week ■ Encourage client to attend and follow up on all medical appointments. ■ Coordinate supportive services as needed 	<ul style="list-style-type: none"> ■ Determined in sessions

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