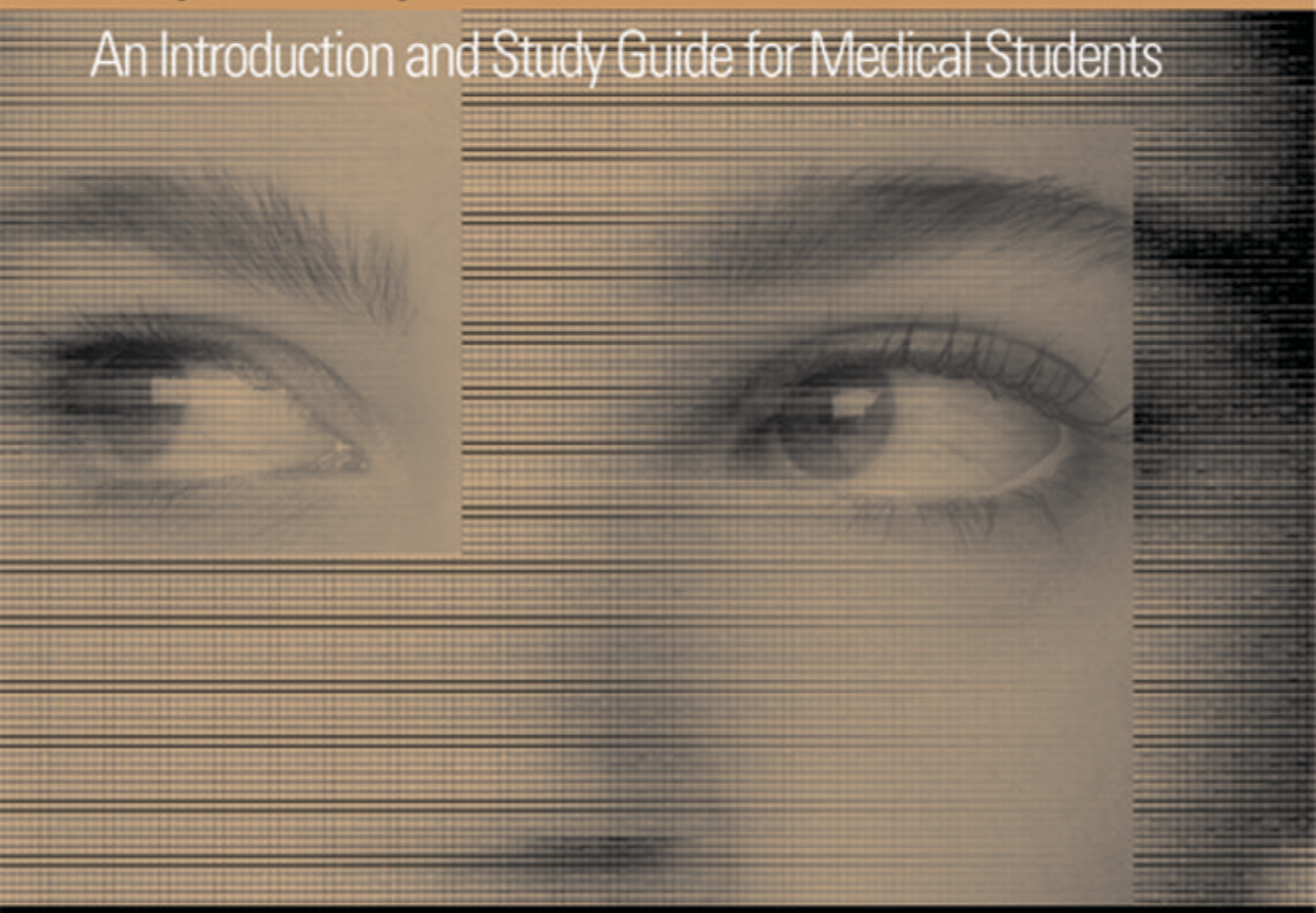
Psychiatry and Behavioral Science

An Introduction and Study Guide for Medical Students



David Baron, MSEd, DO, and Ellen Sholevar, MD

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An Introduction and Study Guide for Medical Students

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To Ned, Abe, Lou, Ada, Andy, Shawn, and especially Patti.
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—DB

To Pirooz, Dari, Priya, Avi, and Meera, Catherine, and Kathy
for their unconditional support and love.
—EHS

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PREFACE

We know that the path to becoming a physician is long and rigorous. It is easy to become discouraged or overwhelmed in your training years. However, the skills you will acquire through the years of dedication and hard work are invaluable.

The particular challenge in the first two years of medical education is the sheer volume of material to be absorbed. You have a heavy load of daily lectures and labs, and even more time is required for nightly studying. Being acutely aware of the time stress this creates, we have attempted to write a user-friendly, goal-directed book using an innovative format intended to engage you. We want you to succeed, and we have created this book with that goal in mind. The structure of each chapter is as follows:

The **Menu** is a list of the goals and objectives of each chapter.

Pre–Step Prep and **Step Prep** are board preparation questions that appear at the beginning and end, respectively, of each chapter. The medical student reader is advised to review the Pre–Step Prep prior to reading each chapter and then review the Step Prep at the end of the chapter. The questions in Pre-Step Prep and the answers in Step Prep prepare the reader for the U.S. Medical Licensing Examination (USMLE) Step 1 and COMLEX Part 1 questions, as this book functions as a basic text and board review primer.

Suggested Readings and Web Sites for the Highly Motivated at the end of each chapter refer the reader to basic sources that will amplify the information given within the chapter.

Consistent with the format of the boards, case vignettes are used extensively for the board-review questions. Information is often presented in brief bulleted lists to allow quick scanning.

This book is intended to present information to and guide the behavior of student physicians in their patient care and in their own developing professional identity. It will help year-one and year-two

medical students prepare for the USMLE Step 1 and the COMLEX Part 1. We are concerned not just with your responsibilities to your patients, but also with your responsibilities to your colleagues and, most important, to yourself.

We hope this book will help you appreciate the important role psychiatry and the behavioral sciences play in the practice of medicine. We wish you the best of luck in your career.

SECTION

I

THE JOURNEY OF LIFE

1 THE EARLY YEARS OF CHILDHOOD

Ellen H. Sholevar, MD

"Children are the anchors that hold a mother to life."

—SOPHOCLES

(And what about the dads?)

While autonomous in their play, children show their emotional connection to mother with a smile.

MENU

- Describe the main theoretical concepts used in understanding early childhood development.
- List dimensions of temperament.
- Discuss factors that influence development.
- Summarize normal motor, emotional, cognitive, and interpersonal development.
- Describe the genetic, cultural, and family influences on growth and development.
- Assess the ideas of the leading developmental theorists.

Introduction

Why should the medical student study growth and development? There are 69.9 million people under the age of eighteen in the United States at present, and the U.S. government estimates that there will be 77.6 million by the year 2020. Health care for the majority of these youth is provided by primary care physicians who will need to understand the concepts of growth and development. Additionally, USMLE and COMLEX consistently include questions on normal growth and development. This reflects the national consensus that all physicians should be aware of these issues. Finally, human growth and development has have a profound impact on disease and illness. Medical students and physicians need to understand this complex interplay.

Pre–Step Prep

1. You are consulted by worried parents who report that their child is showing the following behaviors: increased masturbation, concern about bodily injury and excessive anxiety about insignificant scratches and bumps, increased interest in his infant sister's genital area and his parents' bodies, fears of monsters at night, and an expressed desire to marry his mother when he grows up. This child is most likely showing behaviors typical of which of the following stages of Sigmund Freud:

a. Genital

b. Oral

c. Latency

d. Anal

e. Phallic/oedipal

2. Following the birth of a baby sister, five-year-old Sally, previously developing normally, invented an "imaginary friend" that she named "CooCoo." She spoke to this friend and demanded a chair for her at the dinner table. You are consulted by worried parents. Choose the one best response.

a. This is an example of "sibling rivalry."

b. Referral to a child/adolescent psychiatrist or other mental health professional is indicated.

c. This is a sign of regression.

d. This may be a sign that Sally has been sexually abused.

e. Reassure the parents that the "imaginary friend" will disappear by age 10.

3. Lee, the nine-month-old baby of Mary, a second-year medical student, was formerly sociable and smiled at everyone. He was large for his age, a healthy child of whom Mary was very proud. She took him to a gathering of her peers and when a friend approached to speak to Mary, Lee seemed fearful and cried. This behavior is an example of:

a. Early autism

b. Early manifestation of developmental disorder

c. Stranger anxiety

d. The child's Apgar at birth was likely 3

e. Normal symbiotic phase

4. The normal three-year-olds in a preschool setting are working together on an activity. At snack time, one of the children accidentally tips over their juice container, which spills onto the drawing of a peer. The other children become very angry with the child who spilled the juice. This is an example of:

a. Preconventional morality

b. Primary tertiary reactions

c. The latency stage

d. Attachment disorder

e. Regression

5. Chess and Thomas studied temperament in infants in the United States. They found the following:

a. Forty percent of infants experience attachment problems.

b. Forty percent of infants are "easy."

c. When the mother is employed full time, the child's temperament is more likely to be difficult.

d. When the child has an older sibling, temperament problems are minimal.

e. Authoritative parents are more likely to have "easy" temperament infants.

6. Lauren, age four, tells her parents that she has three friends: Mustard, KooKoo, and Maureen. Lauren says these friends live in the attic and come down to play with her. She insists on having cookies put out for their snack at bedtime and is seen talking to them. Nobody else can see these friends. Her parents consult you and wonder if psychological testing or consultation with a child/adolescent psychiatrist is indicated. You take a careful history and find out that Lauren is somewhat shy but is doing well in all areas of her growth and development. Choose the most appropriate response on the part of the physician:

a. Order a pediatric neurological workup with EEG.

b. Refer Lauren to a child/adolescent psychiatrist.

c. Get a serum lead level.

d. Suggest that the parents tell Lauren not to speak about her friends and use a time-out technique as punishment if she does.

e. Explain to the parents that the behavior is normal for a child of this age.

Prenatal and Perinatal Development

Prior to the birth of a child, the mother, father, and extended families on both sides begin to prepare psychologically to endow the child with desired attributes and characteristics. **During the nine months of pregnancy,** the mother's attention turns inward to the child she is carrying. She dreams of what it will be like to be a mother and what the growth and development of this child will be like. She may worry about the pain of childbirth and how she will manage. The **father may also participate** in this planning and anticipation process. He thinks of what it will be like to be a father and what he will do with a new son or daughter. **Both anticipate** the shift from a dyadic to a triadic relationship and realignment with the families of origin.

Some Not-So-Good News

- The C-section rate has risen 46% since 1996.
- The preterm birth rate has increased 20% since 1990.
- The percentage of low-birth-weight babies has increased more than 20% since the mid-1980s.

Source: Centers for Disease Control.

Differing Experiences, Differing Expectations

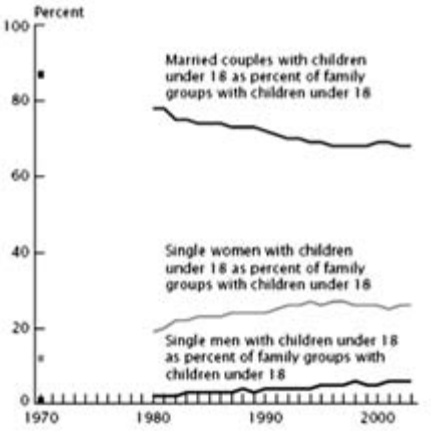

Figure 1.1 Family Groups with Children by Type of Family Groups: 1970–2003

Source: U.S. Census Bureau.

Perhaps the infant will be born to a stable, **married couple** who love one another and are eagerly awaiting the birth of their first child, but in 2006 married-couple families constituted only 50 percent of U.S. households.

Medical students face special challenges as expectant parents. How will they find time to prepare for the birth while preparing for Step 1 USMLE or COMLEX or working long hours including evenings and weekends on clinical rotations?

Maybe the child will be born to an **unwed teen** who scarcely understands what is happening and doesn't have the support and backing of her family or a partner. Teen mothers have additional risks: As a group they have more medical complications and higher rates of labor and delivery complications; their infants are more likely to be premature, to have neurological difficulties, and to die before age one.

- The teen birth rate was down to the lowest level ever in 2005, 40.4 live births per 1,000, which was 35 percent less than the rate in 1991.
- The greatest decline was in non-Hispanic black teens.

Perhaps the child will be born to a **career woman** who has finally decided that she would like to become a mother before it is too late. Women older than thirty-five or forty have their own risks: increased chance of infertility, more complications during labor and delivery, and increased probability of having an infant with Down syndrome.

A **lesbian or gay couple** may be giving birth via artificial insemination or adopting a child.

There are a myriad of situations in which a birth can occur. These are just a few examples. In each case, the child comes into her parents' lives invested with a set of assumptions that will influence her own growth and development. At the same time, her unique endowment and developmental pattern will influence and change her nuclear family.

Birth Basics

- Regular prenatal care and good nutrition are essential during pregnancy.

Mental Retardation

- Common Genetic Causes:
  - Down Syndrome
  - Fragile X
  - Phenylketonuria (PKU)
- Problems During Pregnancy:
  - Exposure to alcohol
  - Rubella
- Problems at Birth:
  - Anoxia

- Pregnant women who suffer from, or develop, major depression should be treated and closely monitored. In cases where the mother is highly ambivalent about the birth of the child or doesn't have a support system, the physician will need to be prepared to give additional care and support. More pain medication may be needed during labor in such cases.
- As the parents and extended families wait for the birth with anticipation, the genetic code of the fetus provides the blueprint for growt-hand development. The chromosomes in the cell nu-cleus contain the **DNA** or genetic material of the developing organism.
- The most common identifiable retardation syndromes are Down syndrome and fragile X syndrome. Single gene defects may lead to diseases such as **phenylketonuria (PKU), sickle-cell anemia,** and **Huntington's disease**. Genetic counseling for the parents is indicated.
- There are more male conceptions than female (160:100), but for reasons that are not clear, there is only a small excess of male births.
- During prenatal development, the brain is "feminine" unless "masculinized" by an influx of testosterone, typically after eight weeks' gestation.
- There is an increase in brain weight and cerebral cortical thickness from infancy through adulthood.
- The **first trimester of development is crucial** to the developing fetus. During weeks two through eight, many structures and organs are developing. Weeks three through sixteen are particularly important **for brain development**.
- The placenta may transmit harmful substances to the fetus. The mother's health is essential for the healthy development of the developing child.

Figure 1.2 Fecal Alcohol Syndrome
Source: Centers for Disease Control.

Hazards for Fetus and Mother

Exposure to alcohol and illicit drugs in utero is a major public health problem in the United States; it is associated with poverty and parental psychopathology, although it can occur in any socioeconomic group. Fetal alcohol syndrome and

mental retardation may result from prenatal exposure to alcohol.

Medical students and physicians need to be aware of their own attitudes and responses to all substance-abusing patients. Unprofessional attitudes and behaviors betray biases and negative feelings on the part of health care providers. Substance-abusing mothers and their infants are at high risk and need the highest level of professional medical care.

Tobacco use is associated with low birth weights. Low birth weight is defined as less than 5 pounds, 8 ounces; in 2004, 8.1 percent of infants had low birth weights. Very low birth weight is defined as less than 3 pounds, 4 ounces; in 2004, 1.4 percent of infants had very low birth weights. Two reasons are the increase in the use of fertility drugs and the increase in women giving birth at an older age. Low birth weights are also on the rise in singleton deliveries.

Exposing Children to Secondhand Smoke

Cotinine is a breakdown product of nicotine and a marker for recent exposure to secondhand smoke. The most recent government survey data show elevated cotinine levels in:

- 61% of white, non-Hispanic children
- 81% of black, non-Hispanic children
- 41% of Mexican American children

Environmental tobacco smoke increases the probability of adverse health effects on children.

Source: Centers for Disease Control, Child Stats.

Maternal illnesses such as syphilis, rubella, HIV, and herpes simplex can lead to problems with the fetus. Maternal use of medical drugs such as thalidomide, DES, and tetracycline also present risks. Other hazards to the developing child include exposure to mercury, lead, PCBs, or radiation.

Caesarean section is more expensive and risky for the mother than vaginal delivery. It is often performed when the mother is HIV positive, because it may reduce the chance of transmission of HIV to the newborn child.

Pregnant women have a lower incidence of major hospitalizable mental illness than women who are not pregnant or are postpartum.

If there is **spousal abuse** by a male partner in the relationship, the abuse typically increases during the woman's pregnancy. Extramarital affairs by the male partner occur most commonly in the last trimester of pregnancy.

The Birth

The actual event of birth is usually filled with high emotion. Ideally, the mother is alert, knows what to expect, and is supported emotionally during the process by a partner, family member, or close friend. She will give birth in a comfortable, homelike room and has a trusting and

warm relationship with the health care professionals in attendance, so that she or she and her partner can participate fully in this unique experience. Many couples find this to be a very moving and joyous experience that brings them closer together.

Immediately after the birth, the child needs to be in close proximity to the parents so the attachment and bonding processes can begin. Most mothers wish to touch the neonate and make sure there are no abnormalities. The mother may be put off by the initial infant appearance: little subcutaneous fat, covered with cheesy vernix caseosa, enlarged genitals, and possibly profuse hair growing low on the forehead. The head may have an abnormal shape due to molding during birth.

Careful monitoring of the neonate is essential during the birth process, as oxygen deprivation leads to fetal distress.

In rare cases, the mother or newborn may die at or shortly after the time of birth. Breaking such terrible news to the parents or spouse can be very difficult for the physician. It is essential that the attending physician select a private setting, ask what the parents know or may suspect about their newborn's condition, and then let them ask questions to find out what they wish to know. (This is not a job for a medical student.) Let the parents respond and express emotion. Be empathetic! Conclude the conversation with a plan for next steps and indicate your willingness to be available for further discussion. The parents may hear little of what you say other than that something has gone wrong. Grief for the future and child they had anticipated is a normal part of the process. Later, there may be more questions or requests for clarification of the issues and plans.

Postpartum Depression and Psychosis

"Maternity blues" occur in about half of postpartum women but are not considered a psychiatric disorder because of the mild and self-limiting course.

The risk of major depression for women in the postpartum period is 10–15 percent. Women with a previous history of depressive disorder are at increased risk. Postpartum depression is a serious condition and must be treated. If the mother is suicidal, she may plan to kill her child prior to killing herself. Mothers may reason that there is no adult who will care for the child as well as a mother, so it is best to end the life of the child. This may also be a factor for women with young children. It is essential for the physician to ask about thoughts of injury or death for the children when evaluating the suicidal or psychotic mother.

Andrea Yates was convicted of drowning all of her five children in a bathtub on June 20, 2001. She stated that Satan told her to kill her

children. Psychiatric testimony indicated that she was psychotic at the time of the murders. She was sentenced to prison for life in Texas. Infanticide may be poorly reported and more frequent than statistics reveal.

Medical students and physicians must always be alert to the possibility that mentally ill—depressed or psychotic—mothers of young children may present a danger to their children. Careful assessment and treatment on the part of medical students and physicians may save lives and prevent such tragedies.

In a small percentage of new mothers, autoimmune throiditis may occur and mimic the mood symptoms of major depression. This disorder is easy to diagnose, and hormone replacement therapy is readily available and highly effective. *Thyroid function should always be checked* in the case of postpartum mood symptoms.

Postpartum psychosis is less frequent than postpartum depression, affecting about one in one thousand women, typically those with a family history of schizoaffective or bipolar disorder. It is imperative to treat this disorder promptly.

Negotiation must take place within the marriage as the tasks implicit in child rearing, such as financial planning and household tasks, change. Furthermore, there is a realignment of the relationships with the extended family to include parenting and grandparenting roles. During this first year the parents will learn to respond most effectively to their particular infant for social interactions, hunger or sleep and both parents and infant will get to know one another.

The Newborn

At birth infants can orient to sounds, see, and have visual preferences. Their sleep cycles are 3.5 to 4 hours long, and they are in a quiet, alert state about 10 percent of the awake time.

Gestational age and weight at birth are directly related to positive outcome. Prematurity and low birth weight can compromise biologic endowment.

There will be a marked increase in the size and number of cerebral neurons during the first fifteen months of postnatal life. The axons and dendrites of neurons grow to form synapses with one another. This process will continue until about age eleven, when there is maximum synaptic density and the pruning of synapses will begin.

The cortex has an inside-out pattern, with the earliest born neurons in deepest cortical layers. Newer neurons migrate from the ventricles up the glial cell body to the superficial cortical layers.

Infants can consistently distinguish their mother's voice from that of another female at birth but can't distinguish faces clearly until two months of age. A number of primitive reflexes are present at birth. Cognitive development is limited to those reflexes and uncoordinated actions. Grasping and sucking schemas are adapted through assimilation by repetition as the child becomes more adept at those actions. When a breast-fed infant is switched to a bottle, the baby must accommodate his sucking schema to the new situation.

The newborn is not a tabula rasa (blank tablet), as previously believed, but is an active being that acts upon and is acted upon by his environment in reciprocal feedback loops.

As a way of evaluating the newborn infant's need for increased levels of observation, Virginia Apgar developed a rating system, which is currently in wide use. A score of 10 indicates an infant in the best possible condition. For infants with dark skin pigmentation, the clinician uses nail beds and other areas to determine oxygenation. The Dubowitz neurological exam and the Brazelton Neonatal Behavioral Assessment Scale are also widely used.

Selected Theories of Development

Social Learning Theories

Learning theorists use concepts of **positive and negative reinforcement** to describe influences on child behavior. They do not focus on the child's genetic endowment, temperament, cultural forces, or interactions with the parent. They postulate that child behaviors that are positively reinforced or rewarded—by the parent, family, or social group—tend to occur more frequently. On the other hand, behaviors that are negatively reinforced or punished occur less frequently.

Albert Bandura, a learning theorist, refined previous learning theories by adding the concept of **observational learning**. Children learn not only by positive or negative reinforcement but also by watching their parents model behavior. This theory is known as **social learning theory**. Gerald Patterson and others have used social learning theory to understand how problems in parenting may lead to disruptive behavior disorders in youth.

Theories of Psychosexual Development

The psychoanalytic theorists based their theories on the work of **Sigmund Freud,** a Viennese neurologist who lived from 1856 to 1939. Freud described a type of sexual energy called **libido,** which was pres-

ent during the entire life cycle. During childhood, the focus moved successively from the child's mouth, to the anus, then to the genitals. The first, **oral stage;** the second, **anal stage;** and the third, **phallic stage** all preceded the latency stage, during which sexual energy was diminished. During the final, **genital stage,** of adolescence, libido was again of prime importance. According to this theory, each stage must be successfully negotiated for the child to move on to the next stage.

Discontinuous Development

Does the worst reader in first grade always lead the rear? Child development is sometimes discontinuous. The child who is last in the class in first grade may be first in the class by fourth grade. The child who is shy and retiring early on may later become a gregarious and popular leader.

In addition, Freud described three important components of the personality. The **id** was present at birth and represented the wish for immediate gratification of instinctual drives. Later, the **ego** developed to mediate between the demands of the id and the limitations and needs of the external world. The third agency, the superego, or conscience, developed still later as the child internalized the values of the family and culture.

A follower of Freud, **Margaret Mahler,** elaborated on the stages of the **psychological birth** of the young child in his development of a separate sense of self from the caretaker.

Attachment Theory

The nature and genesis of the unique emotional bonds between children and their primary caretakers have been a focus of interest and concern for many investigators. Attachment is the term used to signify the child's relationship to the parent, while the term bonding refers to the parent's relationship to the child. Attachment is the emotional tie between the primary caretaking adult and the child. It is manifested by the child's seeking physical and emotional closeness with the beloved caretaker. It is clear that normal attachment is essential for healthy development. Studies of orphanages in the United States in the first half of the century documented that when a parent is unavailable, even when children are given adequate food and their physical needs are cared for, development is abnormal and resistance to disease is lowered. Infant mortality rates were sometimes over 50 percent in such settings. Children reared without the normal attachment to a caring adult showed lowered intelligence and psychiatric problems including delinquency and developmental deviations.

The Bucharest Early Intervention Project studied children aged twelve to thirty-one months in orphanages in Romania and found serious disturbances of attachment. The children showed two main types of attachment disorders: They were either inhibited and socially

withdrawn or indiscriminately social and disinhibited. These disorders are much more common in orphanage children than in children living with their parents.

John Bowlby described stages of attachment from birth to thirty-six months. Many variables—such as the quality of attachment prior to separation, the age of the child at the time of separation, the quality and availability of substitute caretakers, and the length of the separation—affect the child's behavior. He described the behavior seen when a child is separated from the mother or primary caretaker for more than three months:

- Protest—Child cries out for lost person, searches, actively tries to reunite.
- Despair—When the child is not successful in finding the caretaker, she ceases active efforts and appears to give up.
- Detachment—The child emotionally separates herself from the mother, and ongoing development is impaired.

Cognitive Development

The theories of **Jean Piaget** have had exceptional influence on the understanding of child development. Most of his observations were made on his own three children. He described a sequence of four stages in the development of thinking and described tasks central to each of those stages. He believed that each stage was built on the successful mastery of the previous stage. In addition, he described several terms that were central to the understanding of all of his stages.

Piaget's theories are complex and were changed during his career. Current researchers continue to accept Piaget's work as valuable, but several aspects of his theory have been criticized. Some theorists reject the ideas of Piaget and focus on information-processing approaches. Information-processing theorists reject the idea of stages and have multiple ways of conceptualizing the development of thinking.

Theories of Psychosocial Development

Erik Erikson was also an apprentice of Sigmund Freud. He emphasized libido less, consid-

Head Start is a federally funded program that provides educational, health, nutritional, social, and other services to disadvantaged children and their families with a goal of promoting school readiness. In 2004–2005, 12.5% of Head Start enrollment consisted of children with disabilities.

Research on the effectiveness of this program has been limited, but data suggest that Head Start children display improved cognitive abilities. They also have improved access to health services. Gains in language and social-emotional skills and improvements in parenting have been documented. However, the U.S. General Accounting Office Study 1997 showed a lack of evidence of long-term Head Start effects; the program is dependent on federal funding.

Piaget's Four Stages of Cognitive Development

Sensimotor period	Birth to two years
Preoperational period	Two to seven years
Concrete operational period	Seven to eleven years
Formal operational period	Twelve years to adulthood

ered culture and society more important determinants of development, and described stages of the entire life cycle in **psychosocial** not **psychosexual** terms. For each stage, he described the outcome of the successful negotiation of the period and contrasted that with the consequences of an inability to complete the task. Like Freud, Erikson emphasized the importance of early life in development and believed the successful negotiation of each stage was essential to subsequent stages, but he emphasized that change could take place throughout the life cycle.

The First Year

Months Two to Six

By six to eight weeks the **social smile** has developed and signals recognition of the human face gestalt. It is thought that this response signals the first consistent recognition by the infant of a "not me." In 1965, **René Spitz** developed his **genetic field theory,** which drew heavily on an embryological model and postulated three organizers of the differentiation process in humans. He termed the social smile the first organizer, to be followed at seven months by the second organizer, stranger anxiety, and at two years by the third, the "no."

Margaret Mahler called this period the **normal symbiotic phase,** during which the child does not realize that she is a separate being from the primary caretaker. More recent research confirms that significant changes occur across different domains at two to three months after birth. These new developments alter both the infant's behavior and that of the primary caretakers.

At about this time, over half of infants have "settled" into becoming night sleepers. The EEG now goes from Stage 1 quiet sleep to Stage 2 REM sleep. Prior to this, the baby went from the

Maturation = biologically based, phylogenetically determined, sequential unfolding of forms and functions (cognition, language, motor and sensory functions)
Growth = increase in physical size
Development = getting functions and capacities that evolve through experiences in one's environment as these experiences influence elements provided by maturation

awake, alert state directly to REM sleep. (In adults with narcolepsy, there is a similar direct progression from awake to REM sleep.)

By sixteen weeks, there are more dramatic changes. The infant now likes to be held, and she smiles, coos, and laughs out loud. The baby becomes a responsive member of the family group. Her eyes can follow an object through an arc of 180 degrees, and she can reach out for a desired object with her hands. Put on the floor, she is able to maintain a poised position. She loses interest in an object that disappears, as she does not know that an object that disappears still exists. There is a beginning sense of body image and boundaries.

Months Six to Twelve

The age of seven to eight months marks the beginning of **stranger anxiety,** during which the child cries or withdraws at the appearance of strangers. This signals an attachment to another human being and the awareness that that person fulfills the satisfaction of one's needs. The baby can sit upright without support, can wave bye-bye, and can enjoy social games such as patty-cake. She may be able to creep.

Margaret Mahler called this second half of the first year "hatching" or subphase 1 of separation-individuation. The child becomes more alert and explores the external world. The child may also protest when the caretaker moves out of her visual field. This **separation anxiety** indicates that the child is beginning to understand that she is dependent on a separate human being to meet her needs.

Most recent research confirms the major changes that occur at seven to nine months. Robert Emde calls this the onset of "focused attachment," when the infant develops a strong preference for turning to just a few adults for comfort. Daniel Stern refers to the development of "intersubjectivity," which is when infants act as if they understand that their thoughts, feelings, and actions can be understood by another person.

Twelve Months

By twelve months of age, the infant can stand upright and walk. She sees the world from a different vantage point and can move toward and away from her caretaker. She now has an adult pattern of sleep, with only 20 percent REM sleep on EEG. She is beginning to speak a few words. She can distinguish phonetic contrasts in a highly refined way. She is beginning to understand that effects have causes other than herself. She has a preferred group of one to three adults.

Erik Erikson followed the model of Sigmund Freud, terming the first year of life an **oral sensory period** and indicating that successful

completion of the tasks of this period lead to a sense of basic trust: The world is a good place, where one's needs will be reasonably met. Lack of success in this year leads to mistrust: The world is unpredictable, and one may be subjected to overwhelming stimuli from hunger, cold, and emotional deprivation.

The child often has a **transitional object** at this age. This is may be a blanket or stuffed animal that the child prefers to have most of the time but particularly when going to sleep or to the hospital. This object is an important marker between attachment to a primary object and the ability to move away successfully. The rate of development has now slowed; landmarks in the future will come more slowly.

Cognitive development progresses from a **primary circular reaction** to secondary and tertiary circular reactions. During months four to nine, the child likes to repeat novel experiences but has relatively little interest in the outside world, and those experiences are all focused on his own body; they are termed **secondary circular reactions**. Activities of this stage include sucking, grasping, looking, and listening.

Piaget stated that by nine months the child has achieved **object constancy**. The child will actively search for a red ball hidden under the blanket, which implies that she sees the object as an entity in its own

Leading Cause of Death Ages 0–1 Year in the U.S.

The leading causes of death in children before the age of one in the U.S. are (1) developmental and genetic conditions present at birth, (2) sudden infant death syndrome (SIDS), and (3) all conditions associated with prematurity and low birth weight. There are almost twice as many deaths in the first year of life than in the next thirteen years total. The death rate then rises rapidly following puberty because of the large number of fatal accidents, homicides, and suicides.

Source: National Institutes of Health.

Table 1.1

Gross and Fine Motor Skills, 2 Months to 1 Year		
Age in Months	**Gross Motor Skills**	**Fine Motor Skills**
2	Lifts head	Follows object to midline
	Rolls over	Follows object 180 degrees
4	Lifts chest	Grasps rattle
6	Sits without support	Reaches for object
		Passes block hand to hand
8	Crawls and cruises	Feeds cracker to self
12	Stands well alone	Pincer-grasps raisin
	Walks	Cooperates in dressing

What Is Meant by "Normal"?

Does the term *normal* mean average, optimal, or what is commonly seen? There is wide variability between individuals, and the physician is often consulted to determine whether a child's behavior or development is within normal limits or represents illness or pathology. Knowledge of usual developmental landmarks or stage-appropriate expectations will help in that determination. In addition, anticipatory guidance to parents and families will help in keeping their responses to the normal landmarks of development appropriate.

right and understands that it exists and moves in a space common to it and the subject who observes it. Also, the continued existence of the object must be construed as separate from and independent of the activity the subject intermittently applies to it. (Note that Piaget's conceptualization of object constancy at nine months contrasts with the object constancy of Margaret Mahler, which is not achieved until thirty-six months.)

By twelve months, with improved visual-grasp ability, **tertiary circular reactions,** which focus on pleasurable or novel experiences in the world outside the infant, have started. For example, an infant lying on her back in a crib regarding a bright mobile sets the mobile in motion via a random vigorous kick and, after several chance repetitions, begins to understand the relationship between the kick and the mobile motion. The infant at this stage tries to prolong interesting sights and sounds and will develop variations to try to get new effects.

The Toddler: One to Three Years

Around the first year, a major change takes place when the "baby" gets up and walks. Suddenly the "toddler" sees the world from a vertical, not a horizontal, vantage point. Everything is possible. Wonderful vistas and possibilities open up, but unanticipated and unrealized pitfalls lead to tears, bumps, and bruises for the enthusiastic explorer. Margaret Mahler called the period from ten to sixteen months the "practicing subphase." The child is excited about the newfound ability to locomote but returns to the parent for what Mahler termed "emotional refueling."

Psychological separation from the mother or primary caretaker is a key task for the toddler. The **development of the "no"** and the struggles around **toilet training** are also key developments of this period. Parents will often turn to the physician for advice on child rearing, developmental norms, and problems presented in the preschool period. Knowledge of how the child conceptualizes her world and what constitute normal landmarks in the stages of development will help the physician avoid misunderstanding the problems children experience in this period.

Physical Development

Brain development. Development of the central nervous system is affected by genetic endowment, gender, exposure to toxins, and environmental influences. The majority of neuronal synapses in the brain are formed in the first three years of life. The child has more synapses than the adult.

Fine motor. By the age of two years, the toddler has increasing eye-hand coordination and is able to build a tower of six cubes. By age three, the child can hold a crayon and draw a cross and a circle.

Gross motor. Many toddlers are able to ride a tricycle, and most can run with ease. By the age of two or three years, sphincter control has been developed, as the long tracts from the brain down the spinal cord are fully myelinated. Most parents begin to think about toilet training when their child is between two and three years of age, although this may vary by culture. By that time most toddlers are physically capable of controlling their bowels and bladder. The child may be interested in toilet training if an older sibling or other children are seen toileting. It is most helpful to approach the task so that the toddler develops a sense of mastery and pride in his ability to toilet, and the child's autonomy is enhanced. If parents become harsh or markedly inconsistent or get into power struggles with the child, the child's self-esteem may suffer. This is exemplified in Erikson's stage of "autonomy vs. shame and doubt."

Temper tantrums are not unusual during this period. Parents need to handle any emotional outbursts firmly yet kindly and should not

CASE STUDY: TEMPER TANTRUMS

Lucy, age thirty months, was at the toy store with her mother. She noticed a wind-up duck that quacked and walked. This enchanting toy was clearly a "must-have" for Lucy. She got her mother's attention, pointed to the duck, and went to pick it up, clearly intending to take it home. When Mother said no, Lucy held on to the duck more tightly, started to cry, and said again that she wanted it. When Mother pried the duck out of Lucy's arms, Lucy threw himself on the floor and started to howl. The other customers and sales clerk stared as Mother turned pink with embarrassment and anger. Mother picked Lucy up off the floor, carried her out of the store, and put her in the car. By this time, Lucy was still crying but somewhat calmer. Mother put her in the car seat, gave her a pacifier, and she fell asleep on the way home.

Lucy learned an important lesson: Temper tantrums don't get you what you want.

give in to coercive behaviors on the part of their toddler. (See Case Study on next page.)

Cognitive development. The sensorimotor stage of Piaget continues until two years of age, when the preoperational stage begins. During the last part of the sensorimotor stage, tertiary circular reactions and the beginnings of symbolic thought are seen. Object permanence continues and solidifies.

Speech and language. Most children start speaking single words at about twelve months of age. The toddler may use jargon, which sounds like speech but has no clear meaning. Word combinations are produced between fourteen and twenty-four months, starting with telegraphic speech without grammatical elements. An example of this would be a phrase like "Kitty eat." Most children have a large increase in size of vocabulary between eighteen and twenty-two months.

By thirty-six months, most children have mastered the basic structural rules of their native language, which also involves cultural ways of understanding the world. The child has an inborn capacity to distinguish phonetic contrasts in a highly refined manner, and language stimulation by the caretaker enhances and develops this awareness. Reading books and nursery rhymes to children builds their awareness of differences in word sounds and helps them become better readers and spellers. Language stimulation also increases vocabulary, stimulates language pathways in the brain, and may even increase IQ. Large differences in the language ability of children are related both to native ability and to the amount and type of language stimulation the child receives.

What is the difference between the terms *language* and *speech*? Language is the ability to form symbolic thoughts while speaking, as well as the ability to communicate. Speech is the ability to produce the sounds and words.

The toddler can use symbols and take turns in a conversation, but the favorite word of any child in the "terrible twos" becomes "no." This helps him establish himself as a separate individual but challenges the love, problem-solving ability, and flexibility of the parent. Parents' appeals to logic and rational explanations hold little weight with toddlers. They want what they want!

Affective Development

During this period, the child develops awareness of him/her self as separate from the parent. By 36 months of age, many children have a stable internal psychological image of significant caretaking adults that can be maintained in their absence and under conditions of emotional distress. Emotions continue to develop. Fear is shown by the end of the

first year of life. Erikson taught that the child who does not develop a sense of autonomy during this period will develop shame and doubt. Affection and concern for others and the beginnings of empathy are seen by eighteen months of age. Other emotions such as anger, pride, and sadness are also seen in the toddler.

Social Development

The toddler is very attached to the parent or primary caretaker and has a small circle of clearly preferred adults. New experiences are relished, but the child relies on the parent as a point of reference and a secure base. The toddler enjoys doll play and may act out adult roles. Play with other children doing the same activity or using the same type of toys is enjoyed by most toddlers, but typically, there is little interaction between the children. Roles are not differentiated, and there is an absence of collaboration on means to implement the play. This is called parallel play.

For the toddler, the motor aspect of the play is often more important than the product. For example, when drawing, the child may be more aware of the movement of his hands and arms than of the image appearing on the paper.

Sleeping arrangements are culturally influenced and vary greatly. Most toddlers prefer to sleep with their parents, but in contemporary Western society, that practice is discouraged. In many other cultures, young children usually sleep with their parents. Children often protest being put to bed, but the use of rituals may help ease that transition. Children usually prefer a night-light. They may wake up several times during the night due to frightening dreams or other reasons. Children of this age don't distinguish dreams from real events and assume that others can see their dreams. Most toddlers nap in the afternoon and sleep a total of about twelve hours per day.

Gender Identity

Children of two or three years of age know whether they are boys or girls **(gender labeling)** and that their gender will not change in the future **(gender stability)**. Young boys and girls become aware of sex role stereotypes and try to follow them. Masturbation is pleasurable and is common and expectable in the toddler. The origin and development of the sense of gender is only partially understood by science; it is related to genetic endowment, hormonal influences, socialization in the family, and cultural norms.

The physician needs to give guidance about appropriate methods of limit setting as well as handling the other issues that come up at a

physical exam. Due to the toddler's curiosity and mobility, a major reorganization of the household and outdoor spaces is in order. The parents face new demands in taking fragile or hazardous objects out of their child's reach, putting gates next to stairwells, and generally "childproofing" their home. Disciplinary practices should focus on clear and consistent developmentally appropriate limits. Corporal and harsh punishment should be avoided, and the child's autonomy should be encouraged whenever possible.

When a toddler is hospitalized, his main concern is typically separation from his primary caretaker. He has little ability to understand or cooperate with medical procedures. Elective procedures should be avoided during this period. Play materials can be used to help the child master painful or upsetting experiences in the office or hospital.

The Preschool Child: Three to Six Years

By age three, the child has made major strides in all areas of development. By age six, she is beginning to move into the world of formal academics in elementary school. With over 7 million children in the United States receiving care from a nonrelative outside the child's home, the term *preschool* may be a misnomer. Many of these children are in day care, preschool, or nursery school.

The number of children in out-of-home care is directly related to maternal employment. Of women with children under the age of five years, about 75 percent are employed outside the home. This represents a dramatic shift in the landscape of child care in the United States; in 1970, the number was 30 percent.

Nature vs. Nurture

The biology of heredity is familiar to us: 46 chromosomes with 22 pairs of autosomes and 1 pair of sex chromosomes. The term genotype refers to the genetic makeup of an individual; phenotype is used to designate the observable characteristics of an individual. The individual is thus a product of genes and environment. The interaction of genetic endowment and environment is dynamic; ongoing throughout the life cycle; and influenced by child, family, culture, and other environmental characteristics. Techniques used to estimate genetic influence include twin studies, adoption and separation studies, and molecular genetic studies.

Physical Development

Brain development. The process of proliferation of neuronal synapses in the cerebral cortex continues during this period. The child's motor activity activates the neural network and stimulates brain development. The cerebellum, a part of the brain integral to motor activity, is fully myelinated by age four, coincident with

the increase in motor skills of the child. In many other parts of the brain, myelination is a slow and gradual process that is not finally completed until the third decade of life. Myelin is a fatty substance that "insulates" nerve fibers and speeds conduction of nerve impulses. The dietary recommendation of the American Academy of Pediatrics that children receive whole milk until age two, then low-fat—not non-fat milk—is related to concerns that inadequate fat in the diet would not allow for the essential process of myelination in the brain.

By the fifth year of life, the child's brain has achieved most of its adult size and is the largest organ in the body. Thus, brain development is determined not only by the genetic blueprint but also by environmental influences; together genetics and environment contribute the substrate for the unique human qualities of personality, memory, imagination, dreams, and feelings.

Gross motor development. The child of three can walk downstairs one tread at a time, balance on one foot a very short time, ride a tricycle, and put on her shoes. The child of four can balance longer on one foot, climb on a playground gym, and brush her teeth. The child of five can skip, dress herself, and balance even longer on one foot. The six-year-old can often ride a two-wheel bicycle and tie her shoelaces.

Fine motor development. Most children can copy a circle at three; count three objects, copy a cross, and draw a person with three parts at four; copy a square and draw a person with six parts at five; and print her name at six. Brain laterality and handedness develop throughout the period.

Does reading to young children prepare them for educational success? Probably!

According to information from the U.S. government information in 2005,

- 60% of children ages 3–5 years in the United States were read to daily by an adult.
- Children living in poverty were less likely to be read to daily.
- White non-Hispanic and Asian children were more likely to be read to daily than black non-Hispanic and Hispanic peers.
- Disadvantaged children would benefit from daily reading.

Source: Centers for Disease Control, Child Stats.

Cognitive Development

By two years of age, the child moves into the **preoperational stage** of Piaget. There is a beginning ability to think abstractly, but thinking is still very concrete and characterized by egocentrism, animism, and a variety of other systems of thought that do not obey the rules of logic. The boundary between fantasy and reality may be hazy, leading to frustration and conflict between parent and child.

Speech and Language

By age four, most children have learned the rules of grammar and speak in complete sentences. They also have been taught how to be polite by use of words, tone of voice, and sentence structure. The developing language capacity allows symbolic play reflective of daily life experiences and allows children to use language to cope with their feelings. The developing ability to use language to negotiate feelings and interpersonal relationships is a major developmental step. Parents who are authoritative yet allow their children to discuss and negotiate issues stimulate this advance more effectively than parents who are very authoritarian. The educational level and vocabulary of the parent also affect the child's developing language ability.

Affective Development

Emotions of guilt and envy are noted by age three or four, and confidence and humility may be seen by five or six. Empathy and an understanding of others' feelings continue to develop throughout this period. Fears related to injury, death, darkness, monsters, and other things may occur. Because of concerns regarding their body integrity, this period is sometimes known as the "band-aid" period. Children are very concerned about injury and want bandages as well as the parent's reassurance and support when hurt. Failure to successfully negotiate this period leads to guilt, according to Erik Erikson, while success leads to a sense of initiative. During this period, the child develops an increasing ability to regulate and modulate moods. The storms and temper tantrums of the toddler have subsided.

It is common for a younger sibling to be born during this period. This may lead to "sibling rivalry," with the preschooler feeling angry, hurt, and resentful toward the newcomer in the family. Skillful handling by the parent in supporting the first child and including her as an important family member in interactions with the baby can help alleviate those feelings.

Social Development

Children of this age continue to develop prosocial skills and the ability to interact cooperatively with peers. When those skills are well developed, the child is more likely to be popular with peers and well liked by adults. The child who is oppositional and uses coercive techniques with others is typically more isolated socially and more likely to develop psychiatric problems during development

Play with peers is more likely to be associative; children play with similar materials, talk to one another about the play, and share mate-

rials. By the age of five or six, more children engage in cooperative play; this may be dramatic play with each child taking a different role, play in which each child is responsible for a different portion of the project, or conventional games. Imaginary companions, who may ward off feelings of isolation or loneliness, are often invented by well-adjusted children ages three to five. They may name these "friends" and talk to or about them. These inventions typically spontaneously disappear before ten years of age.

Television viewing should be limited and closely supervised by parents. Most young children in the United States watch several hours of unsupervised television per day. Not only is watching TV a sedentary, passive activity, but many television programs show excessive violence and sexual content and convey biased views of life. The child's ability to play, to develop peer relationships and to be physically active may be stunted. Television viewing should be monitored and limited by parents to ensure that the child watches only appropriate programming, which will give parents and children the opportunity to discuss what has been seen.

Sleep

Fears of monsters and the dark may interfere with the preschool child's ability to go to sleep. A night light is usually preferred. The preschool child's dreams are concerned with death or injury and may reflect conflicts or life experiences during the day.

One to three percent of children may have obstructive sleep apnea hypoventilation syndrome, typically due to adenotonsillar hyperplasia. Its frequency is the same in boys and girls prior to adolescence. The peak incidence is at two to five years of age. It occasionally but rarely presents as daytime somnolence. It may be associated with problems in learning, attention, or behavior.

Gender and Sexuality

The preschool child has increased interest in the genital area and genital sensations, termed the **phallic-oedipal phase** by Sigmund Freud. He described the child's love for the parent of the same sex and rivalry with the parent of the other sex. Children develop primitive theories of sexual differences. Sex education given to the child by the parent should be geared to the child's developmental level and ability to understand. The child's sense of gender identification continues to develop and solidify. Children are aware of sexual stereotypes and norms. After about four years of age, it is extremely difficult to change a child's

gender. If children engage in excessive sexually explicit play or seem unusually preoccupied with sexuality, the **possibility of sexual abuse** or inappropriate exposure to adult sexuality should be considered.

Most preschool boys and girls show occasional cross-gender behaviors, with society and parents generally being more accepting of "tomboy" behavior in girls than effeminate behavior in boys. Boys are referred by parents to mental health professionals for evaluation of cross-gender preferences and behaviors far more frequently than girls. Some youngsters diagnosed with **gender identity disorder** in childhood will later be identified as homosexual; there is significant political debate about this issue.

The exact incidence of children and teens with **intersex conditions** is not clear, but it is estimated that in about 1 in 2,000 live births, the genitalia of the newborn is ambiguous. This often presents difficult medical, legal, ethical, and family issues. The Intersex Society of North America (http://www.isna.org) advocates for assigning gender at birth and postponing surgery. The issue generates a great deal of controversy.

Moral Development

Piaget described the child's sense of "immanent justice" and "moral realism," in which the child believes that a "godlike" adult will inevitably punish misbehavior. The child will often attribute injuries or accidents to punishment for a misdeed. Until about eight years of age, children judge the seriousness of the misdeed by the damage done and don't consider intent. By this standard, a child who accidentally breaks two glasses will be judged as guiltier than the child who is misbehaving and breaks one glass. **Lawrence Kohlberg** described this stage as preconventional, denoting the lack of knowledge of social conventions regarding ethical behavior. At the earliest stage, the child does "the right thing" to avoid punishment by an authority figure, not because of any internal sense of morality.

In his book *The Moral Judgment of the Child,* Piaget described morality in children developing gradually, in tandem with their emerging cognitive abilities. He believed that younger children base their sense of what is moral on what adults tell them. Older children base their understanding on concepts of fairness and honesty. Kohlberg adapted Piaget's ideas and described six stages of morality in three levels:

Stages of Morality

Level 1—Preconventional morality

- Stage 1—The individual is obedient to avoid punishment from a superior authority.

- Stage 2—Solutions to moral dilemmas are based on what is most advantageous to the individual.

Level 2—Conventional morality

- Stage 3—The individual takes the action society expects—"good boy" morality.
- Stage 4—The individual tries to uphold the social order.

Level 3—Postconventional morality

- Stage 5—The individual upholds the values necessary to a moral society.
- Stage 6—Universal principles require the individual to consider multiple points of view and to act in an honorable manner in all situations.

Kohlberg gave examples to illustrate each stage and devised tests to determine the moral stage of an individual. Some theorists question whether these stages are universal, whether they may be different for girls and women than for boys and men, and how childrearing practices may affect moral development.

Health Risks

Since motor vehicle accidents are a leading cause of death in the United States from birth to age 30 years, parents should be educated to use appropriate child seat restraints. Parents should continue to childproof the home and provide close supervision of the child. During the preschool, band-aide period the child has a heightened concern with illness and injury. Elective medical procedures and surgery should be avoided during that period.

Temperament Studies

In the early 1950s, child and adolescent psychiatrists **Alexander Thomas** and **Stella Chess** started the **New York Longitudinal Study** to study temperament in children. *Temperament* can be defined as the relatively consistent, basic disposition of a person. Thomas and Chess have now followed their subjects for almost fifty years, and other researchers have also studied this construct. Thomas and Chess described the "goodness of fit" between the parents and the temperament of the child. Children do well when they are of a temperament that the parents can handle and value. They characterized temperament according to nine parameters:

1. Activity level
2. Rhythmicity/regularity

3. Approach/withdrawal
4. Adaptability
5. Threshold of responsiveness
6. Mood
7. Distractibility
8. Attention span/persistence
9. Intensity of reaction

Thomas and Chess found the following:

- 40 percent of infants are "easy"—of high rhythmicity, positive mood, high approach, high adaptability, and low intensity.
- 10 percent of infants are "difficult"—have irregular biological functions, negative mood, excessive crying; are slow to adjust to change, difficult to soothe; termed "parent busters" by Sholevar.
- 15 percent of infants are "slow to warm up"—active, withdrawing, slow to adapt, of negative mood and low intensity.
- The remaining infants are mixtures of the above.
- Overall conclusions–reviews of all temperament studies.
  - — Good continuity of temperament over short periods, poor over longer periods.
  - — Temperamentally difficult but otherwise healthy infants are likely to do well later.

Step Prep

1. You are consulted by worried parents who report that their child is showing the following behaviors: increased masturbation, concern about bodily injury and excessive anxiety about insignificant scratches and bumps, increased interest in his infant sister's genital area and his parents' bodies, fears of monsters at night, and an expressed desire to marry his mother when he grows up. This child is most likely showing behaviors typical of which of the following stages of Sigmund Freud:

a. Genital
b. Oral
c. Latency
d. Anal
e. Phallic/oedipal

2. Following the birth of a baby sister, five-year-old Sally, previously developing normally, invented an "imaginary friend" that she named "CooCoo." She spoke to this friend and demanded a chair for her at the dinner table. You are consulted by worried parents. Choose the one best response.

a. This is an example of "sibling rivalry."
b. Referral to a child/adolescent psychiatrist or other mental health professional is indicated.
c. This is a sign of regression.
d. This may be a sign that Sally has been sexually abused.
e. Reassure the parents that the "imaginary friend" will disappear by age 10.

3. Lee, the nine-month-old baby of Mary, a second-year medical student, was formerly sociable and smiled at everyone. He was large for his age, a healthy child of whom Mary was very proud. She took him to a gathering of her peers and when a friend approached to speak to Mary, Lee seemed fearful and cried. This behavior is an example of:

a. Early autism
b. Early manifestation of developmental disorder
c. Stranger anxiety
d. The child's Apgar at birth was likely 3
e. Normal symbiotic phase

4. The normal three-year-olds in a preschool setting are working together on an activity. At snack time, one of the children accidentally tips over their juice container, which spills onto the drawing of a peer. The other children become very angry with the child who spilled the juice. This is an example of:

a. Preconventional morality
b. Primary tertiary reactions
c. The latency stage
d. Attachment disorder
e. Regression

5. Chess and Thomas studied temperament in infants in the United States. They found the following:

a. Forty percent of infants experience attachment problems.
b. Forty percent of infants are "easy."
c. When the mother is employed full time, the child's temperament is more likely to be difficult.
d. When the child has an older sibling, temperament problems are minimal.
e. Authoritative parents are more likely to have "easy" temperament infants.

6. Lauren, age four, tells her parents that she has three friends: Mustard, KooKoo, and Maureen. Lauren says these friends live in the attic and come down to play with her. She insists on having cookies put out for their snack at bedtime and is seen talking to them. Nobody else can see these friends. Her parents consult you and wonder if psychological testing or consultation with a child psychiatrist is indicated. You take a careful history and find out that Lauren is somewhat shy but is doing well in all areas of her growth and development. She functions well at home and in nursery school two mornings per week. She is in good health. A baby brother was born two months before she started to talk about her three friends. Choose the most appropriate response on the part of the physician:

a. Order a pediatric neurological workup with EEG.
b. Refer Lauren to a child psychiatrist.
c. Get her serum lead level.
d. Suggest that the parents tell Lauren not to speak about her friends and use a time-out technique as punishment if she does.
e. Explain to the parents that the behavior is normal for a child of this age.

Suggested Readings and Web Sites for the Highly Motivated

American Academy of Child and Adolescent Psychiatry, www.aacap.org.
American Academy of Pediatrics, www.aap.org.
Centers for Disease Control, Child Stats, www.childstats.gov.
Kaplan, B. J., and Sadock, V. A. (2003). Prenatal Period, Infancy & Childhood. In B. J. Sadock and V. A. Sadock, eds., *Kaplan & Sadock's Synopsis of Psychiatry* (9th ed., pp. 21–34). Philadelphia: Lippincott Williams and Wilkins.
Lewis, Melvin (2007). *Child and Adolescent Psychiatry: A Comprehensive Textbook*. Philadelphia: Lippincott Williams and Wilkins.
National Institute of Child Health and Human Development, www.nichd.nih.gov/health/topics.
Stern, Daniel (1998). *Diary of a Baby.* New York: Basic Books.
Wiener, Jerry, and Dulcan, Mina (2004). *Textbook of Child and Adolescent Psychiatry* (3rd ed.). Washington, DC: American Psychiatric Publishing.

Answers to Step Prep

1. e
2. e
3. c
4. a
5. b
6. e

2 THE ELEMENTARY SCHOOL AND TEENAGE YEARS

Ellen H. Sholevar, MD

"Raising teenagers is like nailing Jell-O to a tree."

—ANONYMOUS

Self-portrait of a boy, six years old.

MENU

- Define normal development:
  - Motor
  - Emotional
  - Cognitive
  - Interpersonal
- Summarize reasons that physicians should understand normal developmental landmarks.
- Recognize current health issues of children in the United States.
- List special health risks and challenges of this period.

Introduction

The exciting new abilities that emerge during the period from **6 to 10 years of age** and the implications for home and school development will be reviewed in this chapter. Current understanding of development from the neurosciences will be correlated with developmental landmarks. Common developmental problems that the physician will encounter will be highlighted, as well as more serious problems that require referral to a specialist. The physician's approach to the child of this age will be highlighted.

During the **adolescent's** rapid period of development, multiple new issues arise that the physician needs to understand. The public health aspects of common teen problems relate both to the normal developmental physical and emotional landmarks as well as to youngsters who are having significant behavioral and emotional problems. In this chapter discussions of neuronal pruning and other brain developments that underlie behavior are provided and correlated with the dramatic increase in cognitive ability and sexual maturation. Special issues of sexual identity are discussed. The physician's involvement with the teen and his family, issues of confidentiality, and safety are also considered.

Pre–Step Prep

1. Maria is an eight-year-old third-grade Hispanic daughter of a single mother. She is brought to the office by her mother because of concerns about her growth, stresses due to the parent's recent divorce, and a cough that has been persistent for several months. Maria has a BMI (Basal Metabolic Index) at the 98th percentile for her age. She is doing

poorly in school and has few friends. She has an unusual facial configuration. The mother has a past history of alcohol abuse but attended AA (Alcoholics Anonymous) and has been abstinent for over five years. The medical student and physician evaluating Maria should realize that:

a. Maria is one of the 50 percent of Hispanic children living at or below the poverty level in the United States.
b. Maria is at decreased risk of academic failure if there are reading materials in the home.
c. Maria is likely to have Down's syndrome.
d. Maria's mother should be told to be watchful of Maria's food intake and frequently remind Maria of the health risks of obesity.
e. Maria is likely to grow out of the weight problem when she reaches puberty.

2. After determining the cause of Maria's cough, the following should be done first:

a. Get a complete school history and evaluation of intellectual ability.
b. Obtain an MRI.
c. Call protective services and make a report of child abuse.
d. Consult with a pediatric neurologist.
e. Obtain an endocrine evaluation.

3. Further evaluation and discussion reveals that Maria's mother has been on welfare since her divorce. The court has not yet ordered child support payments. Maria's father has left the area and is not in contact with Maria or her mother. The father has a history of drug and alcohol abuse. The medical student and physician are concerned that Maria will fail to successfully negotiate this psychosocial stage described by Erik Erikson. According to Erikson, this failure could lead to a sense of:

a. Despair
b. Inferiority
c. Mistrust
d. Shame and doubt
e. Anxiety

4. Jamaal, fifteen years old, is in the gifted class of his local public high school. His father is a successful obstetrician with a busy practice. The father has been spending more time in the office recently because of a malpractice suit brought after a newborn died shortly after delivery. Jamaal's usual high grades and excellent academic effort have begun to slide. He seems to see less of his friends and stays alone in his

room more. He doesn't seem to enjoy his usual activities, and his clothes are hanging on him. His parents are concerned and take him to see his pediatrician. In handling the stressors of his adolescent development and family circumstances, Jamaal has the advantage of which of Piaget's cognitive development stages to help him cope?

a. Formal operations
b. Preoperations
c. Concrete operations
c. Semiotic operations
e. Rapprochement phase

5. Jamaal's pediatrician does a physical examination and routine lab work. Jamaal has lost ten pounds, but otherwise his examination is normal, as is his lab work. Jamaal talks to his pediatrician and reports that his dad is changing. He says his dad looks worried and preoccupied all the time, has several drinks before dinner, and does not talk with Jamaal as in the past. Jamaal also says that he and his girlfriend have had unprotected sex. They are both worried that she could become pregnant. About a month ago, they had a bad argument, and since then she has not spoken to him at school or returned his text messages. The pediatrician should do what? (Choose the one best answer.)

a. Call the high school and ask the school counselor to speak to Jamaal.
b. Refer Jamaal to a psychiatric colleague.
c. Call Jamaal's father and warn him to cut back on his drinking.
d. Call Jamaal's mother and ask her about the father's drinking and the son's sexual activities.
e. Talk with Jamaal and ask him if he is willing to speak with a professional about his issues. Ask him if it's OK to call his dad and discuss the situation with Dad.

The Good, the Bad, and the Facts

Some **good news** about improvements in health for America's 70 million children:

- Vaccination coverage has improved.
- Teen birth rates are down.
- Child mortality rates are down.

Some **not-so-good** news:

- Increasing prevalence of overweight children
- Increasing prevalence of low-birth-weight infants

Source: Centers for Disease Control, Child Stats.

6. Jamaal becomes more withdrawn, says he doesn't want to see his friends, refuses to do his homework, and was found weeping in his bedroom by his mother. He told his mother "don't worry about it, everything will be fine. I'll take care of it." His parents worry about suicide. The medical student and physician know that intervention is needed. For teens in the United States, suicide is:

a. Almost always preceded by a suicide gesture
b. The third leading cause of death
c. Primarily seen in single-parent families
d. Usually seen in teens in the stage of concrete operations
e. Highest in Hispanic teens

The Elementary School Years, Ages 6–10

Neurologic Maturation

Major **structural changes** take place between six and ten years of age. They occur in association with the significant mental developments involving advances in cognitive and emotional functioning. The brain has achieved about 90 percent of its adult weight by the end of this period. **Myelination** continues during this period. The reticular formation, nonspecific thalamic radiations, and great cerebral commissures are completely myelinated by eight to ten years of age. The intracortical association areas will continue to myelinate through the third decade of life. The EEG shows a peak in coherence and phase with a stable alpha wave pattern. This suggests and accompanies accelerated development of right hemispheric frontal-temporal connections.

Acquisition of Motor Skills

During this period children are able to engage in a wide variety of sports activities, possible because of their increasing strength, coordination, and balance. Both **fine** and **gross motor skills** improve. The typical child gains five pounds per year and grows two to three inches in stature. The body proportions change, with the head growing progressively smaller relative to the size of the rest of the body. Most children are able to ride a two-wheel bicycle, hit a ball with a bat, and play team sports such as soccer; most can develop advanced drawing and painting skills.

Developmental Problems

When the child begins formal schooling, the teacher and other school personnel may notice

Overweight Kids—A Big Problem

In 1976–1980, only 6 percent of kids were overweight. In 2003, 18 percent of kids were overweight. Government data from 2003–2004 show the following:

- Black, non-Hispanic girls were 25% overweight.
- Mexican American girls were 17% overweight.
- White, non-Hispanic girls were 16% overweight.

Overweight is defined as having a body mass index (BMI) at or above the 95th percentile. **BMI** is determined by dividing a person's weight in kilograms by the square of her height in meters.

Source: Forum on Child and Family Statistics.

Individuals with Disabilities Education Act

The Individuals with Disabilities Education Act (IDEA), formerly called P.L. 94-142 or the Education for all Handicapped Children Act of 1975, requires public schools to make available to all eligible children with disabilities a free appropriate public education in the least restrictive environment appropriate to their individual needs. This includes children with **physical disabilitites,** such as being blind or deaf, as well as children with **mental disabilities** or problems.

problems that the parent did not identify in the preschool period. A **relative deficiency** in early stimulation may lead to psychosocial or sociocultural retardation, with deficient language, speech, and cognitive skills. Other developmental delays—mental retardation, learning disorders, and attention-deficit/hyperactivity disorders—are often highlighted during this period. These problems are seen more frequently in children from poor, disadvantaged, or disorganized families. The child may be acutely aware of his deficiencies, which may lead to impairment in self-esteem, peer relationships, and relationships with authority figures such as the teacher. Thus, early identification and intervention are essential.

Attention-deficit/hyperactivity disorder (ADHD) is seen in about 4–5 percent of children and has been noted at that frequency in many different cultures. This is a neurobiological disorder that **causes impulsivity** and makes it difficult for children to sit still and sustain concentration. It causes particular difficulty in school when the ADHD youngster is unable to comply with the requirements of the classroom. The child with ADHD is at an increased risk of developing other problems, such as oppositional-defiant disorder, impaired peer relationships, and the inability to follow directions.

The majority of youngsters with **mental retardation** are mildly mentally retarded and are typically taught either in regular classes or special education classes in regular school. These youngsters are subaverage both in intellectual functioning and in general adaptive skills. Youngsters with **learning disabilities** have intellectual abilities within the average range but have specific difficulties within areas of learning. They function much lower than their overall level of intelligence would suggest. These disabilities may be quite confusing to the child as well as the parents and sometimes are overlooked in the busy school setting.

Cognitive Development

Jean Piaget noted that in the elementary school years the child has a logical "system" for thinking; he designated this period as the stage of **concrete operations**. This way of thinking represents a significant advance over Piaget's "preoperational period" and allows the child to **manipulate several variables**, **use more formal rules of logic**, and

understand conservation and reversibility. These mental abilities are essential in mastering the skills of elementary school. The reader is referred to chapter 1 for further details. It should be noted that despite the advances in cognitive functioning in this period, the child is still quite concrete in thinking and lacks some of the cognitive skills that will come later, when the child is a teenager.

Moral Development

Jean **Piaget** and **Lawrence Kohlberg** described the **moral and ethical thinking** of the typical child in this period. The child is still likely to assume that adult authorities define what is right and wrong, but he begins to develop a sense of another's motivation and intent. The child is more aware of other people's feelings.

Speech and Language

Major advances in speech and language ability occur during this period, and children become capable of a much more subtle and complex understanding of language. The child **understands connotation** and reads "between the lines." **Prosocial language** conventions are understood, including the use of politeness markers such as "please" and "thank you." Adolescents that develop metalinguistic abilities are able to talk about words and language structure in greater depth. They can narrate stories that have a central story line, and they can follow a logical progression. They understand exceptions to the usual rules of language. The child typically learns more than five thousand words each year, with **vocabulary** being the **greatest predictor** of school success.

We know that **family factors** can predict school success. Children who live in families where reading materials are available and where the parents read to the child from early on do better in school. Where children are involved with parents in discussions of stories, current events, feelings, or family decision making, the child's vocabulary and reasoning ability are improved.

The parents' educational level, socioeconomic status, and size of vocabulary have a major impact on the child's school achievement. Educated, articulate parents with large vocabularies generally have children that are more successful in school. The children of poor parents, parents who have limited vocabularies, and parents who do not read to or talk with them are, usually, less successful in school. A language or reading delay can seriously handicap a child in both the social and academic aspects of school.

Affective Development

The child of this age who is progressing normally generally has a positive, even mood and is comfortable at home and school. The child is proud of new abilities in reading, math, sports, or other areas such as playing a musical instrument or dancing. The child can concentrate for longer periods of time and can postpone gratification more easily.

Sigmund Freud described the development of the **superego,** or conscience, during this period; the child is more likely to respond to internalized prohibitions. Children of this stage still tend to be quite harsh in their judgments. A group of second graders who were asked what they thought an appropriate punishment was for a peer who had misbehaved in school discussed alternatives that ranged in severity from not allowing the child to come back to school "forever" to locking the child up in jail.

Children of this age normally use many **obsessive** or **compulsive defense mechanisms**. They like to collect and categorize objects such as stamps, stickers, or baseball cards. They may devote more time to arguing over the rules of a game than playing it. They become very angry at the child who can't or won't wait for his turn or who violates the rules. Emotion can still escalate easily.

According to **Eric Erikson**, the child who is unable to meet the demands of this period—which he termed the **industry vs. inferiority** period—is likely to be keenly aware of his shortcomings. He may have low self-esteem, become isolated or depressed, or act out with oppositional or defiant behaviors. Such children will tend to seek out as peers other youth who are not fitting in, and this may increase their adjustment difficulties.

Gender and Sexuality

Sigmund **Freud** termed the elementary school–age years the **latency period**, during which the child's sexual interests were thought to be inactive. More recent literature reveals that sexual exploration, play, and interest continue during this period. **Gender constancy** is achieved during these years. The child realizes that gender is not defined by superficial attributes such as clothing and hairstyle and that gender is constant across situations. Children of this age tend to play with same-sex peers—for reasons that are not entirely clear—in all cultures that have been studied. By age six, more than 90 percent of social interactions are with children of the same sex. However, when same-sex peers are not available, children will play with peers of the opposite sex.

Social Development

Cooperative play is seen more frequently during this period (see the section on the preschool child in chapter 1). Friendship and "chums" become more important. The friend may fill a role in the child's life that parents or other adults cannot fill. True intimacy in the friendship usually does not occur until adolescence. Friends can be cruel to one another, and the peer group can be harsh and may ostracize children who are seen as undesirable.

Leading Causes of Death in the U.S., Children Ages 5–14

1. Accidents
2. Cancer
3. Homicide

Medical students and physicians note: Most accidents are related to motor vehicles. Educating parents about the importance of wearing seat belts can held reduce deaths!

Source: MedlinePlus.

Illness and Hospitalization

Over 4 million children are hospitalized annually, and most of them are treated in general hospitals that may not have pediatric units. It is important for physicians to be alert to ways of reducing the impact of this stressor on the child. As **Anna Freud** noted, the child may have difficulty distinguishing the pain and discomfort caused by the illness from the pain and discomfort caused by *treating* the illness. Most important is to try to **limit the parent's or primary support person's anxiety** so that they can support the child through the experience.

Second, if the hospitalization is not an emergency, preparation of the child for hospitalization can be highly effective in reducing the need for pain medication, enhancing cooperation with needed hospital care and treatment, and post-hospital adjustment. Tours of the hospital, group discussions, preparatory booklets about hospital routine, films, puppet shows, and drawings are all beneficial. Often, allowing the parent to "room in," to stay with the child day and night, will significantly calm the child. Some hospitals are equipped with playrooms and trained play therapists to help the child play out fears and fantasies. Even with preparation, however, children may regress to earlier stages of adjustment while in the hospital.

The child with recurrent or very serious illnesses, such as those requiring cardiac surgery or an organ transplant, has a much more difficult

What do effective and skillful parents do to socialize their children?

- Show love and affection.
- Monitor their children appropriately for the child's developmental level and demonstrated responsibility.
- Model self-control and discipline.
- Limit requests.
- Make requests quietly and pleasantly.
- Time requests appropriately.
- Show empathy.
- Be specific in requests. (For example, instead of "Be good," say, "Have your snack for 10 minutes, then do your homework for 30 minutes, and after that I'll check your homework; if it's all done well, you can watch TV for 30 minutes.")

Child Neglect and Abuse

Close to 1 million children per year are abused in the U.S. The types of abuse can be broken down as follows:

- 61% neglected
- 19% physically abused
- 10% sexually abused
- 5% emotionally or psychologically abused

It is estimated that 1,500 children per year die from **maltreatment.** Children younger than four account for most of the child maltreatment fatalities.

What is the **responsibility of the physician** whose evaluation suggests child or teen neglect or abuse? All fifty states have mandatory child abuse reporting laws, so physicians and health care providers are mandated to report such abuse. Every state also has a hotline for reporting child or teen maltreatment. The **name and contact information for the child must be reported** to the local child welfare agency designated to handle cases of child or teen maltreatment. The agency then investigates the case and takes appropriate action.

Source: National Center for Injury Prevention and Control, Centers for Disease Control.

task in coping with the ongoing and repeated procedures and pain. Such children and their families may require psychiatric treatment to facilitate healthy coping or to cope with the grieving that accompanies the realization of imminent death or serious disability. Sometimes posttraumatic stress disorder (PTSD) may result and require treatment.

Parenting and Discipline

Parents are the first and most important teachers of their children. Through hundreds of interactions per day, parents model behaviors such as empathy, turn taking, sensitivity to feelings of others, and cooperation. Children then learn those skills, which equip them to interact well with other children and adults, such as teachers. Such children are generally well liked and do well in school. Children who do not learn those behaviors at home or whose parents model behaviors such as hitting, yelling, making painful comments, or interacting inappropriately may be disliked by peers and other adults. Those children miss out on important socialization experiences, do not learn well in school, and tend to associate with other children like themselves.

Corporal punishment is not necessary in raising well-socialized and ethical children, and it may be detrimental. In some Scandinavian countries, any hitting is reportable and is defined as abuse. Physicians can refer parents who are having difficulty to effective parenting programs. Many mental health agencies as well as departments of health have such programs. Parenting programs are also available commercially in books or video. Medical students and physicians may be consulted by parents about matters of discipline. It is best to advise the use of such methods as close monitoring and supervision and time-outs, rather than corporal punishment. Parents who are advised by a medical student or physician that spanking is acceptable may use that as license to hit and seriously harm a child.

Effective and skillful **parents set limits** that are developmentally appropriate, consistent, short in duration, of low intensity, and supervised by the parent or other caretaker. The parent stays calm and pleasant while setting limits. An example of a good limit is ten minutes of vacuuming for the elementary school–age child.

The Adolescent

The medical student or physician who has the opportunity to observe the metamorphosis of a child into a young adult should see it as a privilege. This is a time of joy and confusion, of seeking to understand the physical and mental changes she is going through and attempting to identify who she is, where she will go in life, and how she will get there. Everything that seemed clear and predictable is no longer that way. Parents have changed and no longer seem so omniscient and omnipotent. Often the teen will feel that peers and perhaps the physician are the only sources of advice and support. This may place a heavy burden on the physician but could also be an opportunity to help and guide a young person through a challenging period. It is important for the medical student to be aware of the normal developmental events of adolescence, as well as health issues that may arise.

Definitions and Tasks

Puberty refers to the biological changes that lead to the ability to procreate. **Adolescence** refers to the psychological processes of change that accompany puberty. The teen must develop a sense and understanding of self. The consolidation of identity is an essential adolescent task. The capacity to form a close, mature, and intimate relationship with another person is cultivated. Initially, relationships focus more on the outward manifestations and status of the loved one. Later, a more mature understanding of the feelings and personality of the partner will develop.

The ability to function independently is another important development of this period. Conflicts over homework, grooming, friends, and curfews may represent struggles with the parents

The Consequences of Adverse Childhood Experiences

The Adverse Childhood Experiences (ACE) Study, sponsored by Kaiser Permanente and the Centers for Disease Control surveyed a large sample of adults about their childhood experience of abuse and household dysfunction. The study found:

- More adverse childhood experiences resulted in a greater chance of psychiatric and medical illness in adult life.
- A greater number of adverse childhood experiences increased the chances of health-risk behaviors and social problems, disease, and disability, leading to early death.
- Ischemic heart disease, cancer, chronic lung disease, skeletal fractures, and liver disease were found to be related to adverse childhood experiences.

over issues of identity and autonomy. The teen develops the ability to modulate sexual and aggressive impulses, with frequent oscillations of too much or too little control. Either extreme leads to difficulty, but most teens are able to find a comfortable middle ground.

Physical Development

The maturation of the hypothalamic-pituitary-adrenal-gonadal axis initiates physical changes triggered by the androgens and estrogens. The hypothalamus becomes less sensitive to sexual hormones, and the body produces a much higher level of male and female sex hormones. Thus, puberty may be seen as a lack of suppression of sexual growth and development, rather than a "turning on" of growth. Many of these changes were scripted prior to birth, when the brain was masculinized, in the case of boys, or not masculinized, in the case of girls. Boys produce more **androgens** in their testes, while girls develop much higher levels of **estrogens** from the ovaries.

Both sexes also have hormones coming from the thyroid and pituitary, which participate in the physical changes of puberty. The **primary sexual characteristics** are those directly involved in coitus and reproduction, the testes in the male and the ovaries in the female. The **secondary sexual characteristics** are those not directly involved in coitus and reproduction, such as facial, axillary, and pubic hair and changes in genitals and breasts. Other changes during puberty include increased stature and weight, changes in body muscle and fat composition, and changes in respiratory and circulatory systems. Changes in breast development, pubic hair, and testes and scrotum are commonly classified by the **Tanner System** into five stages.

Females begin puberty about two years before males. The first observable sign is development of breast buds, then pubic and axillary hair. The body habitus changes with broadening of the hips and then the onset of menses. The age of menarche has been dropping in the past hundred years by several months per decade. This is presumed to be due to improved health and nutrition. In the United States the average age of menarche is between twelve and thirteen years. Irregular menstrual periods for about a year after menarche are typical. During puberty, girls gain about eleven pounds and grow three to four inches per year.

Male development is characterized by growth of scrotum and testes, then pubic hair. Later the growth spurt begins, then the penis grows and pubic hair increases. Growth of facial hair and deepening of the voice take place later in puberty. At about fourteen years of age, seminal emissions often begin in association with masturbation. They

may also occur spontaneously at night, which is termed **nocturnal emission**. By the middle of adolescence, males will have caught up with females in their pubertal development. Boys gain thirteen to fourteen pounds and grow four to five inches per year. The height spurt in boys typically peaks at fourteen and drops off by sixteen or seventeen. Muscle mass and strength will double between the ages of twelve and seventeen.

There is an enormous variation in the timing of the onset of puberty from individual to individual. Puberty may start between seven and thirteen years of age; the end of puberty is also very variable. This timing is related to genetic, health, and nutritional, as well as social, factors. A variety of factors including nutrition, stress, and excessive exercise can affect the process. The psychological response to very early or late development may cause adjustment advantage or difficulties for teens. Early-developing males seem to have fewer problems than early-developing girls. Few differences can be noted when early and late developers are studied later in life.

During prenatal development, the brain is "feminine" unless "masculinized" by testosterone, typically after eight weeks' gestation. There is an increase in brain weight and cerebral cortical thickness from infancy through adulthood. Synaptic density and arborization increase from birth to about six years of age, when **pruning** takes place and synaptic density decreases. Mature alpha rhythms are seen on the EEG during puberty. There is neurophysiological evidence for intracortical, especially frontal, connectivity. It is assumed that these physical changes in brain growth and development underlie the cognitive changes of adolescence, but the exact cause-and-effect relationships have not yet been demonstrated.

What can medical students and physicians do to help teens during this period? First, make sure you are comfortable enough about your own sexuality to talk with teens about theirs. Ask teens about their sexual activity; then listen. Acknowledge that they are in charge of this area. Encourage them to discuss the pros and cons of sexual activity—both pregnancy and STD issues. Inform them of resources and give them information. Advocate in the community for evidence-based programs that provide services to youth. Serve as a resource to teens, their families, and the community. (See chapter 5 for more information.)

Speech and Language

By adolescence, the ability to produce speech sounds (phonology), organize words (grammar), use language (pragmatics), and organize concepts (semantics) should be well established. Sophistication in the

use of pragmatics increases through adolescence with the ability to handle problems in conversations and to develop refined narratives with multiple episodes. The ability to develop a complex narrative, link elements logically, manage character development, and other skills typically continue to develop up to and through college age. This is not always the case, however, as language and communication disorders are common causes of referral to health professionals. Receptive language disorders seem particularly potent as predictors of the development of psychiatric disorders. Studies suggest that many young people have language disorders that remain undiagnosed.

Intimacy, Sexuality, and Gender

Intimacy is different than sexuality. Intimacy is characterized by a feeling of closeness and concern for another, the sharing of important and private information, and a sense of trust. Their new developments in cognition allow teens to share and think about themselves and their lives in more sophisticated ways. Puberty, with the attendant changes in the body, provides a focus for common concerns, and increasing independence allows for more time with peers.

During the adolescent period, parents continue to be important sources of advice and support, and the relationship usually continues to be unequal, the parent typically serving as the senior partner. In contrast, relationships with peers are mutual, and the amount of time spent with peers greatly increases during this period. Often the intimate partner is of the same sex in early adolescence. During middle and late adolescence, intimate ties may shift to the opposite sex, and the relationship combines both intimate and sexual aspects. It is possible to have intimate relationships that are not sexual and sexual relationships that are not intimate. There is some evidence to suggest that young people who had secure attachments to caretakers early in life have an advantage in forming comfortable and stable intimate relationships in adolescence and adulthood. Some have called adolescence the second separation-individuation period during which the teen develops into an adult and moves away from the family of origin.

Sexual behavior in adolescence typically follows a trajectory. Self-stimulation is continued from childhood into early adolescence. Petting and nongenital sexual contact is noted more in middle adolescence. Finally, direct genital contact and intercourse starts in late adolescence.

The number of young people participating in sexual activity and the age at which this happens is related to the attitude of the larger culture

toward sexual activity. In some highly restrictive societies, premarital contact is forbidden and young people are watched closely to monitor sexual activity. In the United States, the trend is toward more sexually permissive attitudes than were accepted in past generations. Very early sexual behavior is related to risk-taking behaviors and increased mental health problems.

Gender identity is a term used to denote the individual's psychological sense of being male or female. **Gender-role** or sex-role behavior means the way the individual behaves, including dress, mannerisms, and interests that convey either a traditional male or a traditional female orientation. **Sexual orientation** or sexual preference includes the individual's desire for homosexual or heterosexual sexual activity in their life, including their fantasy life. It is common for teens to have both heterosexual and homosexual feelings, but only a small percentage continue with homosexuality as a predominant preference. Complex variables including prenatal hormonal influences, family expectations, and other psychosocial influences affect sexual preferences in ways that are not entirely understood. Homosexuality is not considered a psychiatric disorder; however, young people with an exclusively homosexual orientation often encounter significant psychosocial stressors as a result of their orientation. This may lead to the increased incidence of psychiatric disorders including depression and suicide in homosexual teens than in other teens.

Contraception Attitudes

A very small percentage of teens in the United States use regular contraception. Teen pregnancies and sexually transmitted diseases often result. The incidence of **AIDS is increasing among teens.** In a recent survey of high school students, the Centers for Disease Control and Prevention found that 61 percent of the students had sexual intercourse by twelfth grade, and 42 percent of students did not use a condom the last time they had sex. That's almost half who didn't use a condom and put themselves at risk for HIV.

The number of teen pregnancies in the United States is declining, but it is still a major public health problem. There is a heated national controversy over the issue of abortion, and fewer than one half of teens who become

The Economic Security of America's Children in 2004

- 17% of children lived in families with incomes below the poverty level.
- Children living in female-householder families with no husband present had a higher poverty rate (42%) than children living in married-couple families (9%).
- Disparities in the poverty rate were also noted based on race and ethnicity:
  - Black children, 33%
  - Hispanic children, 29%
  - White, non-Hispanic children, 10%

Source: Centers for Disease Control.

pregnant have abortions. Of those young women who choose to have their babies, few give them up for adoption. Children raised by single-parent teen mothers living in poverty are at an increased risk of a variety of developmental problems. Rape and sexual harassment are also major problems for teens. The medical student or physician has an important role in informing and discussing contraception and birth control with teens and in educating teens about sexually transmitted diseases.

Social Development

The teen has an increased ability to conceptualize, organize, and understand her own behaviors. This allows more awareness of self and questioning about self. Erik **Erikson**'s psychosocial stages include **identity vs. identity diffusion** as a key task for teens from early to late adolescence. "Identity" encompasses one's sense of self in relationship to one's family, friends, and society. (It also includes one's self-esteem, which is the positive or negative valence given to one's skills and attributes; and it incorporates the individual's ideas about herself, her abilities, and her attributes. These concepts are interrelated, and the boundaries between them are often blurred. Self-esteem is enhanced by success in school and social support at home and from peers. **Identity diffusion** occurs when the teen is unable to chart a course for herself in a variety of life domains.

Time spent with peers increases during adolescence. Teens group themselves according to interests, academic achievement and ability, sports interests and ability, socioeconomic class, and other variables. Teens who are accepted and part of a cohesive peer group have a lower incidence of mental health problems.

Family

Family **relationships** will **change during the teen years**. It was part of conventional wisdom in the past that teens and parents experienced stress and conflict during the adolescent years. More recent studies document that most teens continue to go to their parents for advice and help throughout adolescence, with only a small percentage feeling alienated or in significant conflict with parents. Parents often move into midlife issues as their children become teens, and the parents' need to provide care for or engage with their elderly parents, as well as their own concerns about aging, may affect their relationship with their teen. Parents who have an overly permissive or authoritarian parenting style may have more difficulty than parents who are authoritative but able

to negotiate with their teen and recognize their increasing abilities and independence.

The **high divorce rate** in the United States also may complicate family relationships. The relationship with the parent who is dating or remarried, shared custody arrangements in which the teen has to move between households, and relationships with stepparents may entail significant negotiations and stress. Teens living in poor families and teens who have a single parent or both parents working full-time or more face special challenges. Those teens living in minority families and cultures in the United States may have to do a delicate balancing act between two "worlds."

Dangerous **risk-taking behaviors** thought to be more common in adolescent males include antisocial behaviors such as truancy, sexual and nonsexual assault, unsafe automobile behavior, and the challenging of authority figures. Girls are more likely to become depressed, run away, or engage in prostitution. Both sexes may engage in unsafe sex and may use alcohol and illicit drugs. The incidence of suicide attempts is higher in adolescent girls but completed suicides are more common in adolescent boys. U.S. homicide rates in young adult males, although decreasing, are still the highest among all the Western industrialized nations.

Teen Drivers: A Risky Business

- 16- to 19-year-olds are 4 times more likely than older drivers to crash.
- Teen passengers increase the crash risk.
- The estimated cost of crashes by teen drivers in 2002 was $40.8 billion.
- The death rate for male teens in vehicle accidents in 2002 was nearly 2 times that of females.
- The crash risk is especially high the first year that a teenager drives.
- Teens have the lowest rate of seat belt use compared with other age groups.

Source: National Center for Injury Prevention and Control.

Cognitive Development

Jean **Piaget** described the adolescent stage of cognitive development as the stage of **formal operations.** He noted that during this stage, thinking transitions from the theoretical to the concrete, instead of the reverse, for the first time.

Learning theorists approach the adolescent thinking processes from a different point of view. They emphasize changes in ability to divide one's attention, as well as improved short and long-term memory. The speed of information processing, as well as organizational strategies, improves. Teens are also more able to observe their own thinking.

Moral Development

Lawrence **Kohlberg** took the ideas of Jean Piaget about moral development and expanded them. He developed ways to characterize and

measure moral development. According to Kohlberg's stages, most teens and adults are at the **conventional stage of development.** They would characterize morality in terms of conventional laws and norms from the point of view of a good member of society.

The first substage of conventional morality was termed **stage 3**, **interpersonally normative morality.** This consists of doing what others expect and what society expects. The second substage is termed the **social system morality**, **stage 4**, and takes the point of view of a person who wishes to hold up the social order or follow religious beliefs.

Health Risks in Adolescence

Teens often feel invulnerable and deny the possibility of death. They may feel that they know better than parents and other authority figures. Some may not feel competent or may suffer from low self-esteem, which leads them to take risks or accept poor advice from peers. All of these factors may lead them to take risks that are reflected in the national statistics below. The **leading causes of death** in teenagers in the United States today are **accidents**, **homicides**, and **suicides**. Motor vehicle accidents constitute the largest number of accidents and are the overall leading cause of death in the United States from birth to thirty years of age.

However, homicide is the leading cause of death in black males aged thirteen to thirty-four. Firearms were the cause of death for over 86 percent of these young people. Substance abuse including tobacco, alcohol, and illicit drugs complicate these psychosocial causes of teen deaths and are major causes of health problems. These leading causes of death can all be prevented by behavioral and public health interventions. There are many types of prevention programs in place, and, although the homicide rate in teens is declining, the rate is still unacceptably high.

Leading Causes of Death in the U.S., Youth Ages 15–24

- Accidents: involving motor vehicles and firearms
- Homicide: young males at highest risk
- Suicide: white male teens at highest risk (medical students and physicians should be on the alert for depression in teens)

Source: MedlinePlus.

Teens overall now are physically healthier than those in past decades, and those with serious medical problems live longer and do better than previously. Common adolescent health problems include asthma, acne, migraine headaches, and auditory and visual problems. American teens are having sexual intercourse at an earlier age and in greater numbers than in previous years. Most do not use barrier contraceptives consistently and are susceptible to sex-

ually transmitted diseases. Although the numbers of deaths from AIDS in teens are declining, in 1998 the Bureau of the Census reported AIDS the fifteenth leading cause of death in teens fifteen to nineteen in the United States. This is another instance of a cause of death that can be decreased by behavioral changes.

The physician who develops a trusting relationship with a teen patient may be a source of support and advice. Direct questions need to be asked of the adolescent about health promotion or risk-taking activities, as information on these topics will usually not be volunteered. Anticipatory guidance should be offered.

Step Prep

1. Maria is an eight-year-old third-grade Hispanic daughter of a single mother. She is brought to the office by her mother because of concerns about her growth, stresses due to the parent's recent divorce, and a cough that has been persistent for several months. Maria has a BMI (Basal Metabolic Index) at the 98th percentile for her age. She is doing poorly in school and has few friends. She has an unusual facial configuration. The mother has a past history of alcohol abuse but attended AA (Alcoholics Anonymous) and has been abstinent for over five years. The medical student and physician evaluating Maria should realize that:

a. Maria is one of the 50 percent of Hispanic children living at or below the poverty level in the United States.
b. Maria is at decreased risk of academic failure if there are reading materials in the home.
c. Maria is likely to have Down's syndrome.
d. Maria's mother should be told to be watchful of Maria's food intake and frequently remind Maria of the health risks of obesity.
e. Maria is likely to grow out of the weight problem when she reaches puberty.

2. After determining the cause of Maria's cough, the following should be done first:

a. Get a complete school history and evaluation of intellectual ability.
b. Obtain an MRI of Maria's brain.
c. Call protective services and make a report of child abuse.
d. Consult with a pediatric neurologist.
e. Obtain an endocrine evaluation.

3. Further evaluation and discussion reveals that Maria's mother has been on welfare since her divorce. The court has not yet ordered child support payments. Maria's father has left the area and is not in contact with Maria or her mother. The father has a history of drug and alcohol abuse. The medical student and physician are concerned that Maria will fail to successfully negotiate this psychosocial stage described by Erik Erikson. According to Erikson, this failure could lead to a sense of:

a. Despair
b. Inferiority
c. Mistrust
d. Shame and doubt
e. Anxiety

4. Jamaal, fifteen years old, is in the gifted class of his local public high school. His father is a successful obstetrician with a busy practice. The father has been spending more time in the office recently because of a malpractice suit brought after a newborn died shortly after delivery. Jamaal's usual high grades and excellent academic effort have begun to slide. He seems to see less of his friends and stays alone in his room more. He doesn't seem to enjoy his usual activities, and his clothes are hanging on him. His parents are concerned and take him to see his pediatrician. In handling the stressors of his adolescent development and family circumstances, Jamaal has the advantage of which of Piaget's cognitive development stages to help him cope?

a. Formal operations
b. Preoperations
c. Concrete operations
d. Semiotic operations
e. Rapprochement phase

5. Jamaal's pediatrician does a physical examination and routine lab work. Jamaal has lost ten pounds, but otherwise his examination is normal, as is his lab work. Jamaal talks to his pediatrician and reports that his dad is changing. He says his dad looks worried and preoccupied all the time, has several drinks before dinner, and does not talk with Jamaal as in the past. Jamaal also says that he and his girlfriend have had unprotected sex. They are both worried that she could become pregnant. About a month ago, they had a bad argument, and since then she has not spoken to him at school or returned his text

messages. The pediatrician should do what? (Choose the one best answer.)

a. Call the high school and ask the school counselor to speak to Jamaal.
b. Refer Jamaal to a psychiatric colleague.
c. Call Jamaal's father and warn him to cut back on his drinking.
d. Call Jamaal's mother and ask her about the father's drinking and the son's sexual activities.
e. Talk with Jamaal and ask him if he is willing to speak with a professional about his issues. Ask him if it's okay to call his dad and discuss the situation with Dad.

6. Jamaal becomes more withdrawn, says he doesn't want to see his friends, refuses to do his homework, and was found weeping in his bedroom by his mother. He told his mother "don't worry about it, everything will be fine. I'll take care of it." His parents worry about suicide. The medical student and physician know that intervention is needed. For teens in the United States, suicide is:

a. Almost always preceded by a suicide gesture
b. The third leading cause of death
c. Primarily seen in single-parent families
d. Usually seen in teens in the stage of concrete operations
e. Highest in Hispanic teens

Suggested Readings and Web Sites for the Highly Motivated

American Academy of Child and Adolescent Psychiatry, www.aacap.org.
American Academy of Pediatrics, www.aap.org.
Centers for Disease Control, Adolescent Health, www.cdc.gov/HealthyYouth/az/index.htm.
Lewis, Melvin (2002). *Child and Adolescent Psychiatry* (3rd ed.). Philadelphia: Lippincott Williams and Wilkins.
National Insitute of Child Health and Human Development, www.nichd.nih.gov/health/topics.
Sadock, B. J., and Sadock, V. A. (2003). Sections 2.2 and 2.3. In *Kaplan & Sadock's Synopsis of Psychiatry* (9th ed.). Philadelphia: Lippincott Williams and Wilkins.
Society for Adolescent Medicine, www.adolescenthealth.org.
Weiner, Jerry, and Dulcan, Mina (2004). *Textbook of Child & Adolecent Pyschiatry* (3rd ed.). Washington, DC: American Psychiatric Publishing.

Answers to Step Prep

1. b
2. a
3. b
4. a
5. e
6. b

3 YOUNG ADULTHOOD

Ellen H. Sholevar, MD

An investment in knowledge always pays the best interest.

—Benjamin Franklin

The marriage of two young physicians.

MENU

- Summarize the physiologic changes occurring in young adulthood
- Describe the special challenges relating to developing a family and the establishment of a career
- List the issues facing the medical student as a young adult

Introduction

The **transition from childhood and adolescence** to young adulthood is not clearly defined in Western industrialized nations. Landmark events such as the ability to obtain a driver's license, vote, drink alcoholic beverages, and serve in the armed forces mark the transition. Other common milestones are the completion of one's higher education, the requirement to pay taxes, moving out of the parents' home, and the transition to independent living. Young adults are brought to adult courts, not the juvenile justice system, when they break the law.

This transition may occur at different times and in different ways for different youth. For those whose adolescence has been a smooth time, marked by family stability and support, the development of a reliable network of peers, a rich educational experience, and growing experiences of intimacy, the transition is characterized by enhanced self-esteem, a growing sense of identity, and pleasure at the development of increasing skills.

Those youth who are college bound and from more affluent families may be supported financially and emotionally by their parents for a long period of time while they gradually attain independence. Youth who are disadvantaged may have few role models for acceptable and legal adult life roles. In some large, urban school districts, fewer than half of students entering high school will graduate.

When deficits in education intersect with a chaotic or unstable family life, possibly compounded by poverty and living in a dangerous neighborhood, the young adult has bleak prospects for being able to support a family and earn a position of respect in society. Despair, lack of a sense of secure identity, inability to forge and maintain an intimate relationship with a partner, and turning to antisocial activities may result. Such youth often turn to lucrative and high-risk criminal activities. As society becomes more complex and workers need increased education and sharper skills, the gap between the college-educated young adult and those disenfranchised by lack of education will widen.

Pre–Step Prep

1. Erik Erikson described the challenges of the early adult years as which of the following:

a. Autonomy vs. shame
b. Identity vs. identity diffusion
c. Industry vs. inferiority
d. Intimacy vs. isolation
e. Trust vs. mistrust

2. The early adult season described by Dan Levinson includes all the following tasks except:

a. Finding a permanent partner for life
a. Working out unresolved issues from family of origin
c. Coping with decline of powers
d. Coping with "Novice" role in life
e. Facing simultaneous new demands in multiple life areas

3. Medical students face special challenges because of their onerous work and study schedules and the financial demands of medical education. Without careful attention to health issues, they may be even more at risk than their nonmedical-student peers. Which one of the following statistics is true about the U.S. population over 20 years of age?

a. 21% smoke.
b. 25% are overweight.
c. 30% do not participate in regular leisure-time physical activity.
d. 50% lack a regular source of health care.
e. 10% are hypertensive.

4. What percentage of marriages in the United States will lead to divorce in fifteen years?

a. 10%
b. 25%
c. almost 50%
d. 66%
e. 90%

5. More adults in the United States are living alone now than in the past because (choose the one best answer):

a. They experience difficulty finding housing.
b. Black Americans spend more time married than white Americans.
c. The number of women 20–24 who have not married increased by 20 percent in the past thirty years.
d. Increased numbers of adults never marry.
e. Educational challenges make it difficult to find partners.

6. A third-year medical student was "chewed out" on morning rounds on his pediatric rotation when he could not adequately present a patient he had seen and evaluated while on call the night before. He had been very anxious about his clinical rotations and felt he was not doing well in pediatrics. He was having difficulty getting to sleep, decreased appetite, and uncertainty about continuing in medical school but felt he would be unlikely to be successful in any career or profession. He had lost ten pounds and had stopped going out with friends. He stayed in his apartment to study most weekends but was unable to concentrate. His best course of action would be which of the following (choose the one best answer):

a. Contact the dean's office and set up an appointment to take a leave of absence
b. Talk to his girlfriend, also a third-year medical student, about the situation, as she was feeling the same way and would understand
c. Contact the dean's office and speak to an associate dean about a referral to a mental health professional
d. Wait and see if things would improve
e. Speak to the medical student coordinator in pediatrics to see if he could do pediatrics in another hospital.

Guidelines for Physical Activity for Adults

- U.S. government recommendations are 30 minutes of moderate intensity activities a day at least 5 days a week.
- 48.1% of Americans were meeting those guidelines in 2005.
- 25.4% reported no leisure-time physical activity in 2005.

Source: Centers for Disease Control.

Physical Development

The young adult is in the prime of mature strength, attractiveness, and optimal functioning. Most young men and women are healthy and strong, able to meet all the physical demands of daily life and to develop special skills such as athletic, musical, artistic, or other abilities. Lean muscle mass is greater in males than in females, and percentage of body fat is lower in males than in females.

Unfortunately, the **health of the poorer, less educated, rural and urban residents continues to lag** behind that of more affluent, more educated

suburban residents. Adults of all races and ethnic backgrounds with less education and income are in worse health and die younger than more educated and affluent Americans.

New information on brain development reveals that **myelination** in the brain continues into the third decade of life, especially in the frontal cortex. It was previously believed that new neurons are not formed in the adult brain. Recent studies challenge this belief and suggest that new neurons form during adult life. Thus, it seems that the brain can reshape and change throughout the life cycle.

Tips for Healthy Living

- Eat healthy
- Maintain a healthy weight
- Get moving
- Be smoke free
- Get routine exams and screenings
- Get appropriate vaccinations
- Manage stress
- Know yourself and your risks
- Be safe—protect yourself
- Be good to yourself

Source: Centers for Disease Control.

Health risks for young adults include death by accident, particularly motor vehicle accidents. Lifestyle-related health problems include the increased incidence of smoking in women. An increasing number of American women smoke, which contributes to lung cancer deaths, the most common type of cancer death in women. Physical activity declines during adolescence, and by adulthood the majority of Americans do not achieve recommended levels of physical activity. Women are less active than men, and inactivity increases with age. Regular physical activity reduces the risk of heart disease, diabetes, high blood pressure, colon cancer, depression, and anxiety. In addition, an active lifestyle can control weight and impart a sense of psychological well-being.

Obesity is an increasing cause of morbidity and mortality with more than half of adult Americans qualifying as overweight. Federal government statistics reveal that health is worse and death rates higher in working-age adults who live in urban and rural areas. Suburban residents are more likely to exercise, suburban women are less likely to be obese, and suburbanites are more likely to have health insurance than their rural and urban counterparts.

Cognitive and Educational Development

The cognitive development of young adults is characterized by the ability to form hypotheses, to perform deductive reasoning, to follow formal rules of logic, and to focus on possible as well as real events. All of these qualities are expected in the young adult period, described as the **formal operations** phase by **Jean Piaget**. The brain maturation enables the young adult to make better judgments, which provide a foundation for academic and social achievements. The increasing complexity of

Figure 3.1 Medical research is ongoing at the Centers for Disease Control and Prevention.

industrialized society places greater demands on the young adult to complete at least some postsecondary education and to postpone childrearing. It may also extend the period in which the young adult is dependent on family for financial assistance. For those seeking advanced graduate degrees, the length of time that financial assistance is needed may rise dramatically.

It is not clear which factors relate to the development of formal operational thinking or the lack of that ability, but such **development may be related to one's intellectual or educational level.** Adults who are limited in their ability to think abstractly, make complex judgments, and plan ahead creatively are significantly handicapped.

Mental retardation may be seen in approximately 1 percent of the population and is defined by limitations in adaptive functioning as well as having a subnormal IQ level. Adults who are mentally retarded have a much greater prevalence of mental disorders than individuals with average intelligence. Their coping skills are more limited and their vocational and personal opportunities severely curtailed.

Economic Status and Occupation

Increasingly, adults define themselves by the work they do. Pursuit of higher education and the choice of a career is related to the entire course of growth and development. The educational level of a young adult has profound implications for income and health. Therefore, the need for an adequate education puts significant stress on the young adult. Great competition exists to get the high grades and test scores in high school that allow entrance to the elite colleges and professional schools that offer the greatest opportunities for financial rewards and stimulating careers.

Selection of a career depends on the innate abilities, life experiences, and opportunities—both educational and social—available to the young adult. For example, the choice of a health career, such as the study of medicine, may be the result of many factors, some only poorly understood by the young adult. The idealism and wish to help others

How many of your patients are overweight?

In 2003–2004, 66% of Americans were overweight or obese. One of the national health objectives for 2010 is to reduce this prevalence to less than 15%. However, the prevalence seems to be going up, not going down. Talk to your patients about food choices and exercise—education works!

Source: National Center for Health Statistics.

may stem from having conquered a childhood illness, from identifying with an idealized physician, or from emulating a physician parent. A myriad of other complex, only partially conscious, motivations may also contribute. These issues are often not discussed with others but provide a powerful impetus for the years of hard work necessary to become a physician.

Huge **inequalities** exist in the United States **between those who have more education and those who have less** education. Federal government statistics reveal that in 1998, male high school graduates working full-time year-round had an average annual income of $31,477; females in the same category earned $22,780. The proportion of students completing high school in the U.S. varies from a high of 91 percent in Alaska to a low of 74 percent in South Carolina. The income of males who have not completed their high school education has declined dramatically.

Family and Medical Leave Act of 1993 (FMLA)

Covered employers must grant an eligible employee up to a total of 12 weeks of unpaid leave during any 12-month period for one or more of the following reasons:

- Birth of a child
- Adoption or foster care of a child
- Care for an immediate family member (spouse, child, or parent) with a serious health condition
- Medical leave when the employee is unable to work because of a serious health condition

Source: U.S. Dept. of Labor.

According to the National Center for Education Statistics, between 1987 and 1997 the number of high school graduates going directly to college increased from 57 percent to 67 percent. Students from higher-income families went directly to college at a higher rate than those from lower-income families. Males and female college graduates earn significantly higher incomes than high school graduates. Additionally, the trend is for college graduates to earn more and high school graduates to earn less.

The income of women continues to lag behind that of men who have the same educational level. Women earn about three-fourths of men's earnings. At the same time, the proportion of women earning bachelor's and master's degrees has gone up significantly in the past thirty years.

Employment cycles vary in the United States, but in addition to the economic hardships of adults who are unemployed, the often devastating **sense of loss of purpose, failure, and guilt may accompany the loss of one's job.** Depression, suicide, homicide, child abuse, and substance abuse increase in households with an unemployed member.

Life Cycle

Dan Levinson studied male development and has postulated periods of adult personality development. He described the **early adult transition**

from 17 to 22 years, when the young adult moves out of the parents' home and begins to build a life for himself. Between the ages of 22 and 28 this process continues, until the age 30 transition. Between 30 and 45, the early adult season continues, as the individual reevaluates his goals and continues to build a life structure. The novice young adult has many challenges simultaneously. He must balance working out any unresolved issues from the family of origin; finding a permanent partner for life; and facing new, unanticipated challenges in multiple areas of his life.

Betty Carter and Monica McGoldrick have proposed **stages of the family life cycle**. They describe the unattached young adult who must separate from the family. In order to proceed developmentally, the young adult has to resolve unfinished business with the family of origin, develop peer relationships, and work on honoring her identity.

When the young adult marries, a commitment to the new partner must be formed, with primary loyalty shifting from the family of origin. This causes a realignment of relationships with peers and the family of origin. Next, when the couple has children, the system has to be flexible and change to include the new member. The marital partners must establish their parenting roles and once again must rework their relationships with the families of origin on both sides. When the children become adolescents, the marital system must again flex to allow for the increased autonomy of the teen and to begin preparing to allow the teen to move out of the system. The marital partners must realign to focus on their impending midlife issues and to reconfigure their relationship without children living at home.

Fast Facts: Reproductive Health

- 12.6 years is the average age of the first menstrual period.
- 47% of female teens have had sexual intercourse.
- 46% of male teens have had sexual intercourse.
- The pill is the leading contraceptive method among women under 30.

Source: Centers for Disease Control.

Intimacy

Sigmund Freud believed that the hallmark of the **normal person** was the **ability to love and to work**. Freud used love in the broadest sense in this context to include sexual as well as nonsexual love. Intimacy can be separated from erotic love, as two people may have an empathic, caring relationship in which they share private victories and concerns as well as common interests without having a sexual relationship. Of course, the two may frequently go together. **Erik Erikson**, a follower of the psychoanalytic school, also

believed the capacity to be intimate was an essential function of a healthy person. As Erikson conceptualized the process, identity formation in adolescence must occur as a necessary prerequisite to the ability to form an intimate relationship during young adulthood. He considered the development of **intimacy** the **key task** of the young adult period. Failure leads to isolation. This view has been criticized, and other theorists conceptualize the developmental process differently.

How Healthy Are We?

The federal government says . . .

- 12% of Americans have to limit their usual activities due to a health condition.
- 21% currently smoke.
- 20% of adults had 5 or more drinks in 1 day at least once in the past year.
- 29% of persons older than 20 are hypertensive.
- 16% of persons under 65 are without health coverage.
- 15% of adults lack a usual source of health care.
- 66% of persons 20 and older are overweight.
- 9.3% percent of Americans are in fair or poor health.
- 30% of adults do regular leisure-time physical activity.
- Leading causes of death are
  - heart disease
  - cancer
  - stroke

Source: Centers for Disease Control.

Marriage

Western society places a high premium on romantic love and marital stability. The marital union continues to provide a high level of intimacy, economic security, and psychological satisfaction for adults. Married adults make more money and have more savings, have a higher rate of sexual frequency, and express more satisfaction with their sexual lives. They also monitor their health better, are more compliant with medical regimens, engage in less risky behavior, and have lower mortality rates than single adults. Whether these are selection effects or are due to protective factors conveyed by marital status is unclear.

Most young adults marry in their twenties, but there is increasing acceptance of cohabitation prior to marriage or instead of marriage. The traditional bias against this arrangement has decreased.

The U.S. Census Bureau reports that **adults are postponing marriage**. For women, the median age at first marriage increased by 4.3 years to 25.1 years from 1970 to 2000; for men the increase was 3.6 years to 26.8 years. This postponement has led to a larger number of young, never married adults. The number of women 20–24 who have not married doubled, from 36 percent to 73 percent, in the past thirty years; the number of women 30–34 who have not married tripled, from 6 percent to 22 percent.

Adults spend less time married than in the past due to the delay in age at first marriage, the increased numbers of adults who never marry, and increases in divorce rates. Black Americans spend less time married than white Americans.

Same-Sex Households

Recent census data suggest that the number of adults describing themselves as living with same-sex partners has increased dramatically in the states of Vermont and Delaware. This may correlate with increasing acceptance of gay and lesbian lifestyles in the culture at large. Many same-sex couples have established traditional households with children—either biological or adopted—which may lead to more acceptance of these nontraditional couples. The American Academy of Pediatrics has endorsed adoption by same-sex couples and points to studies documenting that **same-sex couples are as capable of successfully raising children** as heterosexual couples are.

Career Satisfaction of Physicians

Factors not usually evaluated in medical school or residency, such as the following, may be most important in adult career satisfaction:

- Regular exercise and maintenance of health
- Effective coping mechanisms
- Avoidance of dependence on alcohol or illicit drugs
- Ability to develop and maintain intimate interpersonal relationships
- Good mental health
- Ability to craft a satisfactory practice pattern with a sense of control over types of patients seen and hours of work

Studies suggest that divorce rates may be higher in surgery and psychiatry, but the majority of physicians report satisfaction with career and life.

Parenthood

Becoming a parent causes many changes for the young adult that challenges their coping ability. At the same time the young adult is negotiating both their occupational and marital duties, their parenting skills must be developed. This places an economic burden on the adult due to the expenses of child care and other child-related costs. In 1999, over half of children ages birth through grade 3 were enrolled in a child care program.

The pregnancy rate in the United States has declined to the lowest level in two decades. Of pregnant women, about 62 percent will give birth, 22 percent will undergo an abortion, and 16 percent will experience a stillbirth or miscarriage. According to the U.S. Census Bureau, the size of the average American household declined from 3.14 to 2.62 persons between 1970 and 2000. The reasons are complex but may be related to the economic demands of raising a family and to more women being employed full time. Over half of women giving birth in the United States were employed at the time of the birth. Over 20 percent of women have had a

sterilizing operation, and almost 10 percent of their partners have had a vasectomy. Of women who have had three or more births, two-thirds have had a sterilizing operation.

Out-of-Wedlock Pregnancy

Single parenthood brings special challenges. Although it is much higher in many other countries, it is **on the rise in the United States.** In 1993, when the number of infants born to out-of-wedlock mothers reached almost one-third of all births in the United States, the nation took notice. This trend is also noted in other Western industrialized nations. The majority of these births are to white women twenty years old and older, with higher rates among disadvantaged, less educated, and urban women. The child growing up in a single-parent household has a much greater chance of living in poverty than those in two-parent households, and the emotional, time, and financial demands on the single parent are greatly increased. Most children who are born out-of-wedlock grow up normally despite the risks.

Infertility

About 10 percent of the population of childbearing age will have difficulty having children. Of these, about a third are due to factors in the male, a third are due to factors in the female, and a third are due to a combination of the two or unexplained factors. Up to 90 percent of infertility is treated with conventional medical therapies such as medication or surgery. Such therapies as in vitro fertilization account for only a small percentage of infertility services. **Infertility problems** strain the marital relationship and **may lead to depression** if a couple is unable to conceive.

Fast Facts: Infertility

- 6.1 million women have impaired ability to conceive
- 9.2 million women have used fertility services
- 2.1 million married couples are infertile

Source: Centers for Disease Control.

Adoption

One million children in the United States live with adoptive parents. U.S. government statistics show that almost half of adoptions are kinship or stepparent adoptions. Although the number of adoptions is small, surveys show the majority of American families have been affected

in some way by adoption. This could be a family member giving a child up for adoption, being the friend of someone who was adopted, or other contact with adoption.

Divorce

U.S. government statistics document that **43 percent of first marriages will break up within fifteen years.** The families of these marriages usually experience greatly increased levels of stress on the entire family, more health problems, and increased rates of substance abuse. Marriage lasts longer when the woman is older at the time of first marriage; women who are younger at the time of divorce are more likely to remarry.

Any adverse economic effects of divorce fall most heavily on women, who tend to have lower incomes and the responsibility for supporting the children. In addition, the children of divorce experience a wide variety of adverse outcomes. They are more likely than children in intact families to be depressed, perform poorly in school, show behavior problems, have premarital sex, and be arrested.

Special Challenges for Medical Students and Residents

Most medical students and residents are successful in navigating all the tasks of young adulthood while completing a long, arduous, and expensive course of study. Students report pleasure and a sense of achievement as they master and learn a whole new vocabulary, assimilate vast amounts of data, and develop new skills to help others. Women medical students face special challenges and rewards if they become pregnant or give birth during medical school or their residency. If they choose to postpone childbearing until after their training is completed, they may have concerns about decreasing fertility.

It is incumbent upon medical students, residents, and medical educators to recognize the unique stressors these bright and talented young people face. Opportunities to enhance trainees' personal growth, self-esteem, self-confidence, interpersonal skills, efficiency, and hopeful outlook on life should be built in to medical education and sought by students. Healthy coping skills that will decrease depression, irritability, hopelessness, and tension should be cultivated. Regular physical exercise, meditation, spiritual activities and orientation, as well as an excellent network of supportive and significant others will offset the special stresses of this time.

Developing empathy with one's peers, as well as with patients, enhances the coping skills of the med student. Use of alcohol or illicit drugs compounds any problems. Depression, anxiety, perfectionism, constantly doubting one's ability and achievements will lead to stress and adjustment difficulties in a small number of students. **Confidential support and therapy should be made available** to students who request it.

Step Prep

1. Erik Eri.kson described the challenges of the early adult years as which of the following:

a. Autonomy vs. shame
b. Identity vs. identity diffusion
c. Industry vs. inferiority
d. Intimacy vs. isolation
e. Trust vs. mistrust

2. The early adult season described by Dan Levinson includes all the following tasks except:

a. Finding a permanent partner for life
b. Working out unresolved issues from family of origin
c. Coping with decline of powers
d. Coping with "Novice" role in life
e. Facing simultaneous new demands in multiple life areas

3. Medical students face special challenges because of their onerous work and study schedules and the financial demands of medical education. Without careful attention to health issues, they may be even more at risk than their nonmedical-student peers. Which one of the following statistics is true about the U.S. population over 20 years of age?

a. 21% smoke.
b. 25% are overweight.
c. 30% do not participate in regular leisure-time physical activity.
d. 50% lack a regular source of health care.
e. 10% are hypertensive.

4. What percentage of marriages in the United States will lead to divorce in fifteen years?

a. 10%
b. 25%
c. almost 50%
d. 66%
e. 90%

5. More adults in the United States are living alone now than in the past because (choose the one best answer):

a. They experience difficulty finding housing.
b. Black Americans spend more time married than white Americans.
c. The number of women 20–24 who have not married increased by 20 percent in the past thirty years.
d. Increased numbers of adults never marry.
e. Educational challenges make it difficult to find partners.

6. A third-year medical student was "chewed out" on morning rounds on his pediatric rotation when he could not adequately present a patient he had seen and evaluated while on call the night before. He had been very anxious about his clinical rotations and felt he was not doing well in pediatrics. He was having difficulty getting to sleep, decreased appetite, and uncertainty about continuing in medical school but felt he would be unlikely to be successful in any career or profession. He had lost ten pounds and had stopped going out with friends. He stayed in his apartment to study most weekends but was unable to concentrate. His best course of action would be which of the following (choose the one best answer):

a. Contact the dean's office and set up an appointment to take a leave of absence
b. Talk to his girlfriend, also a third-year medical student, about the situation, as she was feeling the same way and would understand
c. Contact the dean's office and speak to an associate dean about a referral to a mental health professional
d. Wait and see if things would improve
e. Speak to the medical student coordinator in pediatrics to see if he could do pediatrics in another hospital

Suggested Readings and Web Sites for the Highly Motivated

Carter, B., and McGoldrick, M., eds. (1998). *The Expanded Family Life Cycle: Individual, Family, and Social Perspectives* (3rd ed.). Columbus, OH: Allyn and Bacon.

Centers for Disease Control, Fast Stats, www.cdc.gov/nchs/fastats.
Levinson, D., Damow, C., Klein, E., Levinson, M., and McKeeb, B. (1978) *The Seasons of a Man's Life*. New York: Knopf.
National Center for Health Statistics, www.cdc.gov/nchs.
National Institutes of Health, www.nih.gov.
Sadock, B. J., and Sadock, V. A. (1998). *Kaplan & Sadock's Synopsis of Psychiatry* (9th ed.). Philadelphia: Lippincott William and Wilkins.

Answers to Step Prep

1. d
2. c
3. a
4. c
5. d
6. c

4 MIDDLE ADULTHOOD AND AGING

David Baron, MSEd, DO, and Burton Mark, DO

I was thinking about how people seem to read the Bible a whole lot more as they get older; then it dawned on me—they're cramming for their final exam.

—George Carlin

Drs. Ellen H. Sholevar and David Baron, midlife and beyond.

MENU

- Define midlife.
- List the unique stressors associated with this stage of life.
- Define the meaning of the term "Sandwich Generation."
- Summarize the psychological impact of the biological changes experienced in midlife and beyond.
- Identify the developmental tasks of elderly adults.
- Evaluate the presentation of elderly patients from a biopsychosocial perspective.

Introduction

Health, as described by Hahn and Payne (1998), is the blend of physical, emotional, social, intellectual, spiritual, and occupational resources that help one master the developmental tasks necessary for a satisfying and productive life. Each phase of life presents unique challenges that evolve over time. Even though people are living longer, perceptions of aging may evolve more slowly. **Life expectancy continues to expand** as a result of advances in medical technology; **this has redefined the stage of life known as midlife.** At the beginning of the twenty-first century, people forty to sixty years old are considered to be in midlife. Less than a century ago, they were considered to be in old age.

Some view adulthood as "prime time," while others see it as "the beginning of the end." The perception is based on a combination of biopsychosocial factors. For some, midlife is believed to be a time of crisis and difficult transition into old age, when self-doubt, reevaluation of career goals, changes in family responsibilities, and a growing awareness of one's mortality lead to turmoil and distress. In addition to a number of psychosocial transitions, many chronic medical conditions—such as hypertension, cardiac disease, and chronic musculoskeletal pain—first present during this stage of life. For most, the time required to heal from minor injuries lengthens; vision begins to fail, requiring glasses; and lean muscle mass begins to transform into adipose, reminding the individual of advancing age. As hair color begins to gray and skin wrinkle,

Fast Facts: The Elderly

- Currently, the elderly comprise 12% of the population.
- The elderly account for 25% of all physician visits and 30% of all prescriptions written.
- More than 66% of the elderly take between 5 and 12 medications daily.
- 80% have at least 1 chronic illness.

More Fast Facts

- Between 1900 and 1990, the number of people over age 85 grew more than 2,600%.
- The percentage of the population over 85 is predicted to grow fivefold between 1990 and 2050.
- In the U.S., women live six years longer than men on average.

many will seek to defy Mother Nature by getting a facelift or coloring their hair. Should this be considered merely an act of vanity? Maybe not. One needs to consider the psychological meaning of these normal effects of aging. Gray hair may become a constant reminder of life goals not achieved and likely never to be attained. For many individuals maintaining a youthful appearance is critical. The American culture is extremely youth oriented, unlike Asian and Native American cultures, in which old age is respected, often revered, and looking one's age is desirable. As physicians, it is important to explore with the patient the emotional meaning of these and other bodily changes within the context of his life situation. The clinician should not make the patient feel embarrassed over the desire to look younger but should be aware of underlying emotional turmoil, which could adversely affect a healthy transition into late adulthood.

Pre–Step Prep

1. A seventy-five-year-old man comes to your office complaining of difficulty falling asleep, decreased appetite, and feeling despondent for the past week. He denies having a history of major depression. You should do which one of the following:

a. Start him on a specific serotonin reuptake inhibitor (SSRI) antidepressant.
b. Ask him how he feels about taking medicine.
c. Tell him he is clinically depressed and needs to be treated.
d. Ask him what happened a week ago to change his mood.
e. Schedule another session to complete his psychiatric workup.

2. If you discover that the patient's wife died a week ago, you should:

a. Still offer the antidepressant medications.
b. Make sure he is not suicidal and recommend that he seek emotional supports (family, friends, or a group).
c. Tell him not to worry, he'll get over it in time.
d. Admit him into a psychiatric unit for acute observation.
e. Ask him to come back in a few weeks to check in.

3. The most likely diagnosis at this time is:
   a. Major depression
   b. Acute anxiety disorder
   c. Acute bereavement
   d. Somatization disorder
   e. Dissociative disorder

4. What age and gender group has the highest suicide rate?
   a. White males 15–24
   b. Black males over 85
   c. White males over 85
   d. Black males 15–24
   e. White females throughout the life span

5. A sixty-seven-year-old woman presents to the clinic complaining of difficulty falling asleep and maintaining restful sleep. The most likely problem is which of the following:
   a. Dopamine in the prefrontal cortex
   b. The basal forebrain
   c. Cortisol in the thalamus
   d. Serotonin in the hypothalamus
   e. Mu receptors in the midbrain

The Sandwich Generation

Middle adulthood is a bridge between two generations. Middle-age people often have to adjust to new relationships with their adolescent or young adult children and their aging parents. The new relationships may include role reversal with aging parents and the return of adult children to the home. A clever ad campaign by Holiday Inn humorously depicted this potential dilemma. The story line portrays a middle-age couple living with their out-of-work adult son and his grandmother. The running theme is the lack of space and privacy, and the different nutritional requirements of three generations living under one roof. Issues such as finances, emotional support,

Middle Adulthood

Middle adulthood is an important phase of life for the physician to attend to because it often is the period during which chronic illness begins, and it sets the stage for medical adherence. Changes in family and social structure also occur during this period, with accompanying stressors.

Strengths of Middle Adulthood

- Consolidation of identity
- Humanization of relationships and values
- Experience in crisis resolution
- Generativity and the expansion of caring
- Self-transcendence and spirituality

Typical Midlife Crises

- Realizing that some youthful dreams will never materialize
- Beginning to experience the pressure of time
- Coping with the aging process
- The death of parents
- The realization that life is not always just and fair and people often do not get what was expected
- Marital crisis, such as an affair or divorce
- Children growing up and leaving home (empty nest syndrome)
- Change in job status (loss of job or demotion)
- Spouse leaving home and going to work

home care of aging in-laws, and varying life styles are subtly presented as potential points of conflict.

Although the middle-age couple in the ads is portrayed as handling these issues together (often using sarcasm), for many in real life the **stresses of being sandwiched between generations** prove toxic for the individual and the marital relationship. The dream of successfully raising a family and living out fantasies of time alone together with a spouse may be shattered by economic realities that force children and parents back into the home.

For divorced, widowed, or separated couples, midlife may present with feelings of loneliness and fears of growing old alone and uncared for. The clinician needs to assess "how things are at home," particularly when multiple generations are living together. For the midlifer, psychosocial stressors associated with worrying about the future of adult children combined with concerns of long-term disability or mortality of aging parents, or himself or his spouse, may exacerbate existing intrapersonal stress and marital problems.

Major Issues of Midlife

The many changes that occur at midlife are reminders of the loss of youth and may negatively affect self-image. Major issues involve:

- Physical changes and health status
  - Gray hair and overall body changes
  - Redistribution of body fat
  - Gradual decline in muscle tone and definition (resulting from a decline in certain hormones)
- Sexuality
  - Changes in sexual interest and performance are often not discussed with the physician or the spouse because of embarrassment.
  - As sex hormone levels decline, a normal consequence of aging, libido often declines for men and women.
- Work and leisure
- Finances
- Relationships to family and society

Female Sexuality

For women, the **gradual loss of estrogen** experienced with perimenopause (the time just before menopause, usually in the mid- to late-forties) often results in hot flashes, vaginal dryness (resulting in painful intercourse), and a decrease in sexual interest.

Male Sexuality

For men, the gradual **decline in testosterone** results in an overall decline in sexual functioning—less rigid erections, a decrease in the force and volume of ejaculate, and an increase in refractory time (that portion of the sexual response cycle following ejaculation when the penis is essentially nonresponsive to additional stimulation). This decline in functioning is often a significant stressor for men. It is not surprising that the sexual enhancement supplement industry is so robust in the United States. Sildenafil citrate (Viagra), a drug for erectile dysfunction, is one of the most profitable and widely used medications by men in this age range. A female version is currently in development. It will be interesting to see if that version of the drug will enjoy the same level of success.

Work and Leisure

Work and leisure can be a source of enjoyment and stress. Job satisfaction is dependent upon a number of factors. The level of ascent up the corporate ladder may not match expectations and may become an issue, creating distress. Long-standing **corporate cultures changed** dramatically during the 1990s, resulting in mergers, right sizing (layoffs), and a departure from core values, such as loyalty, that existed previously. The notion of a company's long-term commitment to their loyal employees was replaced by "bottom line" business decisions. Some older workers felt betrayed by such changes. Early retirement packages offered to individuals in this age range were often financially lucrative but resulted in a crisis as to "what to do with the rest of my life." Feeling too old to start a new career and too young to be retired can be a very stressful situation.

Finances

Financial stressors are also important issues to explore. Some midlifers who carefully planned their retirement finances are shocked to realize the funds they saved for college tuition for their children are inadequate. Compounding the problem, **money saved** for retirement activities and travel **may be insufficient** to cover living expenses and medications, let alone that special long-desired purchase of a boat, RV, vacation home, or once-in-a-lifetime vacation. Dealing with the reality that youthful dreams may never come true may be an important aspect of a midlife crisis for some and a stressful midlife transition for others.

What Middle Adult Patients Expect from Their Physicians

- To have their fears relieved (some deny illness, fearing it may be the beginning of the end)
- To be educated about their illness and future options
- To be engaged in treatment options
- Not to be patronized

Relationships

As healthy middle-age adults progress to old age, societal expectations may lead to negative self-fulfilling prophecies. In many ways, American culture devalues old age, which results in the elderly devaluing themselves. Old age is usually not something to look forward to because of the many anticipated potential losses—vitality, good health, loved ones, and personal independence, to name a few. It is important for the physician to assist patients in elevating their self-esteem. Complimenting the middle-aged mature adult on his accomplishments (raising a family, career accomplishments) and helping him see the good things in life yet to come can go a long way toward improving self-esteem and creating a positive outlook on life.

Late midlifers often become grandparents for the first time. This is commonly viewed as an enjoyable experience, offering an opportunity to relive enjoyable memories of past family outings and correct mistakes made the "first time around." However, stress may result when children and grandchildren are geographically distant and can be seen only infrequently, such as on major holidays.

Sleep and Aging

Sleep is critical to health and is a highly structured physiological process. All mammals must sleep to survive. The brain requires regular sleep in order to function properly, but the **amount of sleep time necessary for optimal health changes throughout the life cycle.** The need for sleep is greatest during infancy and gradually decreases with age. When sleep time is cut short or sleep efficiency disrupted, physical and emotional symptoms ensue. Adults are keenly aware of the price they pay for not getting sufficient sleep. Achy feelings, upset stomach, motor retardation, poor concentration, irritability, moodiness, and fatigue are common complaints when sleep is cut short. Significant sleep deprivation can result in psychotic symptoms such as hallucinations and delusions. Many things can affect sleep, but stress, anxiety, and depression are particularly important culprits for middle-aged and elderly adults.

Every **initial evaluation of a patient should include a sleep history** with questions about the amount of nightly sleep, whether the patient wakes up feeling rested and refreshed, and any sleep complaints. It is not uncommon for retired patients to complain of difficulty falling asleep (initial insomnia). Questions about napping during the day or in the early evening, along with assessing exercise and eating habits may help get to the root of the problem. The frustration associated with difficulty initiating sleep or frequent nighttime

awakenings often exacerbates other preexisting life stressors and physical complaints. The recuperative power of restoring normal sleep patterns is dramatic. Sleep is controlled by complex interactions of a number of brain regions. However, the entire brain is affected by alterations in sleep.

Abnormal aspects of sleep have been recorded throughout history but none more than insomnia. Shakespeare perhaps described the plight of the person with insomnia best in this passage from *Henry IV*:

> O sleep, O gentle sleep
> Nature's soft nurse, how have I frightened thee
> That thou no more will weigh my eyelids down
> And steep my senses in forgetfulness.

Normal Adult Sleep

- Sleep is regulated by neurons in the upper brain stem, thalamus, hypothalamus, and basal forebrain.
- Melatonin is secreted by the pineal gland in the center of the brain and regulated through the ambient light-dark cycle on the suprachiasmatic nucleus of the hypothalamus.
- NREM and REM sleep alternate in 90-minute cycles 4 to 5 times a night.
- NREM sleep is usually 75–80% of sleep; REM sleep is 20–25% of sleep.
- Slow-wave sleep predominates in the first third of the sleep period; REM sleep predominates in the latter portion of the sleep period.
- Wakefulness within sleep usually accounts for less than 5% of the night.

Role of the Physician

As is the case in all of the life transitions, a biopsychosocial perspective to assessment and intervention (where indicated) is essential in understanding the midlife patient. Understanding the important interplay of predictable (graying and redistribution of body hair, cessation of menses, decline in virility and strength) and nonpredictable (acute or chronic illness) biological changes and psychological issues (such as coping with these changes) is critical. **Midlifers may feel embarrassed** to discuss stressful psychosocial issues with their physician or may deny them altogether. The physician needs to educate the patient that these are important topics that will adversely affect overall health if not identified and addressed.

As health care providers, our role should be to assist patients in making healthy transitions into late life. Physicians should avoid a "one size fits all" mentality regarding the transition into old age and should assess the unique strengths and weaknesses of each patient from a biopsychosocial perspective.

The Four Stages of Life

1. You believe in Santa Claus.
2. You don't believe in Santa Claus.
3. You are Santa Claus.
4. You look like Santa Claus.

It is important for physicians not to assume that any particular life circumstance is stressful or enjoyable. The only way to assess the

emotional impact of any of the issues mentioned in this chapter is to empathetically ask the patient in a nonjudgmental tone how he feels. Patients need to feel comfortable in bringing up with their doctor seemingly trivial concerns, such as change in hair color, disappointment at work, trouble in relationships, or feeling demoralized. They need to be educated that everyday minor distress can result in significant emotional upset, which can adversely affect overall physical and mental health. In addition, the patient needs to be assured that they are not "going crazy" and that effective interventions—ranging from stress reduction strategies and healthy lifestyle changes to psychotherapy and pharmacotherapy—exist when needed. Patients suffering depression, extended grief, or anxiety may be self-medicating with drugs or alcohol and need to be identified quickly to avoid additional problems associated with those behaviors. As patients approach the next stage of life, old age, we need to anticipate potential issues that may become clinically relevant.

Old Age

What is "old"? Unlike age, which is a precise measure of how long a person has been alive, *old* is a relative term, which changes with time. A century ago fifty was considered old, and it was old, given the average life expectancy. Today fifty is middle age, and death at that age is met with remarks like "He died so young." As discussed in the first segment of this chapter, there are predictable physiological changes that take place as we age: Hair grays, skin wrinkles, muscle-to-fat ratio declines, and visual acuity diminishes. Are these the changes that make us feel old, or is it a sociocultural age that is declared as old age? As physicians it is important to understand the biological consequences of aging, as well as the psychosocial significance of growing old within the context of our culture.

In one of his last speeches before his assassination, John F. Kennedy quoted James Fries in proclaiming that it was not enough to merely add years to life. He charged the medical profession to add life to those years. In the four decades since that speech, the medical profession has been very successful in adding years to life. In fact, the fastest-growing segment of the population is the elderly.

Although advances in medical science have successfully added years to life, we have not cured disease and have done a poor job of addressing emotional distress in the elderly. In most cases, we have been able to extend life in those with chronic disease. The goal of all future physicians should be to add quality years to life.

Economic Impact

People living longer with chronic illness has resulted in a dramatic increase in the use of medical service delivery systems and a significant increase in health care costs for the patient and society. Less than 5 percent of this segment of the population takes no medications at all. As society ages, new and heretofore unanticipated dilemmas are developing. Having the old be alive for so long with chronic, expensive-to-care-for illnesses was not anticipated a century ago. It is not unreasonable for the young of today to expect to see the latter part of the twenty-first century. Their expectations of retirement and the golden years are likely to differ dramatically from those of their grandparents, as they are likely to live not only longer but also healthier lives. The challenge of their health care providers will be to successfully integrate a balanced biopsychosocial approach to care delivery, adding "life" to their extended years. The next generation of physicians must learn to attend to the health of the elderly, not just their disease. The financial implications of providing ongoing care to an aging population will be a formidable challenge to physicians and the health care industry.

Theories on Successful Aging

Activity Theory: Thorsonin, 1949

- Aging is an extension of midlife.
- Maintain happiness in late life by remaining active.
- Age-appropriate replacement of activities include:
  - Aerobic exercise
  - Travel
  - Arts and leisure activities (shopping, gardening, photography)

Disengagement Theory: Cumming and Henry, 1961

- Old age is a distinct time of life, not an extension of midlife.
- It is appropriate for the elderly to gradually withdraw from society.
- Elderly do not need society, and society does not need them.
- Elderly do not need to be active and productive to be well adjusted.

Continuity Theory: Atchley, 1972

- Aging does not change the core personality
- Active people should remain active.
- Society should not define the proper way to age successfully.

Those Who Adjust Best to Retirement . . .

- Are healthy
- Have an adequate income
- Are active
- Are well educated
- Have an extended social network of friends and family
- Were satisfied with their lives before retirement

Newer Trends in Theories of Aging

Newer trends in theories of aging emphasize the strengths and abilities of the elderly, as well as coping skills for the disadvantaged elderly.

Developmental Tasks of Elderly Adults

According to **Erik Erikson**, late adulthood (greater than seventy years old) is a development stage characterized by **ego integrity vs. despair.** Those who have few regrets, see themselves as living a productive life, and are able to successfully cope with aging. Maintaining an active, stimulating lifestyle after retirement is important for optimal physical and emotional health. Physicians should encourage their patients to stay active in regular, enjoyable exercise programs. Another key factor for the elderly is their ability to adjust to losses, particularly the death of a spouse or lifelong friends; the probability of the death of a widower is highest in the year after the death of a spouse. Many elderly people report their greatest fear as being alone and forgotten in their latter years.

In assessing the potential difficulty of adjusting to retirement and advancing age, the physician should routinely evaluate the following areas: overall health, income, level of daily physical activity, social support network, and level of satisfaction with life prior to retirement. The importance of financial issues warrants evaluation, even though this is not an area of intervention by the physician. One in eight older adults are poor, sometimes having to choose between buying food and paying for medications. The figure is significantly higher for women and minorities. Poverty aggravates the problems of old age, putting many of the benefits of retirement, such as unlimited leisure time, out of reach. People on fixed incomes are often hit hard by rising taxes and unanticipated expenses such as health care and medications. The assessment of the elderly patient must include an evaluation of the overall financial and emotional support network. Knowledge of existing social supports will enhance the clinician's ability to develop an effective health maintenance and disease intervention and prevention strategy.

Sleep in the Elderly

Sleep data suggest that the elderly (1) have more trouble initiating and maintaining sleep, resulting in more daytime napping and more time

spent in bed but less in restorative sleep; (2) exhibit more variability in sleep duration; (3) exhibit more stage 1, nonrestorative sleep; (4) the amplitude of slow-wave sleep (stages 3 and 4, restorative sleep) markedly diminishes; and (5) a reduction in circadian rhythm amplitude occurs, so that adjustments such as jet lag or rotating shift work result in more trouble sleeping.

Insomnia in the elderly is a common problem and can lead to an intellectual deficit even in the nondemented elderly due to daytime somnolence or the cumulative insult of hypoxemia on cerebral function. The causes of sleep disruption are:

- Medical and psychiatric disorders
- Medications
- Cardiopulmonary disorders such as heart failure and COPD
- Alcohol, methylxanthines, caffeine, and hypnotics
- Too much time indoors in low light levels such as in nursing homes

Evaluating the Older Patient

The psychiatric evaluation of the elderly patient poses some unique challenges. Decreased hearing acuity, varying levels of cognitive decline, and the stigma associated with a psychiatric diagnosis are just a few of the potential obstacles that will need to be considered. For older patients, time is an important issue. If they perceive the interview as being rushed, they are likely to withhold important emotional information. Sit down with the patient and be prepared to listen. Interrogation-style interviews are rarely productive, may offend the patient, and often yield inaccurate clinical data.

Always take into account the **entire biopsychosocial picture.** A patient who appears to be suffering with major depression may be in mourning, or an underlying medical condition (e.g., thyroid disease or cancer) or the side effects of prescribed medications may be the cause. The role of substance abuse, particularly alcohol, should be considered as a potential contributing factor to changes in mood and behavior in this age range. Always look for a history of alcohol dependence in elderly patients who are drinking too much.

Great Truths About Growing Old

- Growing old is mandatory; growing up is optional.
- Forget the health food. I need all the preservatives I can get.
- It's frustrating when you know all the answers, but nobody bothers to ask you the questions.
- Time may be a great healer, but it's also a lousy beautician.
- With age comes wisdom, but sometimes age comes alone.

Suicide in the Elderly

Medical students are trained to improve the quality and quantity of life. Death is often

viewed as a "defeat." It is not surprising that most physicians have a difficult time understanding why a patient would take their own life. The common perception is that suicide is most frequent in middle age, young adulthood, and adolescence. In fact, **people over sixty-five have the highest suicide rate.** Federal statistics confirm that suicide disproportionately affects the elderly. The National Strategy for Suicide Prevention, a collaborative effort of several federal health and mental health agencies, made public a number of interesting facts about suicide in the elderly:

- An average of one suicide occurs among the elderly every ninety minutes.
- In 1998, the elderly represented 13 percent of the population but 19 percent of all suicide deaths.
- Risk factors for suicide among older people differ from those among the young.
- In 1998, men accounted for 84 percent of suicides among people sixty-five and older.
- Suicide rates among the elderly are highest for those who are divorced or widowed.

Although there is a high incidence of depression in the elderly, **depression is *not* a normal part of aging.** Be sure to assess your patient for signs of depression. If an elderly patient is depressed, be sure to ask her about thoughts of harming herself or hopelessness. Most elderly suicide victims visited their primary care physician in the month prior to the suicide. Don't let your patient become a statistic!

When interviewing an elderly patient who has *any* of the risk factors for suicide, the medical student should always ask if the patient has ever felt that life was not worth living anymore. If the student has any concern, follow-up questions, and likely referral for psychiatric evaluation, are warranted. The following **tips for interviewing** the elderly patient may be particularly valuable with a patient who is at risk for suicide:

- Explain who you are and why you are there.
- Be respectful.
- Do not stand over the bed; sit down in a chair at the patient's level. (That works well for patients of any age.)
- Speak clearly and loud enough for the patient to hear.
- Treat the patient as if she was your parent or grandparent.

Poverty in Elderly Adults

- 1 in 8 older adults in the U.S. is poor.
- The proportion of poor is higher for women and minorities.
- Poverty in elderly adults
  - Aggravates the problems of aging by putting many benefits out of reach
  - Is associated with inadequate housing
  - Increases barriers to health care

- Do not rush the interview or make the patient feel hurried.
- Listen to what the patient has to say.
- Do not interrogate.

Successful Aging

In this chapter we have discussed the need for a biopsychosocial approach to the evaluation and care of chronologically mature adults (midlife to elderly). Aging is influenced by societal expectations, cultural influences, and medical advances. What are the important individual variables that affect successful aging**? George Vaillant and Kenneth Mukamal**, experts on aging, followed two groups of adolescent boys (college students and inner-city youth) for sixty years or until death. They collected psychosocial data every two years and completed physical examinations every five years. This landmark study reported that the two most important psychosocial **predictors of successful aging** were:

- High level of education
- Having an extended family network support system

The important **predictors of poor aging** were:

- Trouble walking
- Poor vision
- Depression
- Loss of cognitive functioning

The researchers' encouraging conclusion was that people have greater personal control over their biopsychosocial health than was previously recognized. This is important information to share with older patients. Helping the maturing patient maintain a sense of control over her destiny will result in a healthier, happier old age. This concludes the life cycle section of the text. The important role of the physician as a teacher to patients at this, as at every, stage of life cannot be overstated.

Step Prep

1. A seventy-five-year-old man comes to your office complaining of difficulty falling asleep, decreased appetite, and feeling despondent for the past week. He denies having a history of major depression. You should do which one of the following:

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b. Ask him how he feels about taking medicine.
c. Tell him he is clinically depressed and needs to be treated.
d. Ask him what happened a week ago to change his mood.
e. Schedule another session to complete his psychiatric workup.

2. If you discover that the patient's wife died a week ago, you should:
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b. Make sure he is not suicidal and recommend that he seek emotional supports (family, friends, or a group).
c. Tell him not to worry, he'll get over it in time.
d. Admit him into a psychiatric unit for acute observation.
e. Ask him to come back in a few weeks to check in.

3. The most likely diagnosis at this time is:
a. Major depression
b. Acute anxiety disorder
c. Acute bereavement
d. Somatization disorder
e. Dissociative disorder

4. What age and gender group has the highest suicide rate?
a. White males 15–24
b. Black males over 85
c. White males over 85
d. Black males 15–24
e. White females throughout the life span

5. A sixty-seven-year-old woman presents to the clinic complaining of difficulty falling asleep and maintaining restful sleep. The most likely problem is which of the following:
a. Dopamine in the prefrontal cortex
b. The basal forebrain
c. Cortisol in the thalamus
d. Serotonin in the hypothalamus
e. Mu receptors in the midbrain

Suggested Readings and Web Sites for the Highly Motivated

Atchley, R. C. (1972). *The Social Forces in Later Life: An Introduction to Social Gerontology.* Belmont, CA: Wadsworth.

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Answers to Pre-Step

1. d
2. b
3. c
4. c
5. b

5 HUMAN SEXUALITY

David Baron, MSEd, DO, Ellen H. Sholevar, MD,
and Thomas Hardie, RN, EdD

It was a lover and his lass,
With a hey, and a ho, and a hey nonino,
That o'er the green corn-field did pass,
In the spring time, the only pretty ring time,
When birds do sing, hey ding a ding, ding;
Sweet lovers love the spring.

—William Shakespeare

DNA determines chromosomal sex.

MENU

- Describe sexual development across the lifespan.
- Discuss the anatomy and physiology of the sexual response cycle for both sexes.
- Summarize the major sexual dysfunctions.
- List sexually transmitted diseases and risky sexual behaviors.
- Summarize medications that may affect sexual desire.
- Consider the effects of gender and lifestyle on health care.
- Identify physician factors important in dealing with a patient's sexuality.
- Describe the relevance of exploring sexual activity and orientation during the history and physical examination.

Introduction

Sex is one of the most powerful basic drives affecting human behavior and one of the most pleasurable ways humans express love, intimacy, and closeness. Like those of hunger and survival, sexual impulses have a biologic diathesis but are modulated by cultural, psychosocial, and spiritual factors. Sexuality can also express aggression and interpersonal power issues, as in rape.

The fascination and, at times, obsession with sexuality is graphically depicted in ancient art. In many ways, little has changed regarding human sexuality over the last five thousand years. Society and culture play a vital role in defining normal sexual behavior.

Physicians and medical students are in a unique and privileged position to evaluate and treat their patients' sexual concerns, illnesses, and behaviors. Doctors examine body parts that otherwise only the patients themselves or their intimate partners are allowed to touch. Patients discuss sexual functioning and concerns with their physicians. As a consequence of the Freudian influence, psychosexual development is viewed as critical to normal emotional development. The medical student and physician need to understand risk-taking sexual behaviors that may endanger their patients, feel comfortable with the topic, have skills in helping patients in this area, and educate patients about sexual issues.

Pre–Step Prep

1. A twenty-three-year-old male is obsessed with the thought that his penis is too small to ever satisfy a woman. He requests your advice regarding penile enlargement surgery or taking an herb he read about on the Internet. You should do which one of the following:

a. Advise that he consult with a urologist.
b. Advise that he contact an herbalist before purchasing any sexual aid drugs.
c. Assure him that penile size is important only in porno films and odds are that he is adequate to satisfy his partner.
d. Measure his erect penis.

2. A thirty-seven-year-old male comes to your office for his first visit. He has moved from another city to work nearby. When you obtain his history, he reports having recent feelings of depression, which have affected his sexual function. He reports that he has never been sexually active, as he has never been able to achieve an erection. When asked about previous treatments he has attempted, he states that he has never been asked about this before. When asked what sexual function was impaired by his depression, he reports that his ability to fantasize is gone and this distresses him a great deal. His physical examination is negative for potential causes of the presenting symptoms. His erectile dysfunction is:

a. A primary sexual dysfunction
b. A secondary sexual dysfunction
c. The cause of his depression
d. Caused by his dependence on fantasy

3. A twenty-one-year-old female comes to the office, having been accepted into an Ivy League medical school upon her recent graduation from college. She expresses that she has had some troubling experience while at school and wants to review it with you. She states that she is confused about her sexual preference. Her sexual history includes heterosexual sex that was not satisfying once during her junior year of college and an aborted attempt at lesbian contact that she found exciting although she became fearful during the situation. She becomes tearful during the questioning and reports that her aunt sexually abused her when she was four to eight years old, and she thinks this has caused the situation. She is fearful about her feelings and about what it means to be a lesbian. She wants to explore treatments

for her situation. As you consider developing a treatment plan for her, your primary consideration would be which of the following:

a. To change her sexual preference
b. To support her in exploring her sexual preference
c. To provide safe sex information
d. To get treatment for her abuse

4. A twenty-two-year-old man comes to see you in your primary care office. His family has pressured him into coming to see you to discuss his "behavior." He has several facial piercings and reports that he has had his nipples pierced. The increasing "strange dress" and the places and company he is keeping frighten his parents. He is cooperative with the interview, stating he wants to help his family relax by coming to see you. He reports that he is bisexual and has had numerous short-term relationships. He further reports that his primary source of sexual pleasure is achieved by piercing and he enjoys painful and rough sex. His fantasies center on these activities. He reports that he spends several hours a day on the Internet viewing pornographic material and has been attempting to meet people who could abuse him. He is having trouble at work, as he is often found viewing this material during the workday. Which one of the following diagnoses would be most appropriate for this man?

a. No diagnosis
b. Sexual sadism
c. Sexual masochism
d. Klismaphilia

5. Johnny, who is eight years of age, is brought to his primary care physician by his concerned parents. They report that he had begun to object to being seen nude by his parents, had been seen masturbating in his room at bedtime, and only played with boys at school. After taking a careful history and finding Johnny's growth and development within normal limits and without any major trauma, the physician should next do which one of the following:

a. Recommend a neurological evaluation.
b. Refer the boy to a child psychiatrist.
c. Advise the parents that this is normal behavior and further evaluation is unnecessary.
d. Start stimulant medication.
e. Recommend family therapy.

6. Which one of the following statements is a common misconception about sexuality in adolescence?

a. The majority of questions asked by teens in the middle adolescent period concern peer group and sexuality relationships.
b. Menses in females may initially be irregular and without ovulation.
c. Ejaculation is a relatively late pubertal event in males.
d. Masturbation in adolescence can lead to psychiatric disturbance.
e. Early first sexual relationships are highly correlated with acquisition of sexually transmitted diseases and high-risk behaviors.

Biological Development: The Prenatal Period

Each fetus has forty-six chromosomes, forty-four autosomes and two sex chromosomes with the potential to become male or female. Without a specific "masculinizing" influence, female development will result. At the time of fertilization of the ovum, the father and mother contribute forty-four autosomes and one sex chromosome. Via the ovum the mother contributes one sex chromosome, which is female (X), and via the sperm the **father** contributes one sex chromosome (Y) or (X), which **determines the sex of the zygote** (the fertilized cell formed by the ovum and sperm). This chromosomal sex will then dictate gonadal sex. Embryos of both sexes develop in an identical fashion until approximately forty days of gestation. In the male, the H-Y antigen then stimulates the embryonic gonad to form a testis, which then produces testosterone.

The hormonal influence then dictates phenotypic sex. Testosterone leads to differentiation of the embryonic scrotum, penis, epididymis, vas deferens, and ejaculatory ducts. Without the H-Y antigen, the gonad becomes an ovary, and development of the vagina, clitoris, fallopian tubes, and uterus ensues. An ovary is not necessary, however, for female differentiation. During prenatal development, gonadal steroids, including estrogens, progestins, and androgens, regulate central nervous system development, as well as sexual differences in other parts of the body. By the seventh to eighth week of development, the embryo can be distinguished as male or female.

There are multiple causes of disturbed embryogenesis leading to disruption of sexual differentiation and lack of **correspondence between**

Fast Facts

Xygote = fertilized cell formed by the ovum and spern. The term generally covers the period from fertilization to implantation at day 14.
Fragile X Syndrome = sex-linked chromosomal abnormality that affects 25% of mentally retarded males; includes macrocephaly and macro-orchidism (enlarged testes).

genotypic and phenotypic sex at birth. Environmental factors such as exposure to virilizing hormones in utero, birth defects of multiple causes, and chromosomal abnormalities all can lead to difficulty in making appropriate gender assignment at birth. Chromosomal abnormalities are called sex linked when the gene locus is found on the X chromosome. Most such abnormalities are recessive and account for the larger number of inherited disorders in males than in females. Included in this category are fragile X syndrome, named for the breakage gap on the distal arm of the X chromosome; Turner syndrome (XO); Klinefelter syndrome (47,XYY); and other sex chromosomal abnormalities. Occasionally, the fetus is exposed to abnormally high levels of androgens from the adrenals, which may lead to masculinization of the female genitals and to a puberty as early as eighteen months in boys.

Sexual Development

The First Year of Life

After birth, plasma testosterone levels are approximately the same in males and females, but in males the levels rise and remain high for about three months, then fall to low levels by six months to one year. The levels will remain low but slightly higher in boys than girls until the onset of puberty. Physiological sexual responses are noted in both male and female infants. Infants younger than six months are capable of orgasm. Innate **biological and physiological factors interact with environmental and cultural factors** in complex feedback loops.

Sex role development is the process by which youngsters develop the beliefs and behaviors defined as appropriate for their sex by their family and society. Even in the newborn nursery, male and female infants may be treated differently or similar behaviors may be interpreted differently by caretakers. Once the infant is home from the hospital, parents, extended family, and friends immediately select gender-specific colors, toys, and clothing and characterize the infant in terms that connote sex typing. "Look at him, what a little bruiser!" in his baseball outfit, or "What a delicate, beautiful little girl she is!" in her pink, ruffled dress.

The first year of life was characterized by **Sigmund Freud** as the **oral stage** because of the investment in the nipple and sucking.

Toddler: One to Three Years

Between two and three years of age, **gender identity appears** in an early form. In children, this includes fantasy and toy play and has cognitive, biological, and social determinants. Studies show that prior to

two years of age, children play with gender-appropriate toys such as dolls and trucks. This finding may be related to social learning. After age three, it is difficult to change gender, and attempts to do so may lead to confusion and distress. By age two or three, children can accurately say whether they are a boy or a girl. Nevertheless, they think that gender can be changed like clothing or hair style. It is only later, between four and eight years, that they develop the understanding of gender constancy—namely, that gender is stable over time.

Self-stimulation or masturbation becomes more intentional during this period and is accompanied by perspiration, flushing, and rapid breathing. In addition, toilet training is accompanied by an interest in toilets and fecal material, and there is typically confusion between sexual and bowel and bladder functions. Both sexual and toileting functions tend to be categorized by young children as "dirty." Freud termed this second year of life the **anal period**.

Early Childhood: Three to Six Years

By four years of age, children enjoy being nude and looking at others nude, touching the genitals of themselves and others, touching women's breasts, and playing "doctor" games. It should be kept in mind that children's behaviors are highly sensitive to culture, so the sexual behaviors of children from another culture may vary significantly.

Boys and girls develop erotic feelings toward the parent of the opposite sex, which was termed by Freud the **Oedipus complex** after the man in Greek mythology who killed his father and married his mother. Primitive concepts of sexuality are revealed through questions and

Behavior of Children between the Ages of Three and Six	
Common in our society:	***Uncommon in our society:***
• Scratches crotch • Touches genitals at home • Undresses in front of others • Sits with crotch exposed • Kisses nonfamily children and adults • Touches breasts • Tries to look at people undressing • Touches genitals in public • Shows sex parts to other children • Masturbates with hand • Shows interest in opposite sex	• Putting mouth on genitals • Masturbating with an object • Asking to engage in sex • Inserting objects in the vagina or anus • Imitating intercourse • Making sexual sounds • French kissing

comments made by children, such as "I used to have a tail, but then it fell off" or "The baby came out through the poopie hole." Children also commonly misunderstand adult, genital sexuality as an expression of aggression. Freud called this the **phallic-oedipal period.**

Middle Childhood: Six to Twelve Years

The period from the resolution of the oedipal period at five or six years until adolescence was characterized by Freud as the **latency stage**. This term referred to Freud's belief that there was little interest or involvement in sexual activity by children during this stage. Indeed, it is during this period that children mature cognitively to the Piagetian stage of concrete operations and understand sexual functioning in a more realistic way than in the preschool period.

At the same time, **children begin to show modesty,** object to others seeing them nude or on the toilet, and realize that sexual activity and feelings are to be kept private. Contrary to what Freud taught, sex play is common at this age. Some investigators see genital self-arousal during this period as essential to normal sexual growth and development As children grow older, parents also become more modest. It is unusual for a parent in our culture to bathe with an opposite sex child of more than eight or nine years old. By age six, children preferentially interact with children of the same sex, and this preference remains through the elementary-school years.

Fantasy formation is used during this period as a positive way to cope with developmental concerns and plan for the future. Identification with a hero or admired person may blend into the daydream. The girl sees herself winning the Olympic gold medal in ice skating while studying to be a physician. The boy dreams of scoring the wining point in the final game in the NBA playoffs and then going on to win the Nobel Prize in economics.

Adolescence: Thirteen to Nineteen

Adolescence encompasses puberty, the physiological and anatomical changes at this period of

2005 Youth Risk Behavior Surveillance System

In 2005, the Youth Risk Behavior Surveillance System surveyed the sexual behavior of students in the ninth through twelfth grades and found the following:

- 46% had had sexual intercourse.
- 14% had had sexual intercourse with more than 4 persons.
- 34% were currently sexually active.
- 34% used a condom during last intercourse.
- 18% of girls used birth control pills before last sexual intercourse.
- 23% used alcohol or drugs before last sexual intercourse.
- 88%had been taught in school about AIDS and HIV infection.

Source: Centers for Disease Control.

Impacts of Adolescent Sexual Behaviors

- 831,000 pregnancies occur each year among girls aged 15 to 19.
- 9.1 million cases of sexually transmitted diseases occur each year in persons aged 15 to 24.
- An estimated 4,842 cases of HIV/AIDS occur annually in persons aged 15 to 24.

Source: Centers for Disease Control.

Most Common Sexually Transmitted Diseases

Chlamydia, a silent infection that may cause no symptoms in either males or females, infects an estimated 2.8 million Americans each year. Any sexually active person can be infected.

- In pregnant women, chlamydia can lead to premature delivery or infant pneumonia and conjunctivitis.
- All pregnant women should be tested for chlamydia.
- 40% of untreated women with chlamydia develop serious complications such as pelvic inflammatory disease (PID). PID may cause chronic pain and infertility.
- Women with chlamydia are 5 times more likely to become infected with HIV if exposed.

The next most common sexually transmitted disease, **gonorrhea,** was reported in more than 300,000 Americans in 2004.

– Often a silent infection
– May lead to PID and sterility
– Can be successfully cured by antibiotics

Source: Centers for Disease Control.

life, and also the psychological response to these changes. Regulation of hormones from the central nervous system, adrenals, and gonads initiate changes in internal sexual structures as well as secondary sexual changes. Most adolescents have a positive experience during this phase of life and are pleased with the changes in their bodies. Contrary to common belief, most do not go through profound upsets or disruptive behavior. There has been a **decrease in the age of onset of puberty** from sixteen or seventeen in 1850 to the current age of eleven to twelve.

In females, widening of the hips is followed by breast budding and appearance of pubic hair at about eleven to twelve years of age. The uterus and vagina mature. About one year after breast development, a rapid growth in height is noted. Onset of menses, a relatively late event in female puberty, usually takes place between ages ten and fifteen. Menses may be initially irregular and without ovulation. In males, the sequence of events is more variable. Testicular enlargement commences at about eleven, then pubic and axillary hair develop, to be followed within a year by penile enlargement. Testes mature and produce increased amounts of testosterone and the prostate and seminal vesicles develop. Ejaculation is a relatively late pubertal event and occurs between eleven and fifteen years in most boys. The first nocturnal emission (wet dream) occurs about a year later. Early adolescence is a relatively sterile period for both males and females, with girls having anovulatory cycles and boys having less viable and fewer sperm in their ejaculate. The pediatrician **James Tanner** divided the physical changes of puberty into stages, a system that is widely referred to as **Tanner stages,** or SMS for sexual maturity stages.

Girls generally move into puberty earlier than boys. The rate of growth and change in this period is second only to that during the period of infancy. In males and females the physical changes of puberty occur over a period of several years. There are wide variations in both the timing of onset and the duration of the physical changes of puberty. This is thought to be due to multiple factors including nutrition and health care. The outcome and timing of puberty are related to complex interactions between biological and psychosocial factors.

Masturbation increases during this period. Self-stimulation is more frequent during adolescence than at any other period during the life span for males, and studies indicate that the majority of adolescents regularly engage in this behavior. Fantasies that accompany masturbation facilitate expression of sexual and aggressive feelings. Masturbation provides an important rehearsal for later intimate sexual relationships with a partner and facilitates consolidation of sexual identity. This activity may be accompanied by guilt and embarrassment and may not be seen as acceptable behavior in some religious or cultural groups. Increasing the capacity for sexual and emotional intimacy and separation from family of origin continue to be concerns in this period.

Adolescents with chronic medical illnesses are likely to have problems in the social, emotional, and physical aspects of their psychosexual development. In early adolescence, boys express concerns about gender role, stature, musculature, and external genitalia. In contrast, early adolescent girls have more worries about weight gain and cosmetic stigmata.

Young Adulthood: Twenty to Forty

The young adult has matured sexually and has usually consolidated gender identity. **Sexual orientation** refers to the preferential erotic arousal pattern and may be homosexual, heterosexual, or bisexual. Anatomical and physiological differences between genders have been documented in language areas of the brain, in resting metabolic rates, in the size of the corpus collosum, and in cell densities in different parts of the brain. The normal male brain is 10 percent larger than the normal female brain. Brain size is not related to intelligence.

The novice adult has challenges in all areas of functioning: to establish and develop skills in a chosen career, to find a partner and maintain a relationship, and to make choices involving childbirth and child rearing. Sexual activity brings

Most Common Sexually Transmitted Viral Disease

Human Papillomavirus (HPV) infects more than 20 million people in the U.S.

- HPV usually causes no symptoms, but genital warts may appear.
- Some "high-risk" viruses in this group may lead to cancers of the cervix, vulva, vagina, anus, or penis.
- The "Pap test" is important to screen for cervical cancer.

Source: Centers for Disease Control.

HPV Vaccine Is Now Available

On June 8, 2006, an HPV vaccine was licensed by the Food and Drug Administration (FDA) for use in females ages 9–26. Another HPV vaccine is in the final stages of clinical testing but is not yet licensed. These vaccines offer a promising new approach to the prevention of HPV and associated conditions but are very expensive. The vaccine prevents infections with HPV types 6, 11, 16, and 18.

Source: U.S. Food and Drug Administration.

Fast Fact

The incidence of engaging in unprotected, unsafe sex increases dramatically when partners are intoxicated or high on drugs.

Source: Centers for Disease Control.

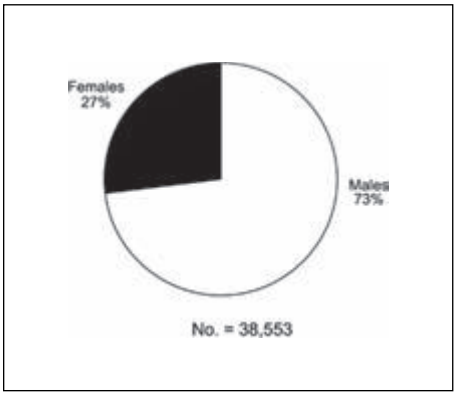

Figure 5.1 Gender of Persons with HIV/AIDS Diagnosed in 2004

Source: Centers for Disease Control.

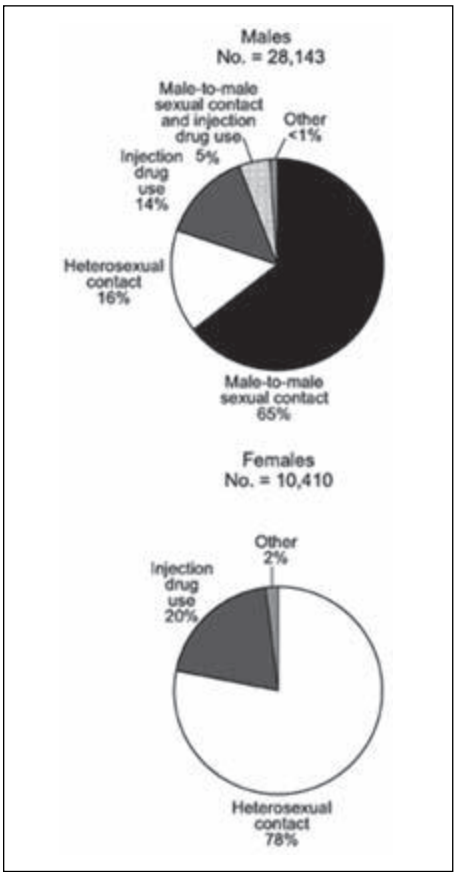

Figure 5.2 Transmission Categories of Persons with HIV/AIDS Diagnosed in 2004

Source: Centers for Disease Control.

pleasure and intimacy but also may pose threats due to sexually transmitted diseases. Age at first marriage has increased at the same time that age of first intercourse and age of sexual maturation have decreased. Once adults marry, or cohabit, sexual activity decreases in frequency and is usually restricted to the primary partner.

A significant stressor for couples waiting to conceive is infertility. Improvements in treatment for infertility offer help to some, while the heated national debate over abortion reflects religious and ethical issues that may make such choices more difficult. The RU-486 pill (mifepristone), which has been available for some time in France, is currently available in the United States, as well. This provides a "morning after" pill for those wishing to terminate an unwanted pregnancy at the earliest stage. Many unintended pregnancies end in abortion. The number of unintended pregnancies has increased during the past decade, underscoring the need for further public education programs that deal with the causes of unintended pregnancy.

Midlife: Forty to Sixty-Five

Women in midlife go through menopause, and individuals of both sexes must adapt to the aging process. As the responsibilities of child rearing decrease due to the maturity of children, choices of lifestyle increase. Hormone levels drop in both sexes, but sexual interest and activity are more dependent on psychological factors than on hormonal levels. Nevertheless, studies document decreases in sexual activity during midlife. Women show lower levels of sexual interest and activity than male age-matched peers, and both men and women are likely to attribute decreased sexual activity to the behavior of the male partner. Decreased estrogen levels result in vaginal dryness, which may lead to painful intercourse for women. Lower testosterone levels in men decrease erectile functioning and libido.

Late Life: Sixty-Five Plus

It is a myth that aging is always associated with sexual dysfunction. The healthy elderly remain sexually active well into later life, and the need for closeness and intimacy remain throughout the lifetime. Aging results in decreased vaginal lubrication and decreased volume and force of ejaculate, but orgasm is possible in the very old. With advancing age, men have less intense orgasms and require greater physical stimulation to attain and maintain erections. Women after menopause are not fertile and show changes related to estrogen deficiency. In some studies, older women's sex lives are most affected by male impotence and lack of available partners. Older women report wanting to discuss their sex lives and concerns with their physician but are unlikely to initiate discussion. Physicians rarely discuss sexuality with older people, often giving the message that it is not an appropriate topic.

Women who achieve orgasm are more likely to become pregnant due to the opening of the cervical OS immediately after orgasm and the rhythmic contraction of the uterus, which results in "dipping" into the seminal pool in the back of the vagina. Intense orgasms result in twice as many vaginal contractions (8 to 12) as mild orgasms.

Lesbian and Gay Issues

Homosexual men and women constitute between 1 percent and 10 percent of the population. Gay men and women have suffered discrimination affecting all areas of their emotional and physical lives. Gay and lesbian individuals are at a higher risk of being victims of violence due to their sexual orientation. Many—if not all—members of the gay community have suffered personal ridicule and threats and other more subtle forms of discrimination. This is a result of **homophobia**, which is the irrational fear of, or prejudice against, homosexuals. The impact of these events may result in fears of stigmatization by society. These fears may be transferred to the medical community, causing victims of this discrimination to avoid routine health care or seek care only from a gay or lesbian physician.

The impact is greatest on gay youth, who have higher rates of substance abuse, suicide, and homelessness. Older gay men and women face health concerns similar to their heterosexual counterparts. Many members of the gay community have seen friends and life partners die of HIV

Barrier forms of contraception are the oldest-known methods of birth control. It has been discovered that elephant and crocodile dung was inserted into the vagina prior to intercourse to prevent pregnancy by the Egyptians and Indians 3,000 years ago. Despite thousands of years of various techniques of blocking the passage of semen into the cervix, it was not until 1677 that van Leeuwenhoek identified spermatozoa in seminal fluid. Prior to that discovery, contraceptive techniques were based on superstitions and unproven theories of ovulation and fertilization.

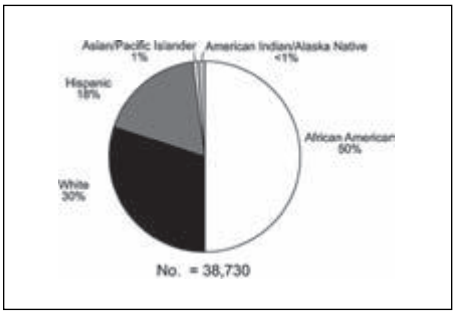

Figure 5.3 Race and Ethnicity of Persons with HIV/AIDS Diagnosed in 2004. African Americans are 12 percent of the population but represent 50 percent of the HIV/AIDS cases diagnosed.

Source: Centers for Disease Control.

and related disorders. These losses, along with a medical legal system that has not recognized partner rights in advanced directives or medical decision making places further strains on the physician-patient relationship. Homosexuality is not a disease to be cured. However, the physician should address issues that are causing physical or emotional distress for the patient in a nonjudgmental, compassionate manner.

Birth Control

The issue of birth control is complex and requires an understanding and appreciation of psychosocial factors in addition to knowledge of fertility. A society's view of sexuality and child bearing, along with its religious views, greatly affect personal choices concerning birth control.

The physician counseling a patient on birth control options must be knowledgeable about all the available options for men and women, in addition to understanding the unique personal circumstances of the patient. The physician must be cautious not to impose her own personal philosophy and moral beliefs on the patient; otherwise, the physician must refer the patient to a colleague who can provide current medically approved information. The clinician should be prepared to provide up-to-date information, derived from current medical guidelines for all forms of birth control, objectively highlighting the pros and cons of each method. Birth control options range from one-time-use methods such as condoms, various barrier control apparatuses, and "morning after" interventions, to longer-term methods such as intrauterine devices, patches and birth control pills, and permanent sterilization procedures or vasectomy.

Children and HIV/AIDS

- 2.3 million children are currently living with HIV/AIDS in the U.S.
- There are many orphans due to the death of parents from AIDS.
- Half of those living with HIV/AIDS were exposed before 25 years of age.

Source: United Nations International Children's Fund (UNICEF).

HIV/AIDS Issues

In 1981 AIDS (acquired immunodeficiency syndrome) was first reported in the United States. The use of **highly active antiretroviral therapy** (HAART) has decreased death rates from AIDS and increased the number of adults and children living with the disease. However, it remains a serious epidemiologic problem. It has become an

international epidemic, with Africa having the most devastating problems and loss of life, although the problems are very serious in many other countries, as well.

The interaction of HIV/AIDS, substance abuse, and psychiatric disorders is complex and poorly understood. A large number of U.S. patients who have HIV/AIDS also abuse illicit substances and suffer from depression, anxiety disorders, schizophrenia, and other psychiatric disorders. Some have acquired HIV/AIDS through intravenous drug abuse. Although the current literature is inconclusive, the interaction of HIV/AIDS, substance abuse, and mental illness seems to lead to decreased compliance with HAART medication, decreased adherence to treatment regimens in general, decreased virological suppression, and increased mortality. Successful treatment of HIV/AIDS must include a biopsychosocial approach.

In September 2006 the Centers for Disease Control recommended **routine HIV screening of adults, adolescents, and pregnant women.** A significant number of people who are infected are unaware of their HIV-positive status and are therefore not able to take advantage of therapies to keep them healthy. They are also unable to protect their sexual partners. Studies have shown that once patients know they are infected, most decrease their high-risk behaviors.

AIDS

AIDS damages the immune system and is caused by the human immunodeficiency virus (HIV). It is defined by a CD4+ count of 200 or less (the normal count is 1,000 or more). AIDS is acquired by engaging in risky behaviors such as

- Sharing drug needles
- Having sexual contact with an infected person without using a condom
- Having sexual contact with a person whose HIV status is unknown

AIDS is commonly transmitted by contact with infected blood or semen. Transmission by saliva is very rare. It is not transmitted by casual contact or a toilet seat.

It may be transmitted by mother to baby during pregnancy, at birth, or by breast feeding.

- Without treatment, 25%–33% of infants of AIDS-infected mothers will be infected.
- With medication and precaution, infants have less than 1% chance of getting HIV.

Source: Centers for Disease Control.

The Human Sexual Response

The human response to sexual stimulation is a predictable series of rapid, state-dependent physiological and psychological changes that prepare the body for orgasm. These changes are the result of input from the nervous, endocrine, and vascular systems. The **sexual response cycle** has been described by **William Masters and Virginia Johnson** in four phases:

1. Excitement/desire
2. Plateau

HIV / AIDS Treatment

1. RT inhibitors
2. Protease inhibitors
3. Fusion inhibitors

Highly active antiretroviral therapy (HAART), a combination of three or more drugs used together, is a significant factor in reducing deaths but is not a cure. These meds have multiple side effects, some serious, and require monitoring.

Source: Centers for Disease Control.

3. Orgasm(s)
4. Resolution/refractory

Although observed as changes from a baseline physiological state, psychological and social factors play an important role in the initiation of sexual activity. Physiologically, blood pressure, pulse, and breathing rate increase.

In men, the penis becomes erect, and the scrotal sac thickens and flattens, elevating the testicles. Preseminal fluid may be secreted from the Cowper's gland, providing additional lubrication in preparation for insertion. In women, the breasts begin to swell, and the nipples become erect. The vaginal walls begin to "sweat," providing lubrication for penetration. As stimulation continues, the vagina and uterus enlarge as the mouth of the uterus elevates up and away from the vagina.

The **plateau phase** results from continued sexual stimulation. In men the penis is fully distended and rigid. The testes are drawn toward the body and enlarged to twice the unstimulated size.

Vasocongestion in women results in the engorgement of the labia minora with a change in color to deep red. The escalating muscle tension experienced during sexual stimulation ultimately will trigger **orgasm.** In men, ejaculation occurs, with the bulbo cavernosis muscles contracting and expelling semen through the penis. The volume and force of the ejaculate is experienced as pleasurable.

Unlike women, men experience a **refractory period** during which additional orgasm cannot occur even with continued sexual stimulation. The duration of the refractory period increases with age. For women, orgasm is hallmarked by rhythmic contractions of the uterus, vagina, and anal sphincter. The intensity of the orgasm determines the number of contractions. Women do not experience a refractory phase and are able to achieve multiple orgasms with continued sexual stimulation.

For men and women, the **resolution phase** is the return to a nonstimulated state.

Erectile Dysfunction

Problems with erections are a common medical condition associated with diabetes mellitus, aging, and cardiovascular disease, among others. A dramatic change in treatment options occurred when **Viagra** (sildenafil) was approved by the FDA in 1998. **Levitra** (vardenafil) and **Cialis** (tadalafil) are also now on the market. **Phosphodiesterase** (PDE) **type 5 inhibitors** are most commonly used by the oral route and have resulted in a satisfactory efficacy-safety profile in patients.

Types of Sexual Disorders

Sexual Dysfunction

Sexual dysfunction may occur at any phase of the sexual response cycle. Although the sexual response cycle is described in terms of anatomical and physiological changes, it is generally influ-

enced and affected by psychological, social, and cultural factors. To a great extent, "normal" sexual activity is culturally determined. A society's tolerance of "abnormal" or "deviant" sexual practices may affect the desire/excitement phase of the sexual response cycle.

Sexual dysfunction is broadly defined as the inability to fully enjoy or perform sexual intercourse. Sexual dysfunctions can be **primary** (the person has never had normal performance) or **secondary** (the person has a history of normal sexual performance and is now dysfunctional). Sexual dysfunction can be further subcategorized as disturbance in one of the phases of sexual activity, including disturbances in **desire,** relating to fantasies and interest in sexual activity; disturbances in **excitement**, pleasure, and physiological arousal (in men penile tumescence and erections; in women pelvic vasocongestion, vaginal lubrication and expansion, and swelling of the external genitalia); disturbances in **orgasm** (in men ejaculation; in women contractions of outer third of the vagina; in both sexes rhythmic anal sphincter contraction); and disturbances in the **resolution** phase of muscular relaxation (in men the refractory period for erection; in females orgasm).

Men may have a sexual problem if they

- Ejaculate before they or their partner desires (premature ejaculation)
- Do not ejaculate or ejaculation is delayed (retarded ejaculation)
- Are unable to have an erection sufficient for pleasurable intercourse
- Lack or lose sexual desire

Women may have a sexual problem if they

- Lack or lose sexual desire
- Have difficulty achieving orgasm
- Feel pain or anxiety during intercourse
- Feel vaginal or other muscles contract involuntarily before or during sex
- Have inadequate lubrication

Dyspareunia is genital pain associated with any stage of sexual intercourse.

Many medications of many different classes cause sexual dysfunction. *The prudent medical student or physician gets a complete list of all medications the patient is taking when evaluating sexual dysfunction of any type.*

Sexual Exploitation

Sexual exploitation is the selfish or unethical use of another person to gratify one's sexual desires. Exploitation ranges from the radical feminist viewpoint that all heterosexual sex is rape because of power inequities that exist within our society, to child sexual abuse. Is the sexualization of women or men in the entertainment industry exploitative? Perhaps, but the issues facing the physician are much more severe. In general, rape and child sexual abuse are the most common forms of sexual exploitation seen by the physician and medical student.

The diagnosis of sexual abuse in children is a constellation of both physical and emotional changes that are nonspecific. The physician should always complete the examination before drawing a conclusion. In the case of child abuse, the physician and student professionals need to be aware of the legal requirements to report suspected child abuse to the state authorities. It is important to document carefully and accurately all findings and discussions with the caregiver(s) and patient.

Paraphilia

The word ***paraphilia*** derives from the Greek *para* (deviation) and *phila* (attraction). Paraphilias are a group of disorders that involve sexual attraction to unusual objects and activities. These preferences are the main form of sexual gratification for a patient with a parphilia and last more than six months. They are intense, arousing, frequently fantasized about, and acted on in sexual behaviors. These behaviors can involve nonhuman objects; humiliation and suffering of others, self, or children; or exhibitionism.

Selected Paraphilias

Disorder	Focus of Sexual Desire
Exhibitionism	Exposure of genitals to unsuspecting stranger
Fetishism	Use of nonliving objects—female lingerie, shoes, leather, rubber, etc.—as primary focus of sexual desire
Frotteurism	Touching and rubbing against a nonconsenting person (e.g., rubbing against women on a subway or bus)
Pedophilia	Sexual activity with a prepubescent child or children (under the age of 16 and at least 5 years younger than the offender)
Sexual masochism	Acts of (real or acted) psychological or physical suffering and/or humiliation of self to achieve sexual excitement
Hypoxyphilia	Oxygen deprivation induced to enhance sexual arousal using plastic bag, volatile nitrate, chest compression, or noose
Sexual sadism	Acts of (real or acted) psychological or physical suffering and/or humiliation of another to achieve sexual excitement
Transvestite fetishism	Cross dressing—dressing in women's clothing for male and male's clothing for women
Voyeurism	Observing an unsuspecting person who is disrobing, naked, or involved in sexual activity
Coprophilia	Handling feces
Klismaphilia	Enema administered by others, as sexual activity
Necrophilia	Sexual activity with a corpse
Telephone scatologia	Making obscene phone calls
Zoophilia	Sexual activity with animals

The causes of these disorders have been proposed under psychoanalytic and behavioral models, but further research is needed to fully understand the etiology. Effectiveness of treatment for paraphilias is difficult to assess. There are a variety of case reports using behavioral interventions (orgasmic reorientation), psychodynamic psychotherapies, and antiandrogens to reduce libido and sexual activity in male paraphilia patients. In general, treatment outcomes have been disappointing.

Gender Identity Disorder

Gender identity disorder results in a patient feeling that he is in are the wrong body (a woman trapped in a man's body or man trapped in a woman's body). The persistent cross-gender identification often starts between two and four years of age. These patients also must present with significant distress and functional impairment. The patients may present in medical settings with genital mutilation. Surgical and medical interventions can provide sex change. Psychological testing and counseling is recommended before patients undertake these extensive treatments.

Sexual Issues in the Physician–Patient Relationship

The medical student and physician need to be aware of their own comfort level with sexuality in dealing with sexual problems in patients. A private setting and establishing rapport with the patient are necessary to having a frank and private discussion. With experience and practice, medical students and physicians usually become more comfortable in discussing sexuality in a matter-of-fact, nonjudgmental manner with patients.

Prior to taking a sexual history, the physician should let the patient know that he is about to ask questions of a personal nature and explain that the patient is free to refrain from answering any questions if she does not feel comfortable answering. Avoiding assumptions; using language that normalizes sexual behaviors; and maintaining a calm, nonjudgmental, and professional demeanor are essential. Many patients

Key Aspects of the Sexual History

- History of childhood sexual abuse or assaults
- Age of onset of sexual activity
- Level of sexual activity
- Physical or emotional problems related to sexual activities past and present
- Sexual practices and preferences
- Gender preference
- Substance abuse history
- Physical history
- Satisfaction with current relationship
- History of sexually transmitted diseases
- Contraceptive choice and safe-sex practices

How often do medical students and physicians get HIV/AIDS or other sexually transmitted diseases in the course of clinical practice?

Most health care workers are concerned about the blood-borne pathogens HIV, hepatitis B, and hepatitis C. Cardiology and cardiothoracic surgery physicians and personnel have the highest rate of exposure to these pathogens. The chance of acquiring infection after a single at-risk exposure is:

- HIV, 0.5%
- Hepatitis B (HBV), 4–30%
- Hepatitis C (HCV), 1–2%

Medical students and physicians infected with these pathogens may also transmit the infection to their patients. Use preventive strategies such as:

- Routine use of barriers (gloves and goggles) when anticipating contact with body fluids
- Washing hands after contact with body fluids.
- Careful handling of sharp instruments during and after use

Source: Centers for Disease Control.

experience distress and embarrassment when discussing sexual problems.

Often, the medical student or physician is the only person with whom the patient can talk and from whom the patient can obtain information and advice on sexual issues. This may lead to an emotionally charged situation in which the patient's view of the physician may be influenced by the patient's earlier life experiences. This is a phenomenon known as **transference** and is a powerful factor in the physician-patient relationship. It can be manifested in the clinical situation either by deifying or denigrating the physician and often seems irrational or extreme to the physician.

Physicians who are vulnerable may respond to a positive transference by exploiting the privileged position with a patient to become involved sexually or in an inappropriate way. These behaviors are known as **boundary violations** and are extremely serious, potentially leading to legal charges, expulsion from medical school, or the loss of a medical license for the practicing physician. Medical students who feel sexually attracted to patients and are considering a romantic relationship with a patient should seek counsel with a trusted faculty member or member of the dean's staff prior to engaging in behaviors that could ruin their career. Romantic involvement with a patient is unacceptable.

Step Prep

1. A twenty-three-year-old male is obsessed with the thought that his penis is too small to ever satisfy a woman. He requests your advice regarding penile enlargement surgery or taking an herb he read about on the Internet. You should do which one of the following:

a. Advise that he consult with a urologist.

b. Advise that he contact an herbalist before purchasing any sexual aid drugs.

c. Assure him that penile size is important only in porno films, and odds are that he is adequate to satisfy his partner.

d. Measure his erect penis.

2. A thirty-seven-year-old male comes to your office for his first visit. He has moved from another city to work nearby. When you obtain his history, he reports having recent feelings of depression, which have affected his sexual function. He reports that he has never been sexually active, as he has never been able to achieve an erection. When asked about previous treatments he has attempted, he states that he has never been asked about this before. When asked what sexual function was impaired by his depression, he reports that his ability to fantasize is gone and this distresses him a great deal. His physical examination is negative for potential causes of the presenting symptoms. His erectile dysfunction is:

a. A primary sexual dysfunction

b. A secondary sexual dysfunction

c. The cause of his depression

d. Caused by his dependence on fantasy

3. A twenty-one-year-old female comes to the office, having been accepted into an Ivy League medical school upon her recent graduation from college. She expresses that she has had some troubling experience while at school and wants to review it with you. She states that she is confused about her sexual preference. Her sexual history includes heterosexual sex that was not satisfying once during her junior year of college and an aborted attempt at lesbian contact that she found exciting although she became fearful during the situation. She becomes tearful during the questioning and reports that her aunt sexually abused her when she was four to eight years old, and she thinks this has caused the situation. She is fearful about her feelings and about what it means to be a lesbian. She wants to explore treatments for her situation. As you consider developing a treatment plan for her, your primary consideration would be which of the following:

a. To change her sexual preference

b. To support her in exploring her sexual preference

c. To provide safe sex information

d. To get treatment for her abuse

4. A twenty-two-year-old man comes to see you in your primary care office. His family has pressured him into coming to see you to discuss his "behavior." He has several facial piercings and reports

that he has had his nipples pierced. The increasing "strange dress" and the places and company he is keeping frighten his parents. He is cooperative with the interview, stating he wants to help his family relax by coming to see you. He reports that he is bisexual and has had numerous short-term relationships. He further reports that his primary source of sexual pleasure is achieved by piercing and he enjoys painful and rough sex. His fantasies center on these activities. He reports that he spends several hours a day on the Internet viewing pornographic material and has been attempting to meet people who could abuse him. He is having trouble at work, as he is often found viewing this material during the workday. Which one of the following diagnoses would be most appropriate for this man?

a. No diagnosis
b. Sexual sadism
c. Sexual masochism
d. Klismaphilia

5. Johnny, who is eight years of age, is brought to his primary care physician by his concerned parents. They report that he had begun to object to being seen nude by his parents, had been seen masturbating in his room at bedtime, and only played with boys at school. After taking a careful history and finding Johnny's growth and development within normal limits and without any major trauma, the physician should next do which one of the following:

a. Recommend a neurological evaluation.
b. Refer the boy to a child psychiatrist.
c. Advise the parents that this is normal behavior and further evaluation is unnecessary.
d. Start stimulant medication.
e. Recommend family therapy.

6. Which one of the following statements is a common misconception about sexuality in adolescence?

a. The majority of questions asked by teens in the middle adolescent period concern peer group and sexuality relationships.
b. Menses in females may initially be irregular and without ovulation.
c. Ejaculation is a relatively late pubertal event in males.
d. Masturbation in adolescence can lead to psychiatric disturbance.
e. Early first sexual relationships are highly correlated with acquisition of sexually transmitted diseases and high-risk behaviors.

Suggested Readings and Web Sites for the Highly Motivated

American College of Obstetricians and Gynecologists, www.acog.org.
American Psychiatric Association, www.psych.org.
Centers for Disease Control, www.cdc.gov.
Medscape Urology, www.medscape.com/urology.
Sadock, B. J., and Sadock, V. A. (2003). Sections 21, Human Sexuality, and 22, Gender Identity Disorder. In *Kaplan & Sadock's Synopsis of Psychiatry* (9th ed.). Philadelphia: Lippincott Williams and Wilkins.
Rahimian, J., Bergman, J., Brown, G. R., and Ceniceros, S. (2006). Human Sexuality. In Wedding, D., and Stuber, M. L., eds., *Behavior and Medicine* (4th ed.). Cambridge, MA: Hogrefe & Huber.
United Nations International Children's Fund, www.unicef.org.

Answers to Step Prep

1. c
2. a
3. b
4. c
5. c
6. d

SECTION

II

LIFE'S VICISSITUDES

6 STRESS AND COPING

David Baron, MSEd, DO, Thomas Hardie, RN, EdD, and Richard Roemer, PhD

Do not ask what disease a person has. Ask, instead, who is the person the disease has.

—Sir William Osler

Young physicians in training work long hours, including thirty-hour shifts, in stressful circumstances. Keeping physically fit and retaining a sense of humor are great coping mechanisms.

MENU

- Describe the impact of stress on health.
- List common symptoms of stress.
- Identify coping strategies for stress.

Introduction

Stress is a popular concept within the general public and is believed to be related to the development of disease. Neither patients nor physicians escape the daily stressors of life, and all must cope effectively with them or run the risk of adverse consequences. For the physician, it is important to understand the impact of stress on health, along with the origins of and treatment strategies for stress.

- Emotionally stressed patients *visit the doctor and are hospitalized more frequently* than nondistressed patients.
- People with emotional stress *commonly report physical symptoms and complaints* (dizziness, headaches, fatigue, pain, etc.) and never report mood symptoms.
- Nearly two-thirds of all *physician visits fail to confirm a biologic diagnosis.*
- *Medical illness can precipitate emotional stress,* which complicates medical treatment and increases medical costs.
- *Emotional stress often goes unrecognized and untreated* in medical encounters.
- Appropriate *mental health treatment reduces emotional stress,* medical utilization, and costs.
- Savings from reduced medical costs can offset the cost of providing mental health treatment and stress reduction training, which may result in lower overall health care costs.

Failure to address these issues may be one of the reasons many patients do not respond to medical treatments as would be expected.

CASE STUDY: A STORY COMMONLY HEARD

Mr. W. is a forty-five-year-old male who has been treated in your office for many years. He comes to see you complaining of dizziness, headaches, and chronic fatigue and reports that he is concerned because he has "popped a blood vessel in his eyes several times over the last month." His blood

pressure is 200/120 (indicating significant hypertension), and his resting pulse is 120 (sinus tachycardia). His physical six months ago was unremarkable. He reports that the company he works for has been laying off people every month, and he is one of five left in his group out of thirty. He tells you he feels guilty about being left and is under a lot of pressure to carry an increased load to keep his job. His sleep and home life are affected. Despite being highly skilled in a field where he could find other employment, he feels he can't leave because it would hurt his family's view of him, and he would be letting down the friends he has left at work. Skillful handling of the patient by the physician will decrease stress and improve the patient's health.

Pre–Step Prep

1. A patient comes to your office and complains of work stress. He has shortness of breath, tachycardia, leg pain on ambulation, and chest pain on exertion. His concerns about stress at work started with his physical symptoms. He reports that things at work are going well, but he feels stressed and can't understand why he is having problems right now. Your best course of action is which one of the following:

a. To teach him distancing coping skills
b. To teach him confrontive coping skills
c. To teach him effective problem solving
d. To suggest that he seek social support
e. To rule out possible medical causes of his anxiety

2. A patient reports that he is very fearful about having to start chemotherapy for cancer. He has been told that he will have to have the treatment to survive and will become very uncomfortable throughout the month of treatment. He has consulted another expert for a second opinion and received similar information. Which one of the following would you expect to see in the patient?

a. Decreased cortisol levels
b. Inappropriate coping mechanisms such as excessive use of alcohol, cigarettes, or illicit drugs
c. Decreased ACTH levels
d. Decreased marital conflict
e. Improvement in sexual satisfaction

3. A patient complains of a decrease in concentration and memory, indecisiveness, frustration, worry, fear, irritability, impatience, and short temper. The patient has been experiencing marital stress and problems at work. You have ruled out major psychiatric or physical problems. The patient seems to be making poor life choices that result in the symptoms noted above. Treatment might include all of the following *except*:

a. Hypnosis

b. Cognitive therapy techniques

c. Progressive relaxation

d. Aversive behavioral treatment

e. Lifestyle change

September 11, 2001

More PTSD occurs as a result of human-made disasters than natural disasters. The 2001 terrorist attack on New York, Washington, DC, and Pennsylvania is an extreme but instructive example. The following characteristics make PTSD more likely when a trauma occurs:

- Direct exposure
- Geographic proximity
- Female gender
- Low income
- Little education
- Poor social support
- Prior psychotropic med use
- High-level media reporting

What Is Stress?

"Stress may be defined as a real or interpreted threat to the physiological or psychological integrity of an individual that results in physiological and/or behavioral responses" (McEwen 2000). It is important to note that a stressor (a stimulus) generates stress (a response) in the individual. **Stressors can be** either **physical** or **psychological.** Examples of physical stressors are heat, cold, intense light, noise, and cramped physical surroundings. Examples of psychological stressors are relationship difficulties, embarrassment, conflicts with others, performance anxiety, loneliness, and a feeling of helplessness, which is one of the most common psychological stressors.

Stressors can be further conceptualized as acute and chronic:

- **Acute stressors** are brief in nature; their magnitude can vary greatly from a life-threatening event like a car accident to concerns about having to speak publicly. The effects of acute stress (the physical and psychological reactions that occur during and shortly after exposure) can be short lived, with a return to baseline levels of performance. Acute stressors can trigger a chronic response.

Terrorism

"Kill one, frighten ten thousand."
—Sun Tzu (4th century B.C.)

Basic Stress Response: What Are Common Symptoms of Stress?

- **Physical:** fatigue, headache, insomnia, muscle aches/stiffness (especially neck, shoulders, and low back), heart palpitations, chest pains, abdominal cramps, nausea, trembling, cold extremities, flushing or sweating, frequent colds.
- **Mental:** decrease in concentration and memory, indecisiveness, mind racing or going blank, confusion, loss of sense of humor.
- **Emotional:** anxiety, nervousness, depression, anger, frustration, worry, fear, irritability, impatience, short temper.
- **Behavioral:** pacing, fidgeting, nervous habits (nail biting, foot tapping), increased eating, smoking, drinking, crying, yelling, swearing, blaming, even throwing things or hitting.

- **Chronic stressors** can be physical or psychological and are repeated throughout our daily lives. If the stressors' intensity is strong enough, it can lead to chronic stress (the physical and psychological changes that persist for days or weeks after exposure to a stressor).

The Biology of the Stress Response

The physiological effects of acute stress can include metabolism, elevated blood pressure, and an altered immune response. Acutely, these effects may be beneficial and may aid in a "fight or flight" response. However, if the body is not able to return to baseline levels, stress-related disorders may occur.

Chronic stress produces increased levels of various stress hormones, such as cortisol. These

Disasters: Natural and Human-Made

Individuals and communities are exposed to trauma during natural and human-made disasters. Responses to trauma are similar to the basic stress response and can be broken down as follows:

- Emotional
  - Numbing
  - Hyperarousal
  - Intrusive thoughts, memories
- Cognitive
  - Decreased concentration
  - Difficulty with decisions
- Physical
  - Sleep disturbance, nightmares
  - Somatic problems
  - Fatigue
  - Change of appetite
- Social
  - Avoidance
  - Stress in interpersonal relationships

Acute or chronic responses also sometimes occur—but what is a "normal" response to disaster? Many types of psychopathology increase following exposure to disaster.

Disaster Response

Major organizations respond to disasters world-wide:

- United Nations
  - World Health Organization (WHO)
  - United Nations International Children's Fund (UNICEF)
- Red Cross, Red Crescent, Red Crystal
  - Nongovernmental Organizations (NGOs)
  - Red Crystal introduced in 2005 without religious affiliation

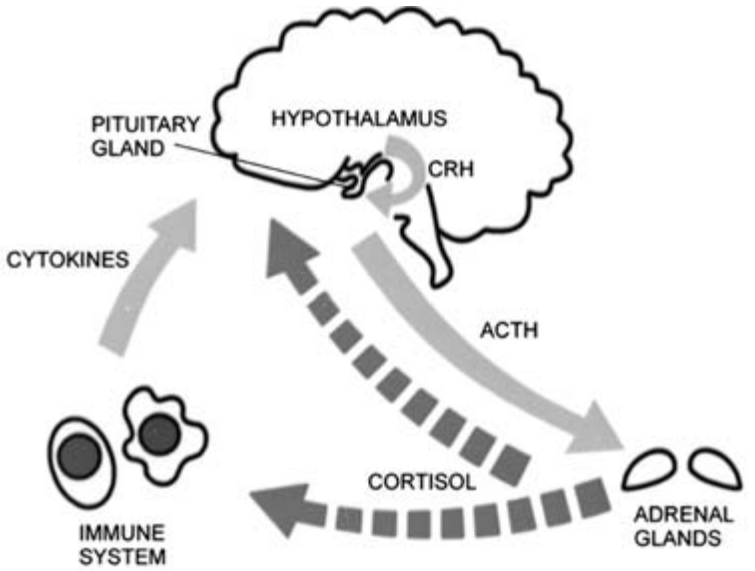

Figure 6.1 The Brain, the Immune System, and Stress

Source: National Institutes of Health.

hormones are the cause of the physiological responses to stress. They affect a number of organs, including the heart, brain, musculoskeletal system, kidney, and gut. One way chronic stress has been monitored is by assessing levels of the stress hormones.

As shown in Figure 6.1, the brain and the immune system are in constant communication, in a delicate balance that can be thrown off by chronic stress. The hypothalamus plays a key role in the stress response, releasing corticotropin-releasing hormone (CRH). CRH stimulates the pituitary gland beneath the hypothalamus to release another hormone, adrenocorticotropin hormone (ACTH), into the bloodstream. ACTH then causes the adrenal glands—located above the kidneys—to release the stress hormone cortisol. In addition to alerting the body to meet stressful situations, cortisol helps regulate the immune system. The hypothalamus uses both cortisol and signal molecules from the immune system called cytokines to monitor the situation in the body and ensure that there isn't an immune system overreaction that harms healthy cells and tissues. Problems anywhere in this complicated communications system, whether caused either by extreme stress or by faulty genetics, can lead to disease.

The information offered thus far suggests that acute stress responses are somewhat less problematic than chronic ones, but this is not always the case. Extremely overwhelming stressors, such as being a victim of a violent crime or witnessing a horrible tragedy, may result in cortisol levels high enough over a long enough period of time to result in negative

health consequences. This phenomenon has been observed in laboratory animals exposed to stressors, as well as humans dealing with stress.

Avian Influenza Pandemic on the Way?

- The H5N1 strain of bird flu has spread from birds to humans.
- If this strain of virus develops the capacity to easily spread from human to human, a pandemic could occur.
- More than 300 cases in humans have been documented, with a death rate of more than 50%.
- Indonesia and Vietnam have had highest number of cases.
- If high number of cases occur, health system could become overwhelmed.
- High numbers of health care providers could become ill, further disabling the system.
- Other community services could be compromised if significant number of police, fire, and government workers become ill.
- No vaccine is currently available to protect against the H5N1 strain.

Response to Conflict

Stress has a number of physiological responses that are associated with the fight-or-flight response. *Stress (psychological and to some degree physiological) is completely mediated by one's perceptions of the situation*. If confronted by a man reaching out with a block of steel in his hand as if to hand it over, you may be perplexed about receiving this strange gift but are unlikely to be significantly stressed. If you encounter the identical situation in a poorly lit parking lot and perceive the block of steel to be a pistol, you will experience significant stress. This demonstrates that **cognitive appraisal** is a key element in stress (Auerback and Gramling 1998). *Thus, the perception of a threat is integral to initiating the fight-or-flight response.*

Anticipating potential harm will induce a fight or flight. Perceived threats may result in panic-like efforts to attack or flee the situation. This response is mediated by learned coping capacities.

Stress is controlled to manageable levels through various coping mechanisms. Thus, stress is a function of the perception of threat and our understanding of our coping capacities. Identifying stressors is important to survival. The failure to perceive a threat, as well as overconfidence or ineffective coping methods, may result in harm. An accurate and timely response to stressors is necessary to maintain health and safety.

Stress and Behavioral Motivation

Level of perceived stress plays an important role in motivating behavior. For example, say a medical student has a quiz coming up that will not count toward the final grade. The low-stress test may result in minimal motivation to study. If, however, the test will account for 50 percent of the final grade, the increased stress of wanting to pass will likely

Goals of Assessment

1. Define the history of the present (illness) stressor.

What symptoms do you have?
How long have you had them?
Are they better or worse at any time during the day?
How often do you have it?
How intense is it?
What makes it better?
What makes it worse?
Have you done anything for it?

2. Rule out medical disorders that present as stress or anxiety (biological sources of stress).

- Do you have any medical disorders such as the following?
  - Heart disease
  - Mental illness
  - Asthma
  - Cancers
  - Concussion
  - Peptic ulcer
  - Arthritis
  - Hypertension
  - Enuresis
  - Myofacial pain
  - General sexual dysfunction
- Are you taking any medication, such as the following?
  - Cocaine, amphetamines
  - Thyroid medication
  - Steroids
  - Calcium channel blockers
  - Theophylline
  - Oral contraceptives

3. Assess psychological sources of stress, such as the following:

History of abuse or trauma
History of psychiatric disorder
History of substance abuse or disorder
Current psychiatric status
Personal expectations, beliefs, and meaning of stress

4. Assess social sources of stress, such as the following:

Family functioning
Work performance
Financial problems
Educational problems
Military history
Relationship to others
Religious beliefs
Hobbies

5. Explore the patient's general level and methods of coping in stressful situations:

Use of over-the-counter medications
Illicit drug use
Alcohol use
Violence
Tobacco product use
Coffee use
Support of friends
Support of family

motivate more aggressive studying. If the test will determine whether the student is able to stay in school, the stress may be so high that studying becomes impossible. This phenomenon is commonly seen in patients dealing with disease.

View from the Primary Care Physician's Office

- Stress often presents as unexplained somatic symptoms.
- The patient may not be aware that his or her symptoms are stress related, only that something hurts or is bothersome.
- Very common
- May be "somatization disorder"
  - Pain syndromes
  - GI symptoms
  - Sexual symptoms
  - Multiple organ systems may be involved

Assessing Stress

The assessment of stress has several goals. The first goal is to identify the stressor. Attempt to understand the nature, intensity, frequency, and variation of the stressor. Identify what accompanies the symptoms experienced.

For example, if you feel your heart racing when you have to give a speech in class, determine the behaviors you employ to deal with that stress, such as self-medication with alcohol or avoidance of giving speeches. Then assess the effectiveness and impact of your current coping behaviors, such as health issues related to drinking or failing grades resulting from incomplete assignments.

Stress-related behaviors include **avoiding the stressor** and **taking medication.** Stress can result in an increase in **physical complaints** involving the musculoskeletal, cardiac, and urinary systems, or inability to sleep and loss of appetite. **Emotional complaints** include being unable to relax, feeling edgy or out of control, feeling vulnerable, and the inability to focus.

Coping Strategies

Coping strategies are methods employed to overcome stress and remain functional. If effective, they reduce the effects of the stressor. Initial success in coping with stress results in an increased ability to handle subsequent stressors. The group of coping skills that are most commonly employed are called **emotional coping strategies**. Examples of emotional coping strategies are:

- **Distancing** (acting as if nothing happened), imagery, deep breathing
- **Self-control** (keeping one's feeling to oneself), distraction
- **Accepting responsibility**
- **Escape-avoidance** (wishing it would go away)

Common Examples of Cognitive Distortions

- All or nothing: seeing situations as black and white, if you fall short, you are a total failure
- Overgeneralizing: a single negative event seen as a never-ending pattern
- Jumping to conclusions: thinking the worst before the facts are in
- Mind reading: assuming the response of others to a situation without asking
- Fortune telling: predicting a series of events

Psychosocial Treatment in a Disaster

- Conduct triage.
- Provide physical care to the patient.
- Protect the patient from danger, distress.
- Comfort the patient.
- Reunite the patient with loved ones if possible.
- Listen to account of disaster if patient wishes to give it; do not force discussion of the trauma.
- Watch for secondary traumatization of the health care provider.

- **Positive appraisal** ("that which does not kill us makes us strong")
- **Cognitive restructuring**
- **Seeking social support** (sympathy and emotional support)

There are times when direct action is called for to meet the demands of a stressor. During these times, acting as if nothing has happened could result in harm or injury. The following strategies are called **problem-focused coping.**

- **Confrontive coping:** Standing your ground, taking a risk
- **Planful problem solving:** Making a plan and following it, or talking with someone who can help
- **Cognitive reframing** is a coping strategy that involves changing beliefs about events, interactions, and situations. Such distortions of thought cause changes in perceptions resulting in changes in mood and behaviors. The key to reducing stress by using cognitive reframing is to confront the distortions, thereby changing mood and behavior.
- **Progressive relaxation** techniques involve learning to detect and respond to the building neuromuscular tension resulting from stress. *The most common techniques are relaxation breathing and progressive muscle relaxation.* These techniques are relatively simple and effective.
- **Hypnosis** is related to relaxation. Induction of a hypnotic state is similar to the practice of progressive relaxation. Hypnosis can be effective in the control of stress, pain, and unwanted behaviors such as smoking marijuana or overeating.
- **Lifestyle changes:** Stressors may be related to work, work hours, lack of effective exercise, excessive caffeine and tobacco use, and ineffective coping strategies. Encouraging lifestyle and behavioral change seems deceptively simple. Unfortunately, although simple to describe, actually altering behavior is often difficult. A gradual change in behavior over time is often more effective in the long run. Modest lifestyle changes are much more likely to persist than drastic ones.

- **Psychopharmacology:** The decision to use psychopharmacology should not be taken lightly. The primary symptom the stressed patient displays is anxiety. It is critical to rule out other more serious forms of psychopathology before using anti-anxiety medications (anxiolytics), as these medications will tend to mask symptoms and make accurate diagnosis more difficult. Often the specific serotonin reuptake inhibitor (SSRI) class of antidepressant medications may be safer and of more help. Also, many of the drug treatment options have side effects and should be used with caution to treat very specific target symptom over a discrete period of time.

Traumatization of Health Care Providers

- Advance classroom training may be effective.
- PTSD symptoms may be noted in significant numbers of personnel responding to a disaster.
- Indirect exposure may cause significant distress.
- Persistent dissociation is highly correlated with both acute and chronic PTSD.

Stress is also associated with other forms of psychiatric illness. Individuals experiencing chronic stress require a comprehensive biopsychosocial assessment and comprehensive treatment strategy.

Step Prep

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c. To teach him effective problem solving
d. To suggest that he seek social support
e. To rule out possible medical causes of his anxiety

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c. Decreased ACTH levels

d. Decreased marital conflict

e. Improvement in sexual satisfaction

3. A patient complains of a decrease in concentration and memory, indecisiveness, frustration, worry, fear, irritability, impatience, and short temper. The patient has been experiencing marital stress and problems at work. You have ruled out major psychiatric or physical problems. The patient seems to be making poor life choices that result in the symptoms noted above. Treatment might include all of the following *except*:

a. Hypnosis

b. Cognitive therapy techniques

c. Progressive relaxation

d. Aversive behavioral treatment

e. Lifestyle change

Suggested Readings and Web Sites for the Highly Motivated

Auerback, S., and Gramling, S. (1998). *Stress Management: Psychological Foundation* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Dalman, M., Bhatnagar, S., and Victor, V. (2000). Hypothalomo-Pituitary-Adrenal Axis. In G. Fink, ed., *Encyclopedia of Stress* (vol. 3, pp. 468–477). San Diego, CA: Academic Press.

McEwen, B. (2000). Stress: Definitions and Concepts. In G. Fink, ed., *Encyclopedia of Stress* (vol. 3, pp. 508–509). San Diego, CA: Academic Press.

Montgomery, G. H., DuHamel, K. N., and Redd, W. H. (2000). A meta-analysis of hypnotically induced analgesia: How effective is hypnosis? *International Journal of Clinical and Experimental Hypnosis,* 48(2): 138–153.

Red Cross, www.redcross.org.

World Health Organization, www.who.int/en.

Answers to Step Prep

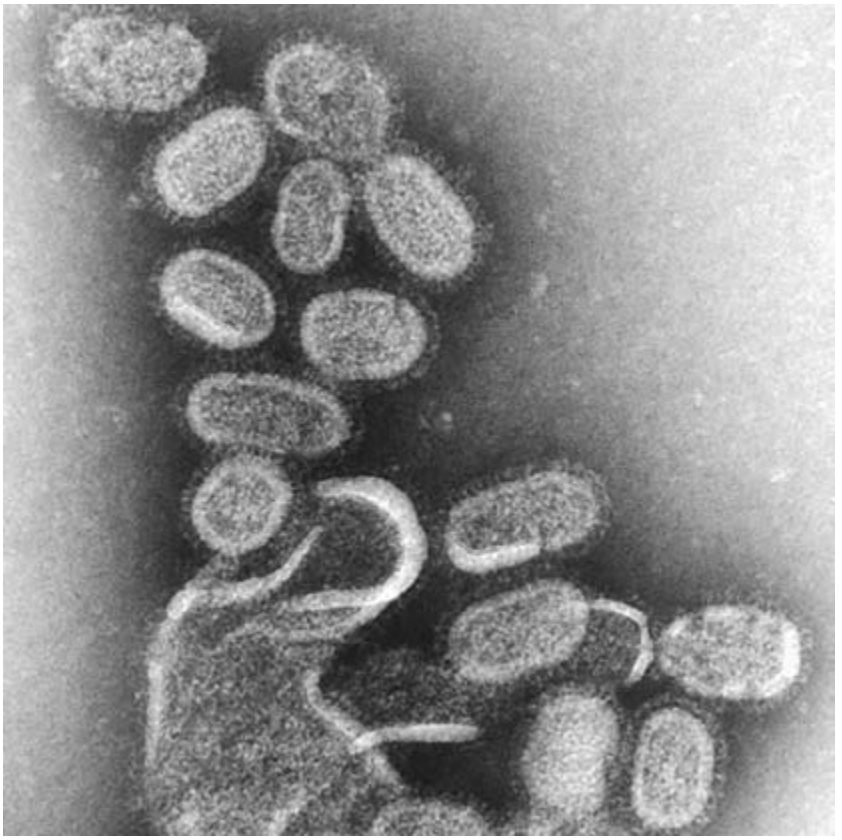
1. e
2. b
3. d

7 IN SICKNESS AND IN HEALTH

Javed A. Joy, MD, MPH, and David Baron, MSEd, DO

Often the test of courage is not to die but to live.

—Vittario Alfieri



In 1918 the Spanish influenza virus killed more than half a million people in the United States and up to 50 million worldwide.

Source: Centers for Disease Control, Dr. Terrance Tumpey.

MENU

- Identify health-protective and health-risk behaviors.
- Describe current guidelines for evaluation and treatment of pain.
- List current theories of dying and death.

Pre–Step Prep

Sarah Smith is admitted to the hospital with severe abdominal pain. Andrew Jones, a third-year medical student, finds out that Sarah has a long history of alcohol dependence and has pancreatic cancer. Sarah grew up in poverty with an alcoholic father who physically abused her and her mother. Sarah is divorced. She is currently being treated for depression. During her hospital stay it was discovered that her cancer had spread, and her pain was increasing. During her stay in the hospital, Andrew got to know the patient and her family very well. In spite of heroic treatment, the prognosis for Sarah was grim.

1. The immediate goal of the treatment plan should be which one of the following:
   a. Put her on an antidepressant medication.
   b. Consult surgery.
   c. Optimize pain management.
   d. Get the patient to sign a Do Not Resuscitate/Do Not Intubate order.
   e. Reevaluate the diagnosis.

2. When managing chronic pain, it is most important to remember which one of the following:
   a. Chronic pain is often complex and multifactorial.
   b. There is usually a clear correlation between the severity of pain and the degree of organic pathology.
   c. Patients with pain are usually psychotic.
   d. The pain can usually be successfully managed with medication alone.
   e. The patient must see a psychiatrist.

3. Which one of the following statements is true about pain?

a. The Wong-Baker Faces and other pain-rating scales are helpful in the assessment of pain.
b. Almost 40 percent of all physician consults are pain related.
c. Each year Americans purchase about 50 pain-relievers per capita.
d. Asians tend to be more expressive of physical and emotional pain than Hispanics.
e. A key concern in the pain management of the terminally ill patient is prevention of addiction to potent pain medications.

"Boards of health will have destroyed all mosquito haunts and breeding grounds, drained all stagnant pools, filled in all swamp-lands, and chemically treated all still-water streams. The extermination of the horse and its stable will reduce the house-fly."

—*John Watkins,* The Ladies Home Journal, *1900.*

Health: Disease, Illness, Sickness, and Pain

According to the World Health Organization, *health is a state of physical, mental, and social well-being, not just the absence of disease and illness.* The health care provider needs to be aware of the interaction between biomedical, psychological, and social factors.

Health can be described according to biomedical, psychological, and social factors:

- **Biomedical**—absence of disease, absence of symptoms, and absence of identifiable pathology
- **Psychological**—adequate resolution of developmental stages and cultural challenges
- **Social**—ability to adequately perform family, occupational, and social roles

Absence of health can be characterized according to the following:

- **Disease**—physiological processes fall outside of normal values; may or may not have a biological etiology (cause).
- **Illness**—physiological manifestation of a disease process; symptoms appear.
- **Sickness**—psychosocial effect on the patient and others resulting from the physiological manifestation of disease.

Germ Theory states that germs cause disease. **Post-Germ Theory** states that psychosocial factors interacting with biomedical factors cause disease. This model shifted the focus to modifying behaviors to prevent disease, decrease the risk of disease, and cope with disease.

The Shifting Burden of Disease

Some previously acute deadly diseases, such as AIDS, have become chronic diseases as treatments

Causes of Death

The majority of deaths in the under-34 population are preventable and are not related to host-disease interactions. As people pass 35, heart disease, malignancies, and cerebrovascular diseases become the leading causes of death. Nine out of ten leading causes of death have a major behavioral component.

have improved. This has changed the psychological reaction to them. They are no longer viewed as a death sentence; the hospice mentality shifts to learning to deal with a chronic disease. As people with chronic diseases live longer, the psychiatry issues become more important.

According to Partnership for Solutions (www.partnershipforsolutions.org), the number of people with chronic conditions is projected to increase from 125 million in 2000 to 171 million in the year 2030. By the year 2020, 25 percent of the American population will be living with multiple chronic conditions, and costs for managing those conditions will reach $1.07 trillion.

Psychosocial factors may increase a person's likelihood to develop a disease. For example, chronic stress induces changes in heart rate and blood pressure that can subsequently lead to heart disease or hy-

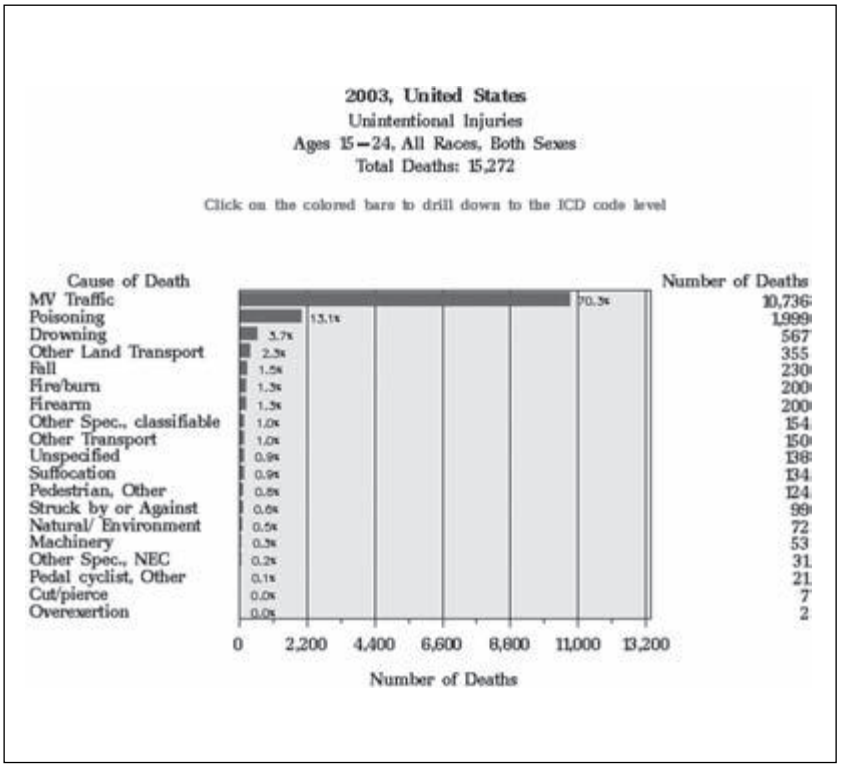


Figure 7.1 Unintentional Injuries in the United States in 2003, 15- to 24-Year-Old Males and Females, All Races

Source: Centers for Disease Control.

pertension. Hostility, social isolation, and depression all elevate risk of coronary artery disease. Depression increases mortality in HIV-infected patients, and stress can cause faster progression from HIV-positive status to AIDS.

Health-enhancing behaviors can reduce the likelihood of disease:

- Eating a healthy diet
- Paying attention to hygiene (hand-washing)
- Getting adequate sleep
- Exercising

Risk-taking behaviors that impair health include the following:

- Using tobacco (increases malignancies and lung disease)
- Using alcohol or drugs (increases liver disease, HIV, STDs, lung disease, diabetes, accidents)
- High-risk sexual behavior, sharing needles (increases risk for HIV, STDs)
- Not using seat belts
- Excess exposure to sun (increases risk of skin cancer)
- Carrying firearms (increases risk of homicide (three-quarters of the homicides in the under-thirty-four-year-old population used firearms) or suicide (more than 50% of successful suicides used firearms)
- Reckless driving (about half of accidental deaths are associated with motor vehicle accidents)

Regular health checkups and self-examinations (e.g., breast examinations) can increase longevity through early detection. Secondary prevention measures such as washing hands and brushing teeth also reduce the risk of disease. These secondary prevention behaviors are usually learned in childhood.

Community-based programs exist that focus on promotion and maintenance of health. These include programs for health education and universal immunization, promotion of safety, and prevention of violence. One of the most important duties of physicians is to educate patients on the importance of healthy living.

Clean Hands

The CDC reports that nearly *2 million patients in the U.S. get an infection in the hospital,* and *about 90,000 of them die* as a result. *Clean hands are the single most important factor* in preventing the spread of pathogens and antibiotic resistance in health care settings.

Source: Centers for Disease Control.

Sick, Impaired, and Terminal Roles

A number of psychological and cultural factors influence the behavior of patients during the course of having a disease. The level of impairment is not always consistent with the degree of sickness.

Examples of Treatment or Prevention of Disease as Society Evolved

- *Hunter-gatherer society to agrarian society:* Living areas fenced to keep animals away
- *Agrarian society to industrial society:* Immunization
- *Industrial society:* Influencing behaviors and changing the environmental conditions that lead to the diseases
- *Postindustrial society:* Controlling exposure to disease-causing agents (e.g., avoiding carcinogens, educating for the prevention of violence)

Sick role: Illness presents different challenges to each patient. Behaviors related to the experience of symptoms may begin with self-medication. This is followed by assignment of the "sick role" by the person, employer, family, or physician. The patient's task in the sick role is to get well and includes an obligation to engage in remedial action to cure the illness and to adhere to the treatment plan developed by the physician. The stages in the course of an illness or sickness begin with the patient experiencing symptoms. The patient tries self-medication, does not go to work. If she gets no relief, patient claims the sick role. Social pressures prompt seeking care, but barriers may exist. If barriers are overcome, medical care contact is made. A diagnosis is received; the sick role is confirmed. Treatment is initiated. Rehabilitation is initiated, as indicated.

Impaired role: A person may be assigned the impaired role if successful treatment of an acute illness is not achieved. In the impaired role, a patient's task is to cope with chronic sickness, and the obligation is to behave as normally as possible within the limits of the impairment.

Terminal condition role: The terminal condition role is assigned when the condition for which the patient is being treated will result in death.

Stages in the Course of Illness/ Sickness

- Patient experiences symptoms.
- Patient self-medicates and/or does not go to work.
- Patient does not feel relief so claims the sick role.
- Social pressures prompt seeking care, but barriers may exist.
- If barriers are overcome, medical care contact is made.
- Diagnosis is made, and the sick role is confirmed.
- Treatment is initiated.
- Rehabilitation is initiated, as indicated.

A clinical management problem emerges when physicians assign patients to inappropriate roles. Incompatible expectations are held for the patients and their families. This can lead to conflicts between the health care providers and the patient and the family. Cultural issues may play an important role and may require the treating physician to be culturally competent with the patient.

Families are important in medical management. Family members are increasingly involved in every aspect of medical care. Family-based alternatives for provision of medical care are often used and may help or hinder the physician's treatment plan. Dealing with families requires collaboration to avoid conflicts. The extent of family involvement varies by age of patient. There is more involvement when the patient is very young or very old.

CASE STUDY: GENERIC SCAPEGOAT

There was a Generic Scapegoat who was hurting all over so he went to the doctor. The doctor said, "Where are you hurting?"
He said, "Everywhere. See?"
He touched the left forearm and said, "OUCH!"
He touched the left calf and said, "OUCH!"
He touched the tip of the nose, "OUCH!"
"See?" he cried, "I am hurting all over!"
The doctor laughed and said, "What you have is a broken index finger!"

Pain

About half of all visits to physicians in the United States have pain as a primary complaint. The assessment, treatment, and management of pain should be the major focus of all patient care. Diagnosing and treating pain should conceptualize from a biopsychosocial perspective.

Pain is a context dependent, subjective experience and **cannot be objectively measured.** The experience of pain is more than just physically hurting. The meaning of the pain and the context in which it presents are important. For example, the pain a football player experiences after making a game-saving tackle is likely to differ from chest pain in a patient with known heart disease and a history of heart attacks. Despite the football player's pain being more intense, it is experienced in a different context and carries a different meaning, which affects its perception.

Treatment for pain, and the response to clinical interventions, is also dependent on the situation, the personality of the patient, and the meaning of the pain to the patient. To adequately treat pain, the physician should assess the meaning of the pain to the patient and any thoughts associated with it. The physician should never assume he knows what pain means to the patient without asking. Medical students early in their clinical training should learn to become comfortable asking patients what they make of their pain, not just where it hurts. Patients allowed to self-medicate their pain via a morphine pump tend to use less than doctors would order.

Mental Modulation of Pain

Nerve impulses arising in the higher cortical centers can inhibit the sensation of pain. Humans have some capacity to "talk themselves out

Prevalence of Pain

- Low back pain disables approximately 7 million Americans and accounts for more than 8 million physician office visits annually.
- Almost 80% of all physician consults are pain related.
- Each year Americans purchase about 20,000 tons of aspirin, 225 tablets for every resident.

Source: Centers for Disease Control.

of their pain." An understanding of the likely etiology and available treatments for pain can decrease its perceived intensity.

People engaged in highly invested activities involving concentration or vigorous physical activity often ignore painful stimuli. Athletes and soldiers in combat are examples of this. Coaches often exhort their players to "play through the pain." Dentists routinely employ techniques to diminish the pain of their patients. These include soothing pictures on the ceiling, relaxing music, and the suggestion to use hand signals to stop the drilling.

Assessment of Pain

Assessing pain requires more than asking where it hurts. Pain is a subjective biopsychosocial phenomena and must be assessed and treated with this in mind. In addition to identifying the location of the pain, the student physician needs to understand how the pain has affected the patient's life. It is important to have the patient discuss her understanding of the pain and for the student to evaluate the patient's emotional response to the pain. Pain rating scales, such as the Wong-Baker Pain Rating Scale and the Visual Analog Scale, are very helpful in monitoring pain perception acutely and over time.

Acute Pain vs. Chronic Pain

Acute pain

- Time limited
- Cause can usually be identified via physical signs

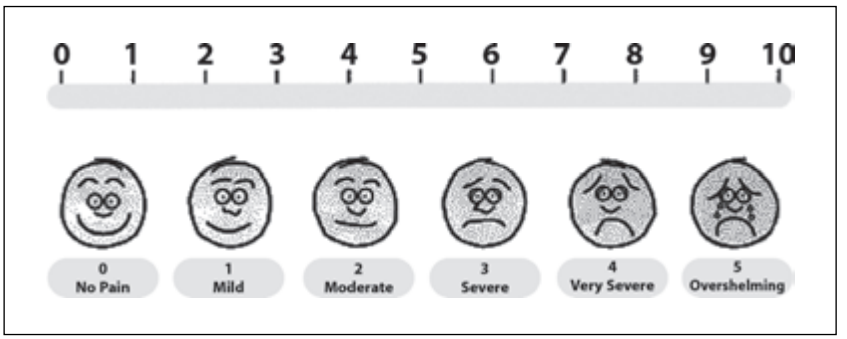


Figure 7.2 Wong-Baker Faces Pain-Rating Scale for Children

Source: Hockenberry, Wilson, and Winkelstein (2005). Wong's Essentials of Pediatric Nursing *(7th ed.). St. Louis: Mosby, p. 1259. Used with permission. Copyright, Mosby.*

- Treatment goal and expectation are complete relief
- Minimal effect on patient's long-term emotional state
- Psychiatric intervention rarely required

Chronic pain

- Long term; no immediate end in sight
- Patient may not have observed physical signs (redness, swelling)
- Treatment goal is to maintain or restore basic functioning and to decrease the pain
- Significant impact on patient's emotional state
- Often requires psychiatric assessment

Factors in Assessment of Pain

- Intensity
- Duration
- Location
- Temporal characteristics
- What makes it better?
- What makes it worse?
- Past treatments
- Current treatments
- Patient's age
- Emotional state
- Support system
- Meaning of the pain to the patient
- Disabilities associated with the pain

Visual Analog Scale

The Visual Analog Scale (VAS) is a tool used to help a person rate the intensity of certain sensations and feelings, such as pain. The VAS is a straight line with one end meaning no pain and the other end meaning the worst pain imaginable. A patient marks a point on the line that matches the amount of pain he or she feels. The scale may be used to help choose the right dose of pain medicine and to track the clinical course of the pain.

Psychosocial Aspect of Pain

Although pain is initiated by a physical stimulus, it is heavily influenced by psychosocial and cultural factors. Certain ethnic groups are more expressive when pain exists, while others are more stoic. Asians tend to be less expressive of physical and emotional pain than Hispanics. However, the student must evaluate each patient's unique pain response and avoid preconceived ethic or cultural stereotypes.

Psychosocial factors to assess include:

- Patient's prior response to pain
- Perceived meaning or etiology of pain by patient
- Impact of pain on patient's daily activities
- Cost of treatment
- Impact on patient's longevity

For patients who report significant anxiety or depression associated with their pain, treatment of the mood symptoms is necessary to achieve maximal pain relief.

DSM-IV Pain Disorder

The *Diagnostic and Statistical Manual* (DSM-IV)—the compendium of psychiatric diagnoses published by the American Psychiatric Association—lists two forms of pain disorders: (1) Pain Disorder Associated with Psychological Factors, a condition in which "psychological factors are judged to have the major role in the onset, severity, exacerbation, or maintenance of the pain"; and (2) Pain Disorder Associated with Both Psychological Factors and a General Medical Condition, which includes a prominent medical condition adding to the pain.

Somatization disorder is a condition in which "both psychological factors and a general medical condition are judged to have important roles in the onset, severity, exacerbation, or maintenance of the pain."

Psychiatric Disease Hurts

Everyone has experienced pain associated with loss. The emotional pain associated with the death of a loved one is often reported as more intense than any physical pain. The stress of mental pain can exacerbate physical pain. Similarly, ongoing physical pain is a risk factor for depression. Treating both the physical and emotional aspects of pain is necessary in order to achieve maximal pain relief. Clinical studies have demonstrated that antidepressant medications may improve pain relief in chronic-pain patients who are not clinically depressed. The appropriate use of anti-anxiety and antidepressant medications may also result in the need for lower doses of potent narcotic analgesics, lowering the risk of adverse side effects.

Management of Pain

Permitting the patient to control administration (ad lib) of potent pain medications, with the intent of keeping pain under control does not lead to addiction in the terminal patient. The goal is to "stay ahead" of the pain by this method. "Break through" pain can be treated on an as-needed basis with less potent drugs, such as aspirin. The successful management of pain is an art based on clinical science. The student must master the principles of analgesic pharmacology and the use of nonpharmacologic interventions, taking into account the unique circumstances of each patient. A "one size fits all" approach to pain management is inappropriate and will not achieve optimal pain relief.

It is important for the patient to have **realistic expectations** concerning pain relief and level of functioning. If the patient is expecting complete relief and full return of physical activity, anything less may be viewed as a treatment failure and result in despair and hopelessness. This can be avoided by educating the patient about their pain condition and its treatment.

Although full recovery may not be possible, it is important to offer the patient realistic hope for improvement, focusing on the positive aspects of the future. It is critical to **keep the patient motivated** to participate in the ongoing treatment. The patient's participation in avoiding things that might exacerbate the pain and taking medications as prescribed is necessary for long-term pain management.

PAIN MANAGEMENT

- Pharmacologic
  - Narcotic analgesics
  - Non-narcotic analgesics (e.g., NSAIDS, acetaminophens)
  - Adjuvant analgesics (e.g., anticonvulsants, local anesthetics)
- Nonpharmacologic
  - Cold and warm compresses
  - Ultrasonography (diathermy)
  - TENS
  - Acupuncture
  - Biofeedback
  - Nerve blocks
  - Surgery

The medial student or health professional can help reinforce these behaviors by explaining the value of "sticking to the program" and by listening to the patient's concerns and questions. Always seek to maintain hope—if not for recovery, at least for relief. Relief of patient suffering must remain paramount.

Dying, Death, and Grieving

Medical students spend a great deal of time learning how to prevent, diagnose, and treat disease. Unfortunately, death is often viewed as a failure by the doctor. Yet it is the ultimate outcome for everyone. Most medical schools spend very little time teaching their students how to help their patients deal with dying. Dying patients often report the fear of isolation as their greatest concern. Dying is not confined to the dying individual but is an experience shared by family, friends, and caregivers.

In the Western world, progress in public health and in medicine has led to longer life expectancy. This progress has altered the most common causes of dying and death. In postindustrial society younger people generally die because of trauma, while older people often suffer chronic, progressive diseases and a prolonged period of dying. This has affected the emotional

Figure 7.3 Death related rituals such as the burial service, the tombstone, and visits to the graveyard following the death are a source of comfort to surviving family members.

Issues for Medical Students in Caring for Dying Patients

- Encourage the patient to discuss his feelings.
- Don't worry about having answers; be a good listener.
- Help the patient not to feel alone and isolated.
- Discuss pain issues.
- Share information with the attending (don't assume the patient shared what he told you).
- Be aware of your own feelings concerning death.
- Always be professional and compassionate.

reaction to death and dying by patients and their families. People expect to live longer and often hold doctors more responsible. An unfortunate consequence has been an increase in the practice of defensive medicine by doctors.

Two types of death are observed by physicians:

1. Traumatic death in the emergency room
   - Patient has no time to adjust to impending death.
   - Patient and family have no prior interaction with physician.
2. Death from chronic progressive diseases
   - Usually occurs in an inpatient setting or long-term care facility.
   - Patient and family know treating physician.
   - Attending physician consoles family while going through his own grief process.

The medical student who understands the biopsychosocial issues of the dying person can improve the care of that patient. Adequate management of pain, nutrition, depression, anxiety, and sleep and avoiding a sense of isolation can greatly improve the quality of life for the terminally ill. Helping a chronically ill patient deal with impending death is an important skill for medical students to learn.

Coping with Dying

Kubler-Ross Model

Dr. Elizabeth Kübler-Ross, a Swiss-American psychiatrist, is recognized as a pioneer in the field of thanatology (the study of dying and death). Her book *On Death and Dying* described psychosocial reactions to dying. It was based on a series of interviews with dying people. Based on the interviews, she conceptualized a stage-based model of coping with the experience of dying. The stages of **denial, anger, bargaining, depression,** and **acceptance** were perceived by many as linear or progressive, with the ultimate goal being *acceptance,* or a "good death." Kübler-Ross described the stages as ways of coping with an extremely stressful situation, indicating that each would "last for different pe-

Concerns of the Dying

- Management of symptoms
  - Uncontrolled pain
  - Shortness of breath
  - Depression
  - Loss of cognitive function
  - Fatigue or weariness with life
- Loss of hope
- Unfinished business
- Fear of abandonment

riods of time and replace each other or exist at times side by side." Criticisms of the model include the lack of independent studies to provide validity or reliability, and the failure to take into account individual confounding variables such as culture, age, and religiosity.

Task-Based Models

Many theorists and clinicians speak of **grief work,** which implies that certain tasks are to be accomplished during the coping process. The emphasis in a task-based approach is on **active efforts** by the terminally ill individual—a proactive rather than a reactive approach, as posited by Kübler-Ross. If one truly listens to dying people or reads their journals, it becomes clear that their greatest concern is the fear of abandonment and loss of control, not the fear of death itself.

The task-based model empowers the individual and provides guidance for significant others and health care providers as they assist in the coping process. It identifies four areas of task work in coping with dying: (1) the **physical** area (e.g., identifying bodily needs, communicating, and making choices); (2) the **psychological** area (e.g., focusing on autonomy); (3) the **social** area (e.g., focusing on "unfinished business"); and (4) the **spiritual** area (e.g., addressing meaningfulness, connectedness, and transcendence and thus fostering hope). This model highlights the importance of a biopsychosocial spiritual approach to dealing with dying patients. This holistic approach is not consistent with much of modern, subspecialized medicine but is relevant and important when treating the terminally ill.

Cultural Considerations Related to Dying, Death, and Bereavement

It is important for the medical student to learn about the death-related beliefs and customs of different groups but also to remember that differences exist within groups and for each individual.

Kubler-Ross Model

Elizabeth Kubler-Ross developed a 5-stage model of reactions to dying:
- Denial
- Anger
- Bargaining
- Depression
- Acceptance

Task-Based Models

The phases of grief in a task-based model might be identified as (1) shock and numbness, (2) yearning and searching, (3) integration, and (4) reintegration. The task in the **shock and numbness** phase is to accept the reality of the loss. This phase usually lasts a short time and is characterized by distress at the time of loss, numbness (for hours or days), disbelief, and relief. The task of the **yearning and searching** phase is to work through the pain of the grief. This phase is of variable duration and may be revisited many times. It is characterized by transient episodes of separation anxiety, loss of appetite, diminished concentration and short-term memory, irritability and depression, and psychoimmunology suppression. The task of **integration,** which may last one to three years, is to adjust to an environment from which the deceased is missing. In this phase the memory of the dead person is usually close, and anniversaries are often a time for renewed grieving. The task of **reintegration** is to emotionally relocate the deceased and move on with life.

- Rituals/customs are important in many cultures; consider and accommodate rituals whenever possible.
- Treat all people with respect even when their death responses (wailing, throwing themselves on the floor, or stoicism) run counter to your own cultural experience or expectations.
- Recognize that there may be generational differences within groups in the ways individuals respond to death.
- Remember that nonverbal communication such as the lack of direct eye contact may be related to the individual's cultural or ethnic beliefs.
- Provide care congruent with the beliefs, practices, and traditions of the dying and bereaved. If you are unable to do that, transfer care of the patient to another provider.
- Remember that support systems (family, friends, shamans, etc.) are a vital part of the "treatment" team.
- Listen, ask, and learn!

Grief

Grieving is an expected emotional response to loss. Death is not the only loss that initiates grieving. Loss of familiar settings when you relocate to a new city, retirement, loss of a job, and loss of a relationship are all examples of events precipitating grieving. The majority of those who are bereaved reengage with life and adjust to the new situation gradually. Normal grieving includes feelings of loss and abandonment but should not result in feelings of worthlessness or thoughts of suicide. Complicated grief can compromise physical and mental health by altering immune system functioning and can lead to major depression. When emotional support and time do not improve symptoms, psychiatric consultation may be warranted.

Purposes of Death-Related Ceremonies and Rituals

- Reaffirming the reality of death
- Acknowledging the loss to the larger community
- Showing respect to the deceased and the bereaved
- Providing an opportunity to share feelings, experiences, and memories
- Acknowledging a life transition
- Providing support for the family and significant others
- Honoring the life that was lived
- Beginning the grief process of integrating the loss into one's life experience

Source: Deits (2004)

Grief in a Family Context

Grief is experienced and manifested both collectively and individually. The family unit is altered—roles, relationships, routines, and responsibilities must be reconstituted, and "there may be a multigenerational ripple effect" from an especially significant death. Within the family, individuals each had a different relationship with

the dying or deceased person, and thus each personal grief experience is unique. Gender, developmental phase, and coping resources also affect individual members. Given these differences, members are often "out of sync" with each other as they accomplish their grief work, making the experience even more difficult.

> The disenfranchised griever:
> He who lacks the time to mourn,
> Lacks time to mend.
>
> —Sir Henry Taylor

The tasks of the family unit include (1) **sharing** knowledge of the reality of the death and the experience of loss, and (2) **reorganizing** and investing in other relationships and life pursuits. In order for the family to transform the relationship that existed before death and move forward in reconstituting the unit, there must be open, honest, and supportive communication among the members. When possible, the medical student should help facilitate this important process.

Death-related ceremonies and rituals, mentioned previously, provide a structure for family members to face the reality of the death, share feelings and memories, affirm the life that was lived, receive support from others, and begin the grief process. As appropriate, health care providers may wish to attend such rituals in support of the family and in recognition of their own grief. This is a highly personal decision and should be discussed with attending supervisors. This is no one right answer; each situation is unique.

Types of Grief

Anticipatory Grief or Mourning

The process of grieving a loss can take two pathways. **Anticipatory grief** is a reactive response to a loss when no actions are taken to cope with or accommodate to the loss. Conversely, **anticipatory mourning** is an active process that takes place within a context of adaptive demands caused by experiences of loss and trauma. Thus, anticipatory mourning is a complex phenomenon affecting both the dying individual and her significant others.

The dying person is working through the loss of her past, present, and future, while her significant others are focusing on what the anticipated death means to their understanding of their world. How they will continue to live without the physical presence of their loved one? What will this experience be like? Theirs will be a new reality, and old assumptions may no longer hold true. Both patient and significant others are reorganizing their personal assumptive worlds—holding on while letting go, redefining self to fit the changed reality, completing "unfinished business," and preparing to say good-bye.

High-Risk Factors for Complicated Grieving

Antecedent Variables
- Type of premorbid relationships
- Prior or concurrent losses
- Perception of support

Subsequent Variables
- Sudden or unanticipated death
- Death from overly long illness
- Death of a child
- Perception that death could have been prevented

Although the process is painful, it is important for the doctor to encourage it.

Physicians have an opportunity to intervene proactively by using primary prevention strategies such as allowing family members to "tell their stories"—reviewing past and current events and the emotions and concerns associated with them to facilitate healthy anticipatory mourning. An absence of anticipatory mourning increases the probability of more difficult bereavement outcomes.

Disenfranchised Grief

Disenfranchised grief is the **grief experienced when a loss** is incurred that **cannot be openly acknowledged,** publicly mourned, or socially supported. Physicians and medical students may experience disenfranchised grief when a patient they have cared for dies. Disenfranchised grief places the bereaved at risk for complicated grief. Professional intervention is often needed to help the person experiencing disenfranchised grief to deal with feelings of anger, guilt, or powerlessness. Disenfranchised grief may be experienced by extramarital partners, gay or lesbian partners, roommates in a nursing home, friends, and health care providers.

Medical Student/Physician/ Healthcare Provider Grief

- Intense reaction to death of patient or viewing recently deceased person may feel unprofessional.
- Tearful reaction may not feel appropriate in a hospital or professional setting.
- Grief at the loss of a patient is expectable when the physician or healthcare provider has worked closely with the patient or when the novice healthcare professional first experiences a loss in a professional setting.
- Healthcare professionals should seek help and support for such feelings.

Complicated Grief

Complicated grief occurs when responses are absent, excessive, distorted, or unending. There are **four types** of complicated grief reactions: (1) **chronic** grief reaction, which is grief of prolonged duration that does not lead to reintegration; (2) **delayed** grief reaction, which is grief that is inhibited, not surfacing until a later time; (3) **exaggerated** grief reaction, which is excessive grief that may lead to physical or psychological symptoms or to other maladaptive behaviors; and (4) **masked** grief reaction, which is when difficult symptoms or behaviors occur that are not recognized as being related to the loss.

While everyone's grief responses are unique, individuals with a past history of psychiatric disease can be at risk for exacerbation of symptoms during the mourning period. A patient with de-

pression, anxiety, or a psychotic illness should be closely monitored during their grieving period. Factors that can mitigate complicated mourning include a strong support network, balance in other areas of one's life, and a strong spiritual belief system.

Gender Differences in Grieving

Is there a difference in grief response patterns between males and females? The answer is yes *. . . sometimes.* One must recognize that responses and roles are highly personal in nature. Differences in grief response are *influenced* by gender but are not *determined* by it. When grief is experienced in an **intuitive pattern,** it is expressed more emotionally, whereas the **instrumental pattern** is expressed through rational thought.

In the U.S. culture, women are often characterized as intuitive grievers and men as instrumental grievers. Many grievers appear to manifest a blended pattern in which elements common to both are present but there is a greater emphasis on one or the other.

Patterns of Grieving

- In the **intuitive pattern,** feelings are intensely experienced; expressions such as crying and lamenting mirror inner experience; successful adaptive strategies facilitate the experience and expression of feelings; prolonged periods of confusion, inability to concentrate, disorganization, and disorientation ensue; and physical exhaustion or anxiety may result.
- In the **instrumental pattern,** thinking is predominant to feeling as an experience, and feelings are less intense. There is general reluctance to talk about feelings. Mastery of oneself and one's environment are most important. Problem solving as a strategy enables mastery of feelings and control of one's environment. Brief periods of cognitive dysfunction are common. Energy levels are enhanced, but symptoms of general arousal go unnoticed.
- Finally, in the **blended pattern,** either sensing or intuiting (with thinking or feeling serving as an associative function) is the dominant function. There is a moderate amount of repressive coping, and there are moderate levels of affect intensity.

Source: Martin and Doka (2000).

Hospice

A hospice is a program of compassionate care for people in the final six months of a terminal illness. The hospice team's focus is on care of the person rather than cure of disease. The emphasis is on quality of life and dignity. The team approach places the patient and the family at the center of care and the patient as the ultimate decision maker. This changes the role of the physician. The shift is from physician as the person making the decisions about what is best for the patient to physician as a team member providing medical oversight of care.

The hospice team provides a range of professional services (doctors, nurses, clergy, social workers, therapists, and aides) aimed at addressing the medical, emotional, psychological, and spiritual needs of the incurable patient. A critical issue in home hospice care is identification

Caring Insights on Visiting with the Dying

Often, dying people do not say what they want or mean, and the people close to them do not know what to say and do.

1. The first step is to relax.
2. Be yourself and establish an unafraid, heartfelt communication with the dying person.
3. Warmly encourage the dying person to feel as free as possible to express thoughts, feelings, fears, and emotions about dying and death.
4. Give the dying person complete freedom and permission to say and do whatever he wants.
5. When the dying person is finally communicating, do not interrupt, deny, or diminish what is being communicated.
6. Sit there with your dying friend, relative, or patient as if you had nothing more important or enjoyable to do.
7. If the dying person targets you for blame, anger, rage, or guilt extraction, do not take anything too personally.
8. Avoid, at all cost, preaching to the dying or giving them your spiritual formula for life—unless they ask.
9. Don't be surprised or distressed if your visit seems to have little effect and the dying person does not respond.

of a specific care provider who is usually living in the home. Hospice personnel may visit the patient on a daily basis, but they are not present twenty-four hours a day, seven days a week. Appropriate identification of the home care provider is a critical step in implementation of a hospice care program.

Since the middle 1990s, the cost of hospice service in the United States may be covered by Medicare (if a physician states that the patient has a life expectancy of less than six months). Usually, care is provided in the home, but there are locations with independent inpatient hospices. Some hospitals and nursing homes have wings dedicated to hospice care. Hospice does not end with the death of the individual but also provides programs for the survivors, such as bereavement groups and other types of counseling.

One of the most difficult questions a medical student will be asked is "Why am I dying?" An important component of becoming a good physician is learning to deal with death. This requires personal reflection and a clear understanding of one's own thoughts and beliefs. The student must learn how to assist patients and their families dealing with the process of dying and death. It is important not to impose personal beliefs on the patient. The role of a physician is different from that of a spiritual counselor.

When patients or family members ask difficult questions concerning mortality, they do not expect the doctor to have the answer. They are expressing their need to discuss intense feelings. If the student is unable or unwilling to allow patients to discuss their feelings, she should make an appropriate referral and alert the attending physician. The job of the medical professional is not only to attempt to add years to life, but also to add life to whatever time is left. Adequate pain management, listening to patients' concerns, and addressing their needs from a biopsychosocial perspective are as important as any medical intervention for the terminally ill. This is the "art of medicine."

Step Prep

Sarah Smith is admitted to the hospital with severe abdominal pain. Andrew Jones, a third-year medical student, finds out that Sarah has a long history of alcohol dependence and has pancreatic cancer. Sarah grew up in poverty with an alcoholic father who physically abused her and her mother. She is divorced. She is currently being treated for depression. During her hospital stay it was discovered that the cancer had spread, and her pain was increasing. During her stay in the hospital, Andrew got to know the patient and her family very well. In spite of heroic treatment the prognosis for Sarah was grim.

1. The immediate goal of the treatment plan should be which one of the following:
   a. Put her on an antidepressant medication.
   b. Consult surgery.
   c. Provide optimum pain management.
   d. Get the patient to sign a Do Not Resuscitate/Do Not Intubate order.
   e. Reevaluate the diagnosis.

2. When managing chronic pain, it is most important to remember which one of the following:
   a. Chronic pain is often complex and multifactorial.
   b. There is usually a clear correlation between the severity of pain and the degree of organic pathology.
   c. Patients with pain are usually psychotic.
   d. The pain can usually be successfully managed with medication alone.
   e. The patient must see a psychiatrist.

3. Which one of the following statements is true about pain?
   a. The Wong-Baker Faces and other pain-rating scales are helpful in the assessment of pain.
   b. Almost 40 percent of all physician consults are pain related.
   c. Each year Americans purchase about 50 pain-relievers per capita.
   d. Asians tend to be more expressive of physical and emotional pain than Hispanics.
   e. A key concern in the pain management of the terminally ill patient is prevention of addiction to potent pain medications.

Suggested Readings and Web Sites for the Highly Motivated

American Pain Society, www.ampainsoc.org.
Centers for Disease Control, www.cdc.gov/nchs/fastats.
Corr, C. A., Nabe, C. M., and Corr, D. M. (2000). *Death and Dying: Life and Living.* Belmont, CA: Wadsworth/Thomas Learning.
Deits, Bob (2004). *Life After Loss.* Cambridge, MA: Lifelong Books.
Doka, K. J. (1993). *Living with Life-Threatening Illness: A Guide for Patients, Families, and Caregivers.* Lexington, MA: Lexington Books.
Martin, T., and Doka, K. J. (1999). *Men Don't Cry . . . Women Do: Gender Stereotypes of Grief.* Philadelphia: Taylor & Francis.
Parkes, C. M., Laugani, P., and Young, B., eds. (1997). *Death and Bereavement across Cultures.* New York: Routledge.
Worden, J. W. (2002). *Grief Counseling and Grief Therapy: A Handbook for the Mental Health Practitioner* (3rd ed.). New York: Springer.

Answers to Step Prep

1. c
2. a
3. a

8 SUBSTANCE-RELATED DISORDERS

Joseph Garbely, DO, and Jennifer Luft, MD

"Turn on, tune in, drop out."

—Timothy Leary

This platitude is ineffective in preventing use, abuse, and dependence.

MENU

- Introduce basic concepts regarding substance-related disorders.
- Describe drugs of abuse and dependence.
- List the substance-induced disorders.
- Understand criteria for dependence and abuse.

Introduction

Substance use has been traced to the very beginning of human life. Opium poppies have been discovered in the caves of Neanderthal man. Throughout history man has sought new substances to alter mood, and, as we have evolved, so, too, have substance-related disorders. This chapter aims to introduce the reader to basic information regarding substances of abuse and the disorders that emerge from their use.

Pre–Step Prep

Joe, a forty-eight-year-old male manager of a grocery store, five feet six inches tall, weighing 215 pounds, comes to see Dr. Garbely, his family doctor. His wife is threatening to leave him if he doesn't do something about his drinking. He reports that he now drinks heavily, that he has progressed from twelve beers per day to twenty-four beers per day to achieve the same level of intoxication. His increased drinking has occurred within the last three weeks. The patient states that he started drinking at age thirteen, when he would secretly drink his dad's beer by himself before going out with friends. His first drinking episode led to vomiting and passing out.

In college, he was a binge drinker, meaning five or more drinks. His longest period of sobriety was approximately two months. He has to drink to enjoy himself and interact with family and friends. He has a legal history notable for a DUI (driving under the influence), and he was once admitted to a detox program for three days followed by a short stay at a rehab facility. He left AMA (against medical advice) after one week because he had to go to work; he never went to Alcoholics Anonymous or to outpatient treatment. He was able to stay sober for two months on "will power." He got strong cravings when he went out to dinner or watched sports. After two months he relapsed. He usually

walks past a local bar on the way home from work, and on the day of his relapse, though he does not remember turning into the parking lot or ordering a beer, he left the bar at closing time, intoxicated. At home, he got into an argument with his wife and missed the next day of work. He has continued to drink and has been drinking a case of beer a day for three weeks.

He believes that he drinks to numb himself. He ingests several drinks prior to going out with friends to get a "buzz." This enables him to drink less at the bar, which makes it appear that he is drinking the same amount as his friends. He has always taken pride in the fact that he can "hold his liquor." He never thought of himself as an alcoholic because he was always employed and never drank hard liquor. Currently, he is constantly late for work, and his drinking is causing marital difficulties. Upon awakening, he experiences nausea, tremors, and sweating, which are relieved by an immediate "eye opener" of a drink.

1. For the case described above, choose the one best description:
   a. Functional alcoholism
   b. Alcohol abuse
   c. Alcohol dependence
   d. None of the above
2. In the case above, which one of the following indicates abuse?
   a. Unable to show up on time for work
   b. DUI
   c. Marital difficulties
   d. All of the above
3. Which one of the following indicates dependence?
   a. Tolerance and withdrawal
   b. Marital difficulties
   c. Work problems
   d. Constant cravings
4. In 1998, the Office of National Drug Control Policy reported:
   a. Ten percent of domestic violence incidents are drug related.
   b. Workers who test positive for drugs use roughly twice the employee benefits that other workers do.
   c. Fifty percent of families reported for child abuse have problems with substance abuse.
   d. Drug intoxication is associated with creativity in the workplace.

e. Workers who test positive for drug use do not take any more leave time than those who do not test positive.

5. Increasing from twelve beers a day to twenty-four beers a day is an example of what phenomenon?

a. Abstinence
b. Tolerance
c. Liver failure
d. Encephalopathy

6. Memory lapses of acts performed while intoxicated are called:

a. Dementia
b. Strokes
c. TIAs
d. Blackouts

History of Substance-Related Disorders

Psychoactive substances have been used throughout the world for millennia. In the United States, awareness of substance abuse and efforts to control it began in the 1800s with the temperance movement, whose members advocated abstinence from alcohol. In early America there was a long tradition of **alcohol distillation** and brewing. Heroin, cocaine, marijuana, and a variety of recipes for distilling alcohol were brought to the United States by Chinese immigrants, South Americans, and others who came seeking work and opportunity in the New World. Traveling peddlers sold medicines for a variety of ailments during the period before medicines were regulated, and they contained unknown amounts of opium, cocaine, and alcohol.

The **hypodermic syringe,** invented in 1853 independently by Scottish doctor Alexander Wood and French surgeon Charles Gabriel Pravaz, was introduced to the United States prior to the Civil War. Wounded soldiers received injectable morphine for pain control; not surprisingly, opiate abuse increased after the war. In 1914, the **Harrison Act** was the first federal legislation designed to regulate the producers of narcotics. It required detailed record keeping and prescriptions to obtain access to narcotics. The **Eighteenth Amendment**, which ushered in Prohibition, was passed in 1920 but repealed in 1933 when it became apparent that restricting access to alcohol led to dangerous underground alcohol production.

The **Drug Enforcement Administration** (DEA) was formed in 1973

to oversee classification of drugs according to addictive risk and to enforce drug law. The **National Institute on Drug Abuse** (NIDA), the National Institute on Alcohol Abuse and Alcoholism (NIAAA), and the Substance Abuse and Mental Health Services Administration (SAMHSA) were later established to implement federal policy in prevention, research, and treatment of substance abuse. Nevertheless, addiction costs Americans $144 billion per year in health care and job loss.

Common Substances of Abuse

• **Alcoholism,** also known as alcohol dependence, is a disease that includes four symptoms: (1) craving, (2) loss of control, (3) physical dependence, and (4) tolerance. Alcoholism is a complex disease. There are likely many genes involved in increasing a person's risk for alcoholism. Scientists are searching for those genes and have found areas on chromosomes where they are probably located. Treatment strategies include twelve-step groups, motivation enhancement therapy, and cognitive behavioral therapy. Medications to reduce craving such as Revia (naltrexone) and Campril (acamprosate) have been shown to be efficacious and represent new pharmacological options since the aldehyde dehydrogenase inhibitor Antabuse (disulfiram) was approved in 1949.

Alcoholism exhibits primary effects on several organ systems including, but not limited to, the liver (fatty liver, hepatitis, cirrhosis), the heart (dilated cardiomyopathy), and the brain (blackouts in binge drinkers, Wernicke-Korsakoff syndrome, encephalopathy). Long-term excessive use of alcohol increases the risk for hypertension, arrhythmias, cardiomyopathy, and stroke. One drink per day for a woman and two drinks per day for a man, however, have been shown to be cardioprotective.

Figure 8.1 The hypodermic syringe was introduced to the United States prior to the Civil War.

Fast Facts

- In 1994, the federal government passed legislation making 21 the legal drinking age in all states.
- Roughly 50% of all highway fatalities involve a driver or pedestrian who is intoxicated.
- 100,000 deaths per year directly result from the use of illicit drugs or alcohol.

Drinking and Pregnancy

It is not safe to drink alcohol while pregnant. **Alcohol is toxic to the developing fetus** and may lead to retardation and other serious lifelong disorders.

- **Tobacco** use kills nearly half a million Americans each year, with one in every six deaths the result of smoking. In 2004, 29.2 percent of the U.S. population twelve and older (70.3 million people) used tobacco at least once in the month prior to being interviewed; 3.6 million were between the ages of twelve and seventeen. Young adults reported the highest rate of current use (44.6 percent). Tobacco use remains the leading preventable cause of death in the United States. Nonsmokers exposed to **secondhand smoke** have a 25–30 percent greater risk of developing heart disease and a 20–30 percent greater chance of developing lung cancer.
- Eight states permit some use of medical **marijuana,** but the United States has a zero-tolerance policy, so the federal law conflicts with some state laws. Of current illicit drug users, 59 percent use marijuana alone, and 79 percent use marijuana in conjunction with other illicit drugs.
- In 1897 **heroin** was synthesized by Felix Hoffmann at Bayer Laboratories and heavily marketed for treatment of respiratory ailments. There are at least 600,000 regular heroin users in the United States; however, most parts of the country report problems with opiates other than heroin (oxycontin, percocet, etc.).
- Coca has been used for the elevation of mood, to stimulate tired workers, and to produce euphoria for thousands of years in Central and South America. In the mid-nineteenth century Europe and the United States took note and began to extract the principal active ingredient, making it available as a water soluble powder. Use of **cocaine and crack** has been stabilizing and trending down since 1990, but crack use remains high in the lowest socioeconomic classes.
- **MDMA** (methylenedioxymethamphetamine or "ecstasy") is currently the leading club drug, followed by **Rohypnol** (flunitrazepam, or "date-rape drug") and **GHB** (gamma-hydroxybutyric acid, another date-rape drug).

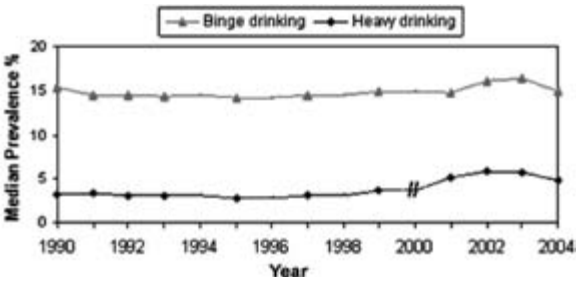


Figure 8.2 Prevalence of Binge Drinking and Heavy Drinking, 1990 to 2004

Source: Centers for Disease Control.

Other Substances of Abuse

There are many substances of abuse that are noteworthy because they are popular among young people and are either unregulated or regulated in a special way by the FDA for a variety of reasons. In 1991, **anabolic steroids** were placed in Schedule III of the **Comprehensive Drug Abuse and Control Act** and defined as any drug or hormonal substance that is chemically or pharmacologically related to testosterone (not estrogen, progestin, or corticosteroids) and promotes muscle growth.

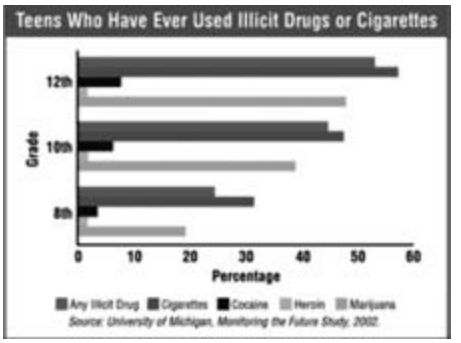


Figure 8.3 Teens Who Have Used Illicit Drugs or Cigarettes

Source: National Institute on Drug Abuse.

Traditionally, these steroids were associated with body builders and world-class athletes, but now they are frequently abused by high school students looking to achieve a certain muscle definition and improved performance. Students may use these drugs lightly, not taking seriously the possible side effects, which include high blood pressure; increased cholesterol levels; prostate, liver, and kidney cancer; heart disease; severe acne; premature balding; decreased sexual functioning and testicular atrophy; gynecomastia in males; masculinization in females; and mood or personality changes. In adolescents, steroid abuse may also prematurely stop bone lengthening, leading to stunted growth.

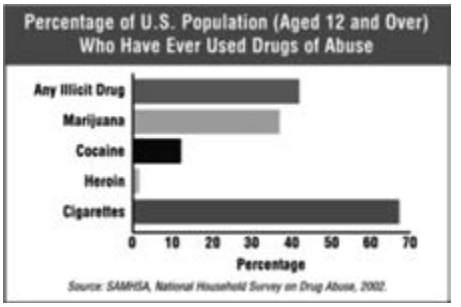


Figure 8.4 Percentage of U.S. Population Who Have Ever Used Drugs of Abuse

Source: National Institute on Drug Abuse.

Inhalants are a diverse group of household and commercial products composed of volatile substances and organic solvents. They can be abused by sniffing or "huffing" for an intoxicating effect similar to that produced by alcohol. Although they are not regulated by the Drug Abuse and Control Act of 1970, about thirty-seven states have placed restrictions on the sale of inhalants to minors. Evidence suggests that huffing may be neurotoxic.

There are also a number of **dietary supplements** that are considered "foods" rather than "drugs," and these are regulated under a 1994 amendment to the 1938 Food, Drugs, and Cosmetics Act. Abuse of dietary supplements has occurred with products promoted for increased energy and weight loss and as sleep aids or laxatives. In early 2002, the Food and Drug Administration (FDA) accepted comments on ephedrine alkaloids, a potent group of substances closely

Figure 8.5 Dietary supplements are regulated by the Food and Drug Administration.

Fast Facts

- The first reported use of anabolic steroids for performance enhancement was during WWII, when they were given to German soldiers before combat.
- Studies suggest that about 10% of male high school students and 1% of female high school students in the U.S. used anabolic steroids by the time of high school graduation.
- Up to 15% of young people have tried inhalants. In 1988, 62% of new users (about 991,000) were between the ages of 12 and 17.
- Millions of Americans use dietary supplements.
- PCP is applied to cigarettes or marijuana and smoked.
- LSD comes in liquid form and is applied to paper or pills and swallowed.

related to amphetamines that stimulate the cardiovascular and central nervous systems. Because of the numerous reported serious adverse events associated with products containing ephedrine alkaloids, the FDA seeks to establish dosage recommendations for ephedrine, above which products would be considered adulterated.

CASE STUDY: NOTHING TO SNIFF AT

I lost my thirteen-year-old brother to inhalant abuse. He died in my arms at the county hospital, and there was nothing that the doctors could do. I was the one who took him to the hospital after some of his friends had a "sniffing party." He sniffed his way to his own death. He didn't know that inhalants could kill him.

Inhalant abuse is deadly serious. By starving the body of oxygen or forcing the heart to beat more rapidly and erratically, inhalants can kill sniffers—too many of whom are people around my brother's age.

Using inhalants even one time can put you at risk for sudden death, suffocation, visual hallucinations, severe mood swings, and numbness and tingling of your hands and feet. Long-term use can result in headaches, nausea, muscle weakness, stomach pains; decrease in or loss of your sense of smell; nosebleeds; hepatitis; liver, lung, and kidney damage; violent behavior; and brain damage.

If inhalant use continues over a period of time, your body can develop tolerance to the drug. This means that the user has to sniff or "huff" more poison and do it more frequently to achieve the high. The user is at much greater risk of suffering the long-term effects of using inhalants once he or she develops tolerance.

Inhalants are dangerous. I wish that I could have

told my brother all of these things. Maybe if I had, he would have made a no-use decision about using inhalants, and he would be alive today. I can do one thing. I can share what I know about inhalants with other people his age so that more brothers and sisters will live.

That's why I am writing this article. Inhalants are nothing to sniff at, and this stuff can kill you.

Source: National Institute on Drug Abuse.

Epidemiology

Substance abuse has reached epidemic proportions in this country. According to recent statistics, 18 percent of the population suffers from a substance-related disorder at use some point in their lives. The Epidemiological Catchment Area Study demonstrated that the annual incidence of alcohol dependence is 1.8 percent and of other drug dependence is 1.1 percent. The lifetime prevalence rate for substance dependence (defined as the probability of being dependent at some point in time with at least one active clinical manifestation) is 4 percent for alcohol and 1.1 percent for other drug abuse. An average of 20 per-

Table 8.1

Common Terms for Specific Drugs of Abuse	
Alcohol	Beer, wine coolers, hard liquor, malt liquor
Amphetamines and methamphetamines	Uppers, speed, crystal, ice, meth
Anabolic steroids	Roids, juice
Cocaine	Coke, blow, crack, rock, nose candy
Ephedrine	Ma huang, ephedra, herbal ecstasy, epitonin
Flunitrazepam	Rohypnol, roofies
GHB/GBL	Liquid X, easy lay, scoop
Heroin	Smack, horse, H
Inhalants	Poppers, amies, bolt, rush, whippets
Ketamine	Special K
LSD	Acid, trip, yellow sunshine
Marijuana	Weed, grass, reefer, pot
MDMA	Ecstasy, X, Adam
Phencyclidine	PCP, angel dust, embalming fluid

cent of patients in general medicine facilities and 35 percent of patients in general psychiatric units present with substance-related disorders.

More than one-third of all new AIDS cases occur among users of intravenous drugs or individuals who have had sexual contact with IV drug users. These sobering statistics reinforce the need for effective prevention and treatment. The various physical, psychological, and social difficulties surrounding substance abuse have implications not only for psychiatrists, but also for all physicians, nurses, social workers, and anyone else in health care.

More than 430,000 deaths per year are due to cigarette smoking. The adverse consequences of nicotine exposure are due to the effects of the drug and all the adulterants in tobacco, depending on how it is taken. The most significant negative effects are due to tobacco smoking and chewing.

Intoxication, Abuse, and Dependence

Over time, the language used to describe substance abuse has changed regularly. Currently, the term *substance* is preferred to the term *drug,* because the latter typically refers to manufactured chemicals, whereas there are many substances associated with abuse that occur naturally.

In 1964, the World Health Organization introduced the phrase *drug dependence* to deemphasize the negative social connotation associated with *addiction.* Drug dependence has both behavioral and physical aspects. Typically, it has a chronic, relapsing course. Behavioral dependence is present when substance-seeking activities and related evidence of pathological use are evident. Physical dependence is present when there are physiological effects during multiple episodes of withdrawal. Psychiatrists also created criteria to define *intoxication, abuse, dependence,* and *withdrawal.*

In the *International Classification of Diseases* (10th revision; ICD-10), substance abuse disorders are described as mental and behavioral; there is no distinction between legal and illegal substances (but substances may or may not have been medically prescribed), and there is a separate category for nondependence-producing substances.

In the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV TR), each specific substance has its own criteria for intoxication and withdrawal, depending on specific signs and symptoms, while the criteria for dependence and abuse are generalized. To treat substance-related disorders effectively and thereby decrease the high

rate of recidivism, it is important to understand the differences between intoxication, abuse, and dependence. The distinctions are important because of the implications for treatment.

DSM-IV TR Criteria for Intoxication

1. Development of a reversible substance-specific syndrome due to recent ingestion (or exposure to) a substance
2. Clinically significant maladaptive behavioral or psychological changes that are due to the effect of the substance on the CNS (e.g., belligerence, mood lability, cognitive impairment, impaired judgment, impaired social or occupational functioning) that must develop during or shortly after use of the substance
3. Symptoms not due to a general medical condition and not accounted for by another mental disorder

Drugs at Home and in the Workplace

In 1998, the Office of National Drug Control Policy reported:

- 25% to 50% of all incidents of domestic violence are drug related.
- 81% of families reported for child maltreatment have problems with substance abuse.

According to a SAMSA survey, workers who tested positive for drug use:

- make more than twice as many workers' compensation claims,
- use roughly twice the employee benefits, and
- take one-third more leave time than nonusers.

DSM-IV TR Critera for Dependence

Dependence is defined as a maladaptive pattern of substance use that leads to clinically significant impairment or distress, as manifested by three or more of the following, occurring at any time in a twelve-month period:

1. **D**enial—continued substance use despite knowledge of persistent physical or psychological problems that are caused or exacerbated by the substance
2. **I**mpairment—abandonment or reduction of social, occupational, or recreational activities because of substance abuse
3. **M**ore—taking the substance in larger amounts or over a longer period than was intended
4. **W**ithdrawal—manifested either by the characteristic withdrawal syndrome for the substance or by taking the same (or a closely related) substance to relieve or avoid withdrawal symptoms
5. **A**bsent abstinence—a persistent desire or unsuccessful effort to cut down or control substance use
6. **T**ime—a great deal of time spent in activities necessary to obtain the substance, use it, or recover from its effects
7. **T**olerance—defined by either of the following:

- Need for markedly increased amounts of the substance to achieve intoxication or the desired effect
- Markedly diminished effect with continued use of the same amount of the substance

Dependence turns you into a DIM WATT.

The DSM-IV TR also provides a diagnosis of **polysubstance dependence**, which is the use of three groups of substances (excluding nicotine and caffeine) in a twelve-month period with no single substance predominating. Dependence criteria are met for substances as a group but not for individual substances. Dependence has to be specified if there is physiological dependence, as evidenced by tolerance or withdrawal. This is crucial in the medical setting, so that patients are given proper medication to prevent severe withdrawal disorders.

The Biopsychosocial Model

The biopsychosocial model allows the clinician to **view the patient from multiple perspectives** and to take into account psychopathology as it affects a patient's life in the broadest sense. The application of the model to psychiatric diagnoses increases reliability and validity and results in more uniform treatment than older approaches. The model has three distinct assessment components—biological, psychological, and social—and is valuable when applied to substance-related disorders.

Assessment

The **biological assessment** considers past medical history and current medical problems and pays attention to complications from substance-related disorders that have occurred already (cirrhosis, hepatitis B and C, sexually transmitted diseases like HIV and gonorrhea, tuberculosis, and cardiac and renal problems). *Thorough physical and neurological exams, including a mental status exam, should be performed.* It is useful to do a urine drug screen and serum alcohol level in addition to other blood tests (a complete blood count, liver function tests, and a chemistry panel; others may be indicated depending on the circumstances) to check for abnormalities.

The **psychological assessment** evaluates a patient's level of psychological development. It is important to consider the patient's history of physical, sexual, or emotional abuse or neglect in addition to the personal and family psychiatric history (hospitalizations, psychotropic medications, psychotherapy).

The **social assessment** consists of the patient's substance use patterns, including the specific drug or type of alcohol, amount, frequency, route of administration, duration of use, and time of last use. It is also useful to find out whether the patient has had adverse withdrawal or intoxication problems, like seizures, strokes, or delirium tremens (DTs). Note should also be made of previous treatment for the problem and of any family history of substance problems. The patient's involvement with the criminal justice system (all charges and convictions) and role in the community and family should be assessed. Finally, it is important to consider the educational and vocational needs of the patient, as well as an assessment of her spiritual needs, including her sense of belonging to the community.

CAGE Questionnaire

Several instruments are used to evaluate substance-related disorders. The CAGE questionnaire is used by primary care doctors, psychiatrists, and other health care workers to briefly screen for problem drinking. It consists of four questions that take about one minute to ask and can be incorporated easily into any patient visit:

1. *Have you ever felt that you should **C**ut down on your drinking?*
2. *Have people **A**nnoyed you by criticizing your drinking?*
3. *Have you ever felt bad or **G**uilty about your drinking?*
4. *Have you ever had a drink first thing in the morning (an **E**ye opener) to steady your nerves or to get rid of a hangover?*

One "yes" should prompt further exploration, while two or more suggest significant alcohol problems.

Treatment

Substance-related disorders are treated most effectively when approached from the biopsychosocial perspective, meaning that biological, psychological, and social factors play a role in the development of the disorder. With this model in mind, treatment is broken down into complementary parts, each tailored to the multiple needs of the patient. The biopsychosocial approach has been applied to every level of substance-related disorder management and includes a thorough as-

sessment of the individual in order to arrive at a correct diagnosis, a physical exam and psychological evaluation, and finally specific treatment recommendations.

There are **three goals of treatment** when considering substance-related disorders in general:

1. To help the patient stop drinking or using drugs
2. To mobilize social supports to help patients, their families, and the community to recover from the disorder and its consequences
3. To decrease the number of people at risk for the disorder and other associated medical, social, and legal consequences of substance abuse

Aftercare and relapse prevention are important parts of treatment programs, as even after individuals complete detoxification or rehabilitation, the risk of relapse remains high. When considering a drug-free life after discharge from a rehab setting, individual areas of vulnerability need to be identified so that support systems can be installed to help prevent relapse. Random urine drug screens are a key part of recovery programs, especially if the patient is part of a group living program or is in methadone maintenance.

Many people attend group therapy or twelve-step programs like Alcoholics Anonymous and Narcotics Anonymous, since those programs are free and almost universally available. Some continue or begin individual therapy using cognitive behavioral or insight-oriented techniques to understand the issues that underlie their drug use, but those treatments usually require insurance or other funding. There are also education, employment, and mentoring programs to ease the transition to a productive, responsible life.

Patients could be encouraged to invite family or close friends to support them by attending their own groups, like Al-Anon or Adult Children of Alcoholics, or by simply being someone the person can turn to when the urge to use arises. Finally, pharmacotherapy can be used when abstinence and peer support are not enough or when the patient has a coexisting depression or other psychiatric disorder. However, medication by itself does not "cure" substance dependence.

Medications

Benzodiazepines are the drugs of choice in the treatment of alcohol withdrawal. For outpatient detoxification, a long-acting benzodiazepine such as chlordiazepoxide or diazepam is indicated. For patients with liver disease, delirium, dementia, or other cognitive impairment, ox-

Table 8.2

Medications Used in Drug and Alcohol Treatment			
Drug/Alcohol	**Intoxication**	**Withdrawal**	**Maintenance**
Alcohol	No antidote - Thiamine - Hydration - Close monitoring	- Thiamine, dextrose, hydration - MgSO4 - Benzodiazepines (lorazepam and others) - Clonidine / anticonvulsants - Beta blockers (propranolol) - Barbiturates (phenobarbital) - Antipsychotics (if hallucinating)	- Naltrexone - Disulfiram - Acamprosate
Opiates	- Naloxone - Buprenorphine - Nalmefene	- Methadone - LAAM - Buprenorphine - Clonidine plus naltrexone - Clonidine patch	- Methadone - LAAM - Naltrexone - Buprenorphine
Sedatives	- Flumazenil (specific antidoter fobenzodiazepine toxicity)	- Benzodiazepine or barbiturate	- Nonhabit-forming sedatives (e.g., buspirone)
Cocaine	Symptomatic Tx: - Benzodiazepines - Antipsychotics - Hydration	- Supportive treatment	Symptomatic Tx: - Antipsychotics - Buproprion
Nicotine		- Nicotine replacement therapy (chewing gum, nasal spray, sublingual tablets, patches)	- Zyban - Nicotine replacement therapy

azepam or lorazepam is indicated. Naltrexone is an opioid antagonist that acts by partially blocking the pleasurable effects of alcohol, which may reduce craving. Disulfiram is used as a deterrent that makes people very ill if they drink alcohol while on the medication. This drug inhibits aldehyde dehydrogenase, the second step in alcohol metabolism, and leads to an accumulation of acetaldehyde, which is toxic. Acamprosate, recently approved by the FDA, reduces cravings by decreasing glutamate activity and increasing GABA activity.

Acute opiate withdrawal and opiate maintenance are managed with the opiate agonists methadone, LAAM (L-alpha-acetyl-methadol), and buprenorphine. Methadone is a long-acting opiate that lasts for twenty-four hours (four to six times as long as injected heroin) and usually is given once a day. It decreases heroin craving, is less sedating than heroin, and may block the high if heroin is used. It does not interfere with activities like driving a car and therefore allows patients to resume more stable, productive lives.

Overwhelming evidence exists to show that methadone is a safe and effective drug that vastly reduces social and medical costs of opiate addiction. LAAM, a synthetic opiate that was approved in 1993 as an alternative to daily methadone is a long-acting form of methadone that lasts seventy-two hours and may be given three times per week. Buprenorphine is a mixed opiate agonist-antagonist recently FDA approved. It is an attractive alternative to methadone and LAAM because it has weaker opiate effects and therefore is less likely to cause overdose problems. It produces a lower level of physical dependence, so there are fewer and weaker withdrawal symptoms for those patients who discontinue the medication. Finally, it is available in a wider range of treatment settings than methadone and LAAM because it can be managed in the primary care office setting.

Naltrexone and naloxone are both opiate antagonists that can precipitate acute opiate withdrawal if the patient has not been detoxified from opiates. Frequently, naloxone is used acutely as an antidote to reverse respiratory depression or coma in suspected cases of opiate overdose. Nalmefene is also opiate antagonist used in long-term treatment of opiate dependence.

Step Prep

Joe, a forty-eight-year-old male manager of a grocery store, five feet six inches tall, weighing 215 pounds, comes to see Dr. Garbely, his family doctor. His wife is threatening to leave him if he doesn't do something about his drinking. He reports that he now drinks heavily, that he has progressed from twelve beers per day to twenty-four beers per day to achieve the same level of intoxication. His increased drinking has occurred within the last three weeks. The patient states that he started drinking at age thirteen, when he would secretly drink his dad's beer by himself before going out with friends. His first drinking episode led to vomiting and passing out.

In college, he was a binge drinker, meaning five or more drinks. His longest period of sobriety was approximately two months. He has to drink to enjoy himself and interact with family and friends. He has a legal history notable for a DUI (driving under the influence), and he was once admitted to a detox program for three days followed by a short stay at a rehab facility. He left AMA (against medical advice) after one week because he had to go to work; he never went to Alcoholics Anonymous or to outpatient treatment. He was able to stay sober for two months on "will power." He got strong cravings when he went out to dinner or watched sports. After two months he relapsed. He usually walks past a local bar on the way home from work, and on the day of his relapse, though he does not remember turning into the parking lot or ordering a beer, he left the bar at closing time, intoxicated. At home, he got into an argument with his wife and missed the next day of work. He has continued to drink and has been drinking a case of beer a day for three weeks.

He believes that he drinks to numb himself. He ingests several drinks prior to going out with friends to get a "buzz." This enables him to drink less at the bar, which makes it appear that he is drinking the same amount as his friends. He has always taken pride in the fact that he can "hold his liquor." He never thought of himself as an alcoholic because he was always employed and never drank hard liquor. Currently, he is constantly late for work, and his drinking is causing marital difficulties. Upon awakening, he experiences nausea, tremors, and sweating, which are relieved by an immediate "eye opener" of a drink.

1. For the case described above, choose the one best description:
   a. Functional alcoholism
   b. Alcohol abuse
   c. Alcohol dependence
   d. None of the above

2. In the case above, which one of the following indicates abuse?
   a. Unable to show up on time for work
   b. DUI
   c. Marital difficulties
   d. All of the above

3. Which one of the following indicates dependence?
   a. Tolerance and withdrawal
   b. Marital difficulties
   c. Work problems
   d. Constant cravings

4. In 1998, the Office of National Drug Control Policy reported:
   a. Ten percent of domestic violence incidents are drug related.
   b. Workers who test positive for drugs use roughly twice the employee benefits that other workers do.
   c. Fifty percent of families reported for child abuse have problems with substance abuse.
   d. Drug intoxication is associated with creativity in the workplace.
   e. Workers who test positive for drug use do not take any more leave time than those who do not test positive.

5. Increasing from twelve beers a day to twenty-four beers a day is an example of what phenomenon?
   a. Abstinence
   b. Tolerance
   c. Liver failure
   d. Encephalopathy

6. Memory lapses of acts performed while intoxicated are called?
   a. Dementia
   b. Strokes
   c. TIAs
   d. Blackouts

Suggested Readings and Web Sites for the Highly Motivated

American Psychiatric Association (2000). *APA Practice Guidelines for the Treatment of Psychiatric Disorders: Compendium 2000.* Washington, DC: American Psychiatric Association.

——— (2000). *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., text rev.). Washington, DC: American Psychiatric Association.

Centers for Disease Control, www.cdc.gov.

Lowinson, J. H., Ruiz, P., Millman, R. B., and Langrod, J. G., eds. (1997). *Substance Abuse: Comprehensive Textbook* (3rd ed.). Philadelphia: Lippincott Williams and Wilkins.

National Institute on Alcohol Abuse and Alcoholism, www.niaaa.nih.gov.

National Institute on Drug Abuse, www.nida.nih.gov.

Sadock, B., and Sadock, V., eds. (2000). *Kaplan and Sadock's Comprehensive Textbook of Psychiatry* (7th ed.). Philadelphia: Lippincott Williams and Wilkins.

Answers to Step Prep

1. c
2. d
3. a
4. b
5. b
6. d

9 INTERPERSONAL VIOLENCE

Ellen H. Sholevar, MD, and David Baron, MSEd, DO

The medical and psychiatric emergency room staff must always be alert to the possibility of child abuse and neglect, intimate partner violence, and elder abuse and neglect in the patients evaluated and treated.

MENU

- List types of interpersonal violence:
  - Child abuse and neglect
  - Intimate partner violence
  - Violence in the workplace
  - Elder abuse and neglect
  - Rape
  - Homicide
- Describe causes of interpersonal violence.
- Identify the physician's and health professional's role in interpersonal violence.

Introduction

Violence in the United States is a national health issue. Millions of people are terrorized daily by the threats and actions of perpetrators of interpersonal violence. The occurrence of interpersonal abuse not only causes physical pain but also leads to intense emotional distress and lifestyle disruption and at times death. Violence against all people, especially women, children, and the elderly, is often unrecognized as a cause of illness and injury. All physicians and medical students should routinely screen for domestic violence. Action needs to be taken to identify and address physical and mental abuse issues, from treating injuries and providing emotional support and appropriate referrals to educating people to develop and sustain healthy relationships.

Pre–Step Prep

1. Every year about 1,400 children in the United States die from neglect or abuse. Choose the correct statement about child abuse and neglect:

   a. All 50 states have mandatory child abuse reporting laws.

   b. Children 5 to 10 years of age are the most frequent victims of abuse and neglect.

   c. It is estimated that 5 percent of deaths due to abuse or neglect are not reported.

d. Child abuse perpetrators are usually people who are unknown to the child.

e. Physicians are not legally liable if they document abuse and do not report it.

2. John, an African American postal supervisor, was on duty late one evening when he was shot and killed by an employee he had terminated a month previously. Choose the correct statement below about violence in the workplace:

a. Workplace homicides are usually related to intimate partner violence.

b. Black workers are most likely to be victimized.

c. A worker is most likely to be victimized by a person of a different race.

d. Health care professionals working with violent people or volatile situations are at greatly increased risk.

e. Postal workers are at increased risk of workplace violence.

3. The postal worker above had been terminated and became homicidal. Which one of the following statements is likely to be true of him?

a. He had high levels of the neurotransmitter serotonin.

b. He had decreased levels of testosterone.

c. He had cerebellar dysfunction.

d. He had been exposed to or had been a victim of violence in the past.

e. He had a high IQ.

4. Moon Sho, a 24-year-old third-year medical student, was evaluating a male patient in the emergency room. The patient seemed cooperative in giving the history, but Moon felt fearful in the presence of this patient. This feeling was unusual for Moon, and he couldn't figure out why he felt fearful, so he went on with the history and physical examination. As Moon leaned over to listen to the chest, the patient punched him. Moon was not seriously hurt but was very upset. Which one of the following could Moon have done to prevent this situation?

a. When Moon felt uncomfortable, he should have explained to the patient that he (Moon) was skilled in martial arts and self-defense.

b. If Moon felt fearful of the patient, he was probably picking up some threatening nonverbal signals. He should have told the patient he needed to check something, calmly but quickly left the room, and

spoken to the supervising resident or attending physician about the patient. He should not have returned to the room alone.

c. There were no warning signs and nothing Moon could have done to prevent the assault.

d. Moon should have told the patient that something about his presentation was making Moon feel uncomfortable and should have asked the patient if he was feeling very aggressive or intended to hit anyone.

e. When Moon felt uncomfortable, he should have quickly run out of the examining room.

5. Kyana, a 24-year-old graduate student, daughter of Anna Owl's friend, Shayna, was noted by her mother to have suddenly changed her behavior. She seemed preoccupied, startled easily, went to work late, and seemed tired. When a coworker rode the elevator with her, she noted that when a man got on, Kyana looked very anxious and abruptly jumped off without speaking to anyone. Her coworkers asked her about this, and she said everything was fine, she was just a little worried about her comprehensive exams. Her coworkers called her mother, and Kyana agreed to see her male family physician, a friend of Dr. Owl. Her boyfriend, Jameel, accompanied her to the appointment. When the physician examined her, he noted a laceration on her arm and a bruise on her neck. Kyana minimized this and said she banged herself when she was cleaning her apartment. She was noted to be very tense. The physician should do which of the following (choose the one best answer):

a. Meet with Kyana and Jameel together and tell them he suspects Kyana has been abused or assaulted.

b. Confront Kyana privately and say her story doesn't seem true. Insist on a pelvic exam, as sexual abuse or rape seems likely.

c. Spend time sitting alone with Kyana after the exam is completed. Ask her if anyone has tried to harm her or if she feels that she's in danger.

d. Ask to speak to Jameel alone. Ask him what he knows about this situation. Make it clear that abuse or assault is suspected and that the physician is suspicious that Jameel may be the perpetrator.

e. Accept the story and go on to the next patient.

6. Jura Owl, age 50, comes to the emergency room distraught, agitated, and unkempt. She states that she hears the voice of the devil telling her to kill her elderly mother with whom she lives. She has a

Types of Child Abuse

Physical abuse—any intentional physical injury or pattern of injuries caused by a parent or caregiver;
Neglect—failure, refusal, or inability of the parent or caregiver to provide the basic needs of food, clothing, shelter, education, health care, and supervision, thereby endangering the child's health;
Sexual abuse—behavior that forces or tricks a child into engaging in any form of sexual activity with an adult or older child;
Emotional abuse—negative behavior manifested as the rejection, intimidation, or humiliation of a child that undermines the child's self-esteem or sense of well-being;
Exploitation—use of a child for personal or financial gain by involving the child in prostitution, pornography, or inappropriate child labor.

long history of mental illness and has been noncompliant with her psychotropic medication in the past. She is a registered nurse but has not worked for many years. She reports that her mother is putting poison in her pills. Her deceased father, Sean Owl, had a collection of hunting rifles and handguns that are still in the home. The physician evaluating her should first do which of the following (choose the one best answer):

a. Call the mother to get further information.
b. Change the dose of the patient's antipsychotic medication.
c. Call the police to go to the mother's home to warn her.
d. Give the patient an outpatient appointment for the following week.
e. Explain to the patient that her elderly mother is not trying to poison her.

Child and Adolescent Abuse and Neglect

In 1962 Dr. C. Henry Kempe, a pediatrician, described the **battered child syndrome** and was instrumental in getting laws passed that mandated the identification and reporting of all child abuse. All fifty states now have mandatory reporting requirements of suspected child or adolescent neglect or physical or sexual abuse. *Child abuse is defined by the 1974 Federal Child Abuse Prevention and Treatment Act as physical and mental injury, sexual abuse, negligent treatment, or mistreatment of a child under the age of eighteen by a person responsible for the child's well-being.*

Physicians and other health professionals, as well as other professionals such as teachers, **are mandated to report abuse**. Health care providers most often diagnose and report physical abuse in hospital settings, especially in the emergency department.

There are child abuse hotlines in all parts of the United States for reporting child abuse or neglect. Nevertheless, it is estimated that more than 3 million children are abused in the United States each year. There were 1,400 child fatalities in 2002 because of abuse or neglect. It is estimated that 50 to 60 percent of deaths are not reported, so the actual number of fatalities is probably much higher. Children four

years of age or younger are the most frequent victims of abuse or of neglect, and the majority of child abusers are people who are caregivers and are known to the child.

Verbal and emotional abuse and neglect are more difficult to detect but can have a strong negative effect on growth and development. Children lack the cognitive skills to defend themselves against verbal attacks, and they may experience self-degradation, terrorizing fears, and emotional numbness from the abuse. The number of children between the ages of three and seventeen exposed to the abuse of their mothers is estimated to be 3 to 4 million.

Child abuse has been documented in up to half of families where domestic violence occurs. Although health care clinicians and teachers often detect evidence of child abuse, health care clinicians frequently fail to inquire about domestic violence between the parents. When a child observes interpersonal violence or comes from a home where episodes of violence frequently happen, that child is more likely to be involved in future adult relationships characterized by violence than a child who is not exposed to such violence. However, many youth who grow up in violent surroundings are not in abusive relationships in adulthood.

Abusive Parents

- Are usually immature, anxious, and angry individuals who do not enjoy the parental role
- Typically exhibit low self-esteem, are reactive to stress, and have poor impulse control
- Were often abused as children and lack knowledge of parenting skills themselves
- May have unrealistic expectations of child behavior, use an authoritarian style of discipline, and blame children for their own problems
- Rarely reason with or talk to their children and may view children as generally disruptive and disobedient
- Typically express little affection for their children and offer them little praise and few rewards
- Often have financial problems, lack or have limited support systems, and are inconsistent with daily living routines

Consequences of Child Abuse

- The risk of serious consequences increases as the types and frequency of abuse increase.
- The outcomes of abuse are seen in the negative effects on the child's physical health and emotional well-being.
- As an immediate and direct cause of abuse or neglect, many children experience a range of health problems, from bruises and lacerations to brain damage, disability, and death.
- Later or cumulative effects include problems in the areas of growth and development, readiness to learn, and a wide range of psychiatric disorders.
- The majority of child abuse fatalities occur in children younger than three years.

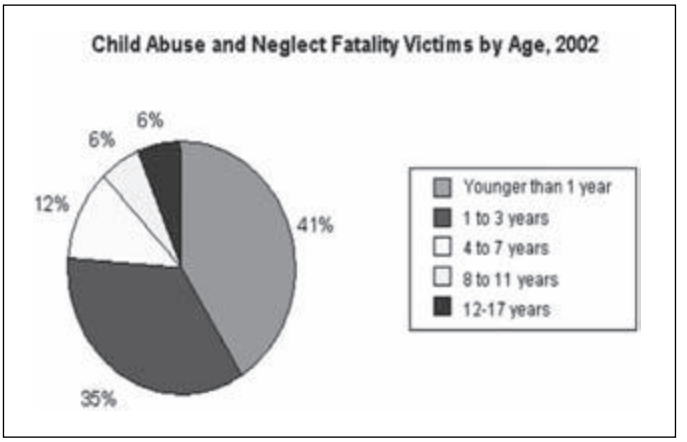


Figure 9.1 Child Abuse and Neglect Fatality Victims by Age, 2002. There were 1,400 child fatalities reported in 2002.

Source: Child Welfare Information Gateway.

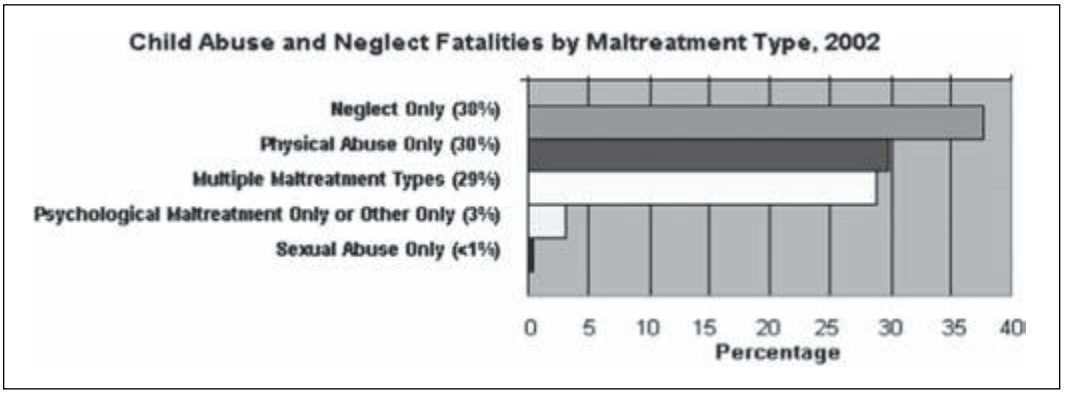


Figure 9.2 Child Abuse and Neglect by Maltreatment Type, 2002. Child abuse and neglect may be underreported by 50–60%.

Source: Child Welfare Information Gateway.

Violence in the Workplace

Between 1993 and 1999, 1.7 million people were victims of violent crime while on duty or in the workplace. During this time the U.S. Department of Justice reported nine hundred homicides per year from workplace violence.

Workplace homicides differ in significant ways from other homicides. Workplace homicides were related to robbery in over 71 percent of cases, but fewer than 10 percent of homicides in the general

population are robbery related. The majority of workplace homicides occur between people who do not know one another, while in the general population 50 percent of perpetrators know their victims.

White workers are victimized at a rate 25 percent higher than black workers and 59 percent higher than other races. A person of the same race perpetrated 60 percent of workplace violence against whites and blacks.

Forty-eight percent of nonfatal assaults occur in hospitals, nursing homes, and social service agencies. Risk factors include interacting with the public, dealing with violent people or volatile situations, handling money, delivering goods or services, and working early in the morning or late at night.

U.S. Postal Service facilities have received extensive media coverage of work-related homicides.
Question: "Going Postal," myth or truth?
Answer: National surveillance data show that neither postal occupations nor the Postal Service is at increased risk of work-related homicides.

Intimate Partner Violence

Violence against women and girls is a serious public health problem.

- In 92 percent of all domestic violence incidents, crimes are committed by men against women.
- FBI crime statistics reveal that more than 1,500 women were killed in 1997 by their partners.
- While women are less likely than men to be victims of violent crimes overall, women are five to eight times more likely than men to be victimized by an intimate partner.
- In 1994 females accounted for 39 percent of the hospital emergency department visits for violence-related injuries, but 84 percent of the people treated for injuries inflicted by intimates were females.

Victims of intimate violence usually do not reveal the circumstances of their injuries in the emergency room. The physician or health care provider must probe to get that information. Nonphysical abuse, such as verbal degradation, forced isolation, economic control and deprivation, and home imprisonment are other forms of partner abuse.

Prevention of Workplace Violence

- Employee training
- Good visibility inside and outside the workplace
- Use of escort services
- Open communication between employees and employers
- Development of policies to address potential problems

Health care professionals and those dealing with violent people and volatile situations need training in de-escalation, security backup, and teamwork with other staff. Mental health custodians and professionals are at greatly increased risk over other health care workers.

Fast Facts

- Women who have been physically or sexually assaulted use health services more than other women.
- Rape or assault is a stronger predictor of health care use than any other variable.
- Abused women make less money and are less likely to remain in the workforce than other women.

Elder Abuse

Persons eighty years old and older suffer abuse and neglect two to three times their proportion of the older population. In 90 percent of cases the perpetrator of abuse and neglect is a family member. Clinicians are most likely to see a female victim. All states in the United States have set up reporting systems for elder abuse, but only one out of fourteen elder abuse cases is actually reported, according to a 1988 report.

As people live longer, the responsibility for their care often rests on their adult children. Many of these midlife adult children the "sandwich generation" have responsibility for both their elders and their younger children. The result of this additional obligation is often described as **caregiver burden**, caused by the emotional, social, and financial pressures of providing care for two generations with different needs. The dilemma for many midlife caregivers is deciding which generation takes priority, the elderly parents who raised them or their own children, the future generation.

Helpful Strategies In Elder Abuse Situations

- Assess the level of danger, focusing on any immediate danger.
- Arrange admission to a hospital or community shelter if needed and possible.
- Document the event.
- Report the abuse if you are practicing in a state that has mandatory reporting of elder abuse.
- Offer assistance to the adult caregiver, including a referral for an evaluation.
- Provide information and resources on respite care, adult day care, visiting nurses, home health aides, meal services, transportation services, and chore services.
- Make referrals for counseling and health education resources.

Rape

Most rape victims know their attacker—either someone who is intimate with the victim or a friend or acquaintance. Adolescents have the

highest reported rate of being victims of sexual assault. The rape of a person under eighteen is also child sexual abuse. Statutory rape refers to sexual intercourse with a female under a specified age. One million women in the United States are victims of rape each year, but according to the National Crime Victimization Survey, only about 30 percent of rapes are reported to the police. Ten percent of sexual assault victims are men.

Rape may lead to post-traumatic stress disorder. There are two phases of **psychological trauma following rape.** The **acute phase** includes any physical injuries; being tense, upset, fearful, and irritable; frequent periods of crying; numbness, outward calm but emotional withdrawal; insomnia; inability to concentrate; and preoccupation with feelings of personal responsibility for the rape. The **recovery phase** includes somatic symptoms; preoccupation with feeling vulnerable; difficulty trusting others, especially men; and sexual difficulties.

Homicide

According to the U.S. Bureau of Justice Statistics, homicide rates have declined to levels last seen in the late 1960s. However, the rise in teen involvement in homicide as both victims and offenders beginning in the mid-1980s was dramatic.

Most victims and perpetrators in homicides are male. Racial differences exist, with black males disproportionately represented among both homicide victims and offenders. Youth ages fourteen to twenty-four

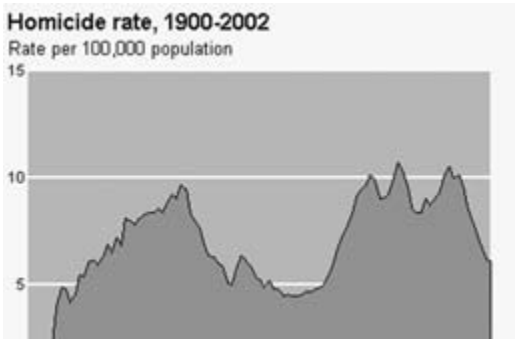


Figure 9.3 Homicide Rate, 1900–2002

Source: U.S. Department of Justice, Office of Justice Programs.

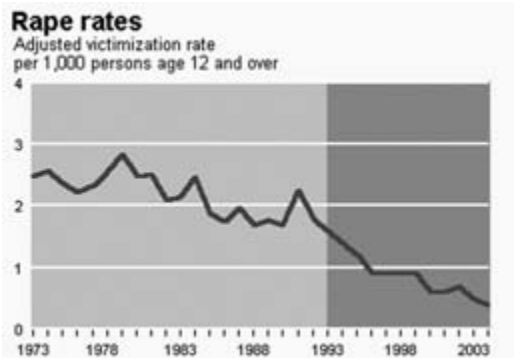


Figure 9.4 Rape Rates

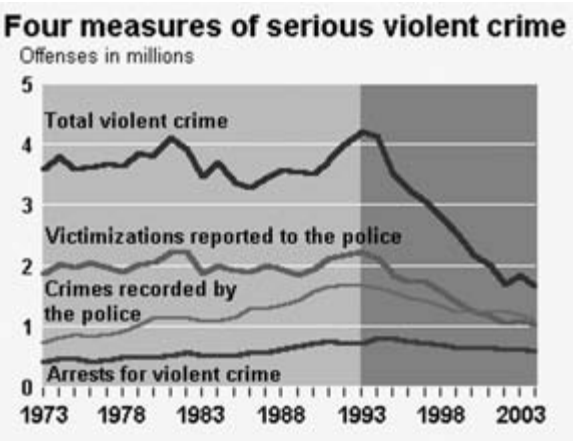


Figure 9.5 Four Measures of Serious Violent Crime. The serious violent crimes included are rape, robbery, aggravated assault, and homicide.

Source: U.S. Department of Justice, Bureau of Justice Statistics.

exhibit the highest offense rates. Homicides are most often committed with handguns.

Theories of Violent Behavior

- **Psychoanalytic theory** explains domestic violence by focusing on the abuser's personality, life experiences, and any characteristics that can be linked to violence, such as mental health problems, drug and alcohol abuse, and various types of identified psychopathology.
- The major premise of **social learning theory** is that people learn to be violent. By witnessing violence that family members use in the home as a strategy to cope with stress, frustration, and anger, young people learn to handle difficulties with violent behavior. Parents model violence as a problem-solving technique, and, therefore, growing up in a violent home can often perpetuate violent behavior.
- **Feminist theory** postulates that the abuse of women is linked to a male-dominated society that keeps women in a subordinate position.
- Victims of abuse feel defeated, helpless, and unable to control events in their lives. The concept of **traumatic bonding** (Dutton and Painter 1993) postulates a strong emotional attachment that imprisons a woman in an abusive relationship. In traumatic bonding, a phenomenon occurs in which the victim begins to feel positive regard for the tormentor. This is illustrated by the **Stockholm syndrome**, in which

a hostage bonds, identifies, or sympathizes with his captor. Abused children and cult members have also shown this syndrome.

- **Biological theories** suggest that neurotransmitters may contribute to violent behavior. Low levels of serotonin also may correlate with violent behavior. Decreased levels of serotonin were found in the spinal fluid of patients who demonstrated violent behaviors.

The prefrontal cortex of the brain plays a role in violent behavior. Although abnormal functioning in that part of the brain does not predict violent or aggressive behavior, aggressive and antisocial individuals have a high rate of abnormal prefrontal cortical functioning.

Being a victim of violence seems to also have an effect on brain function. There is evidence that individuals with Post Traumatic Stress Disorder have alterations in neurotransmitter systems and hyperactivity of the hypothalamic-pituitary-adrenal axis.

Hormones may play a role. A link has been found between elevated testosterone levels and an increased incidence of violent and aggressive behaviors. Human studies on male prisoners found that people convicted of violent crimes had elevated testosterone levels compared to those who committed nonviolent crimes. It has been noted that increased feelings of irritability, hostility, and violent behaviors in premenstrual women have been linked to decreased progesterone.

Don't Be a Victim!

Surveys of medical students on clinical rotations show:

- Many have experienced threats of bodily harm, assaults, or sexual advances.
- Only 1/3 of these experiences are ever reported to medical school authorities.
- Negative consequences for the students include lack of confidence and feelings of depression, anger, and humiliation; plus, such an experience creates a poor learning environment.

If you find yourself threatened or attacked:

- Notify a faculty member of abuse or threats from a patient.
- Speak to a member of the dean's staff if the problem is with a faculty or staff member.
- Protect yourself! Tell someone in a position of authority!

The emergency room is the part of the hospital where health care workers are most likely to be hurt or assaulted. Caution and metal detectors are both a must.

Substance Abuse

The use of drugs and alcohol is frequently related to acts of aggression. According to Collins and Messerschmidt (1993), alcohol use is associated with greater than 50 percent of all incidents of family violence. In situations where men abused their wives, excessive alcohol intake was evident in 60 percent to 70 percent of the male abusers. PCP, cocaine, heroin, and other substances of abuse are also associated with violent behavior.

How Can Physicians and Medical Students Help?

Safety First!

The medical student always needs to consider her own safety in dealing with patients who have problems with interpersonal violence. Becoming a victim is not part of the health professional's job description! Physicians are nevertheless in a unique position to detect abusive circumstances, initiate the appropriate referral, and speak to patients about their need for safety.

- Assess and provide any medical treatment needed for a patient involved in interpersonal violence. Treat all physical injuries and any preexisting disease that was exacerbated because of the violence.
- Address the prevention of sexually transmitted diseases and pregnancy in rape victims. The protocol for managing victims of sexual assault must be followed with emphasis placed on thorough forensic examination and collection of appropriate evidence.
- Determine whether the patient presents a danger to self or others and provide the appropriate triage or treatment.
- Make child abuse or elder abuse reports as indicated. (Unlike child and elder abuse, state law does not require the health care provider to report partner abuse. In some states, there is only indirect reporting, whereby a clinician must disclose to the police gunshot wounds, stab wounds, or nonaccidental poisoning.)
- A therapeutic relationship between the physician and the patient is essential to effectively evaluate and treat perpetrators, potential perpetrators, or victims of interpersonal violence. *The physician's professional demeanor, compassion, interest, and cultural competence are essential in forming an alliance with the patient, getting the history, and formulating the treatment plan.*
- Physicians should ask appropriate questions and understand that the patient is unlikely to volunteer information about interpersonal violence. Furthermore, the patient may give a

Physician and Medical Student Response

- Physicians and medical students are often distressed by contact with victims and perpetrators of interpersonal violence.
- Strong emotional reactions are common and should be acknowledged. They are common in crisis situations and are nothing to be ashamed of.
- Team support and collegial understanding are essential. Psychiatric consultation and support may be indicated.
- It is essential that the physician recognize signs of emotional distress in himself or other team members and use healthy coping responses.

false history to cover the fact of interpersonal violence because of fear, shame, guilt, or embarrassment.
- Don't forget that patients who are educated and affluent may also be victims or perpetrators of interpersonal violence.
- When child abuse is detected, the health care professional should always inquire about domestic violence. The reverse is also true.
- *Don't ask about abuse in the presence of the suspected perpetrator; that action could further endanger the child or adolescent, adult, or elderly patient.*
- Do not insinuate blame or give simplistic responses to the patient like "If I were you, I'd leave the situation." **Avoid labeling** the patient as a battered woman or victim of domestic violence, since many times the patients do not see themselves as victims. Phrases such as "battered woman" and "abused child" are best avoided in talking with patients.

Although screening for intimate partner violence (IPV) is widely recommended, there is little conclusive research about its effectiveness. Written or computer-based screens give more information and may be preferred by patients over clinician interviews.

Treatment for Family Violence

Much more multidisciplinary research on effective interventions are needed; however, we do have some programs that have been shown by high-quality research to be helpful. The **Nurse Family Partnership** is a nurse home visitation program that has been shown to be effective in reducing child maltreatment rates. Nurses visit first-time high-risk teen mothers prenatally and for the first two years of the child's life. **Community-Based Advocacy for Women with Abusive Partners** was a post-shelter intervention for women that used trained female undergraduates as advocates. This intervention demonstrated significant reductions in violence over controls. Unfortunately, many other treatments have been shown to be ineffective, have research that was flawed, or may even be harmful.

R-A-D-A-R

Routinely screen all patients for partner abuse. **A**sk patients in a private setting direct questions about abuse, such as, "Has your partner hit, hurt, or frightened you? Do you feel safe?" **D**ocument your findings carefully and indicate in the medical record evidence of or suspected partner violence. **A**ssess the patient's safety. Review safety issues and assist with formulation of a safety plan. **R**eview options with the victim and refer the victim to support systems such as hotlines, women's groups, shelters, and legal advocates. Make any mandated abuse reports.

When You See Danger Signs

Ask parents these questions when you see danger signs of child abuse:

- Do you have problems that feel overwhelming?
- Are you frightened about what you might do to your children?
- Do you sometimes physically hurt your children?
- Do you feel confused concerning your sexual feelings toward your child?
- Were you mistreated as a child?

Do tell parents that there are others who feel this way. ***Do*** inform parents of the resources for parenting education and other support systems in the community that are available to assist them to cope with life and family issues. ***Do*** report suspected abuse on the child abuse hotline in your area. It's your legal responsibility.

Step Prep

1. Every year about 1,400 children in the United States die from neglect or abuse. Choose the correct statement about child abuse and neglect:

a. All 50 states have mandatory child abuse reporting laws.
b. Children 5 to 10 years of age are the most frequent victims of abuse and neglect.
c. It is estimated that 5 percent of deaths due to abuse or neglect are not reported.
d. Child abuse perpetrators are usually people who are unknown to the child.
e. Physicians are not legally liable if they document abuse and do not report it.

2. John, an African American postal supervisor, was on duty late one evening when he was shot and killed by an employee he had terminated a month previously. Choose the correct statement below about violence in the workplace:

a. Workplace homicides are usually related to intimate partner violence.
b. Black workers are most likely to be victimized.
c. A worker is most likely to be victimized by a person of a different race.
d. Health care professionals working with violent people or volatile situations are at greatly increased risk.
e. Postal workers are at increased risk of workplace violence.

3. The postal worker above had been terminated and became homicidal. Which of the following statements is likely to be true of him?

a. He had high levels of the neurotransmitter serotonin.
b. He had decreased levels of testosterone.
c. He had cerebellar dysfunction.
d. He had been exposed to or had been a victim of violence in the past.
e. He had a high IQ.

4. Moon Sho, a 24-year-old third-year medical student, was evaluating a male patient in the emergency room. The patient seemed cooperative in giving the history, but Moon felt fearful in the presence of this patient. This feeling was unusual for Moon, and he couldn't figure out why he felt fearful, so he went on with the history and physical examination. As Moon leaned over to listen to the chest, the patient punched him. Moon was not seriously hurt but was very upset. Which of the following could Moon have done to prevent this situation?

a. When Moon felt uncomfortable, he could have explained to the patient that he (Moon) was skilled in martial arts and self-defense.
b. If Moon felt fearful of the patient, he was probably picking up some threatening nonverbal signals. He should have told the patient he needed to check something, calmly but quickly leave the room, and spoken to the supervising resident or attending physician about the patient. He should not return to the room alone.
c. There were no warning signs and nothing Moon could have done to prevent the assault.
d. Moon should have told the patient that something about his presentation was making Moon feel uncomfortable and should have asked the patient if he was feeling very aggressive or intended to hit anyone.
e. When Moon felt uncomfortable, he should have quickly run out of the examining room.

5. Kyana, a 24-year-old graduate student, daughter of Anna Owl's friend, Shayna, was noted by her mother to have suddenly changed her behavior. She seemed preoccupied, startled easily, went to work late, and seemed tired. When a coworker rode the elevator with her, she noted that when a man got on, Kyana looked very anxious and abruptly jumped off without speaking to anyone. Her coworkers asked her about this, and she said everything was fine, she was just a little worried about her comprehensive exams. Her coworkers called her mother, and Kyana agreed to see her male family physician, a friend of Dr. Owl. Her boyfriend, Jameel, accompanied her to the appointment. When the physician examined her, he noted a laceration on her arm and a bruise on her neck. Kyana minimized this and said she banged herself when she was cleaning her apartment. She was noted to be very tense. The physician should do which of the following (choose the one best answer):

a. Meet with Kyana and Jameel together and tell them he suspects Kyana has been abused or assaulted.
b. Confront Kyana privately and say her story doesn't seem true. Insist on a pelvic exam, as sexual abuse or rape seems likely.
c. Spend time sitting alone with Kyana after the exam is completed. Ask her if anyone has tried to harm her or if she feels that she's in danger.
d. Ask to speak to Jameel alone. Ask him what he knows about this situation. Make it clear that abuse or assault is suspected and that the physician is suspicious that Jameel may be the perpetrator.
e. Accept the story and go on to the next patient.

6. Jura Owl, age 50, comes to the emergency room distraught, agitated, and unkempt. She states that she hears the voice of the devil telling her to kill her elderly mother with whom she lives. She has a long history of mental illness and has been noncompliant with her psychotropic medication in the past. She is a registered nurse but has not worked for many years. She reports that her mother is putting poison in her pills. Her deceased father, Sean Owl, had a collection of hunting rifles and handguns that are still in the home. The physician evaluating her should first do which of the following (choose the one best answer):

a. Call the mother to get further information.
b. Change the dose of the patient's antipsychotic medication.
c. Call the police to go to the mother's home to warn her.
d. Give the patient an outpatient appointment for the following week.
e. Explain to the patient that her elderly mother is not trying to poison her.

Suggested Readings and Web Sites for the Highly Motivated

Centers for Disease Control, www.cdc.gov.
Child Welfare Information Gateway, www.childwelfare.gov.
Herman, Judith. (1997). *Trauma and Recovery*. New York: Basic Books.
Sadock, B. J., and Sadock, V. A. (2003). Section 34.1, Psychiatric Emergencies; Section 4.4, Aggression; Chapter 32, Problems Related to Abuse or Neglect. In *Kaplan & Sadock's Synopsis of Psychiatry* (9th ed.). Philadelphia: Lippincott Williams and Wilkins.
Terr, Lenore. (1990). *Too Scared to Cry: Psychic Trauma in Childhood*. New York: Basic Books.
U.S. Department of Justice, www.usdoj.gov.

Answers to Step Prep

1. a
2. d
3. d
4. b
5. c
6. a

10 SUICIDE AND ATTEMPTED SUICIDE

David Baron, MSEd, DO, Ellen H. Sholevar, MD, and Thomas Hardie, RN, EdD

What region of the earth is not full of our calamities?

—VIRGIL

Medical students and physicians should act decisively to help the patient who feels "helpless, hopeless, and worthless." A life could be saved.

- Identify psychological, familial, and genetic factors in suicidal behavior.
- Describe prevalence of suicide and suicide attempts.
- List types of suicidal behavior.
- Recognize what physicians can do to identify suicidal intent and intervene.

MENU

Introduction

Suicide is a leading cause of death in the United States and one that is potentially preventable. Physicians, medical students, and other health professionals must be aware of this important public health problem and be familiar with risk factors, evaluation strategies, and effective interventions. Patients who attempt or complete suicide have often seen a physician shortly before the act. Therefore, at least in some cases, there is opportunity to intervene.

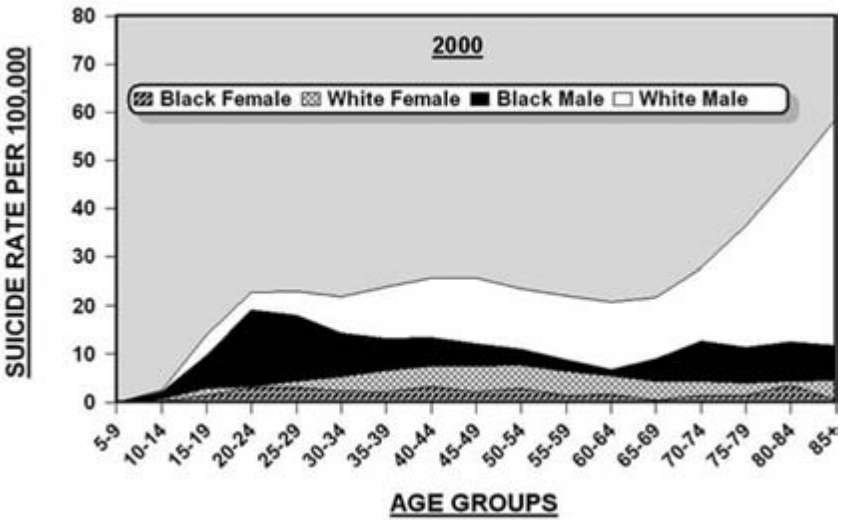


Figure 10.1 Medical students, physicians and other health professionals should have a high index of concern when evaluating the depressed, elderly, white male. That patient is at the highest risk of completed suicide.

Pre–Step Prep

1. How many individuals die by suicide each year in the United States?

a. 30 million
b. 15 million
c. More than 1 million but less than 15 million
d. Less than 1 million but more than a thousand
e. Less than a thousand

2. The pediatrician, family practitioner, or primary care physician should refer depressed patients for hospital treatment *except:*

a. If the patient has a specific plan for and means of suicide
b. If the patient has made a recent serious suicide attempt
c. If the patient has a family history of depression and suicide
d. If the patient has written a suicidal statement or note indicating a plan to die
e. If the patient's family reports that the patient has bought a gun or other lethal means and indicated a serious intent to die

3. Which one of the following groups is at the highest risk for suicide?

a. White males over 55 years of age
b. White females over 55 years of age
c. Black males age 15 to 21
d. Children 10 to 14
e. Female physicians

4. Medical student Jack Gallagher is on his geriatric medicine rotation. He is asked to evaluate Randall Smith, a Caucasian, eighty-seven-year-old, Catholic retired engineer who is well known to the clinic. Mr. Smith recently lost his wife of fifty-five years. He comes in for a routine check of his hypertension. During the interview, the medical student notes that Mr. Smith seems despondent, and the patient reveals that he has lost weight, has trouble sleeping, and feels there is no reason to go on living without his wife. He has increased his regular daily alcohol intake. The medical student is concerned and asks further specific questions. Mr. Smith reveals that he took pills last week to end his life but only felt ill for a few days. He then purchased a pistol at the local gun shop. He rarely sees his married daughter and has spoken to nobody about this. The medical student

should immediately alert his senior resident and attending physician. The plan of action should consist of (choose the one best answer):

a. Start an SSRI antidepressant immediately and schedule Mr. Smith for a return appointment in one week.
b. Immediately call a psychiatric colleague and assist the patient to set up an appointment for next week.
c. Schedule Mr. Smith for a follow-up appointment in one week. If he is still despondent, start an SSRI antidepressant.
d. Immediately discuss psychiatric hospitalization with Mr. Smith. Ensure that he gets to a hospital setting immediately.
e. Refer Mr. Smith for electroshock treatment, as that is most likely to quickly clear the depression and suicidal plans.

5. Recently, the FDA placed a black-box warning on the class of antidepressants known as specific serotonin reuptake inhibitors (SSRIs). This action was taken after studies revealed (choose the one best answer):

a. Increased suicidal risk in the first few months of treatment
b. Sudden cardiac death in youth taking SSRI medications
c. Tardive dyskinesia in youth taking SSRI medications
d. Stevens-Johnson syndrome in youth taking SSRI medications
e. Increase in the national youth suicide rate since SSRI antidepressants came into wide use.

Early Psychological Theories of Suicidal Behavior

Psychodynamic theories of suicide were first postulated by Sigmund Freud and later modified by Karl Menninger. Freud saw suicide as aggression turned against the self, and Menninger described the components of hostility in suicide as the wish to die, the wish to kill, and the wish to be killed. In fact, most suicidal patients attribute their suicidal impulses to an overwhelming sense of anger.

Familial and Neurochemical Factors in Suicide

There is growing evidence that **familial and genetic factors contribute to the risk** for suicidal behavior. Individuals who have attempted suicide come from families with a much higher incidence of parasuicidal behavior (attempting suicide but not succeeding) than expected. It is not clear how the predisposition to suicidal behavior is transmitted. It

Fast Facts: Suicide

- Every day, on average, 84 persons complete suicide, and as many as 3,000 attempt suicide.
- 20% of near-lethal attempts were made within 5 minutes of making the decision to attempt suicide.
- New Jersey has the lowest number of suicides; Nevada, the highest.

could come through the transmission of major mental illnesses, which carry a high risk of suicidal behavior; through the transmission of traits such as impulsivity; or through older members of a family modeling suicidal behavior as a way of coping with stress, which may be emulated by younger members of the family.

The neurotransmitter **serotonin** has been studied widely in its role in patients with suicidal impulses. Low levels of a serotonin metabolite 5-HIAA have been detected in cerebrospinal fluid in persons who have attempted suicide, as well as on postmortem examination of people who have committed suicide successfully. Other markers such as low platelet monoamine oxidase (MAO) and low cholesterol levels have been linked to depression and suicide.

Prevalence of Suicide and Suicide Attempts

U.S. government health statistics reveal that over 30,000 individuals die from suicide each year. In 2005, suicide accounted for 1.3 percent of total deaths, compared to 31 percent from heart disease, 23 percent from cancer, and 7 percent from stroke (the three leading causes of death). There were twice as many deaths due to suicide as deaths as due to HIV/AIDS, and suicide deaths outnumbered homicides by three to two.

The vast majority of those who complete suicide are men; the ratio of men to women is four to one. White males comprise 72 percent of those committing suicide. *Older, white men are at the highest risk of completed suicide.* In terms of suicide risk, marriage is "protective" for men but not for women.

Goals of the National Strategy for Suicide Prevention

- Promote awareness that suicide is a public health problem that is preventable.
- Develop and implement strategies to reduce the stigma associated with being a consumer of mental health, substance abuse, and suicide prevention services.
- Develop and promote effective clinical and professional practices.
- Promote and support research on suicide and suicide prevention.

Firearms are the most common method for both men and women, being preferred in 58 percent of all suicides. For white males the rate of suicide by firearm is 79 percent. The second-most common method for men is hanging; for women it is self-poisoning, including drug overdoses. In the United States the relative lethality of the top two methods used by men (firearms and hanging) is responsible for their higher death rate compared to women. In some cultures where more lethal poisons are available and

there is less access to emergency services, the suicide rate for women equals or surpasses that of men

Suicide risk increases directly with age. Elderly persons comprise 25 percent of suicides, although they make up only 10 percent of the population. In one study, nearly 5 percent of clinically depressed older patients seen in a primary care practice were potentially suicidal. Up to 45 percent of elderly patients who see a primary care physician (PCP) suffer from depression, although 50 to 75 percent of these geriatric depressions go unrecognized by the PCP.

The motivation to commit suicide can be driven by a number of factors. **Suicide contagion** is the exposure to suicide or suicidal behaviors within one's family, within one's peer group, or through media reports of suicide. This can result in an increase in suicide and suicidal behaviors. Direct and indirect exposure to suicidal behavior increases risk for suicide, especially in adolescents and young adults, who have experienced a tripling in their suicide rate over the last forty years. Recent research suggests that drinking within three hours of the attempt (as opposed to alcoholism or binge drinking) is the most important drinking-related risk for near-lethal attempts.

Suicidal Behavior in Youth

U.S. government statistics reveal that between 1988 and 1998, suicide was the third leading cause of death in persons 15 to 24 years old and the fourth leading cause of death in those 10 to 14. The rate of suicide among youth 15 to 19 has increased by 300 percent since the 1950s. The 1995 National Youth Risk Behavior Survey showed that almost 25 percent of youth in grades seven to twelve had seriously considered suicide in the previous twelve months. The suicide rate among ages 10 to 14 is lower than in older teens.

Male, Native American, and homosexual and bisexual youth are at particularly high risk of suicide. In one study, young men with a co-morbid medical condition had a fourfold increase in suicide attempts. Adolescent males complete suicide five to seven times more frequently than adolescent females, and adolescent females attempt suicide more frequently than males.

The most lethal method of youth suicide, by

"Black Box" Warning

The U.S. Food and Drug Administration issued a Public Health Advisory on October 15, 2004, putting a "black box" warning on all antidepressants used for any reason to treat children and adolescents. A patient medication guide was drafted to be distributed to patients by the pharmacy whenever antidepressants are prescribed for young people. The guide warns that there may be increased suicidal risk in the first few months of treatment with these medications. This decision was controversial, and analyses of the data are ongoing.

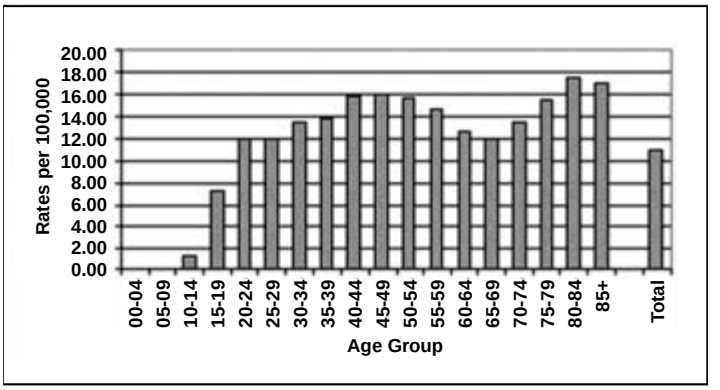


Figure 10.2 Suicide Rates for all Ages. These data represent completed suicides resulting in death, which account for a small proportion of the total attempts. There are an estimated 8 to 25 attempted suicides to 1 completion. The ratio is higher in women and youth and lower in men and the elderly.

Source: National Center for Health Statistics.

Things to Keep in Mind

- Between 73% and 83% of suicide cases of persons in the general population who committed suicide had visited a primary care physician within 1 year of death. Between 16% and 20% had visited a primary care physician within 1 week of death.
- Suicide may be understood as an attempted solution when no other solutions seem feasible. If the physician can help the patient to understand other possible ways out of what feels like an unbearable situation, the impetus for suicide may be removed.
- The term *suicide gesture* has been criticized as being pejorative and misleading. Keep in mind that people can die from an action dismissed as a "suicide gesture." A more neutral term, *parasuicidal behavior,* may be used instead.

handgun, leads to a 90 percent fatality rate. In contrast, the lives of those young people who attempt suicide by other means, such as overdose of pills, can often be saved. Youth suicide is potentially preventable; warning signs are present in most cases. Considering suicide attempts as only a call for help is a dangerously unreliable notion.

Types of Suicide

The most common methods of suicide are by firearms, hanging, poisoning, and jumping from high elevations. The physician should also be aware of other less obvious methods that may appear in practice, including intentional vehicular accidents. Often, what appears to be an accident can be a deliberate suicide attempt.

Some have suggested that a sudden onset of recklessness in young children or engaging in such risky behavior as running into traffic are potentially suicidal. One method that has recently come to the attention of law enforcement is "suicide by

cop" or by gang member. In such a case, the victim purposely provokes or threatens someone with a lethal means of self-defense, resulting in the victim's death. The rate of this type of suicide is unclear.

The Physician's Role in Suicide Prevention

Studies document that a large number of suicides are completed by patients who visited a physician (usually a primary care physician) shortly before their death. These findings suggest the importance of the primary care physician in suicide prevention but also signal some pitfalls.

Patients often don't share their feelings of depression or hopelessness with their physician. Men, who are more likely to complete suicide, are less likely than women to reveal psychological distress in the office visit. Patients may deny suicidal thoughts. Patients who have made the decision to commit suicide will deny suicidal intent, lest the physician try to stop them. Suicide in the primary care practice is a rare event, so it is more difficult to be constantly vigilant. The primary care office is very busy, and most primary care physicians have minimal training in the detection and assessment of the suicidal patient. Many patients will refuse a referral to a psychiatrist or other mental health professional.

Risk Factors

The physician needs to be aware of a variety of misconceptions about suicidal behavior have been spread throughout popular culture.

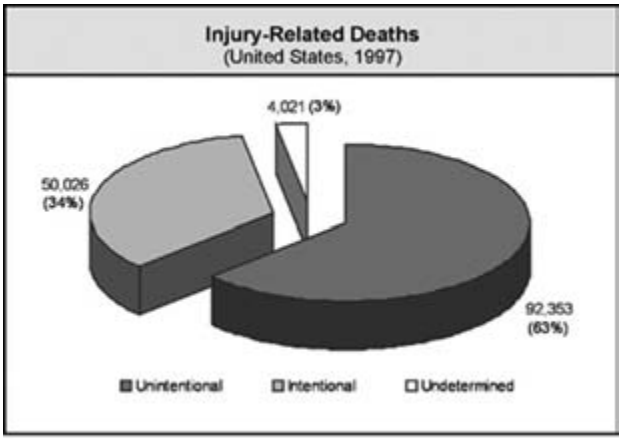


Figure 10.3 Injury-Related Deaths, United States, 1997

Source: National Center for Health Statistics.

Know the Risk Factors

- A previous suicide attempt
- Mental illness such a major depressive disorder or bipolar disease
- Co-occurring alcohol and substance abuse disorders
- Panic disorder or anxiety with major depressive disorder
- Serious physical illness, especially brain cancers, HIV/AIDS, multiple sclerosis
- Chronic physical or neurological illness
- Chronic pain
- Frailty, debilitation, functional limitations
- Major life stressors, especially marital stress

If your patient has any of the above conditions, ask about depression. Questions to ask include the following:

- "Have you thought about hurting yourself?"
- "Have you thought about doing away with yourself?"
- "Have you made any plans to do away with yourself?" (The more specific the plan, the more serious it is.)
- "Do you have a weapon or the means to do so?" (Availability of the means makes the plan more serious.)

Examples include "People who talk about suicide are unlikely to attempt it," and "This was just an attempt—she is trying to get attention." In fact, those who talk about suicide and attempt suicide are at increased risk to complete suicide.

It is important to note that suicide is not a disease, nor is it a simple manifestation of a mental illness. There is great opportunity for physicians and other health professionals to effectively address the issues of these patients and prevent death.

Given the mandate to do no harm, perhaps the most common concern faced in assessing the possibility of suicide is "Will something I say cause the patient to kill himself?" The answer to that question is no. It is essential to act when one suspects suicidality. What method or diagnostic procedure should be used to detect suicidal risk? Simply asking the patient about feelings and thoughts provides one of the best methods of detection. If the patient reports that "life isn't worth living," or a similar sentiment, it is essential to take these claims seriously. Such behavior is called **suicidal thinking** and can lead to more active suicidal behaviors.

Management of the Suicidal Patient

Once the physician has identified the suicidal patient, what should be done? The first decision is one of safety—should the patient be hospitalized or can she be treated as an outpatient? The patient with a high risk of suicide should be referred to the hospital for inpatient treatment. A patient suitable for outpatient treatment may be referred by the primary care physician to a psychiatrist or other mental health professional. If no mental health professional is available, the patient rejects the referral, or the physician feels comfortable managing the patient, medication and close monitoring may be effective. The SSRI antidepressants are quite safe, and most physicians feel comfortable with their use.

When treating adolescent depression with an antidepressant, the patient and family should be informed about the FDA "black

Table 10.1

Suicide Risk: Identification, Assessment, and Plan of Action			
Suicide risk	**Symptom**	**Assessment**	**Action**
0	No distress	—	—
1	Emotionally disturbed	Enquire about suicidal thoughts	Listen with empathy
2	Vague ideas of death	Enquire about suicidal thoughts	Listen with empathy
3	Vague suicidal thoughts	Assess the intent (plan and method)	Explore possibilities; identify support
4	Suicidal ideas, but no psychiatric disorder	Assess the intent (plan and method)	Explore possibilities; identify support
5	Suicidal ideas and psychiatric disorder or severe life stressors	Make a contract; assess the intent (plan and method)	Refer to psychiatrist
6	Suicidal ideas and psychiatric disorder or severe life stressors or agitation and previous attempt	Stay with the patient (to prevent access to means)	Hospitalize

box" warning about increased suicidality in the early weeks of treatment. Very frequent monitoring is required. The "no-suicide contract" is unlikely to be effective and may give a false sense of safety, although it is widely used. Close monitoring may be provided by a trained staff member in the physician's office and may be an effective strategy.

Most studies show that a combination of psychotherapy and medication will be most effective. Therapies such as cognitive behavioral and interpersonal psychotherapy have been shown to reduce depression. The Treatment of Adolescents with Depresssion Study (TADS) of adolescent depression used fluoxetine (an SSRI) and cognitive behavior therapy in effectively treating depression.

Step Prep

1. How many individuals die by suicide each year in the United States?

a. 30 million

b. 15 million

c. More than 1 million but less than 15 million

Physician-Assisted Suicide

Physician-assisted suicide is highly controversial and involves thorny ethical issues. In 1997, Oregon passed the Death with Dignity Act, under which a patient with a terminal illness may ask a physician to write a prescription for a lethal dosage of medication. The patient must be:

- 18 or older
- a resident of Oregon
- capable of making health care decisions
- diagnosed with a terminal illness that will lead to death within 6 months

The physician must submit an annual report to the state.

d. Less than 1 million but more than a thousand
e. Less than a thousand

2. The pediatrician, family practitioner, or primary care physician should refer depressed patients for hospital treatment *except:*

a. If the patient has a specific plan for and means of suicide
b. If the patient has made a recent serious suicide attempt
c. If the patient has a family history of depression and suicide
d. If the patient has written a suicidal statement or note indicating a plan to die
e. If the patient's family reports that the patient has bought a gun or other lethal means and indicated a serious intent to die

3. Which of the following groups is at the highest risk for suicide?

a. White males over 55 years of age
b. White females over 55 years of age
c. Black males age 15 to 21
d. Children 10 to 14
e. Female physicians

4. Medical student Jack Gallagher is on his geriatric medicine rotation. He is asked to evaluate Randall Smith, a Caucasian, eighty-seven-year-old, Catholic retired engineer who is well known to the clinic. Mr. Smith recently lost his wife of fifty-five years. He comes in for a routine check of his hypertension. During the interview, the medical student notes that Mr. Smith seems despondent, and the patient reveals that he has lost weight, has trouble sleeping, and feels there is no reason to go on living without his wife. He has increased his regular daily alcohol intake. The medical student is concerned and asks further specific questions. Mr. Smith reveals that he took pills last week to end his life but only felt ill for a few days. He then purchased a pistol at the local gun shop. He rarely sees his married daughter and has spoken to nobody about this. The medical student should immediately alert his senior resident and attending physician. The plan of action should consist of (choose the one best answer):

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d. Stevens-Johnson syndrome in youth taking SSRI medications
e. Increase in the national youth suicide rate since SSRI antidepressants came into wide use.

Suggested Readings and Web Sites for the Highly Motivated

American Foundation for Suicide Prevention, www.afsp.org.
Centers for Disease Control and Prevention, www.cdc.gov.
Jamison, K. R. (1999). *Night Falls Fast: Understanding Suicide*. New York: Random House.
Sadock, B. J., and Sadock, V. A. (2003). Section 34.2. In *Kaplan & Sadock's Synopsis of Psychiatry* (9th ed.). Philadelphia: Lippincott Williams and Wilkins.
Schneidman, E. S. (1996). *The Suicidal Mind*. New York: Oxford University Press.
Schulberg, H. C., et al. (2004). Preventing Suicide in Primary Care Patients: The Primary Care Physician's Role. *General Hospital Psychiatry,* 26(5): 337–345.
Styron, W. (1992). *Darkness Visible: A Memoir of Madness*. New York: Random House.

Answers to Step Prep

1. d
2. c
3. a
4. d
5. a

SECTION

III

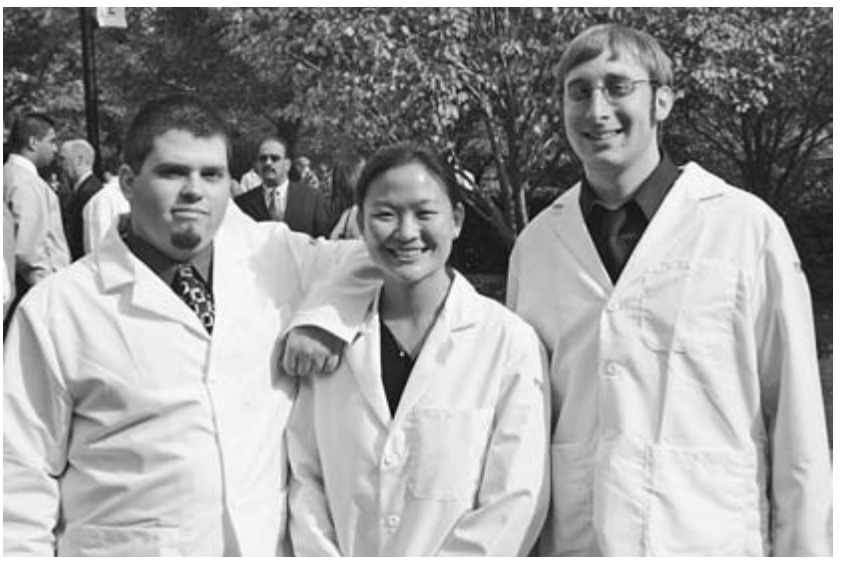
HEALING AND THE PHYSICIAN

11 THE MEDICAL STUDENT AND THE PHYSICIAN

Ellen H. Sholevar, MD, and David Baron, MSEd, DO

Knowledge is power.

—Sir Francis Bacon



Three first-year medical students have just participated in the "White Coat Ceremony," a rite of passage in many medical schools that is done at the beginning of the first year or the beginning of the third year. Friends and family may be invited, and a reading of the Hippocratic Oath is often featured.

MENU

- List ethical responsibilities of physicians.
- Present personal values, attitudes, and biases that may affect patient care.
- Describe physician well-being.
- Identify the social responsibilities of physicians.
- Understand work in health care teams and organizations.
- Understand the principles of effective medical student and physician teamwork.
- Identify the importance of medical student and physician education regarding available community resources.

Introduction

The goal of this chapter is to provide the student with a historical framework in which to better understand the societal responsibilities demanded of physicians, the stressors that may exist, and the challenges physicians may face. The intention is not to alarm future physicians, but rather to proactively prepare them for the exciting professional journey they have chosen to take.

In virtually every culture throughout history, physicians have enjoyed being members of a highly regarded profession. This position of status has helped maintain a high level of competition to enter the field, regardless of financial reward. Requirements to gain admission to medical school are rigorous, and the training is arduous. However, the attraction of an altruistic and academic career in medicine endures.

Pre–Step Prep

1. A 24-year-old, first-year medical student with no prior history of psychiatric symptoms begins to experience problems with sleep, an inability to relax, and doubts about his desire to become a physician. The student should do which one of the following:

a. Understand that this happens to every student and do nothing

b. Discuss his feelings with a close friend

c. Talk with his parents about dropping out

d. Begin taking an antidepressant

e. Arrange a counseling session to discuss his feelings

2. A 28-year-old female resident in surgery reported ethnic and gender harassment from an attending physician. Sexual harassment is a violation of federal law. Select the one correct answer about sexual mistreatment of medical students.

a. Females and males report the same rate of mistreatment.

b. About 60% of reports by females were for sexual mistreatment.

c. About 5% of reports by males were for sexual mistreatment.

d. About 75% of females report sexual harassment.

e. About 90% of incidents of mistreatment are reported.

3. A 22-year-old male medical student was very successful academically as an undergraduate. He hopes to perform near the top of his medical school class, since his father, a physician, did very well in medical school. After the first round of examinations in the fall, his test papers come back with low marks, despite the extensive amount of time he studied. To prevent burnout and reach the goals he has set for himself, he should consider all but one of the following options (choose the one incorrect answer):

a. Eliminate his daily jogging to spend more time studying

b. Talk to his friends about the situation

c. Get enough sleep

d. Make time for self-reflection and meditation

e. Make time to eat healthy, well-balanced meals

4. Medical ethics and codes of conduct date back to the Oath of Hippocrates. More recently, which code updated and refined medical ethics?

a. The Tuskegee Code

b. The Nuremburg Code

c. The Osler Code

d. The Marshall Code

e. The Patient Code

5. Warning signs of burnout include all but which of the following (choose the item that is not a sign of burnout):

a. Chronic lateness

b. Decreased joy in daily activities

c. Sleep problems

d. Good sense of humor

e. Anger

6. Physicians have to guard not only their patients' health and their own health but also the values cherished by our society. Which group of physicians won the Nobel Peace Prize in 1999?

a. Dr. Helen Caldicott and her group, which worked to stop nuclear testing in the South Pacific
b. Doctors without Borders (Médecins sans Frontières), which was established in 1971 by French physicians
c. The Children's Defense Fund, which protects and advocates for children
d. The American Medical Association, which advocates for high-quality patient care
e. The American Academy of Pediatrics, which advocates for children's needs and represents pediatricians
f. Amnesty International, which advocates for human rights throughout the world

Codes of Ethics

The privilege of being a doctor includes the responsibility for providing ethical treatment in the delivery of patient care. The ethical responsibility of physicians toward their patients has been a cornerstone of medical education throughout history.

- In the fourth century B.C. in ancient Greece, **Hippocrates** first articulated the basic principles of a physician's responsibility to both patients and society. The **Hippocratic Oath**, the first code of ethics written for physicians, prohibited both surgery and abortions; interestingly, surgeons were not considered physicians at that time. First-year medical students in the United States often recite the Hippocratic Oath in their orientation ceremonies.
- In the eighteenth century **Thomas Percival**, MD, wrote a code of ethics that based clinical practice on moral principles and provided a foundation for decision making for all physicians. His code served as the basis for the first code of ethics of the American Medical Association (AMA), written in 1847.

Societal Responsibilities of Physicians

In addition to being a good medical student, resident or attending physician, are there other duties physicians should attend to? How can the medical student or physician accomplish wider goals?

- By keeping informed on legislative activities and voting
- By informing my legislators in areas of concern
- By serving as a community advocate in areas of my expertise
- By participating in volunteer work

- Medical ethics were refined in the twentieth century, in 1949, with the **Nuremburg Code**, which articulated ten principles to be followed with human experimentation. It was based on the Nuremburg trials of Nazi war criminals held after World War II.
- Ethical principles regarding humans in medical research were revised again in 1964 with the **World Medical Association Declaration of Helsinki**. The principles are updated periodically, most recently in 2000.

Physicians make life-and-death decisions. This requires observation of established ethical guidelines. It is not appropriate for physicians to lecture patients on issues of moral disagreement but rather to provide the highest quality of care in an ethical manner.

Socialization into the Profession

The four years of medical school function to socialize a student into the medical profession. This socialization process introduces students to both the implicit and the explicit expectations of the profession, which often conflict with the physical and emotional needs of young physicians. Traditionally, medical students and doctors have been expected to work and study long hours at the expense of personal health and relationships. Medical students are taught how to care for their patients but are rarely taught how to care for themselves.

During the first two years of medical school, students are required to learn large amounts of didactic material, spending many hours daily in class and labs in addition to studying at night. Interns and residents routinely work up to eighty hours per week in their clinical training. Students are expected to learn the facts to do well on exams. In the first two years, students learn that **having the right answer** is the most important issue, whereas the **find it and fix it** mentality is emphasized during the last two years of medical school. Little time is set aside during medical education to contemplate the gray areas of medicine, and succumbing to the pressures of the heavy workload is often viewed as a weakness, as behavior unbecoming to a young physician. In return for years of dedication

An Exemplary Moral Life: Helen Caldicott, MD

- Pediatrician
- Founded Cystic Fibrosis Clinic at Adelaide Children's Hospital, Australia, 1975
- Instructor at Harvard Medical School and Children's Hospital Medical Center, Boston
- Key figure in opposing French atmospheric nuclear testing in the Pacific, 1971
- Cofounded Physicians for Social Responsibility
- Nominated by Linus Pauling for the Nobel peace prize

Source: www.helencaldicott.com.

Thorny Issues

- Should the blood of an ill child be drawn by an inexperienced medical student rather than a skilled upper-year resident? If the child is the grandchild of the chair of the board of the hospital, does it make a difference? If the child is a minority and a ward of the state, does it make a difference? If the medical student or beginning resident never gets to draw blood on a child, how will the skills be developed?
- Should an adult patient or a child's parent or legal guardian be asked for consent before a trainee is allowed to perform a procedure?
- Should a medical student be allowed to perform a procedure on an anesthetized patient when the patient previously specified that he wanted only the attending physician to do the procedure?
- What if the medical student is ordered to do something by an upper-year resident that seems wrong? What if that same upper-year resident will be writing the medical student's clerkship evaluation?
- Should a medical student be introduced as "doctor"? Many patients won't know the difference between attending, resident, and medical student.

and sacrifice, young physicians are rewarded by the prospect that some day they will be saving lives while maintaining a position of respect within their communities.

The Power Dynamics of Medical Education

Society demands that physicians act in an ethical manner at all times. This is not a topic of debate. However, ethical dilemmas for medical students and residents are not often addressed during medical school and are frequently the source of significant stress when encountered. The overt "pecking order" encountered in medical education may contribute to the problem. Medical schools indoctrinate their students early in their training as to how this works. First-year students are initiated into this highly exclusive club as the lowest members on the totem pole when they are given their short white coats. They learn quickly that power and authority reside in those further up the ladder: upper-level students, interns, residents, chief residents, fellows, attendings, service chiefs, chairs, and, ultimately, the dean.

What should a student do when confronted with an ethical dilemma created by someone higher up the "food chain"—for example, an attending physician who treats his patients or trainees in a disrespectful manner, or worse? As members of a team, students have a moral obligation to their colleagues (present and future) not to turn a blind eye to the situation. Appropriate handling of the issue requires a knowledge of whom to address the problem with and how to present the concerns. Going directly to the highest-ranking individual is often not the wisest thing to do. Seeking advice from trusted, more senior colleagues or going to an associate dean for student affairs in the medical school dean's office may be a more accepted strategy.

Inappropriate sexual advances cannot be tolerated and must be appropriately addressed. The student should not feel intimidated into not addressing inappropriate behavior by any member of the health care team, up to and including the attending physician. Most hospitals have policies for "disruptive physicians" that call for censure of unprofessional behavior at all levels. The ever-present power dynamic does not sanction bad behavior, not even for "Dr. House" (the TV character).

Professionalism

There is no precise way to define or measure professionalism, but it is clearly an essential part of being a good physician. A 2005 study published in *The New England Journal of Medicine* correlated disciplinary action against a physician by a medical board with prior unprofessional behavior in medical school. Severe irresponsibility and severely limited capacity for self-improvement were the behaviors that correlated most strongly. Another 2005 study found that **the most common type of unprofessional behavior is the abuse of drugs or alcohol**. Binge drinking and illicit drug use are as common in medical students as in other young adults. At some point in their career, more than 10 percent of physicians will become chemically dependent. Anesthesiologists are at the highest risk; although they account for less than 4 percent of physicians, they constitute 13 percent of physicians treated for chemical dependency.

According to several studies, the construct of professionalism seems not to relate to high board scores, high grades, or overall high intelligence. All of these are necessary but not sufficient conditions to become a responsible physician. Table 11.1 lists several positive and

Doctors without Borders (Médecins sans Frontières)

- Established in 1971 by French physicians
- Provides health care and medical training in more than 70 countries
- Has spoken out for human rights in humanitarian disaster areas
- Advocates for political responsibility
- Received the 1999 Nobel peace prize

Fast Facts

- 95% of all malpractice cases do not go to trial.
- 95% of cases that go to trial settle before the trial.
- Juries favor the physician in 60–80% of verdicts.

Source: Beckman (2001).

Physicians and the Pharmaceutical Industry

The public has the perception that physicians and the pharmaceutical industry may have an inappropriately close relationship. The pharmaceutical industry spends billions of dollars annually on gifts and payments to physicians. Pharmaceutical companies fund more than 70% of clinical trials in medicine. Should physicians accept gifts from pharmaceuticals? Should physicians be on the speakers bureau of pharmaceuticals? See the American Medical Association ethical guidelines at www.ama-assn.org.

Table 11.1

Qualities Associated with Professionalism	
Positive	**Negative**
Humanism	Cheating
Empathy	Cynicism
Responsibility	Turf fighting
Maturity	Irresponsibility
Honesty	Unreliability
Multiculturalism	Lack of self-improvement
Ethical behavior	Inability to adapt
Moral reasoning	Negligence
Emotional intelligence	Use of illicit drugs
Initiative and motivation	Alcoholism
Caring for the indigent	Sexual misconduct
Keeping patient data confidential	Inability to use constructive criticism
Good mental health	

Problem Doctors?

Physician performance failures are not uncommon. In 2002 more than 1700 physician's lost their licenses. The causes include:

- Depression and other mental problems
- Drug and alcohol abuse
- Medical problems

All 50 states have physician health committees designed to help physicians, residents, and medical students deal with these conditions, which can be temporary or long term. The committees have a high success rate.

Source: Leape and Fromson (2006).

negative qualities commonly associated with professionalism.

Physician, Know Thyself

The physician's care of the patient is influenced by a host of life circumstances and experiences that he or she brings to the clinical setting. To the extent that physicians understand their life course and attitudes toward interacting with others, race and culture, death and dying, aging, helplessness and power, they will be able to have more conscious control over the care they administer and the decisions they make.

Family theory emphasizes the experiences and often unconscious attitudes learned in one's family of origin and their influence on situations in

adult life that evoke strong feelings and demand intimacy. The clinical encounter is a quintessential example of a situation that demands intimacy, at the same time expecting the medical student, resident, or attending physician to maintain professionalism. Too much intimacy may lead to boundary violations; too much autonomy and the caregiver may be seen as cold, domineering, or lacking empathy.

There is a clear correlation between the dynamics in the medical student's family of origin and the ability of that student to successfully relate to and care for patients. If the medical student has been parented with a high degree of both demandingness and responsiveness and has not had adverse traumatic experiences such as illness, injury, loss, or other stressors, it is likely that he or she will have a high degree of self-esteem and hopefulness. It is essential that student physicians become aware of the dynamics in their family of origin and understand how those dynamics may influence their care of patients.

Racial, gender, socioeconomic, and other types of **stereotyping** may occur outside the medical student's consciousness and may even be in opposition to his or her goals. These stereotypes are most likely to become apparent when trainees are rushed, fatigued, emotionally stressed, or overstimulated.

Professionalism is a structurally stabilizing, morally protective force in society. . . . Professions protect not only vulnerable persons but also vulnerable social values. Many values are vulnerable: individuals and societies may abandon the sick, ignore due process in judging the guilt or innocence of a person accused of a crime, provide inadequate support for education, propagate information that suits those in power while stifling different perspectives, and so on. Values are so vulnerable that it is hard to think of any society that has not at times lapsed in protecting them. Good civilizations, however, limit and reverse such lapses, in part by entrusting designated groups of people—physicians, lawyers, teachers, journalists and others—to safeguard the values. When professionalism in these core social activities becomes unsteady, it marks the emergence of societal problems.

Source: Wynia et al. (1999).

The challenge is that young adults entering medical school may not have had sufficient life experience to be aware of these issues, or they may have had adverse life experiences that will make the clinical encounter more difficult. During the rigors of overwhelming academic demands in the first months and years and later the long hours of clinical experiences, the intimate and intense nature of the experiences will catapult medical students into situations where they will confront these issues. Medical schools can provide experiences that will help trainees to understand these issues. Courses in normal child development in the first years of medical school typically cause the student to reflect on their own development. Discussion groups and analysis of interactions between patients and the medical student or physician may be helpful. Performing community service, writing poetry, and finding other

Fostering Self-Awareness

- Know your psychological strengths and emotional triggers.
- Understand how your personality characteristics influence relationships with patients and colleagues.
- List your personal philosophy of life, your ideals and core beliefs. (How do they relate to the care of patients?)
- Understand how attitudes toward religion, class, obesity, race, and gender orientation influence your care of patients.
- Understand the difference between empathy and sympathy.
- Define your individual tolerance for risk taking and the need for reassurance.
- Recognize your own feelings in both difficult and easy patient encounters.

Source: Novack (1999).

creative activities through which to increase self-awareness can also be helpful.

Stress and Medical Education

Society demands high levels of dedication from physicians, including technical expertise and a compassionate demeanor. In the United States, the public also demands accountability for outcomes related to medical interventions. However, what the public expects of physicians is, to some extent, culturally dependent. For example, the concept of medical malpractice and suing one's doctor is virtually nonexistent in many parts of the world. The notion that medical intervention is "God's will" absolves physicians of ultimate responsibility in most of the Middle East and Africa. That is not the case in the United States.

CASE STUDY

Sidney Zion sued a premier New York teaching hospital for the wrongful 1984 death of his young daughter, Libby Zion. On February 6, 1995, a jury found that several doctors were negligent in the Zion case, and they were fined. The treating resident physicians were fatigued, and there was a lack of attending physician supervision.

This case led to changes in graduate medical education nationally. National standards are now that residents may work no more than eighty hours per week and no more than thirty continuous duty hours. The problem of sleepiness and fatigue is still underestimated in medical training, however. Sleepiness in residents is equal to that found in patients with serious sleep disorders. The idea in medicine that you're a wimp if you complain about sleep loss, that dedicated doctors don't need to sleep, is dead wrong. You can't "adapt" to ongoing sleep loss—you just become more impaired.

First, Do No Harm (to Yourself)

The stress associated with being a medical student or a physician comes from both the individual and the profession. One stressor

White Coat, Mood Indigo

A 2005 paper in The New England Journal of Medicine *reports high levels of anxiety and depression in medical students, with female students showing higher rates than male students. The following is a summary of some of the findings.*

Is this finding limited to the United States?

No, it's documented in other countries also.

Do medical students come to medical school with higher than usual levels of anxiety and depression or do the rigors of medical education cause it?

Some data suggests that medical students have higher levels of distress at the time of entry to medical school.

Why do female medical students show higher levels of anxiety and depression?

Unknown, but females in the general population have higher levels of depression than males.

What can be done if a medical student is suffering from depression or an anxiety disorder?

Get help! Depression and anxiety are treatable disorders. Call your insurance company to find out about mental health benefits, or speak to someone in the dean's office or a trusted faculty member.

What if I get mental health treatment? Will this negatively impact my medical career?

There is societal stigma about any mental health problem that carries over into medical schools, residency programs, and other related areas.

If you have had mental health treatment, should you disclose this on residency applications?

It depends! If your problem has caused referral to a program for impaired medical students and physicians, then the problem is a matter of public record and will be considered by prospective residency programs in the future. If you feel you have a problem that will impair your ability to learn and provide high quality patient care, you have an ethical obligation to get help and not care for patients until you are well. If your problem was milder, did not impact your ability to learn and care for patients, was successfully treated, and did not enter into any public record, you have a choice about reporting this or not on residency applications. Some authorities would consider that you keep the information private considering that disclosure would negatively impact your residency application.

Source: Rosenthal and Okie (2001).

How to Manage Fatigue

All aspects of life are impaired by sleep deprivation, including in the case of physicians, patient care, learning, family life, mood, and driving safety. Sleep-deprived medical students or residents *underestimate* their impairment. All physicians take an oath to "first, do no harm." Patients and the public expect no less from highly respected and trusted professionals. Here are some ways to manage fatigue:

- Get sleep whenever you can. Some sleep is better than no sleep.
- Get adequate sleep the night before you are on call—don't start call with a sleep deficit.
- It takes 2 nights of extended sleep to make up for missed sleep on call night.
- Don't use alcohol to get to sleep.
- Use good sleep hygiene.
- Have family and friends protect your sleep time.
- Avoid driving if drowsy—take a bus or cab instead.

for medical students is the large quantity of material that must be absorbed during the first two years of school. "There is too much to know" is a common complaint. Studying becomes an endeavor in efficiency, selection, and cooperation; the ability to recognize and accept the limits of what can be learned *now* eases the burden of mastering *everything.* Many courses are required in U.S. medical schools, and most of them are taught as large, impersonal lectures. For many medical students, the large size of classes, the number of required classes, and the amount of information covered in each class is in excess of what was required as an undergraduate. In addition, the pressure to keep up and the fear of failing are always present.

The drive to succeed is another stress common to medical students and physicians. Admission to medical school is a competitive process, and those who get accepted have been successful academically and in other areas during college. Once school begins, each student faces the reality that now they are merely one among all the other high achievers in the class. The heavy workload leads many students and physicians to neglect their health, and many develop chronic sleep deprivation, poor eating habits, and a lack of regular exercise.

Despite being taught the importance of living a well-balanced life in class, many medical students find this difficult to achieve. Interpersonal relationships may suffer, as a result of intense time demands to study. Finding necessary time away from the books often becomes a difficult task.

The pressure to succeed may also be conveyed by family and friends. Students sometimes feel that they should be first in the class to justify the financial burden incurred in the form of education loans. A student may come from a family of doctors and may be expected to carry on the tradition, to be as good a student or doctor as another family member was. Or perhaps the student is the first in the family to go to college or to medical school, which sometimes can make a student feel isolated from the family or placed on a pedestal unrealistically.

Financial Pressures

The financial burden for medical students and young doctors is enormous. Some students try to work at an outside job during their first two years but are often discouraged by faculty because of the rigorous course work and the volume of material to be learned. Many students graduate from medical school with debts as high as $170,000 and enter residency with the option of starting loan payments or deferring them, allowing the debt to increase further. Some students may opt for a field they might not have chosen, going after a shorter period of training or specialties with higher salaries. Even at the end of residency, young doctors may opt for higher-paying, less-satisfying jobs in order to pay off loans.

Fatigue and Driving Safety

As part of a survey of their first-year as interns, 2,737 residents completed detailed monthly reports of their work hours and mother vehicle use. Results showed that:

- They were twice as likely to report a crash or near miss after an working an extended shift.
- Every extended shift was followed by a 9% increase in the risk of having a crash during the following month.
- 5 or more extended shifts in a month greatly increased the risk of falling asleep while driving or stopped in traffic.

Source: Barger et al. (2005).

Choosing a Specialty

Choosing a specialty can be a source of stress in another way. Faculty, family, and friends may make remarks about certain specialties and express opinions about the relative desirability of those specialties. For example, it is not uncommon for students who express an interest in psychiatry to be greeted with comments suggesting that a career in psychiatry would be a waste of medical education. Consequently, many refrain from making their interests known until they apply for residency positions.

The Licensing Exams

The U.S. Medical Licensing Exams (USMLE) and the Comprehensive Osteopathic Medical Licensing Exam (COMLEX) are additional stress points for medical students. Step 1 of the USMLE typically is taken at the end of the second year of medical school, and many students believe that acceptance to residency programs is determined by USMLE scores. Stress is made worse by not knowing what will be covered on the exam. Although an outline of topics that may be covered on the exam is provided, it is an overwhelming amount to contemplate studying for,

OUCH!

According to 2005–2006 data from the American Association of Medical Colleges, the average yearly cost for first-year students in **public medical schools** was

- $19,961 for resident students
- $38,865 for nonresidents

The average yearly cost in **private medical schools** was

- $36,271 for resident students
- $37,872 for nonresidents

Source: American Association of Medical Colleges.

Women in U.S. Academic Medicine, 2004–2005

- 50% of applicants to medical schools
- 49% of medical students
- 32% of medical faculty members
- 15% of full professors
- 11% of department chairs
- 10% of medical school deans

Source: American Association of Medical Colleges.

especially if a student has fallen behind or has not done well in some courses.

Step 2 usually is taken at the end of the third year. It, too, is stressful, but by that time some students have gained perspective on the residency application process, realizing that acceptance into a program depends on more than board scores.

Step 3 is taken sometime within the first two years of residency. It seems to be less stressful for young doctors, because they are already in a residency. Furthermore, the material covered on the exam is clinically based, and by the time the test is taken, residents often have encountered much of the material on the exam during their internship year.

Still, exams are challenging, and the possibility of failure is never far from most people's minds. Failing a class exam, an entire course, a COMLEX, or an USMLE exam can create a sense of failure and shame. A dangerous mindset for medical students is that they are only as good as their performance on exams. Many medical students feel good about themselves only when they do well on their exams. Therefore, it is important to remember that failure on an exam does not mean failure in life or failure in medicine. Rather, it reminds students of their areas of vulnerability, areas they may need to work on for the next exam.

Stress and Personal Relationships

Physicians become indoctrinated even before medical school that nothing should take priority over their education, training, and patients. Consequently, family, friends, and the young doctor suffer from this misguided commitment. Medical students may find themselves relatively distant from their families and friends for a number of reasons. There is little time to stay in touch with everybody, and friends and family often notice this before the student does. Phone calls and trips home may be costly in terms of both money and time, and the letter writers quickly discover that most people really are not committed to communication by letter. E-mail and text messaging remain options, but some may find it too impersonal.

Responsibilities of medical school and residency strain relationships in a number of ways. Students may be preoccupied with their studies and have difficulty relaxing, enjoying a loved one's presence, or experiencing the pleasure of a friend's good news. There may be communication difficulties, anxiety from not spending enough time with loved ones,

arguments over money, and disagreements over responsibilities in the home. On-call duty and long workdays can lead to sleep deprivation and, in turn, to irritability and impatience, decreased interest in sex, and drowsiness. Students and physicians with children experience additional pressure related to guilt and resentment over child care responsibilities.

Stress Management

Most medical students eventually become successful doctors, but many students, residents, and practicing physicians experience burnout, addictions, and other emotional problems. These problems can interfere with the ability to accurately diagnose illness and prescribe treatment, which ultimately interferes with healing. Therefore, dealing with stress is an important issue for both medical students and physicians.

Mistreatment of Medical Students

- The percentage of medical students who reported mistreatment declined between 2000 and 2004 from 20% to 14%.
- Females reported slightly higher rates than males.
- 59% of reports by females were for sexual mistreatment; 32% of reports by males were for sexual mistreatment.
- Racial and ethnic mistreatment was reported by 67% of blacks, 41% of Asians, 36% of Hispanics, and 12% of whites.
- Only 30% of the incidents of mistreatment were reported because the incident did not seem important enough to report, because of fear of reprisal, or because the student who was mistreated did not know what to do.

This behavior should not be tolerated in medical schools. A student who experiences mistreatment should discuss the incident with a trusted faculty member or a member of the dean's staff. Such behaviors erode the learning environment and violate federal law.

Source: American Association of Medical Colleges.

CASE STUDY

Sally is a first-year surgery resident at a major urban medical school. After completing a twenty-four-hour call that consisted of constant, but rather routine duties, she hears of an incoming motor vehicle accident with significant trauma to four adults and a child. She decides to stay in the hospital despite having been on duty eighty-five hours that week. Although exhausted and barely able to think straight, Sally wants her attending to know how committed she is to becoming an excellent surgeon. She also has heard that the cases have some unusual and complex trauma that she may never see again. She stays in the hospital to observe the surgery. Her attending comes in, aware that Sally had been on call the previous night and must have exceeded her time limit, and chews her out and sends her home.

What do you think about Sally's decision to stay in the hospital despite her sleep deprivation and physical exhaustion? If your family member was the patient, would you want Sally involved even if she wasn't the primary operating physician? How competent will Sally be to drive home when sleep deprived?

Burnout

The warning signs of burnout include the following:

- Abuse of drugs, alcohol, or food
- Anger
- Blaming others
- Chronic lateness
- Depression
- Decreased sense of personal accomplishment
- Emotional or physical exhaustion
- Frequent headaches
- Gastrointestinal complaints
- High self-expectations
- Hopelessness
- Hypertension
- Inability to maintain a balance of objectivity and empathy
- Increased irritability
- Less ability to feel joy
- Low self-esteem
- Sleep problems
- Workaholism

Source: Center for Professional Well Being.

Physician Worklife Study

A survey of over 5,000 physicians nationally found that workplace conditions are a major determinant of physician well-being.

One of the many papers generated by this study found that organizational settings that are "physician friendly" and "family friendly" lead to increased well-being.

Source: Williams et al. (2002).

Everyone adapts differently to stress, and how one adjusts has implications not only for the student or doctor, but also for the family, patient, and coworkers. Physicians are indoctrinated to think that they are immune to the illnesses that they treat, but of course they are not. Unfortunately, some in the profession resort to self-medication with drugs or alcohol to ease the stress that seems unmanageable. Others develop disabling depression, anxiety, or eating disorders, or have recurrences of those disorders, during their medical education and training.

John-Henry Pfifferling and colleagues at the Center for Professional Well-Being in Durham, North Carolina, specialize in physician stress management. They have found that as stress increases, students and physicians attempt to save time by eliminating things that would help refresh them, such as exercise, outside interests, relaxed meals, time with family and friends, and prayer or meditation. They also have identified traits of physicians who thrive in their work and avoid burnout. Those traits include humor, strong support systems, clear personal values, openness to gifts from patients, collegiality, and awareness of personal needs. To avoid or overcome burnout and excessive stress, Pfifferling recommends that students and physicians make time for self-reflection and identify what is important in their lives. When the pressure becomes overwhelming, it is important to find someone neutral to talk to, understand that the pain is normal, start or continue to eat properly, get enough exercise and sleep, engage in activities outside work, and identify what's important.

Seeking Help

The stress of medical school and residency may become overwhelming, and many students and young doctors are reluctant to seek help or counseling. Some may react to the high level of

stress with uncertainty and question whether they really want to be a physician. They may overgeneralize and think that being a doctor will always be this stressful on a daily basis, that perhaps it is not right for them. It is important for them to think about why they chose medicine in the first place and to look at their studies or training in the context of their whole life.

Talking these issues through with a neutral person, like a therapist, can be immensely helpful and provide needed relief. Many programs provide support and easily accessible counseling services, which are confidential and not part of a student's medical school record. Often a student will have considerable relief with just a few visits and the opportunity to talk the issues through.

The Health Care Team

The complexities of the current health care situation require medical students, residents, and attending physicians to be part of a health care team. Patients also wish to participate in making their health care decisions and are increasingly informed about their diseases, treatment options, and complementary and alternative medicines via the Internet and other resources. It is essential that patients, health care team members, and colleagues be treated with respect and that their contribution be understood. Nurse clinicians, pharmacists, respiratory therapists, trauma specialists, psychologists, physical therapists, and a host of other health care professionals interact as members of the health care delivery team.

Conflict management is inevitably needed in the intense, demanding environment of the inner-city university hospital and other sites where young physicians are trained. The long hours and fatigue make negotiation and problem solving a challenge. If conflict is not managed or is poorly managed, the result may be negative effects on staff morale and patient care. Education in conflict management, communication skills, and negotiation techniques has been in short supply in the medical school curriculum, yet it is essential for the successful practice of medicine. The hierarchy and power relationships inherent in the medical setting only complicate the situation. It is essential that health care professionals have the skills to address these issues. The goal is to work toward positive outcomes for all involved. Listed below are some **key principles of effective communication**:

1. **Use "I" messages**, as in "I need the lab result immediately so I can proceed with the patient's care" rather than "Your usual slow pace is totally unacceptable."

2. **Be concise, clear, and direct**—"I need the CBC in the next five minutes" rather than "If this lab were only better organized and would fire some of the less competent staff, perhaps we could get some work done around here. Now, I am losing my temper, and you had better get those lab results back. It's 2 A.M., and I would like to get some sleep tonight. Probably that won't happen with the way things are run in this emergency department."
3. **Be helpful and friendly in tone**—it will work wonders. If it's 4 A.M. and "helpful and friendly" are impossible, at least try to be polite and neutral in tone.
4. **Try to present alternatives** or different solutions that would solve the problem—"Okay, we could get the labs after the MRI or before—which works better for the nursing team?"
5. **Practice active listening.** When the patient or a team member is talking, make eye contact, nod your head, make an empathic statement, and then summarize what was just said. Try not to interrupt anyone in the middle of a passionate statement. Instead, wait until he is finished speaking and then say something like, "Oh, Mr. Smith, I hear you saying that you don't feel the medication is working, you are in pain and feeling frustrated. That is really tough!" Then go on to propose solutions or give an explanation. When people feel they are heard, they are more ready to solve problems and move on. They also feel respected. The same technique works as well with any member of the health care team.

Several books listed at the end of this chapter are classics in problem solving, assertiveness training, and goal setting. *Your Perfect Right* is a classic on being assertive, not aggressive. *Getting to Yes* is excellent on negotiation and problem solving, and Stephen R. Covey's book *The Seven Habits of Highly Effective People* has been very helpful in time management and goal setting, essential skills for all physicians.

Another aspect of effective teamwork is to help empower patients to be informed about their illness or medical condition. Patients should be helped to see themselves as normal persons handling a difficult or chronic illness with courage and dignity—as survivors, not the passive "victims" of an unknown illness whose treatment is dictated by a powerful and unapproachable physician or medical treatment team. It is especially important to help patients with chronic illness to become well informed and conversant about their illness and its management.

Community Resources

It is important for medical students, residents, and practicing physicians to become aware of community resources that may be helpful to their patients. Screening programs for a variety of illnesses are available, support groups and community treatment programs may be effective, and government agencies offer multiple types of programs. As students and young doctors move into a specific geographic or specialty area, it is incumbent upon them to learn about these resources so they can be shared with patients.

Step Prep

1. A 24-year-old, first-year medical student with no prior history of psychiatric symptoms begins to experience problems with sleep, an inability to relax, and doubts about his desire to become a physician. The student should do which one of the following:

a. Understand that this happens to every student and do nothing
b. Discuss his feelings with a close friend
c. Talk with his parents about dropping out
d. Begin taking an antidepressant
e. Arrange a counseling session to discuss his feelings

2. A 28-year-old female resident in surgery reported ethnic and gender harassment from an attending physician. Sexual harassment is a violation of federal law. Select the one correct answer about sexual mistreatment of medical students.

a. Females and males report the same rate of mistreatment.
b. About 60% of reports by females were for sexual mistreatment.
c. About 5% of reports by males were for sexual mistreatment.
d. About 75% of females report sexual harassment.
e. About 90% of incidents of mistreatment are reported.

3. A 22-year-old male medical student was very successful academically as an undergraduate. He hopes to perform near the top of his medical school class, since his father, a physician, did very well in medical school. After the first round of examinations in the fall, his test papers come back with low marks, despite the extensive amount of time he studied. To prevent burnout and reach the goals he has set for himself, he should consider all but one of the following options: (choose the one incorrect answer.)

a. Eliminate his daily jogging to spend more time studying
b. Talk to his friends about the situation
c. Get enough sleep
d. Make time for self-reflection and meditation
e. Make time to eat healthy, well-balanced meals

4. Medical ethics and codes of conduct date back to the Oath of Hippocrates. More recently which code updated and refined medical ethics?

a. The Tuskegee Code
b. The Nuremburg Code
c. The Osler Code
d. The Marshall Code
e. The Patient Code

5. Warning signs of burnout include all but which of the following (choose the item that is not a sign of burnout):

a. Chronic lateness
b. Decreased joy in daily activities
c. Sleep problems
d. Good sense of humor
e. Anger

6. Physicians have to guard not only their patients' health and their own health but also the values cherished by our society. Which group of physicians won the Nobel Peace Prize in 1999?

a. Dr. Helen Caldicott and her group, which worked to stop nuclear testing in the South Pacific
b. Doctors without Borders (Médecins sans Frontières), which was established in 1971 by French physicians
c. The Children's Defense Fund, which protects and advocates for children
d. The American Medical Association, which advocates for high-quality patient care
e. The American Academy of Pediatrics, which advocates for children's needs and represents pediatricians
f. Amnesty International, which advocates for human rights throughout the world

Suggested Readings and Web Sites for the Highly Motivated

Alberti, R., and Emmons, M. (1995). *Your Perfect Right*. San Luis Obispo, CA: Impact Publishers.

American Medical Association, www.ama-assn.org.
Association of American Medical Colleges, www.aamc.org.
Barger, L. K., et al. (2005). Extended Work Shifts and the Risk of Motor Vehicle Crashes among Interns. *New England Journal of Medicine,* 352(2): 125–134.
Beckman, Charles H. (2001).The Doctor in the Courtroom. *American Journal of Cardiology,* 87: 1389–1391.
Center for Professional Well Being, http://www.cpwb.org.
Covey, S. (1989). *The Seven Habits of Highly Effective People*. New York: Simon and Schuster.
Fisher, R., and Ury, W. (1981). *Getting to Yes*. New York: Penguin Books.
Institute of Medicine. (2004). *Improving Medical Education*. Washington, DC: National Academies Press.
Leape, L. L., and Fromson, J. A. (2006). Problem Doctors: Is There a System-level Solution? *Annals of Internal Medicine,* 144(2): 107–115.
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Novak, D. H. (1999). Toward Creating Physician Healers: Fostering Medical Students' Self-awareness, Personal Growth, and Well Being. *Academic Medicine,* 74(5): 516–520.
Papadakis, M. A., et al. (2005). Disciplinary Action by Medical Boards and Prior Behavior in Medical School. *New England Journal of Medicine,* 353(25): 2673–2682.
Rosenthal, Julie M., and Okie, Susan (2001). White Coat, Mood Indigo: Depression in Medical School. *New England Journal of Medicine,* 353(11): 1085–1088.
Wedding, D., and Stuber, M., eds. (2006). *Behavior and Medicine*. Cambridge, MA: Hogrefe and Huber.
Williams, E. S., et al. (2002). Physician, Practice, and Patient Characteristics Related to Primary Care Physician Physical and Mental Health: Results from the Physician Worklife Study. *Health Services Research,* 37(1): 119–141.
Wynia, M. K., et al. (1999). Medical Professionalism in Society. *New England Journal of Medicine,* 341(21): 1611–1616.

Answers to Step Prep

1. e
2. b
3. a
4. b
5. d
6. b

12 THE CLINICAL ENCOUNTER

Aurelia N. Bizamcer, MD, MPH, PhD

Good communication is as stimulating as black coffee and just as hard to sleep after.

—Anne Morrow Lindbergh

Psychiatric and social work faculty plan treatment for a challenging patient.

MENU

- Understand the importance of medical communication.
- Discuss physician-patient interaction models.
- Identify basic and advanced communication skills.
- Identify factors affecting communication.

Introduction

At one time or another each of us has been a patient. We have had pain or an illness and needed medical care. Being sick is scary. Going to the doctor is scary. Clinicians often forget that the person in front of them is more than a chief complaint on another medical chart. That patient has feelings, wishes, and expectations—a whole personal history that is not apparent during the encounter, yet it is there. **What the doctor says and does has an amazing impact** on the patient. If the patient trusts the physician and feels cared for and respected by the physician, the patient will be more likely to follow the treatment recommendations and "work" with the clinician. If not, the consequences can be dire. So how do we do it?

Pre–Step Prep

1. A medical student, Huck Finn, is about to see a new patient. The triage note shows that the patient is Mrs. Pippi Longstocking, a widow age eighty, who came because of frequent and painful urination. Medical student Finn has to evaluate Mrs. Longstocking. He knocks on the door of the examination room and enters. What would be the most appropriate manner to open the interview?

   a. "Good morning, Pippi! I'm the doctor. Don't worry, everything will be all right! Give me a big smile!"
   b. "Hello, Mrs. Longstocking. What brings you here?"
   c. "So, how long have you had dysuria?"
   d. "Good morning. My name is Huck Finn, and I am a first-year medical student. I would like to know what brings you in here today."

2. Mrs. Longstocking is a pleasant lady who has no problems with the introduction and the initial opening of the encounter. However, when she tries to present her complaint, she is visibly anxious and

has trouble finding the right words to describe the symptoms. Her difficulties could be explained by which one of the following?

a. She's too old to know what's going on with her. Get a family member, preferably younger.
b. She's confused. This could be delirium, a medical emergency. Call the Emergency Department.
c. She does not speak English.
d. She is embarrassed to talk about an intimate body function.

3. The best way to deal with this situation would be to say:

a. "Okay, let's talk about something else."
b. "Come on, ma'am. I have to see five other patients before lunch."
c. "You seem to have a difficult time telling me what bothers you. Is there something wrong?"
d. "Is any relative of yours in the waiting room? Maybe I can talk to that person."

4. With Huck's kind help, Mrs. Longstocking manages to provide sufficient information that a provisional diagnosis of a urinary tract infection is made. You ask her to give some urine for the urinalysis and tell her that some medication will be prescribed to treat the infection and relieve her symptoms. The most appropriate way to end the visit would be to say:

a. "Okay, Mrs. Longstocking, take one tablet of Cipro daily for three days, and I'll see you back here next Tuesday."
b. "Mrs. Longstocking, it appears that there is an infection of the bladder. You have to drink lots of fluids, and you will take a medication called Cipro. Let me tell you about this medication."
c. "Do you have any questions for me?"
d. "I've written a prescription—fill it at the pharmacy and call me if there are any further problems."

5. It was unclear in the interview whether Mrs. Longstocking understood the information presented. When showing her out, Huck notices that a man who appears to be a relative is waiting outside for her. She introduces him as her nephew who brought her to the appointment and adds that he is her closest family member. At this time, it would be best for Huck to do which one of the following:

a. Do nothing and let the patient leave with her nephew.
b. Ask the nephew whether he would like to talk to the doctor about his aunt's illness.

c. Ask the patient whether she would like him to talk to her nephew.
d. Give them both his phone number and ask them to call if they have any questions.

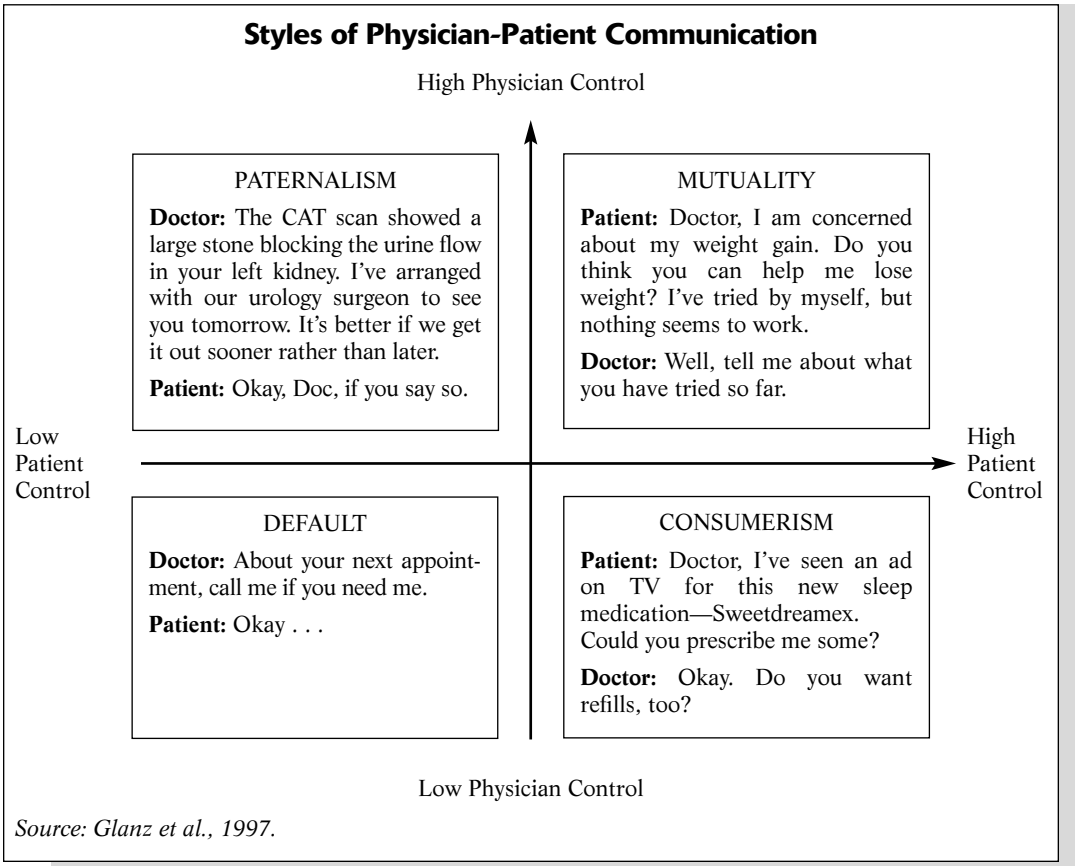
The Importance of Medical Communication

Health care is a process that requires the development of a special relationship between the patient and the clinician. The qualities of this relationship have a major influence on the recovery from illness. An empathic physician is a one whose attitude puts patients at ease and helps them open up and participate more fully in their care. In its March 2004 report, "Improving Medical Education: Enhancing the Behavioral and Social Science Content of Medical School Curricula," the Institute of Medicine stresses the importance of communication for establishing therapeutic medical relationships and for evaluating and involving patients in making decisions regarding their care.

Involving the patient in the therapeutic process demands **a patient-centered approach**. The goal is to foster a partnership between the caregiver and the patient in which not only does the physician obtain appropriate clinical information but the patient also learns about the illness and its treatment and makes educated decisions about appropriate care. Establishing such a partnership leads to greater patient satisfaction and better outcomes, especially for chronic illnesses for which adherence to treatment is of paramount importance.

Physician–Patient Interaction Models

Different styles of physician-patient communication, where physician or patient control may be high or low, often result in different patient outcomes. Although mutuality seems like the most mature relationship and closest to an ideal therapeutic partnership between physician and patient, in real life patients' preferences range between a more traditional approach, in which the physician takes the lead in the relationship and the patient defers to the physician's expertise, to equality between physician and patient. Both approaches have advantages and disadvantages from patients' perspectives. Some patients may appreciate strong opinions based on solid medical knowledge and feel that physicians who know their fields well and are not afraid of assuming leadership will make sure that nothing bad happens to them.



Source: Glanz et al., 1997.

On the other hand, a majority of patients appreciates a warm, caring, and respectful relationship.

The major risk of the traditional communication model is the potential for excluding the patient from the decision-making process, thus possibly compromising the patient's adherence to treatment. Patients might feel that they are misunderstood or not listened to and might perceive the physician as uncaring.

The following vignettes (Seaburn et al., 2004) illustrate the two physician-patient communication models. The first illustrates the **biomedical model**:

Patient:	I've been having these, uh, sharp pains in my chest.
Doctor F:	Mm hm.
Patient:	And sometimes they're really bad, and I'm kinda worried about them.
Doctor F:	Uh huh. Mm hm. So how often do you get these pains?

Table 12.1

Biomedical and Patient-Centered Communication	
Biomedical	**Patient-Centered**
DOCTOR–PATIENT ROLE EXPECTATIONS	
Authoritative, decisive, gives strong opinions, has good medical knowledge and advice	Works with patients
IMPORTANT PHYSICIAN BEHAVIORS	
Delivers clear information, is straightforward, speaks clearly	Responds to patient as person, gives patient attention, has relaxed, comfortable style
PATIENT VALUES	
Prevents harm	Respects patient

Source: Swenson et al. (2006).

The second illustrates the **patient-centered model**:

Patient: The pain has been going on for a while. Sometimes it can take my breath away.

Doctor G: I'm sorry. That's hard.

Basic Communication

A large number of studies have shown that, regardless of age, gender, or race, patients appreciate clinicians who not only are knowledgeable but also have excellent communication skills. Some communication models for the medical encounter focus on the phases of the process rather than on communication styles. For instance, the Four Habits Model used by Kaiser Permanente to improve medical communication emphasizes that the clinician needs to develop four professional habits (see table 12.2).

By investing in the beginning of the interview, the doctor establishes rapport. The patient's perspective refers to the patient's understanding of the illness and its impact on everyday life, as well as the patient's goals for the medical encounter. Empathy means an appropriate response to the patient's emotions, which need to be identified, encouraged, and accepted. Another crucial moment is the end of the encounter, when the clinician and the patient share information and make a decision together about the next step in treatment.

Table 12.2

Four Habits Model of Communication
HABIT 1: INVEST IN THE BEGINNING OF THE INTERVIEW a. Show familiarity with the patient. b. Greet the patient warmly. c. Engage in small talk. d. Use appropriate question style. e. Allow expansion of concerns. f. Elicit all the patient's concerns. HABIT 2: ELICIT THE PATIENT'S PERSPECTIVE a. Ask about the patient's understanding of the problem. b. Ask about the patient's goals for the visit. c. Ask what the impact of the problem has been on the patient's life. HABIT 3: DEMONSTRATE EMPATHY a. Encourage the patient's emotional expression. b. Accept the patient's feelings. c. Identify the patient's feelings. d. Show good nonverbal behavior. HABIT 4: INVEST IN THE END OF THE INTERVIEW a. Use the patient's frame of reference. b. Allow the patient time to absorb information. c. Give clear explanations. d. Offer rationale for tests. e. Test the patient's comprehension. f. Involve the patient in decisions. g. Explore acceptability of the treatment plan. h. Explore barriers. i. Encourage questions. j. Plan for follow-up.
Source: Krupat et al., 2006.

The Physician-Patient Encounter

Opening the Encounter

- Pay attention to the environment. In a hospital room one might not have the same amount of privacy as in an outpatient office. Improve the privacy of the interview by pulling the curtains around the patient's bed.
- If needed, get a chair to face the patient at eye level. Sitting on the bed is not advisable.

- Minimize the likelihood of distractions. Close the door and turn the volume down on the TV.
- Keep in mind your and the patient's safety and comfort. Make sure both you and the patient have a clear way to exit.
- If you use the services of a professional interpreter (either because of a language barrier or because of the patient's sensory deficits), make sure to establish and maintain eye contact with and talk directly to the patient.
- Start the interview by greeting the patient, introducing yourself, and explaining the purpose and the process of the meeting.
- Address the patient respectfully by last name or ask the patient's appellation preference.

Developing an Agenda

Elicit information that will assist you in the following:

- Developing and testing diagnostic hypotheses
- Forming a therapeutic plan
- Starting to educate the patient about mental health issues
- Establishing rapport with the patient

Patients often come with their own agendas and are more or less explicit about them. Eliciting patients' questions and concerns is a major step toward achieving a therapeutic partnership between patient and clinician.

Effective Interview Techniques

Open-ended Questions

At the beginning of the visit, you can either focus on the chief complaint listed in the medical chart or start with a broad, open-ended question, such as "How are you?" or "What brings you here today?" or "What's going on?"

An advantage of **narrow questioning** is that it speeds up the encounter considerably. A disadvantage of narrow questioning is that it often misses important clinical information and may alienate the patient, who might believe that the doctor cares only about her symptoms, not about her as a person. An advantage of **open-ended questioning** is that it invites patients to express themselves and feel comfortable bringing up information they might otherwise withhold.

Interruptions

Although it is important to encourage the patient to open up, the time constraints of the medical consultation and the need to develop a diagnosis and treatment plan by the end of the visit require that the physician make use of gentle interruptions to ask focused questions. One way to handle this when evaluating a new patient is to let the patient know from the beginning that you might have to interrupt or change the topic at times. Reassure the patient that issues of concern will not be overlooked. At the beginning of the interview, it is best to give uninterrupted time to the patient for at least two or three minutes. In a survey conducted by Dyche and Swiderski (2005) the mean time between the doctor's question and interruption of the patient's answer was 16.5 seconds. Encouraging gestures, such as nodding, or vocalizations such as "okay" and "mm hm" are not considered interruptions.

Gradually start asking questions following the working differential diagnostic checklist. The key is pacing and negotiating the control of the interview, keeping in mind the emotional needs of the patient. Patients are aware of doctors' limited time and, when appropriately warned, do not mind interruptions.

Expressing Empathy

Empathy is mentioned often as a necessary characteristic of an effective physician. It embodies the capacity to understand the patient's perspective on the illness and on life. An empathic clinician uses this

EMPATHIC COMMENT—APPROPRIATE

- **Patient:** Doctor, my father died of a heart attack when he was fifty, and his father died of a heart illness, too. As I am approaching his age, I keep on thinking about that.
- **Doctor:** It sounds like you worry that you will have a heart attack, too.

EMOTIONAL SHARING—NOT APPROPRIATE

- **Patient:** Doctor, my father died of a heart attack when he was fifty, and his father died of a heart illness, too. As I am approaching his age, I keep on thinking about that.
- **Doctor:** Oh, I can understand that. My grandmother and my aunt died of colon cancer. I check myself every year.

understanding to care for the patient while maintaining clear emotional boundaries. Empathy focuses on understanding and not on emotional sharing, which can overwhelm the physician and would not help the patient.

When the patient seems confused or hesitant, the doctor could ask, "You stopped . . . what's going on?" Sometimes a simple statement such as "You're doing a good job" can provide encouragement to a shy, anxious, or depressed patient. Another technique used to encourage patients to discuss sensitive topics is to openly acknowledge the difficulty of talking about such issues and to explore the associated feelings.

Verifying Mutual Understanding

When eliciting clinical information, the clinician not only asks questions related to the patient's illness but also reflects to the patient the clinician's sense of what the patient is saying to verify that the patient's message has been understood. The patient is then given time to respond and make any corrections to the clinician's understanding or amplify the history as in the following example:

Patient: Doctor, I have this pain here. It's really bad—I can barely breathe.
Doctor: You have it now?
Patient: Not right now. I had it last night after dinner.
Doctor: Does it usually come after a meal?
Patient: Yeah. Especially after lunch and dinner. I don't usually eat breakfast.
Doctor: Does any food seem to trigger the pain?
Patient: Well, I used to love fried eggs, but they seem to make the pain worse. Now I stick to hard-boiled ones.
Doctor: Are there other things that make this pain happen?
Patient: Well, sometimes if I am very tired.
Doctor: Let me see if I've got this straight: You have this pain on the right upper side of your belly that appears after certain types of meals or when you are tired. It can get really bad.
Patient: You got it, Doc! [Patient feels understood.]

Proceeding through the interview in an organized manner (for instance, eliciting chief complaint; then history of present illness; then past medical, psychiatric, and social history; then mental status examination) improves the process and organizes the clinical information. It may be helpful for the beginning clinician to have an outline for reference when taking the history.

Language Clarity and Nonverbal Communication

Language clarity is another feature of a well-conducted interview. Inexperienced clinicians use an abundance of medical jargon and fail to realize that the patient doesn't understand. *Health literacy* is a concept that defines patients' ability to understand and use medical information accurately. Adequate health literacy has been linked to improved adherence to treatment and better outcomes. Health literacy is not necessarily commensurate with the patient's educational attainment, and

Strategies for Clear Communication

- Assess the patient's baseline understanding before providing extensive information. This allows the educational content of the interview to be tailored to the patient's informational needs. To a patient newly diagnosed with hypertension, the doctor might say, "Before we go on, could you tell me what you already know about high blood pressure?"
- Explain things clearly, using plain language. Avoid medical jargon, vague terms, and terms with different medical and lay meanings. Say "chest pain" instead of "angina." Say "hamburger" instead of "red meat." Say "1 in 3" instead of "33 and one-third percent."
- Emphasize 1 to 3 key points and repeat these points throughout the visit.
- Effectively encourage patients to ask questions. Use an open-ended approach. Ask, "What questions do you have?" instead of "Do you have any questions?"
- Use a teach-back technique to confirm patient understanding. Say, "I always ask my patients to repeat things back to make sure I have explained them clearly. I'd like you to tell me how you're going to take the new medicine that we talked about today." "When you get home, your [husband/wife] will ask you what the doctor said. What will you tell them?"
- To confirm understanding of a skill (e.g., use of a metered dose inhaler), ask the patient to demonstrate the behavior.
- Write down important instructions for patients. This lets them know exactly what they should do after the visit.
- Provide useful educational materials to give patients more time to absorb the information. Such materials also become accessible to family members who may be helping the patient at home.

Source: Kripalani and Weiss (2006).

it tends to decrease with age. Therefore, it is advisable to use the simplest and clearest language possible in interactions with patients.

The medical student and physician also need to be attentive both to the patient's and their own nonverbal communication. Some studies suggest that up to 80 percent of communication is nonverbal.

Talking to Different Types of Patients

Elderly or Older Patients

The aged patient is just as interested as the younger patient in being a partner in therapeutic decision making, but the physician or medical student should keep in mind several age-specific features:

- Increased co-morbidity
- Complex pharmacologic regimens
- Coexistence of multiple medical providers (often unaware of each other's recommendations)
- Potential for cognitive deficits such as memory loss and decreased ability to process new information
- Decreased hearing acuity

Adolescents

Proceed with caution! Inquire about these areas, but in a sensitive manner:

- Emotional difficulties related to growing up
- Physical changes related to this particular age
- Emergence of sexuality
- Potential involvement in risky behaviors such as drug use, drinking, unsafe sex, or driving without a seat belt

Families with Children

Avoid taking a history about the young child with the child present. Although the child may not seem to be paying attention, the child hears and may misunderstand the history given by the parent. Older children and teens should be involved in explanations of their problem and involved in the treatment plan. An explanation at the appropriate developmental level should be provided by the physician. Be aware that with older children and teens, the treatment plan is more likely to be successful if they understand and agree to the plan. Adolescents should have some portion of the initial interview conducted without parents in the room.

Family Members or Significant Others

Adults often come to see the doctor accompanied by relatives or people close to them who sometime participate in the physician-patient

encounter. While some family members are great resources for the doctor and supports for the patient, some may be more difficult to engage. Always ask the patient's permission before talking to families or friends. It also helps to discuss with the patient how much and what type of information can be disclosed.

Interpreter-Assisted Interviews

Situations may arise in which the patient and provider do not share a common language. Also, some patients have neurosensory deficits such as deafness. It is essential to use professional interpreters whenever possible in such cases, but the physician should be aware that the presence of an interpreter introduces a certain amount of bias to the communication even if the interpreter is a professional trained in medical communication. Interpreters are prone to omit, change, or inappropriately summarize information offered by patients. Using nonprofessional interpreters (even health care providers) can lead to serious medical errors.

Electronic Communication

Do not communicate with patients by e-mail. Transmission of health information electronically is regulated by the federal Health Insurance Portability and Accountability Act (HIPAA), and sending health information via a nonsecure site is not allowed.

Be aware of challenges raised by telephone communication with patients. The physician or medical student should decide what is appropriate to communicate by telephone.

- Routine test results may be communicated over the phone in certain circumstances.
- Bad news should always be given in person.
- Denying inappropriate requests (such as some requests for prescriptions for narcotics) may be appropriate over the telephone in certain circumstances.

Be aware that communication by telephone compromises assessment of "paralanguage," the nonverbal aspect of language (tone, speech pattern, pauses, and pitch).

Self-Awareness

Be aware of your life experiences and biases that may influence your clinical judgment and decrease your ability to establish rapport. For example, a physician who lost her father to a medical condition

at an early age may have difficulty communicating bad news to patients.

The following factors could influence care:

- **Provider factors**—The patient is very similar to the physician or medical student in age, gender, or education or resembles someone from the physician's past; the physician or medical student has unresolved issues with death, loss, feelings of inadequacy, discomfort with ambiguity.
- **Situational factors**—The doctor and the patient have a longstanding therapeutic relationship or had a relationship that preceded treatment.
- **Patient-related factors**—The patient or family is angry or depressed; the patient is a health care professional.

Advanced Communication

The Depressed or Suicidal Patient

It is important to convey hope to the depressed or suicidal patient, but beware of giving false reassurance. Tell the patient that you believe you could help, even if the patient finds it difficult to believe for now.

Explore the existence of depressive symptoms and then gradually narrow down toward specific suicidal thoughts and behaviors.

Do not be afraid to explore suicidal thoughts or plans. Talking about suicide does not prompt suicide. Given the sensitivity of the subject, it may feel difficult to talk about; however, the possibility of such a psychiatric emergency should be explored with every patient. For instance, ask about sad or gloomy thoughts. Then ask whether the patient has ever wished to be dead. Then ask whether the patient has had thoughts about killing herself. If the answer to all these questions is affirmative, ask if the patient has any current plan for self-harm. If yes, ask for details.

Assess the lethality of the plan or previous attempts and the patient's beliefs about lethality.

Assess availability of the means for suicide—for example, does the patient own or have access to a weapon? Pills? Another plan or means for self-harm?

If you conclude that the patient is at high risk for self-harm, take action to protect them. Medical students should immediately alert their supervising resident or attending physician of any concerns about suicidal ideation.

The Homicidal Patient

If you suspect a patient of being homicidal, first ask about anger and any wish to harm others. If you believe you may be in danger, leave the room and get assistance prior to obtaining further history. Medical students should discuss the situation with their supervising resident or attending physician. (See the section below on the potentially violent patient.)

If you are not in danger, continue the interview, eliciting information about past aggressive or violent behavior and about impulsivity. Ask whether there is a particular target of the patient's homicidal fantasies or intent. Assess whether the patient has access to a weapon. If the patient is targeting a specific individual, the physician has a duty to warn them.

The Psychotic Patient

If you have a psychotic patient, show respect and explain clearly who you are, your role, the goals of the interview, and the location. Have another health care provider with you if needed. Be prepared to limit or terminate the interview if the patient is unable to give a coherent history. Do not challenge delusional beliefs or argue with the patient.

The Agitated, Potentially Violent Patient

Be safe! Do not enter the room or attempt to take a history by yourself if the patient is likely to be assaultive. Learn to recognize the **signs of escalation:**

- Pacing
- Pounding the fist in a hand
- Raising the tone of voice
- Verbally aggressive behavior or verbal threats

If the patient begins to escalate, politely excuse yourself (for example, by saying you need to check on something) and do not return to the room without an adequate number of staff to safely conduct the interview. Do not say to the patient, "I'm frightened—I'm going to get help."

Follow these additional guidelines:

- Trust your instincts. Never conduct an interview with a patient who scares you.
- Sit close to the door of the office so as to quickly exit the room if needed.
- Keep your tone of voice calm and low with loud, agitated patients. Assure the patient that she is safe, as many patients become agitated when afraid.

- Avoid getting into a confrontation with a patient who is simply angry and upset with you but is able to demonstrate behavioral control. Simply allow the patient to vent and acknowledge their feelings.

The Seductive Patient

If the patient seems seductive or inappropriate by posture, suggestive dress, gesture, allusions, or intrusive or personal questions, continue to behave in a professional and appropriate manner. If necessary, remind the patient that the encounter is a professional one and that your withholding personal information is not a rejection of the patient.

If the patient persists in inappropriate conversation or behavior, quickly and politely leave the room (for example, by saying, "Excuse me, I have to get something") and return with another health care provider.

It is not appropriate for the medical student or physician to discuss their personal life with a patient. Likewise, it is not appropriate to see the patient outside the professional situation or to interact with the patient socially in any way. This is known as a **boundary violation** and is unethical.

The Malingering Patient

Some patients may knowingly lie to the medical student or physician for a variety of reasons. Often there is a goal to the untruth such as obtaining disability benefits, getting attention, or other reasons. When the medical student or physician concludes that a patient is not being truthful, the situation should be handled in a professional manner. It is not appropriate to become angry with the patient, although it may feel hurtful to be deceived.

The Rambling, Digressive, or Unfocused Patient

If you have a patient who is rambling, digressive or unfocused, explain to the patient the organization of the interview and the time available. If the patient rambles, gently interrupt her, stating, "We need to move on," and proceed with the questioning. Comments such as "I hear you" may be helpful in quickly validating the patient and allowing the interview to move along. If the patient becomes annoyed when redirected, repeat the organization of the interview and the time limitations.

Patients from Different Cultures

- Keep in mind that cultural differences relate not only to another language, but also to a variety of attitudes and understandings of

the illness, the role of the patient, the role of the physician, and the role of the family.
- Be respectful and aware of differences.
- Ask patients to explain their own beliefs, practices, and perspectives.

Delivering Bad News

If you have bad news to deliver to a patient, always give it in person. Focus on what you say, where you say it, and how you say it. Prepare for the encounter by taking the following steps:

- Give the patient some warning.
- Ask the patient to consider bringing in significant others for emotional support.
- Schedule sufficient time.
- Make sure the setting is comfortable, private, and quiet.
- Avoid interruptions (give your pager to a colleague).
- Sit close to the patient, and maintain eye contact.
- Be aware of the patient's behavioral cues and respond to those.
- Show concern and warmth. Sometimes (but not always) a hug or a pat on the hand is an acceptable response—use your best judgment.
- Be aware that the patient is not likely to retain much of the explanation about the disease and treatment options when first receiving the bad news.

Note the patient's and family's emotional reactions. Some people may refuse to hear the bad news, some may express anguish or anger, and some may show no reaction because of the emotional shock. Do not take it personally. If no reaction is apparent, offer patients and families the opportunity to express emotion by saying, "Some people in this situation experience strong emotions. How about you?"

A medical student should not give the bad news but may accompany the senior resident or attending physician. Do not avoid speaking with the patient about the bad news. Pay attention to your own reactions. They may be related to your earlier life experiences with death and loss. Get support or assistance from a colleague if needed.

Step Prep

1. A medical student, Huck Finn, is about to see a new patient. The triage note shows that the patient is Mrs. Pippi Longstocking, a widow age eighty, who came because of frequent and painful urina-

tion. Medical student Finn has to evaluate Mrs. Longstocking. He knocks on the door of the examination room and enters. What would be the most appropriate manner to open the interview?

a. "Good morning, Pippi! I'm the doctor. Don't worry, everything will be all right! Give me a big smile!"
b. "Hello, Mrs. Longstocking. What brings you here?"
c. "So, how long have you had dysuria?"
d. "Good morning. My name is Huck Finn, and I am a first-year medical student. I would like to know what brings you in here today."

2. Mrs. Longstocking is a pleasant lady who has no problems with the introduction and the initial opening of the encounter. However, when she tries to present her complaint, she is visibly anxious and has trouble finding the right words to describe the symptoms. Her difficulties could be explained by which one of the following?

a. She's too old to know what's going on with her. Get a family member, preferably younger.
b. She's confused. This could be delirium, a medical emergency. Call the Emergency Department.
c. She does not speak English.
d. She is embarrassed to talk about an intimate body function.

3. The best way to deal with this situation would be to say:

a. "Okay, let's talk about something else."
b. "Come on, ma'am. I have to see five other patients before lunch."
c. "You seem to have a difficult time telling me what bothers you. Is there something wrong?"
d. "Is any relative of yours in the waiting room? Maybe I can talk to that person."

4. With Huck's kind help, Mrs. Longstocking manages to provide sufficient information that a provisional diagnosis of a urinary tract infection is made. You ask her to give some urine for the urinalysis and tell her that some medication will be prescribed to treat the infection and relieve her symptoms. The most appropriate way to end the visit would be to say:

a. "Okay, Mrs. Longstocking, take one tablet of Cipro daily for three days, and I'll see you back here next Tuesday."
b. "Mrs. Longstocking, it appears that there is an infection of the bladder. You have to drink lots of fluids, and you will take a medication called Cipro. Let me tell you about this medication."

c. "Do you have any questions for me?"

d. "I've written a prescription—fill it at the pharmacy and call me if there are any further problems."

5. It was unclear in the interview whether Mrs. Longstocking understood the information presented. When showing her out, Huck notices that a man who appears to be a relative is waiting outside for her. She introduces him as her nephew who brought her to the appointment and adds that he is her closest family member. At this time, it would be best for Huck to do which one of the following:

a. Do nothing and let the patient leave with her nephew.

b. Ask the nephew whether he would like to talk to the doctor about his aunt's illness.

c. Ask the patient whether she would like him to talk to her nephew.

d. Give them both his phone number and ask them to call if they have any questions.

Suggested Readings and Web Sites for the Highly Motivated

Academy of Cognitive Therapy, www.academyofct.org.

American Psychiatric Association, www.psych.org.

American Psychoanalytic Association, www.apsa.org.

Dyche, L., and Swiderki, D. (2005). The Effect of Physician Solicitation Approaches on Ability to Identify Patient Concerns. *Journal of General Internal Medicine,* 20(3): 267–270.

Glanz, K., Rimer, B. K., and Lewis, F. M., eds. (1997). *Theory at a Glance: A Guide for Health Promotion Practice.* Jossey-Bass.

Kripalani, S., and Weiss, B. D. (2006). Teaching About Health Literacy and Clear Communication. *Journal of General Internal Medicine,* 21: 888–890.

Krupat, E., Frankel, R., Stein, T., and Irish, J. (2006). The Four Habits Coding Scheme: Validation of an Instrument to Assess Clinicians' Communication Behavior. *Patient Education and Counseling,* 62: 38–45.

Meier, D. E., Back, A. L., and Morrison, R. S. (2001). The Inner Life of Physicians and Care of the Seriously Ill. *Journal of the American Medical Association,* 286(23): 3007–3014.

Seaburn, D. B., et al. (1996). *Models of Collaboration.* Basic Books.

Swenson, S. L., Zettler, P., and Lo, B. (2006). "She gave it her best shot right away": Patient Experiences of Biomedical and Patient-Centered Communication. *Patient Education and Counseling,* 61: 200–211.

Answers to Step Prep

1. d
2. d
3. c
4. c
5. c

13 MAJOR PSYCHIATRIC DISORDERS AND MEDICINE

Joseph Garbely, DO, David Baron, MSEd, DO

Although the world is full of suffering, it is full also of the overcoming of it.

—Helen Keller

The psychiatric emergency room, also known as the Crisis Response Center in some cities, serves as a safety net for the most vulnerable patients in a large, inner city.

MENU

- Understand the major diagnostic systems for mental disorders.
- Recognize the signs and symptoms of major psychiatric conditions.
- Understand the multi-axial approach of DSM-IV.
- Appreciate the importance of assessing psychosocial issues as part of the diagnostic process.
- Be aware of the relationship between psychiatric and medical disorders.

Introduction

Mental illness was described by the first civilizations as a manifestation of magical and evil forces. It was not until the ancient civilizations of Greece and Rome—through the writings of Hippocrates, Plato, and his student Aristotle—that rational explanations for mental illness existed. The Hippocratic authors were the first to describe mania, delirium, phobias, hysteria, and paranoia in a cogent and clinical manner. The Arabs were the first to build hospitals with psychiatric divisions (in Baghdad, A.D. 750) and asylums for the insane (in Damascus, A.D. 800). Over the centuries mental health care shifted from segregation to clinical treatment strategies, which included frontal lobotomies, electroconvulsant therapy, psychotherapy (including Freud's psychoanalysis), and, finally, pharmacotherapy. This chapter is designed to highlight the major psychiatric disorders and introduce the *Diagnostic Statistical Manual* (DSM) to the reader.

Pre–Step Prep

1. A seventy-six-year-old female presenting with hypertension, diabetes mellitus, arthritis, and hyperlipidemia was brought to the hospital by her daughter. She had difficulty sleeping and had been prescribed sleeping pills by her doctor. The daughter said she had been increasingly confused and talked about seeing strangers in her room. She was

awake all night. The patient was awake but disoriented to time, day, month, and year and could not give a coherent history. Her vital signs were as follows: temperature, 98.2°F.; pulse, 82; blood pressure, 140/85; oxygen saturation, 98 percent. Review of systems was significant only for arthritic extremities. Her electrocardiogram, CBC, and serum electrolytes were normal. Review of her medication bag showed an antihypertensive, Lipitor, Glucophage, temazepam, alprazolam, diazepam, naproxen, and several over-the-counter medications. What is the most likely diagnosis?

a. Dementia
b. Delirium
c. Schizophrenia
d. Depression

2. Given the diagnosis in this case, what is the most common type?

a. Paranoid schizophrenia
b. Major depression
c. Alzheimer's dementia
d. Hyperactive delirium

3. Joe got a phone call from his wife, Trisha, about her seventy-two-year-old grandmother Mildred, who has become increasingly forgetful. She misplaces things and accuses her children of stealing them. She forgets discussions she had with people, as well as phone numbers. She now heavily relies on her diary, which she frequently misplaces. Trisha reported that Mildred had on one occasion left the house and was unable to find her way home. She was also reported to be having difficulty with sleeping. Mildred has always been very active. She worked most of her life and retired at the age of sixty-six after the death of her husband, Charles. Her only physical illnesses have been hypertension (treated with medication), obesity, and nondebilitating arthritis controlled with naproxen. Further questioning revealed that the patient's father, who died at the age of eighty, had a problem with memory. Physical examination revealed the following: temperature, 98.1°F.; pulse, 80; blood pressure, 146/80; oxygen saturation, 100 percent. A review of systems was significant for impairment of recent memory, as well as attention and concentration. Mental status examination was significant for paranoid ideation and mini-mental status score was 22/30. CBC, B_{12}/folate, ESR, RPR, TFT, Chem7, and urinalysis/culture were done and were normal. A SPECT scan of the brain showed diffuse brain atrophy mainly in the parietal lobes. What is the most likely diagnosis?

a. Dementia
b. Delirium
c. Schizophrenia
d. Depression

4. Given the diagnosis in this case, what is the most common type?
a. Paranoid schizophrenia
b. Major depression
c. Alzheimer's dementia
d. Hyperactive delirium

5. A twenty-four-year-old male was brought to the ER after aggressively yelling at strangers, accusing them of trying to kill him. He was dressed inappropriately, wearing many layers of clothing, and had not bathed in some time. He refused to speak with the ER doctor, but his family said that the young man had become gradually more withdrawn socially over the past year. At home, he refused to eat meals prepared by his mother because he believed that the food was poisoned. He was up at odd hours of the night, and his family had observed him talking to himself and occasionally lashing out at them for no reason. He has no history of substance abuse and no medical conditions. What is the most likely diagnosis?
a. Dementia
b. Delirium
c. Schizophrenia
d. Depression

6. Given the diagnosis in this case, what is the most common type?
a. Paranoid schizophrenia
b. Major depression
c. Alzheimer's dementia
d. Hyperactive delirium

Historical Background to Psychiatric Diagnoses

As is the case in all of clinical medicine, effective treatment of disease starts with an accurate diagnosis. Therapeutic strategies are developed based on clinical observation and a perceived understanding of the etiology of an illness. Historically, the **classification of psychiatric disorders and diseases has been problematic**. Over the years there has been little agreement on a standardized method of diag-

nosing psychiatric illness. In addition, the nomenclatures that have been developed are under perpetual revision and have differed depending on their frame of reference (e.g., phenomenology, etiology, symptom presentation, or clinical course). Some classification systems tend to lump all mental illnesses into small numbers of broad diagnosis categories, while others have split the categories into thousands. Another confounding variable has been the setting in which the system is intended to be used. A system intended for use by clinicians is likely to differ from a system whose principle objective is use in a research or statistical setting. This ambiguity over diagnostic classification of psychiatric illness has contributed to the widely held belief that psychiatry and behavioral medicine are "soft" science that is not rooted in the classical medical model. Although it is true that the classification of psychiatric disorders is an ever evolving process, that is because the field is responding to the dramatic advances and new discoveries taking place in the behavioral and social sciences.

Stigma and Mental Illness

The stigma associated with mental illness is still pervasive, deriving from erroneous beliefs about witchcraft and "possession" to farcical movies like *Analyze That,* which perpetuate myths and stereotypes. Although there have been significant advances in the treatment and understanding of mental illness, ignorance and discrimination persist. The Substance Abuse and Mental Health Services Administration (SAMHSA) of the U.S. government disseminates accurate information about mental illness through its web site, www.samsha.gov, and a number of mental health information and anti-stigma programs such as What a Difference a Friend Makes, www.whatadifference.org.

The initial effort to develop a classification system for mental illnesses in the United States took place as part of the 1840 census. It consisted of an attempt to record the frequency of insanity in America. In order to accomplish this task, a description or definition of insanity was needed. Unfortunately, the patients were likely representative of a number of different psychiatric illnesses. By 1880, the census bureau included seven distinct categories of mental illness but had established limited operational or descriptive criteria. In 1917, the Committee on Statistics of the American Psychiatric Association, the National Commission on Mental Hygiene, and the Bureau of the Census, for the first time, gathered statistics from mental institutions across the country in an attempt to establish a uniform system of mental illness. Today the World Health Organization (WHO) publishes the International Classification of Diseases (ICD). This is the standard for the classification of all diseases worldwide, and it establishes code numbers for each disease. It was not until the sixth edition of ICD (ICD-6) that mental illnesses were included. A variant of ICD-6 was developed by the American Psychological Association and published in 1952. It was titled the *Diagnosis and*

Disability-Adjusted Life-Year

Q. What is a DALY?

A. A disability-adjusted life-year.

Q. What does that mean?

A. It is a measurement that combines the impact of illness, disability, and mortality on a patient.

Q. What disease causes a significant burden?

A. Depression and other neuropsychiatric disorders head the list.

Statistical Manual: Mental Disorders (DSM-I). This was the **first official manual of mental illness to focus on clinical utility** and remains the standard of classifying psychiatric disorders in the United States and much of the world. As of 2007, DSM-IV TR (fourth edition, text revision) is the most recent version; however, the fifth edition, DSM-V, is in production.

Since its inception in 1952, the *Diagnostic and Statistical Manual* has been under **consistent and ongoing revision**. Each new version reflects the efforts of disease-specific work groups made up of clinicians and clinical research experts in the field. The Task and Work Groups that developed DSM-IV used a three-stage empirical process that, for the first time, included a comprehensive survey of the peer-reviewed literature, reanalysis of existing data, and extensive field trials. Few, if any, other medical specialties have committed the resources necessary to reevaluate their classification systems.

Multi-axial System of DSM

The multi-axial system consists of five distinct axes. Axis I includes all clinical disorders and other conditions that may be a focus of psychiatric attention, Axis II lists personality disorders and mental retardation, Axis III documents general medical conditions, Axis IV describes psychosocial and environmental problems, and Axis V provides an assessment of global functioning. This multi-axial system is consistent with a biopsychosocial approach to disease.

DSM-IV TR Classification of Mental Disorders: Primary Diagnostic Categories

I. Disorders First Diagnosed in Infancy, Childhood, or Adolescence
II. Delirium, Dementia, and Cognitive Disorders
III. Mental Disorders Due to General Medical Condition
IV. Substance-Related Disorders
V. Schizophrenia and Other Psychotic Disorders
VI. Mood Disorders
VII. Anxiety Disorders

VIII. Somatoform Disorders
IX. Factitious Disorders
X. Dissociative Disorders
XI. Sexual and Gender Identity Disorders
XII. Eating Disorders
XIII. Sleep Disorders
XIV. Impulsive Control Disorder (not otherwise stated)
XV. Adjustment Disorders
XVI. Personality Disorders (Axis-II)
XVII. Other conditions that may be a focus of clinical attention

Delirium

Definition. Delirium is defined as a syndrome of **impaired consciousness**, attention, cognition, and perception, which **develops suddenly and fluctuates** during the course of the day. The incidence varies widely depending on the study and the group studied. Reports ranges from 4 percent up to 56 percent.

The **signs or symptoms** of delirium include the following: varying levels of arousal, ranging from somnolence to hyperarousal and hypervigilance; inability to sustain, direct, or shift attention appropriately; fluctuating levels of alertness and awareness; impairment of memory; incoherence of thought and speech; and perceptual disturbance (illusions and hallucinations, most commonly visual). Other associated features include reversal of the sleep-wake cycle, psychomotor agitation or retardation, motor abnormality (tremors, myoclonus, ataxia, asterixis, reflex and muscle tone changes), affective lability, and autonomic hyperactivity (dilated pupils, tachycardia, fever, sweating, and pilomotor response).

There are **three types** of delirium: (**1) Hyperactive—**typically caused by withdrawal states (alcohol, sedative-hypnotic, and barbiturates), as well as structural brain lesions, metabolic etiologies, infection (both CNS and peripheral etiologies) and medication side effects and interactions. Hyperactive delirium is the most common type of delirium. EEG shows low-voltage fast-activity attenuation of amplitude. (**2) Hypoactive—**typically caused by renal failure. EEG shows slowing and increased latency of brain-evoked potential. (**3) Mixed—** shows both patterns on EEG.

The **risk factors** for delirium include children, elderly, postcardiotomy, posttransplant, posthip surgery, burns, preexisting brain

The mnemonic "I WATCH DEATH" outlines the possible etiologies of delirium:

I—Infectious: encephalitis, meningitis, HIV, syphilis, pneumonia, UTI, etc.

W—Withdrawal states: alcohol, barbiturates, sedative-hypnotic

A—Acute metabolic: acidosis, alkalosis, electrolyte disturbances, liver and renal failure

T—Trauma: heat stroke, postoperative trauma, severe burns

C—CNS pathology: abscess, hemorrhage, normal pressure hydrocephalus, seizure, CVA, tumor, vasculitis

H—Hypoxic states: anemia, carbon monoxide poisoning, hypotension, pulmonary or cardiac failure

D—Deficiencies: B_{12}, hypovitaminosis, niacin and thiamine

E—Endocrinopathies: hyper- and hypo-adrenalism, thyroidism, glycemia

A—Acute vascular: hypertensive encephalopathy, shock

T—Toxins/drugs: prescribed medications, drugs of abuse, pesticides, solvents

H—Heavy metals: lead, mercury, manganese

Source: Hales and Yudofsky (2002).

damage, chronic diseases, substance dependence, hearing and visual impairment, and high fever.

Epidemiology. The prevalence of delirium in medically and surgically ill patients is 11 to 16 percent; its incidence varies between 4 percent and 31 percent, with a peak incidence in the surgical ICU. Twenty-five percent of delirious hospitalized patients die within six months of discharge.

The **workup** starts with having a high index of suspicion. Where possible, take a detailed history (onset, trauma, preexisting disease, and medications), review the chart or record (labs, nursing and doctors' records of change in behavior), review past and present records of vital signs, and review medications (correlating change in behavior with stopping or starting medication).

Conduct a thorough **physical examination** including a mental status examination; note appearance, behavior, psychomotor activity, speech (flow, coherence), mood and affect, perception, and thought process and content. Also conduct a mini-mental status examination and a neurological and complete systems examination.

Lab studies include ABG, EKG, CXR, EEG, CBC + Diff., sedimentation rate, serum chemistry (electrolytes, albumin, BUN, NH4+, Glucose, Ca++, LFT, TFT), urinalysis, and urine culture. Based on clinical judgment, the following may be ordered: imaging study of the brain, drug screen, lumbar-puncture heavy metals assay, and B_{12} and folate.

Treatment. *Nonmedication treatment* consists of placing the patient in a well-lit room with a window near the nursing station for close observation, reorienting the patient by placing a calendar, clock, and other familiar objects in the patient's room, and educating and reassuring the family and the patient about his condition. *Medication treatment* consists of discontinuing all nonessential medications, treating the underlying condition causing the delirium, controlling agitation with low-dose antipsychotics, and avoiding benzodiazepines except in treating alcohol withdrawal delirium.

The **prognosis** depends on the underlying condition. Delirium usually resolves following appropriate treatment.

Dementia

Definition. Dementia is a clinical syndrome marked by multiple areas of cognitive impairment without impairment of consciousness. The *Diagnostic and Statistical Manual* (DSM-IV TR) outlines the diagnostic criteria as memory impairment plus

- a deficit in any of the following: language, general intellectual functioning, problem-solving skills, and learning; and
- the deficit has affected the individual's social and occupational functioning and represents a decline from the previous level of functioning.

A diagnosis of dementia should not be made during the course of an episode of delirium.

Epidemiology. The rate of dementia in the population increases with age, ranging from 5 percent of those age 65, to about 40 percent of those age 95 and above. More than half of nursing home beds are occupied by patients with dementia.

Types of Dementia. The **first approach to classification** of dementia deals with reversibility. Dementia has been classified as **reversible** (about 17 percent of all dementias are reversible if discovered early) . Common causes of reversible dementia include depression (pseudodementia), B_{12} and folate deficiency, tumor, subdural hematoma, hydrocephalus , as well as metabolic causes,. Approximately 80 percent of all dementias are **irreversible.** The commonest in this category is Alzheimer's disease; of all patients with dementia, more than half have the Alzheimer's type.

A **second approach to the classification** of dementia is to distinguish cortical versus subcortical dementias. **Cortical** dementia involves predominantly the cerebral cortex and presents commonly with *the four A's: a*mnesia, *a*phasia, *a*pathy, and *a*gnosia. Examples of cortical dementia are Alzheimer's, Pick's disease, and Lewy body dementia. **Subcortical** dementias involve predominantly the deep gray and white matter structures, including the basal ganglia, thalamus, and their

Etiologies of Dementia

- **Degenerative**
  Alzheimer's disease, vascular disease, Lewy body dementia, Parkinson's disease, frontotemporal disease (Pick's disease), and Huntington's disease
- **Inherited metabolic**
  Wilson's disease, adrenoleukodystrophy, and Gaucher's disease
- **Toxic metabolic** (potentially reversible)
  Wernicke-Korsakoff syndrome, B_{12} deficiency, hypothyroidism, and hypercalcemia
- **Infectious**
  HIV dementia complex and prion-related diseases (e.g., Creutzfeldt-Jakob disease, Gerstmann-Sträussler disease, fatal familial insomnia)

frontal lobe projections. These present mainly with impairments in memory, psychomotor retardation, apathy, and mood and personality changes. Examples of subcortical dementias are Huntington's disease, Parkinson's disease, Wilson's disease, and HIV dementias. **Mixed** dementias are characterized by a mixture of cortical and subcortical structures and features. An example is vascular dementia.

The **third approach to classification** is to broadly define the etiology of the dementia. This classification seems to be the clearest and most ubiquitously used method. The categories most commonly used in this approach are degenerative, inherited metabolic, toxic metabolic, and infectious.

Assessment. The assessment for dementia includes taking a complete history from the patient, family members, or caretaker; conducting a full neurological exam; doing a careful review of systems; and performing a mental or mini-mental status examination. Laboratory tests include CBC + differential, metabolic screen (electrolytes, glucose, BUN, calcium/phosphorus, B_{12}/folate); thyroid function tests; fluorescent treponemal antibody absorption test (FTA-ABS); urine analysis and culture; EKG; Serum HIV (if there are risk factors); drug screen (if drugs are suspected), imaging (brain CAT scan or MRI scan), and neuropsychological testing.

The **approach to treatment** involves the following:

1. Early identification and treatment of reversible causes (e.g., prescribing antidepressants for depression or replacement of B_{12})
2. Halting the progression of and controlling risk factors (e.g., controlling blood pressure and reducing lipids in vascular dementia)

Table 13.1

Distinguishing Cortical vs. Subcortical Dementia		
Feature	**Cortical**	**Subcortical**
Anatomy	Cerebral cortex	Basal ganglia, thalamus, dorsolateral prefrontal cortex
Language	Involved	Not involved
Memory		
• Recall	Impaired	Impaired
• Recognition	Impaired	Spared
Mood	Depression less common	Depression more common
Motor system	Spared until late	Impaired early
Executive function	Proportionately affected	Disproportionately affected
Personality	Unconcerned or disinhibited	Slowed or withdrawn

Table 13.2

Delirium and Dementia Contrasted		
Feature	**Delirium**	**Dementia**
Onset	Acute	Gradual
Clouding of consciousness	Present	Absent
Impaired attention	Present	Absent
Disorientation	Present	Absent
Speech (incoherence)	Present	Absent
Waxing and waning	Present	Absent
Perceptual disturbance	Present	Absent
Sleep-wake cycle	Reversed	Normal
Insight	Impaired	Impaired
Memory	Impaired	Impaired
Thought process	Impaired	Impaired
Nocturnal exacerbation	Present	Absent
Psychomotor agitation/retardation	Present	Absent

Note: The features above that are present in delirium may also be present in late dementia. During the lucid phase of delirium, the patient may appear completely normal.

3. Pharmacological treatment (e.g., cholinesterase inhibitors for Alzheimer's disease)
4. Education (e.g., providing information about the disease course and services available)

Enmeshment of Major Psychiatric Disorders and Medical Disorders

It has long been understood that **certain psychiatric disorders can modify and even help cause major medical problems** such as cardiovascular disorders, cerebrovascular disorders, and cancers. A growing body of literature illustrates this phenomenon, and several theories attempt to explain the pathophysiology of the disease modification mechanisms. Conversely, medical disorders such as dementias, delirium, and collagen vascular disorders often have psychotic or affective features. Examples include an Alzheimer's patient with paranoid delusions, a Parkinson's patient with auditory or visual hallucinations, and a lupus patient with cerebritis causing paranoid delusions.

One example of this enmeshment is the effect of depression on cardiovascular disease. Epidemiological studies have indicated that

depression may have a distinct role as a possible modifiable risk factor for the development of cardiovascular disease. Also, studies have been done and replicated to prove that the development of depression after a myocardial infarction (MI) worsens morbidity and mortality. There are current theories of why this association occurs, with most of the contemporary work being done on platelet adherence and platelet receptor changes that develop in depression.

Biological Theories Linking Depression and Cardiovascular Disease (CVD)

- **Hypothalamic-pituitary-adrenocortical hyperactivity —** This phenomenon has been understood to occur in depressed states and has been proven by measuring increased cortisol levels during major depressive episodes and recording the results of dexamethasone stimulation tests. The effect of persistently elevated cortisol levels on the vascular system, as a whole, is deleterious. Therefore, depression-induced hypercortisolemia may have a disease-defining negative effect on the cardiovascular system, thus connecting the two disorders.
- **Sympathoadrenal dysregulation**—Depression has been shown to cause elevated circulating levels of norepinephrine and its metabolites, which, in turn, have a negative effect on the vascular tree and may be another potential link between depression and CVD.
- **Diminished heart rate variability (HRV)**—Most of the studies done with this theory show that depressed patients without CVD have a decreased ability to alter their heart rate. The loss of ability to effectively alter your heart rate can lead to the possibility of lethal ventricular arrhythmias, particularly after having a myocardial infarction. The development of depression after an MI has been proven to worsen morbidity and mortality for this very reason.
- **Alterations in platelet receptors or reactivity**—The most promising body of data and greatest active studies in this arena have to do with platelet receptor changes caused by depression that can lead to increased platelet adherence and aggregation, which leads directly to increased thrombus formation and cerebrovascular accident (CVA) and MI.

Schizophrenia and Other Psychotic Disorders

Schizophrenia

Schizophrenia is a chronic disorder that affects 1 percent of the general population; it occurs in all cultures and in all socioeconomic groups. Although it affects equal numbers of males and females, the onset of the disorder in males is typically between fifteen and twenty-five, whereas in females the onset is between twenty-five and thirty-five. The etiology is due to a combination of genetic and environmental factors, as demonstrated by twin studies.

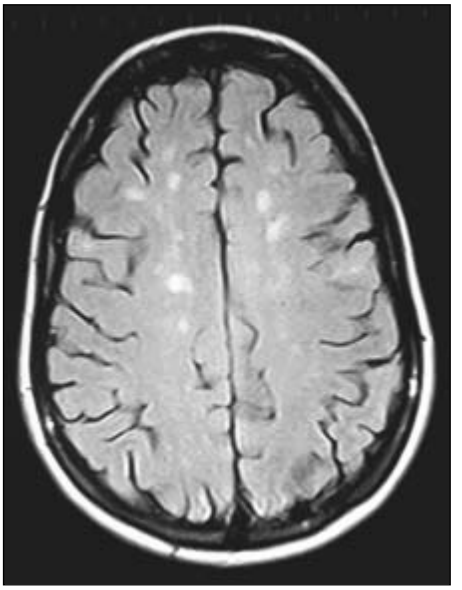


Figure 13.1 MRI of the brain.

According to DSM-IV, schizophrenia is a disorder that lasts for at least six months and involves a marked decline in social and occupational functioning. It is characterized by the presence of two or more of the following (criterion A): delusions, hallucinations (most commonly auditory, but all five sensory modalities are possible), disorganized speech, grossly disorganized or catatonic behavior, and negative symptoms (affective flattening, alogia, avolition).

There are **five subtypes** of schizophrenia: **Paranoid** schizophrenia is characterized by a preoccupation with one or more delusions or frequent auditory hallucinations and is the most common. **Disorganized** schizophrenia is characterized by disorganized speech, disorganized behavior, and flat or inappropriate affect, but not catatonia. **Catatonic** schizophrenia is characterized by at least two of the following: motoric immobility; excessive motor activity that is purposeless; extreme negativism or mutism; peculiarities of voluntary movement such as posturing, stereotyped movements, mannerisms, and grimacing; echolalia or echopraxia. **Undifferentiated** schizophrenia is characterized by at least two symptoms (criterion A) of schizophrenia, but does not meet criteria for paranoid, disorganized, or catatonic types. Finally, **residual** schizophrenia is characterized by the absence of prominent delusions, hallucinations, disorganized speech, and grossly disorganized or catatonic behavior. However, people with residual schizophrenia still have evidence of the disturbance and display at least two of the criteria for schizophrenia (criterion A).

Imaging studies have revealed numerous abnormalities in the brains of schizophrenics. The most consistently demonstrated abnormality is enlargement of the lateral ventricles.

The treatment of schizophrenia involves a combination of medical and psychosocial interventions. Hospitalization may be necessary for an acute exacerbation. The drugs of choice are the antipsychotics, either atypical (e.g., clozapine, risperidone) or typical (e.g., haloperidol, chlorpromazine).

Schizophreniform Disorder

The presentation and symptoms of schizophreniform disorder are similar to those of schizophrenia, except that the duration is one to six months and the diagnosis does not require a decline in functioning. Approximately one-third of patients diagnosed with schizophreniform disorder recover, and two-thirds progress to schizophrenia or schizoaffective disorder. The treatment is the same as for schizophrenia.

Brief Psychotic Disorder

Brief psychotic disorder is characterized by a sudden onset of confused behavior, featuring at least one of the following: delusions, hallucinations, disorganized speech, or grossly disorganized or catatonic behavior. The episode lasts at least one day and not longer than one month; the patient returns fully to premorbid functioning within one month of onset. It may occur with or without a marked stressor or within four weeks postpartum. The onset is typically in adolescence to early adulthood. It is treated with antipsychotics and hospitalization as needed.

Schizoaffective Disorder

Schizoaffective disorder has features of both schizophrenia and mood disorders. It occurs in less than 1 percent of the population, and the onset is usually in early adulthood. The etiology is unknown. It is characterized by an uninterrupted period of time in which there is a major depressive episode (with depressed mood), a manic episode, or a mixed episode, in addition to at least two symptoms of schizophrenia (criterion A). During the same period of time, there must be either delusions or hallucinations for at least two weeks in the absence of mood symptoms. There are **two subtypes, bipolar and depressive**. The prognosis is better for patients with schizoaffective

disorder than it is for patients with schizophrenia, but worse than for mood disorders. It is treated with a combination of antipsychotics, mood stabilizers, and antidepressants, hospitalization, and psychosocial support as needed.

Delusional Disorder

Delusional disorder is rare, with an estimated prevalence of 0.03 percent. The average age of onset is in the forties, but it can range from eighteen to the nineties. Females are more likely to be diagnosed with the disorder. It is characterized by one or more nonbizarre delusions that persist for at least one month. Nonbizarre delusions involve situations that can occur in real life (e.g., people are following me), whereas bizarre delusions are clearly out of the ordinary, not understandable, and not related to ordinary experience (e.g., my thoughts are controlled by ray gun transmissions from Mars). Individuals with delusional disorder often seem normal in both behavior and appearance (when not talking about their delusions). Social and marital functioning are more likely to be impaired than occupational or intellectual functioning.

There are **five main subtypes**. A patient with the **erotomanic** type has the delusion that another person (usually someone of higher status) is in love with the him. A patient with the **grandiose** type has delusions of power, knowledge, special talents, inflated self-worth, or a special relationship with someone famous. A patient with the **jealous** type has the delusion that his spouse or lover is unfaithful. A patient with the **persecutory** type has delusions that he is being conspired against, cheated on, poisoned, or maltreated in some way. Finally, a patient with the **somatic** type has delusions that he posses some physical defect or medical condition (e.g., he emits a foul odor, has an infestation or a parasite). Treatment for this condition is usually outpatient and may involve low-dose antipsychotics.

Shared Psychotic Disorder (*Folie à deux*)

In a shared psychotic disorder, a delusion develops in an individual who is in a close relationship with another person (the "dominant" person), who already has a psychotic disorder with prominent delusions. The second individual's delusion is similar to the dominant person's delusions. Treatment involves separating the individual with the adapted delusion from the dominant person. Antipsychotics, family therapy, and individual psychotherapy are also used, and the dominant person needs treatment, as well.

Depression

- According to the World Health Organization, by the year 2020 mood disorders will be the second leading cause of morbidity worldwide. In 2000 it was fourth on the morbidity list. Depression is more common than diabetes or asthma in a family setting.
- All clinicians, regardless of their specialty choice, will need to be able to recognize and treat or refer patients with mood disorders.

Mood Disorders

Everyone has experienced a low mood or felt down at some time in her life. Feeling sad over a loss is labeled "feeling depressed" in the common vernacular. However, a psychiatric diagnosis of major depression is distinct from "feeling depressed." Depressive disorders are an important component of clinical medicine and are thoroughly discussed in the DSM system. This group of disorders is labeled "mood disorders" and includes syndromes that have disturbance in mood as the predominant symptom. The chapter in *DSM* on mood disorders is divided into three sections. The first section describes episodes of mood changes and includes major depressive episode, manic episode, mixed episode, and hypnotic episode. Although not listed as separate clinical entities, and lacking unique diagnostic codes, they are the key component to the various mood disorders. The second section describes the mood disorders along with their specific diagnostic criteria. These disorders include major depressive disorder, dysthymic disorder, and bipolar disorder. The third section lists specifiers that describe the course of recurrent episodes or the most recent mood episode. The mood disorders are subdivided into depressive disorders, bipolar disorders, mood disorders due to a general medical condition, and substance-induced mood disorders. Prior editions of the *DSM* have called major depression "unipolar depression" and bipolar disorder "manic depression." Older medical literature may use those terms. Although the *DSM* has historically separated mood disorders from anxiety disorders for descriptive purposes, in the actual clinical setting patients commonly present with overlapping symptoms.

The lifetime risk for **major depressive disorder** ranges from 10 percent to 25 percent for women and from 5 percent to 12 percent for men, making it one **of the most common disorders in all of clinical medicine**. Overall, the prevalence seems to be unrelated to ethnicity, education level, income, or marital status. However, living in poverty and being single, divorced, or widowed have been reported as risk factors for depression. Depression can present at any age, although the symptoms may vary with age of onset. The average age of initial presentation is in the mid-twenties. The illness is episodic; over 50 percent of patients who experience one episode have a second, and those with

two episodes have a 70 percent chance of experiencing more episodes.

Symptoms of a Major Depressive Episode

- Depressed mood
- Anhedonia
- Weight gain or loss of 5% or more
- Insomnia or hypersomnia
- Psychomotor agitation or retardation
- Anergia
- Excessive guilt
- Loss of attention or concentration
- Recurrent suicidal ideation

Major Depressive Episode

A major depressive episode (MDE) is hallmarked by a period lasting at least two weeks in which a person experiences a loss of interest or pleasure in most activities or exhibits a depressed mood nearly all of the time. The two-week time frame is particularly important in helping distinguish this disorder from the normal ups and downs of life. A person experiencing a major depressive disorder may have brief periods of improved mood and still meet the criteria. Children and adolescents often present with irritability rather than sadness. Other symptoms associated with a major depressive disorder include changes in sleep, appetite, or weight; feelings of hopelessness, helplessness, worthlessness, or guilt; problems maintaining concentration; decreased energy and motivation; and thoughts of death or suicidal ideation. Patients experiencing these symptoms often suffer in silence and do not report the feelings to their doctor, even when asked. Major depression is roughly twice as common in women and is a recurrent illness in both sexes.

Manic Episode

A manic episode is defined as an abnormally and persistently elevated, expensive, or irritable mood lasting at least one week. In addition to the distinct mood, three symptoms from the following list must be present: inflated self-esteem, decreased need for sleep, flight of ideas, rapid-pressured speech, distractibility, and excessive involvement in pleasurable activities with a high potential for negative consequences with little or no insight. Manic patients are often hypersexual and frequently dress in bright-colored, provocative clothing.

Symptoms of a Manic Episode

- Elevated/irritable mood
- Decreased need for sleep
- Grandiosity
- Pressured speech
- Flight of ideas
- Distractibility
- More goal directed activities
- Increase in pleasurable activities

Major Depressive Disorder

A major depressive disorder (MDD) is defined as one or more depressive episodes without a history of a manic or hypomanic episode. Mood disturbances secondary to substance (drug) use or a

medical condition do not count toward a diagnosis of major depressive disorder. In addition, the episode cannot be a result of other psychiatric illness. Major depressive disorder is classified in the DSM system as single-episode (used only for the initial episode) or recurrent-episode. It is highly prevalent in the adult population, with a lifetime risk from 10 percent to 25 percent for women and from 5 percent to 12 percent for men. Overall prevalence rates are unrelated to ethnicity, education level, income, or marital status. However, minorities and less educated, poor, and divorced individuals may be at risk. The peak incidence is between twenty-five and forty-four in men and women.

Bipolar Disorders

The *DSM* divides bipolar disorders (BD) into bipolar I, bipolar II, cyclothymic, and bipolar not otherwise specified. **Bipolar I** is characterized by one or more manic episodes. The patient may also have had one or more major depressive episodes. Unlike major depression, bipolar disorder is equally common in men and women; it almost always presents before age forty. In more than 90 percent of patients with Bipolar I disorder, the illness is recurrent.

Bipolar II disorder is characterized by the occurrence of one or more major depressive episodes and at least one hypomanic episode. Bipolar II may be more common in women than in men, with the immediate postpartum period being a time of increased risk for exacerbation in women with the disorder. The lifetime prevalence is approximately 0.5 percent in community samples.

Cyclothymic disorder is a chronic, fluctuating mood disorder hallmarked by numerous episodes of hypomanic symptoms and depressive symptoms. The hypomanic symptoms do not meet the criteria for a manic episode, and the depressive symptoms do not meet the criteria for a major depressive episode. The symptomatic period must last for at least two years, the nonsymptomatic period for more than two months. Cyclothymic disorder is equally common in men and women and has a lifetime relevance of 0.4 percent to 1 percent in community studies. Approximately 15 percent to 50 percent of individuals with cyclothymic disorder will subsequently develop bipolar I disorder or bipolar II disorder.

Anxiety Disorders

Like depression, anxiety is a common, naturally occurring human emotion. We feel sad or depressed after experiencing a loss and anx-

ious when anticipating a stressful event. Anxiety occurs with positive and negative life events. For example, anticipating a long-awaited vacation, preparing to interview a medical student, and waiting for the results of a potentially malignant biopsy can all result in anxious feelings. This is normal. In fact, low to moderate levels of anxiety can enhance survival skills by preparing the body to fight or flee and the mind to sharpen concentration. When anxious feelings become too intense or persist for extended periods of time, however, the mind and body lose the ability to adapt to the stress, and physical symptoms may emerge.

Although the physical and emotional symptoms of acute anxious mood states and anxiety disorders are similar, their etiology and treatment differ. The advances made in neuroscience, psychology, and psychiatry over the past quarter century have drastically altered our understanding of anxiety disorders. Of all the diseases discussed in the *DSM,* none have changed more from DSM-I to DSM-IV than anxiety disorders. This group of mental disorders is probably the most common form of psychiatric disease encountered in clinical medicine.

Fast Facts: Anxiety Disorders

- Public speaking is the most common social phobia.
- The family physician sees more patients with anxiety disorders than with diabetes or hypertension.
- Acute stress and anxiety have been shown to negatively alter immune functioning.
- The terrorist attacks of September 11, 2001, likely produced the largest number of post-traumatic stress disorder cases in U.S. history.
- Patients with panic disorder are 400% more likely to have an alcohol use disorder than the general population.
- 4 to 6 cups of regular coffee provide enough caffeine to induce attacks in panic-prone patients. Reducing the intake of caffeine is particularly important for such individuals.

Anxiety disorders cause such intense psychic pain, patients with panic disorder often experience symptoms similar to those of a heart attack (i.e., chest pain radiating down the arm, racing heart, sweating, and weakness in the hands). Over 50 percent of patients with anxiety disorder will also suffer from major depressive episodes. In fact, some clinical researchers believe mood and anxiety disorders should be considered as a continuum. The DSM system continues to classify mood disorders and anxiety disorders as separate clinical entities; however, DSM-IV includes in its appendix "Research Criteria for Mixed Anxiety-Depressive Disorder."

The Biosocial Perspective of Anxiety Disorders

Although all of the anxiety disorders share the common symptom of an anxious mood as part of the clinical presentation, the biologic component of the underlying etiology varies dramatically. For example, panic disorder, which routinely presents "out of the blue," seems

Table 13.3

DSM-IV TR Anxiety Disorders	
Disorder	**Characteristics**
Agoraphobia	Avoidance of situations or places where fleeing is difficult
Panic disorder	Recurrent out-of-the-blue attacks of intense anxiety
Specific phobia	Provoked by exposure to specific object or situation
Obsessive-compulsive	Obsessive thoughts with compulsive behavior to neutralize anxiety
Post-traumatic stress (PTSD)	Flashbacks, nightmares, avoidance following traumatic events
Acute stress	Like PTSD, occurs immediately after extremely traumatic events
Generalized anxiety	Six months of persistent anxiety

to be much more biologically based than post-traumatic stress disorder (PTSD), which is a direct result of exposure to a highly stressful life event. Despite this difference, biologic vulnerability is important even in post-traumatic stress disorder. The September 11, 2001, attacks on the World Trade Center and Pentagon were highly stressful events for the U.S. population, yet not everyone suffered PSTD symptoms. Patients with panic disorder will often report that a stressful life event or anticipated stressful situation exacerbates their panic symptoms.

Evaluation and treatment of all of the anxiety disorders require a comprehensive biopsychosocial approach. Eliciting a family history (to determine whether anxiety or drug use runs in the family, among other things), assessing current life stresses and the patient's coping styles, and determining how the patient has dealt with prior light stresses or anxiety are essential. Effective treatment strategies include anxiolytic medication and stress reduction techniques (hypnosis, biofeedback, meditation, psychotherapy, and lifestyle alterations). Reducing the intake of caffeine is particularly important for anxiety-prone individuals.

Somatoform Disorders

This group of disorders is defined by physical symptoms that are not fully explained by a general medical disorder, substance abuse or dependence, or another mental illness. By definition, these symptoms

must cause impairment in social, occupational, or other areas of functioning. They must also lead to clinically significant distress.

The somatoform disorders are divided into five distinct subtypes: somatization disorder (hysteria, Briquet's syndrom), conversion disorder, hypochondriasis, pain disorder, and body dysmorphic disorder. The following sections discuss those subtypes, including the specific cardinal symptoms of each and a salient example of their presentation to primary care offices.

Somatization Disorder (Hysteria, Briquet's Syndrome)

Symptoms must begin before age thirty, extend over a period of years, and include a history of pain related to at least four different sites (head, abdomen, back, extremities, joints, chest, rectum) *or* functions (menstruation, intercourse, urination). There must also be a history of at least two gastrointestinal symptoms (nausea, vomiting, diarrhea, abdominal bloating).

CASE STUDY

Delores is a forty-year-old female who presented to a gastroenterologist's office after many visits to her family doctor and gynecologist for twenty years. In that time her complaints varied greatly, were quite colorful, and were often exaggerated, and she endured an extensive workup, including many blood tests, CAT scans, MRIs, sigmoidoscopies, a colonoscopy, colposcopies, and abdominal and pelvic ultrasounds. The results of the tests were always negative. Delores had been on multiple medications, leading to real and imagined side effects, without resolution of her symptoms. She complained routinely of persistent anxiety and depressed mood. Her personal life was fraught with marital discord (including domestic violence perpetrated by her husband on her and all of their children, beginning when the kids were two years old) and impulsive behavior including suicide threats and gestures. She denied substance use, and her denial was supported by multiple negative urine drug screens. She refused to seek psychiatric care and was convinced that surgery would cure her.

The gastroenterologist, Stuart Guttmann, had completed his fellowship one year ago at a prestigious Ivy League hospital. He examined Delores thoroughly and found no significant abnormalities. He excused himself and reread her extensive records sent two days earlier from her previous physician encounters. Upon reentering the exam room, he found Delores tearful

and demonstrative. This diffused his plan of dismissing her complaints as unfounded and led to another colonoscopy.

The colonoscopy, as expected, was negative. All subsequent studies were also negative. Delores was eventually referred to a psychiatristfor evaluation. (Note: Confidentiality was essential, since her husband is a faculty member at ECMS, and, always remember, staff talks to staff, and faculty talks to faculty—too often in the public elevators.) The psychiatrist's findings were consistent for somatization disorder. Treatment involved a single identified physician caretaker, as well as both individual and group psychotherapy, with good results.

Conversion Disorder

One or more symptoms that affect voluntary motor or sensory function must be present. Symptoms will also seem to suggest a primary neurological or medical condition, although a workup will be negative.

CASE STUDY

Rose is a thirty-five-year-old female with four children who range from five to thirteen years of age. She is a stay-at-home mom whose husband is often away on business as a pharmaceutical salesman. In the last year, her eldest daughter (thirteen-year-old Sandra) has become more and more oppositional and defiant toward Rose. On the evening before her thirteenth birthday, Sandra became extremely hostile toward her mother over a trivial matter. The argument that ensued was verbally aggressive and became physically violent when Rose slapped her daughter in the face, causing Sandra's lip to bleed significantly. In the twenty-four hours that followed that altercation, Rose developed paralysis of her right arm and went to the local emergency room. She was seen by the emergency doctor, who completed an extensive neurological workup, including an MRI and neurology consult, which yielded entirely negative results. A psychiatry consult was called, and under the influence of sodium amytal, the patient's symptoms fully resolved. The psychiatrist's diagnosis was conversion disorder, brought about by slapping her daughter with the very upper extremity that became transiently paralyzed.

Hypochondriasis

For a diagnosis of hypochondriasis, the patient must have a preoccupation with the fear of contracting a disease or a belief of having a se-

rious disease. The medical evaluation must be negative. The preoccupation must cause clinically significant distress and impairment of functioning and last at least six months.

CASE STUDY

Jerome is a second-year medical student who studies intensely and receives excellent grades. One week after his neurology exam Jerome became convinced that he had contracted multiple sclerosis. During the remainder of the school year he saw three neurologists and had four MRIs and two lumbar punctures, all of which were negative. He subsequently failed his second year. The dean agreed to allow him to repeat the year only after he received clearance from a psychiatrist he was mandated to see. Treatment consisted primarily of group psychotherapy and insight-oriented individual therapy and was eventually successful.

Pain Disorder

For a diagnosis of pain disorder, the patient must have pain in one or more anatomical locations severe enough to warrant clinical attention. The pain must cause significant distress and functional impairment. There must be no medical or neurological etiology of the pain, and the patient must not be intentionally feigning symptoms.

CASE STUDY

Donna is a thirty-six-year-old female who suffered a hairline fracture of her right fifth digit seven months ago. She has continued to complain of pain in that area. She has been seen by a multitude of clinicians, including orthopedists and pain specialists, with entirely negative results on X-rays and MRIs and CAT scans. No discernible secondary gain was involved. The patient refused psychiatric evaluation and continued to seek out health care providers to explain her persistent pain, with poor results.

Body Dysmorphic Disorder

For a diagnosis of body dysmorphic disorder, the patient must have a preoccupation with an imagined defect in appearance, leading to significant distress and decreased functioning, and the symptoms must not be consistent with another psychiatric diagnosis, such as anorexia nervosa.

CASE STUDY

Tiffany is a nineteen-year-old college student from a wealthy family who has endured twelve cosmetic surgeries to correct perceived physical defects. Despite these surgeries and multiple complications from the procedures, Tiffany is extremely unhappy with her appearance. At the behest of her father, who paid for all the surgeries, Tiffany began to see a psychiatrist, who placed her on Prozac, with eventual significant diminution of her symptoms.

Personality Disorders

CASE STUDIES: BOTH TRUE

The third set of steel barred doors clanged shut. The narrow corridor runs past rooms that are windowless except for the large viewing space cut into the doors of the cubicles on each side of the hallway. In the fourth cubicle is a small table with two chairs. The guard stands outside while the man inside stares at the floor, hands folded in his lap. A key is inserted in the slot, and the door swings open. The straight-backed metal chair is cold and hard. The young man sits across the table, arms and legs connected by links of steel. His eyes are cold, clear and distant, reptilian. The words "LOVE" and "HATE" are tattooed across his fingers. As the interview progresses, he says, "It wasn't my fault, Doc. I told him to lay on the floor and not to move, but he moved. So I pumped five bullets in his head, but it was not my fault, it was his."

The multiple scars on her arms look like road maps of north New Jersey: hundreds of intersecting roads and crossroads interconnected in time and space. It is her fifteenth psychiatric hospitalization, this one following a near lethal overdose of sleeping pills. Early in the hospitalization she regards her doctor as "wonderful," but after a few days, the doctor is called "an uncaring bitch." This pattern is repeated as the hospitalization progresses: Staff are described extremely positively or negatively. As time progresses, both she and the staff are glad that discharge is imminent.

There is a possibly apocryphal story about how personality disorders began to be classified. The psychiatrist Carl Menninger was once

asked to help the U.S. government in understanding and treating soldiers after World War II. There was a large group of men who did not fit previous psychiatric classifications. They were not psychotic, manic, or depressed, and they did not suffer from anxiety disorders (or "shell shock"). Nonetheless, they had significant difficulties, especially in terms of relating to others. On the airplane trip to England (where the soldiers were), Menninger wrote down his thoughts of a new set of classifications on the back of an envelope. This was the legendary beginning of the concept of personality disorders.

It is useful to contrast personality traits and personality disorders. All of us have personality traits, while (thankfully) relatively few of us have personality disorders. **Personality traits** can be conceptualized as enduring patterns of perceiving, relating to, and thinking about oneself and one's world. When traits become inflexible and maladaptive and result in significant functional impairment or subjective distress, they have crossed the line, and the individual is considered to have a **personality disorder**. The maladaptive traits follow common patterns. They begin in adolescence or early adulthood and are stable and enduring. They are inflexible and constant across a wide range of interpersonal situations. Thinking, emotional reactions, and behaviors are influenced by these traits, and they lead to social and occupational dysfunction.

Individuals with personality disorders are at high risk for developing other problems, which complicates the treatment for these comorbid conditions. Personality disorders are frequently codiagnosed (on average about 30 percent) in a number of conditions: eating disorders, chronic pain, family violence, drug and alcohol abuse, chronic anxiety, and long-standing depression. While the presence of a personality disorder increases risk for suicide attempts, there is no significant difference in the degree of risk for the subtypes. Overall, it is estimated that about 10 to 12 percent of the general population can be diagnosed with a personality disorder.

The large number of personality disorder subtypes can be grouped into three clusters: (1) the odd, eccentric, and estranged; (2) the impulsive, unstable, and untrustworthy; and (3) the anxious, avoidant, and deferent. As the different subtypes of personality disorders are reviewed, it will become apparent that they have overlapping features. This leads to problems in accurate diagnosis. Personality disorders have the lowest diagnostic reliability of all conditions of all psychiatric diagnoses As such, it is best not to get caught up in establishing a specific diagnosis. Rather, recognizing that a personality disorder is present and which "cluster" it likely reflects is a more effective diagnostic strategy.

Cluster A: The Odd, Eccentric, and Estranged

This cluster includes the schizoid, the schizotypal, and the paranoid personality disorders. A unifying theme in this group of disorders is strange, skewed, and surreal thinking that affects the patient's perception of the world and relationships. People with **schizoid personality disorder** are viewed as emotionally cold and distant. It seems that they have little desire to form relationships and do not find pleasure in interpersonal connections. Individuals with **schizotypal personality disorder** have even greater oddness in their thinking, often believing they have special abilities and feeling that "something funny is going on" with others. Robert De Niro's character in *Taxi Driver* is thought to have been based on a schizotypal personality disorder. Further along in this dimension is the **paranoid personality disorde**r. The person with this disorder systemically distrusts others and their motives.

Cluster B: The Impulsive, Unstable, and Untrustworthy

"High drama" is the unifying theme for this subgroup of disorders. The excesses, egocentricities, and extravagances of the people who have these disorders often lead them to be memorable characters in books and films. Individuals with **antisocial personality disorder** demonstrate a flagrant disregard of social rules and conventions, demonstrating little empathy or concern for others (remember Al Pacino in *Scarface*). People with **histrionic personality disorder** are highly emotionally reactive, negotiating the world through intuition and acting as if the purpose of others is to serve or admire them (Nathan Lane in *The Bird Cage*). Further along this dimension of "specialness" is the **borderline personality disorder**, characterized by rapid shifts in relationships (people are wonderful until they become monsters), unstable mood, and underlying fear of abandonment (Glenn Close in *Fatal Attraction*). The last disorder in this cluster is the **narcissistic personality disorder**, named after the youth from the Greek myth (Narcissus) who fell in love with his image in a pool of water and subsequently drowned. People with this disorder believe they should be given extra advantages or consideration because of their specialness.

Personality Disorders

- **Cluster A**
  - Schizoidal
  - Schizotypal
  - Paranoid
- **Cluster B**
  - Antisocial
  - Histrionic
  - Borderline
  - Narcissistic
- **Cluster C**
  - Obsessive-compulsive
  - Avoidant
  - Dependent

Cluster C: The Anxious, Avoidant, and Deferent

Fear, fussiness, fixation, and control serve as the unifying themes for this subgroup of disorders. People with **obsessive-compulsive personality disorder** (portrayed by Jack Nicholson in *As Good As It Gets*) get caught up in details, rumination, and rituals as ways to control anxiety. At times, the imposition of the need to get it *exactly right* will impede simple activities, such as leaving the house. Management of anxiety through withdrawal is the *modus operandi* of the person with **avoidant personality disorder**, whose fear of rejection leads to the feared outcome (no meaningful relationships). Imagine an author who has not been seen in public for over thirty-five years after the publication of his most famous book. In contrast, individuals with **dependent personality disorder** are "overconnected" to others, in need of continuous support and encouragement, and willing to let others dictate all aspects of their life in exchange for feeling secure.

Mental Retardation (Developmental Disabilities)

Mental retardation is defined by IQ range and overall functional capacity.

There are many etiologies that can lead to the diagnosis of mental retardation. Common causes include genetic predisposition, maternal infections, and birth trauma. Common **genetic causes** include:

- Down syndrome
- Fragile X syndrome
- Prader-Willi syndrome
- Angelman syndrome
- Williams syndrome
- Tuberous sclerosis
- Phenylketonuria
- Cri-du-chat syndrome
- Rett's syndrome
- Klinefelter's syndrome

Common **prenatal acquired causes** include:

- Rubella
- Cytomegalic inclusion disease
- Syphilis
- Toxoplasmosis
- Herpes simplex
- AIDS
- Fetal alcohol syndrome
- Illicit drug exposure
- Anticonvulsant exposure in utero.

Table 13.4

IQ and Mental Age by Type of Mental Retardation		
Type	**IQ Range**	**Mental Age (Years)**
Mild	50–69	9–12
Moderate	35–49	6–9
Severe	20–34	3–6
Profound	< 20	< 3

Common **perinatal acquired causes** include:

Prematurity
Malnutrition
Cerebral palsy

Adaptive functioning is measured in the areas of communication, self-care, home living, social and interpersonal skills, use of community resources, self-direction, functional academic skills, work, leisure, health, and personal safety.

Step Prep

1. A seventy-six-year-old female presenting with hypertension, diabetes mellitus, arthritis, and hyperlipidemia was brought to the hospital by her daughter. She had difficulty sleeping and had been prescribed sleeping pills by her doctor. The daughter said she had been increasingly confused and talked about seeing strangers in her room. She was awake all night. The patient was awake but disoriented to time, day, month, and year and could not give a coherent history. Her vital signs were as follows: temperature, 98.2°F.; pulse, 82; blood pressure, 140/85; oxygen saturation, 98 percent. Review of systems was significant only for arthritic extremities. Her electrocardiogram, CBC, and serum electrolytes were normal. Review of her medication bag showed an antihypertensive, Lipitor, Glucophage, temazepam, alprazolam, diazepam, naproxen, and several over-the-counter medications. What is the most likely diagnosis?

a. Dementia
b. Delirium
c. Schizophrenia
d. Depression

2. Given the diagnosis in this case, what is the most common type?

a. Paranoid schizophrenia

b. Major depression

c. Alzheimer's dementia

d. Hyperactive delirium

3. Joe got a phone call from his wife, Trisha, about her seventy-two-year-old grandmother Mildred, who has become increasingly forgetful. She misplaces things and accuses her children of stealing them. She forgets discussions she had with people, as well as phone numbers. She now heavily relies on her diary, which she frequently misplaces. Trisha reported that Mildred had on one occasion left the house and was unable to find her way home. She was also reported to be having difficulty with sleeping. Mildred has always been very active. She worked most of her life and retired at the age of sixty-six after the death of her husband, Charles. Her only physical illnesses have been hypertension (treated with medication), obesity, and nondebilitating arthritis controlled with naproxen. Further questioning revealed that the patient's father, who died at the age of eighty, had a problem with memory. Physical examination revealed the following: temperature, 98.1°F.; pulse, 80; blood pressure, 146/80; oxygen saturation, 100 percent. A review of systems was significant for impairment of recent memory, as well as attention and concentration. Mental status examination was significant for paranoid ideation and mini-mental status score was 22/30. CBC, B_{12}/folate, ESR, RPR, TFT, Chem7, and urinalysis/culture were done and were normal. A SPECT scan of the brain showed diffuse brain atrophy mainly in the parietal lobes. What is the most likely diagnosis?

a. Dementia

b. Delirium

c. Schizophrenia

d. Depression

4. Given the diagnosis in this case, what is the most common type?

a. Paranoid schizophrenia

b. Major depression

c. Alzheimer's dementia

d. Hyperactive delirium

5. A twenty-four-year-old male was brought to the ER after aggressively yelling at strangers, accusing them of trying to kill him. He was dressed inappropriately, wearing many layers of clothing, and had not bathed in some time. He refused to speak with the ER doctor, but his family said that the young man had become gradually more

withdrawn socially over the past year. At home, he refused to eat meals prepared by his mother because he believed that the food was poisoned. He was up at odd hours of the night, and his family had observed him talking to himself and occasionally lashing out at them for no reason. He has no history of substance abuse and no medical conditions. What is the most likely diagnosis?

a. Dementia
b. Delirium
c. Schizophrenia
d. Depression

6. Given the diagnosis in this case, what is the most common type?

a. Paranoid schizophrenia
b. Major depression
c. Alzheimer's dementia
d. Hyperactive delirium

Suggested Readings and Web Sites for the Highly Motivated

American Psychiatric Association, www.psych.org

American Psychiatric Association (2000). *APA Practice Guidelines for the Treatment of Psychiatric Disorders: Compendium 2000.* Washington, DC: American Psychiatric Association.

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Hales, Robert, and Yudofsky, Stuart (2002). *The American Psychiatric Publishing Textbook of Clinical Psychiatry*, 3rd ed. Washington, DC: American Psychiatric Press.

National Institute of Mental Health, www.nimh.nih.gov

Sadock, B., and Sadock, V., eds. (2000). *Kaplan and Sadock's Comprehensive Textbook of Psychiatry* (7th ed.). Philadelphia: Lippincott Williams and Wilkins.

Substance Abuse and Mental Health Services Administration, www.samsha.gov

Answers to Step Prep

1. b
2. d
3. a
4. c
5. c
6. a

SECTION

IV

OUR WORLD

14 SOCIAL AND CULTURAL ISSUES IN HEALTH CARE

Ellen H. Sholevar, MD, and David Baron, MSEd, DO

Without health . . . it will be impossible for us to have permanent success in business, in property getting, and in acquiring education. . . . Without health and long life all else fails.

—BOOKER T. WASHINGTON

The physicians staffing the psychiatric emergency room are on the front lines of the social and cultural disparities in health care. They lead one of the most demanding and volatile services in the university hospital.

MENU

- Understand the impact of disparities on health outcomes.
- Describe reasons for the disparities in health care.
- Portray issues of cultural competency.
- List key facts about complementary and alternative medicine.
- List possible solutions to health disparities.
- Depict ways to train medical students and physicians in cultural issues.

Introduction

There have been dramatic advances in health in this century. Maternal mortality has gone from 73 to 8.8 per 100,000 live births. Life expectancy has gone from 47 to 78 years. Infant mortality has gone from 58 per 1000 to 7 per 1000. However, in the United States and around the world, social and economic factors influence access to and quality of health care. Those variations lead to dramatically different health outcomes. For example, over 1 million newborns die in sub-Saharan Africa on a yearly basis. For the most part, these infants could be saved with simple health care interventions that are, unfortunately, unavailable to them.

In the United States, all available indicators reveal that good health and high-quality health care are enjoyed by only some segments of the population, while many American citizens still have poor health and substandard health care. Even more troubling is the finding that the health care system, including well-intentioned medical students and physicians, may contribute to this unequal treatment.

Pre–Step Prep

Ms. Chan is a fifty-eight-year-old woman of mixed Chinese and Navaho descent. She is brought by the police to the busy emergency room of an inner-city university hospital at 1 A.M. complaining of chest pain. She has not seen a physician in five years but has spoken with a Native American healer. Her only income is from a Social Security

check, and she lives in a boarding home. She has a BMI of 50 and drinks about two 40-ounce bottles of beer per day. (Choose one correct answer for each of the questions below.)

1. Ms. Chan is likely:

a. Not to mention any mental health symptoms if she has them

b. To have the same chance as a white patient of dying of an alcohol-related disorder

c. To be an outlier in the use of a Native American healer

d. To be uninsured, as over 50 percent of Native Americans are uninsured

2. The physician who evaluates Ms. Chan is likely:

a. To be a member of a racial or ethnic minority

b. To assume that Ms. Chan will be noncompliant with the recommendations given for care

c. To order a comprehensive and aggressive evaluation

d. To spend over fifteen minutes taking the history

3. Ms. Chan gets an EKG, which suggests that she is having a myocardial infarction. She is admitted to the hospital. The third-year medical student interviewing her gets a history of weight loss, early morning awakening, despondent mood, and lack of interest in activities. The medical student should:

a. Inform the patient that depression is a treatable illness and that he will discuss antidepressant medication for her with the attending physician.

b. Ask about hopelessness and suicidal thoughts.

c. Reassure Ms. Chan that the physicians are taking good care of her and that she will be fine.

d. Explain to Ms. Chan that a native healer will be unable to help her.

4. After taking the history, the medical student goes to discuss the case with the resident and the attending physician. The attending physician understands many of the issues with Ms. Chan, as he is of Native American descent. The chances that the attending will be of Native American descent are:

a. 58%

b. 25%

c. 10%

d. 5%

e. Less than 1%

5. If the attending physician is of Native American descent, he is likely:

a. To have a higher income than a physician of Caucasian descent
b. To be less likely to treat low-socioeconomic status patients
c. To receive a patient satisfaction report that Ms. Chan is happy with her care and outcome
d. To be more negative about Ms. Chan's health risk behaviors (e.g., being overweight and alcohol consumption)
e. Not to return to his community of origin

6. People of Native American descent in the United States have a variety of serious health issues. Which one of the following is correct?

a. Native Americans are five times more likely than non-Hispanic white Americans to die of alcohol-related disorders.
b. The suicide rate for Native Americans is the same as for the majority population.
c. Over 50 percent of Native Americans are uninsured.
d. Native Americans have fewer disadvantages than African Americans.
e. Only a minority of Native Americans use traditional healing.

Fast Facts

- The **Civil Rights Act of 1965** was not only landmark civil rights legislation, but it also decreased discrimination in health care.
- "Of all forms of discrimination and inequalities, injustice in health is the most shocking and inhuman."—Martin Luther King, 1966 (quoted in Gamble and Stone, 2006)

History of Racial and Ethnic Disparities in Health Care

Although social and health inequalities in the world have existed for centuries, only recently has information been collected and disseminated in a format available to the public and to policy makers. Margaret Heckler, U.S. Secretary of Health and Human Services during the 1980s, directed the first report of the Task Force on Black and Minority Health in 1985. In 2002 a report by Surgeon General David Satcher and the Institute of Medicine (IOM), "Unequal Treatment: What Healthcare Providers Need to Know About Racial and Ethnic Disparities in Healthcare," furthered the effort to highlight needs in this area. The IOM report stated, "Although myriad sources contribute to these disparities, some evidence suggests that bias, prejudice, and stereotyping on the part of health care providers may contribute to differences in care."

The U.S. Congress has directed that yearly reports on health care quality and disparities be prepared. Those reports served as important benchmarks for the U.S. population. The first set of reports was issued in 2003. The 2005 *National Healthcare Quality Report* (NHQR) and *National Healthcare Disparities Report* (NHDR) revealed continued differences in the accessibility of health care for majority and minority citizens of the United States. The reports also noted some improvements, however.

- *The overall quality of U.S. health care improved.* There was greater improvement for minorities in some areas, including heart attack, heart failure, and pneumonia. Other encouraging trends were noted. For example, late-stage breast cancer decreased more rapidly in black women than in white women, lessening the disparity. Also, the treatment for heart failure of Native American Medicare beneficiaries improved more rapidly than that of white Medicare beneficiaries.
- *A troubling trend was noted with Hispanics, however.* Disparities in both quality of care and access to care had increased in most areas measured. The quality of diabetes care declined, and the quality of patient-provider communication decreased.
- *Low-income people experienced the greatest health disparities.* The single largest access-to-care problem experienced by all groups except Asian Americans was lack of health insurance. The biggest problem for Asian Americans was lack of a primary care provider.

Mental Health: Culture, Race, and Ethnicity

The U.S. Surgeon General's 2001 report "Mental Health: Culture, Race and Ethnicity," a supplement to *Mental Health: A Report of the Surgeon General*, made the following points:

- "Mental health is fundamental to overall health and productivity."
- "The majority of people with diagnosable disorders, regardless of race or ethnicity, do not receive treatment."
- "The efficacy of mental health treatment is so well documented that the Surgeon General made this single, explicit recommendation for all people: Seek help if you have a mental health problem or think you have symptoms of a mental disorder."
- "Stigma is a major obstacle preventing people from getting help."
- Striking disparities in mental health care are found for racial and ethnic minorities."
- "Culture counts."

CASE STUDY: JULIETTE DERRICOTTE

In November 1931 Juliette Derricotte, dean of women at Fisk University, was injured in an automobile accident. She received care from a white physician in his office but was denied admission to a "whites only" hospital in Dalton, Georgia. She was cared for instead in an unkempt and dirty home in Dalton by an uneducated woman who provided medical care to local African Americans. She was finally transferred fifty miles away to a black ward in a Chattanooga hospital, where she died.

Healthcare Measurement Criteria

- **Quality:** (1) effectiveness, (2) patient safety, (3) timeliness, and (4) patient-centeredness
- **Access:** (1) facilitators to healthcare utilization and (2) barriers to health-care utilization
- **Patient need:** (1) staying healthy, (2) getting better, (3) living with illness or disability, and (4) coping with end-of-life issues

The National Association for the Advancement of Colored People (NAACP) used this incident in their battle to desegregate hospitals and obtain high-quality health care for blacks and other minorities. It was not until 1964 that the federal government outlawed racial discrimination in hospitals (Gamble and Stone, 2006).

Economic and Gender Disparities

Socioeconomic Status

Poor people experience less access to high-quality health care and are in worse health than people with more financial

Table 14.1

Three Largest Disparities in Quality of Health Care for Selected Groups		
Group	**Measure**	**Relative rate***
Black vs. White	New AIDS cases Children with hospital admission for asthma Left emergency department without being seen	10.4 3.7 1.9
Asian vs. White	Mental health treatment for serious mental illness Illness/injury care as soon as wanted Elderly with pneumococcal vaccine	1.6 1.6 1.5
American Indian/ Alaska Native vs. White	Prenatal care in first trimester Adults with patient-provider communication problems Children with advice about physical activity	2.1 1.8 1.3
Hispanic vs. non-Hispanic White	New AIDS cases Illness/injury care as soon as wanted Children with patient-provider communication problems	3.7 2.0 1.8
Poor vs. high income	Children with patient-provider communication problems Illness/injury care as soon as wanted Children with dental visit	3.3 2.3 2.0

Source: National Healthcare Disparities Report (2005), U.S. Agency for Healthcare Research and Quality.

*Note: *The relative rate is the rate for the stated group divided by the rate for the comparison group. For example, for the first measure listed, the rate of new AIDS cases for blacks is 10.4 times the rate of new AIDS cases for whites.*

resources. In the United States, socioeconomic status (SES) is closely linked to race and ethnicity: More non-Hispanic white people experience higher educational and income levels than Hispanic and African American members of society. Throughout the life cycle, from fetal and neonatal stages through child and adolescent to adult and elderly stages, the poor are in worse health.

Is there a causal relationship? Does poor health cause a decrease in socioeconomic status? Or does low socioeconomic status cause poor health? Are there genetic or racial differences that cause poorer health? Does the health care system—in particular, medical students, residents, and physicians—discriminate against poor people and racial minorities?

It is clear that many university hospitals where medical students and residents are trained serve low-income minority populations that present complex medical health, mental health, socioeconomic, and social problems that are daunting to medical students and attending physicians alike. Several studies document that both **medical students and practicing physicians recommend different care for minority patients** compared to non-minorities with identical clinical presentations. The studies were based on videos of students and physicians interacting with patients of different racial backgrounds.

What causes the disparities? At the level of the health care system, factors include financing, structure of care, and cultural and linguistic barriers. At the patient level, factors include patient preferences, refusal of treatment, poor adherence, and biological differences. Disparities also arise from the clinical encounter.

Minority Women

According to a 2005 report:

- Minority women are in worse health than white women, and about a quarter of women

The Tuskegee Study

In 1930, the Tuskegee Syphilis Study was started by the U.S. Health Service. Syphilis was studied in poor, black men in Macon County, Alabama. The participants were not told that they had syphilis, nor that they were participants in a study. Once it was clear that penicillin was effective in treating syphilis, participants were not treated nor told that effective treatment was available. The syphilis was allowed to take its course with disastrous results. In May 1997, President Bill Clinton officially apologized on behalf of the U.S. government.

Cervical Carcinoma

The U.S. military health care system looked at cervical carcinoma outcomes between white and minority women in the military service and found a significant difference, with black women having greater morbidity and mortality. Did biologic differences between the races account for the difference? No statistical differences were found in histologic or stage outcomes or in 5- and 10-year survival rates. The conclusion: "In an equal access, unbiased, nonracial environment, race is not an independent predictor of survival for patients with cervical carcinoma"

Source: Farley et al. (2001).

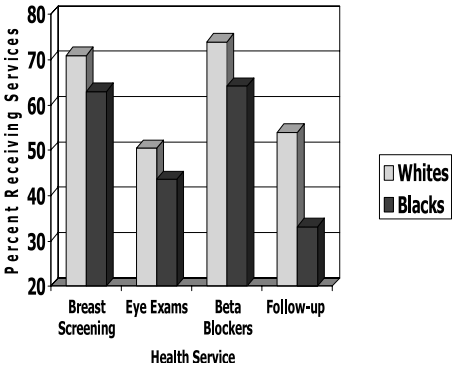

Figure 14.1 Among Medicare beneficiaries enrolled in managed care plans, African Americans receive poorer quality of care.

Source: Schneider et al. (2002).

Figure 14.2 The young physician in training expects to find directions and information provided in multiple languages in the hospital.

in the United States are racial and ethnic minorities.

- African American women in particular have higher mortality rates from heart disease and breast cancer than white women. Mortality is much higher in African American women and infants compared with white women and infants.
- The low status of women in many parts of the world contributes to disparities in their health care. However, improved literacy for women leads to better health for women and children.

Culturally Competent Care

Culturally competent care is essential in addressing the health care disparities that exist in the United States. The cultural identity of the patient is an important factor to evaluate, as well as the language(s) spoken at home and in the community and the degree of the patient's assimilation into the majority culture. In many instances, young people may be more familiar and comfortable with the host culture than parents and grandparents. This, however, may cause conflict within the generations and place additional stress on families.

Cultural explanations of illness and culture-specific support systems such as religious or community groups should be evaluated. Native healers or other designated individuals in the culture of origin should be discussed with respect and sensitivity. The patient's understanding of Western medicine and previous and current relationships with doctors should be understood.

Cultural differences in the expression of grief and mourning also should be understood. When a beloved family member is terminal or dies, some cultures mandate a very private and quiet handling of grief and mourning. In other cultures, crying and screaming are required to demonstrate proper respect for the loss of the family member. When

physicians from the host culture are sensitive to these issues, patients are likely to receive higher-quality care and to be more satisfied with their care.

Medical students and physicians may need access to language lines and trained interpreters to ensure clear communication with patients who speak another language.

As of 2006, the Joint Commission on Accreditation of Healthcare Organizations, which sets standards for hospitals and other health care organizations in the United States, requires provision of culturally and linguistically appropriate health care services and trained interpreters for patients with limited English proficiency.

The Office of Minority Health in the U.S. Department of Health and Human Services identifies the following features of culturally competent care:

- Patient-centered focus
- Effective physician-patient communication
- Balance of fact-centered and attitude- or skill-centered approaches to acquiring cultural competence
- Acquisition of cultural competence as a developmental process
- Understanding of alternative sources of care

Ethnicity in the Physician Workforce

Would increasing the diversity of gender, race, and ethnicity in the physician workforce reduce health care disparities? Probably yes, but there are inadequate data to be sure. Patients do report better outcomes when physician and patient share similar characteristics such as race, ethnicity, gender, and language, and minority physicians are more likely to treat low-SES patients. Minority physicians are also more likely to return to their communities of origin.

Racial, Ethnic, and Gender Characteristics

Of residents and fellows in ACGME-accredited programs in the U.S.:

- Males, 58%
- Females, 4%
- Asians, 25%
- Blacks, 5%
- Native Americans, Native Alaskans, and Pacific Islanders, 0.9%
- Whites, 54%
- Hispanics, 6%
- Other, 14%

Of practicing physicians in the U.S.:

- Male, 73%
- Female, 27%

Source: American Association of Medical Colleges, *Physician Specialty Data: A Chart Book*.

Culturally Different Patient Groups

African Americans

Contemporary African American life has been characterized by improvement in living standards

and high achievement, but at the same time, 25 percent of African Americans are at the lowest socioeconomic level. Many African Americans work at marginal jobs just above the poverty level, and 25 percent are uninsured. Many more may have only limited coverage.

African American patients are in worse health and have higher mortality rates than white patients, even when adjusted for socioeconomic status. It's not clear what factor or factors are responsible for this, but it seems unlikely that it is due to innate racial differences. There is evidence that it may be related to subtle racial bias on the part of physicians and other health care providers. Traditions of racism and discrimination are deeply rooted in U.S. society, and there are relatively few African American medical students and physicians for patients who prefer a provider of the same race.

Poor African American patients are often cared for in the "public system," and recent changes in federal and state funding have threatened the levels of care that can be provided for poor people. African Americans with mental health problems are more likely than whites to be misdiagnosed with a more severe disorder and are less likely to receive treatment.

What is the difference between race and ethnicity?

Black, white, and Asian are racial descriptors. Hispanic and Latino are ethnic despcriptors. Ethnics may be black, white, Asian, or a mixture of races and may identify themselves as such.

There is no clear way to categorize mixed-race individuals at this point. Tiger Woods, e.g., identifies himself as "Cablinasian," a term he originated to signify his heritage: 25% Thai, 25% African American, 12.5% Native American, and 12.5% Dutch. Some providers simply ask the patient how they identify themselves.

Hispanics

Hispanics are the fastest-growing and largest minority group in the United States. Thirty-one million U.S. residents age five and older report that they speak Spanish at home. Hispanic people come from the Americas, Europe, Africa, and Asia but are united by the Spanish language and culture.

Hispanic Americans have the lowest per capita income of any minority group in the United States. Thirty-seven percent lack health insurance, twice the rate seen in white Americans. Hispanic American young people have higher rates of mental illness, and all Hispanics are less likely to receive mental health care than nonHispanic white Americans.

Asian Americans and Pacific Islanders

Asian American and Pacific Islander (AAPI) peoples belong to forty-three different ethnic groups.

Among their strengths as a population are tendencies toward family cohesion and upward mobility. The 60 percent born outside of the United States as of 2001 are at risk because of pre-immigration trauma. The U.S. population of AAPI peoples is increasing rapidly. Their per capita income is almost comparable to that of whites, but there is wide variability.

The overall prevalence of mental health problems among AAPI peoples is comparable to that of the rest of the population. However, it is often hard for them to get mental health services due to language barriers. Few providers have the appropriate language skills. AAPI peoples have lower rates of utilization of mental health services and higher levels of acuity. Shame and stigma regarding mental health illness are high for this population.

Native Americans and Native Alaskans

Originally the dominant inhabitants of Alaska and North America, Native Americans and Native Alaskans were reduced to 5 percent of their original numbers when Europeans settled the country and began their westward expansion. Discriminatory practices against this population, their forced relocation to reservations, and other disruptions of native cultures have made them the most disadvantaged of all minority groups in the United States. Like African Americans, 25 percent live in poverty, and over 20 percent are uninsured. They are five times more likely than whites to die of alcohol-related disorders, and the suicide rate is 50 percent higher than the national rate.

This group is heterogeneous, often rural and isolated. There are five hundred federally recognized tribes. The Indian Health Service was established in 1955 to address their needs. Access to health care and mental health care is difficult. Traditional healing practices and spirituality are part of the cultural heritage of this group, and the majority use traditional healing.

Intersex Conditions

The incidence of intersex conditions is 1 out of every 1500 to 2000 live births. The Intersex Society of North America is devoted to systemic change to end shame, secrecy, and unwanted genital surgeries for people born with an anatomy that is not considered standard for male or female. Members have learned from listening to individuals and families dealing with intersex that intersexuality is primarily a problem of stigma and trauma, not gender.

- Honest, complete disclosure is good medicine.
- Parents' distress must not be treated by surgery on the child.
- Professional mental health care is essential.
- All children should be assigned a gender as boy or girl, without early surgery.

Source: Intersex Society of North America.

The Culture of Medicine

What is the culture of the medical "tribe" and its "subtribes"? The culture of medicine includes the following characteristics:

- Belief in the human body as a key to understand disease
- Belief in the traditions of Western medicine
- Belief in the need for acquisition of knowledge through the scientific method and empirical observation
- Belief in the interaction of environment, mind, and body
- A clearly delineated status system associated with level of education and academic rank in the academic medical centers where most medical students train
- Sufferance of the stigma related to patients with mental illness and to physicians who treat mental illness

In addition, dress is rigidly prescribed: Medical students wear short white coats; residents wear long white coats with their medical school emblem (tribal insignia), statement of "house staff" status, name of department (subtribe), and their name. Attending physicians wear long white coats with their medical school emblem, name of department, and their name. Most wear a stethoscope around the neck or carried in a pocket (another symbol of tribal affiliation and status).

Cultural views of illness that do not fit those listed above have traditionally been difficult for medical students and physicians to respond to. This has led to stereotyping and bias in the provision of health care in some cases.

CASE STUDY

A forty-four-year-old African American woman was admitted to the psychiatric service after a serious suicide attempt. She suffered from insulin-dependent diabetes, obesity, and hypertension. Her daughter had been in jail for five years on drug and prostitution charges, so she was caring for three grandchildren, and her son had been shot and killed. Her other two young adult children were in the home and were not attending school regularly. Her sixteen-year-old daughter was pregnant. The family lived in a dangerous, inner-city neighborhood in low-income housing that was poorly maintained. The patient was living on income from Social Security disability for her medical problems.

Her past psychiatric history included two previous hospitalizations for depression and two medical hospitalizations for diabetic ketoacidosis. The

family history revealed that the patient's father was unknown and her mother had a seizure disorder and a history of cocaine use. The patient had been placed in foster care at age two and lost contact with her ten siblings. She was physically and sexually abused while in foster care. When she returned to her mother's care at age fifteen, she became pregnant with her first child and dropped out of school.

The third-year medical student assigned to this patient on the service was a white, upper-middle-class male who had grown up in the suburbs and attended an excellent suburban high school and a private, Ivy League college. His physician father had always expected him to attend medical school. He felt overwhelmed and saddened by the enormity of this patient's problems, which seemed hopeless to him. Despite these feelings, he sat and talked with the patient on a daily basis and tried to understand her problems. She seemed to open up to him and looked forward to the meetings. She left after a few days, improved, and the medical student felt good that he had formed a relationship with this patient that may have been helpful to her.

Occupational and Environmental Health

Several U.S. government agencies monitor occupational health. The National Center for Environmental Health of the Centers for Disease Control "strives to promote health and quality of life by preventing or controlling those diseases or deaths that result from interactions between people and their environment." In addition, the National Institute for Occupational Safety and Health (NIOSH) and the National Institute of Environmental Health Sciences address occupational health and disparities.

According to NIOSH, the rate of traumatic occupational fatalities decreased by 33 percent between 1980 and 2000. The states with the highest fatality rates in 2000 were Alaska, Wyoming, and Montana. Male workers incurred 92 percent of fatal occupational injuries. White, non-Hispanic workers incurred 71 percent of fatal occupational injuries. White workers have slightly higher rates of fatal occupational injuries than workers of other races. Deaths due to motor

What is the world's most dangerous occupation? Commercial fishing in Alaska ranks high. Without special clothing, survival in the waters of the Bering Sea is measured in minutes. (Enjoy those king crab legs!)

vehicle accidents were the most frequent cause of fatal occupational injury.

Complementary and Alternative Medicine

Complementary medicine is used **in addition to** physician-prescribed medication or treatment. **Alternative medicine** is used **in place of** physician-prescribed medication or treatment.

Complementary and alternative medicine (CAM) includes biologically based practices (e.g., herbs, special diets, high-dose vitamins), energy medicine (e.g., energy fields such as magnetics), manipulative and body-based practices (e.g., manipulation and movement of body parts), and mind-body medicine (includes a variety of techniques). CAMs often are part of holistic systems, complete systems of theory and practice.

As many as 74.6 percent of U.S. adults have used CAM, most frequently for back pain, head colds, and neck pain. The most common CAM therapy is prayer. CAM use, including megavitamins and prayer, by ethnic group breaks down as follows: blacks, 71.3 percent; Asians, 61.7 percent; Hispanics, 61.4 percent; whites, 60.4 percent.

Step Prep

Ms. Chan is a fifty-eight-year-old woman of mixed Chinese and Navaho descent. She is brought by the police to the busy emergency room of an inner-city university hospital at 1 A.M. complaining of chest pain. She has not seen a physician in five years but has spoken with a Native American healer. Her only income is from a Social Security check, and she lives in a boarding home. She has a BMI of 50 and drinks about two 40-ounce bottles of beer per day. (Choose one correct answer for each of the questions below.)

1. Ms. Chan is likely:

a. Not to mention any mental health symptoms if she has them

b. To have the same chance as a white patient of dying of an alcohol-related disorder

c. To be an outlier in the use of a Native American healer

d. To be uninsured, as over 50 percent of Native Americans are uninsured

2. The physician who evaluates Ms. Chan is likely:

a. To be a member of a racial or ethnic minority
b. To assume that Ms. Chan will be noncompliant with the recommendations given for care
c. To order a comprehensive and aggressive evaluation
d. To spend over fifteen minutes taking the history

3. Ms. Chan gets an EKG, which suggests that she is having a myocardial infarction. She is admitted to the hospital. The third-year medical student interviewing her gets a history of weight loss, early morning awakening, despondent mood, and lack of interest in activities. The medical student should:

a. Inform the patient that depression is a treatable illness and that he will discuss antidepressant medication for her with the attending physician.
b. Ask about hopelessness and suicidal thoughts.
c. Reassure Ms. Chan that the physicians are taking good care of her and that she will be fine.
d. Explain to Ms. Chan that a native healer will be unable to help her.

4. After taking the history, the medical student goes to discuss the case with the resident and the attending physician. The attending physician understands many of the issues with Ms. Chan, as he is of Native American descent. The chances that the attending will be of Native American descent are:

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b. 25%
c. 10%
d. 5%
e. Less than 1%

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a. To have a higher income than a physician of Caucasian descent
b. To be less likely to treat low-socioeconomic status patients
c. To receive a patient satisfaction report that Ms. Chan is happy with her care and outcome
d. To be more negative about Ms. Chan's health risk behaviors (e.g., being overweight and alcohol consumption)
e. Not to return to his community of origin

6. People of Native American descent in the United States have a variety of serious health issues. Which one of the following is correct?

a. Native Americans are five times more likely than non-Hispanic white Americans to die of alcohol-related disorders.
b. The suicide rate for Native Americans is the same as for the majority population.
c. Over 50 percent of Native Americans are uninsured.
d. Native Americans have fewer disadvantages than African Americans.
e. Only a minority of Native Americans use traditional healing.

Suggested Readings and Web Sites for the Highly Motivated

American Association of Medical Colleges, Physician Specialty Data, www.aamc.org.

Braithwaite, R. L., Treadwell, H. M., and Arriola, K. R. (2005). Health Disparities and Incarcerated Women: A Population Ignored. *American Journal of Public Health,* 95(10): 1679–1681.

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Farley et al. (2001). Equal Care Ensures Equal Survival for African-American Women with Cervical Carcinoma. *Cancer* 91(4): 869–873.

Gamble, V. N., and Stone, D. (2006). U.S. Policy on Health Inequities: The Interplay of Politics and Research. *Journal of Health Politics, Policy and Law,* 31(1): 93–126.

Institute of Medicine, www.iom.edu.

Intersex Society of North America, www.isna.org.

Joint Commission on Accreditation of Healthcare Organizations, www.jointcommission.org

National Center for Complementary and Alternative Medicine, www.nccam.nih.gov.

National Center for Environmental Health, Centers for Disease Control, www.cdc.gov.

National Institute of Environmental Health Sciences, www.niehs.nih.gov.

National Institute for Occupational Safety and Health, www.cdc.gov.niosh.

Office of Minority Health, U.S. Department of Health and Humans Services, www.omhrc.gov.

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Smedley, B. D., Stith, A. Y., and Nelson, A. R. (2003). *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*. Washington, DC: National Academies Press.

U.S. Surgeon General's Office (1999). *Mental Health: A Report of the Surgeon General*. Washington, DC: U.S. Government Printing Office. Available at www.surgeongeneral.gov.

Answers to Step Prep

1. a
2. b
3. b
4. e
5. c
6. a

15 HEALTH POLICY AND ECONOMICS

Autumn Ning, MD

"A physician shall recognize a responsibility to participate in activities contributing to the improvement of the community and the betterment of public health . . . shall regard responsibility to the patient as paramount . . . and shall support access to medical care for all people."

—*The Principles of Medical Ethics* (American Medical Association)

A university hospital in an inner city, a common training site for physicians, struggles to keep the bottom line, as well as the patients, healthy.

MENU

Describe the following health care systems and issues:

- Managed care
- HMOs, PPOs and others
- Private health insurance
- Public health insurance
- Medicare, Medicaid
- The uninsured
- The underinsured
- Mental health care
- Health care regulation
  - FDA, JCAHO, HIPAA

List quality management issues relevant to the medical student and physician:

- Cost control as an ethically minded concept
- Problems with cost control and variations in care

Introduction

Providing for the health needs of a nation's population remains a complicated and controversial process, and different countries have adopted various strategies for managing the health care needs of their people. Nations such as Great Britain and Canada have historically adopted national health care systems that, in theory, provide everyone access to general medical care funded by the national government. Other countries, such as the United States, have developed a mixed system of public and private health insurance. Whether primarily public, private, or mixed, however, many systems are currently being reexamined as populations increase, funding and access to care are more limited, and technology and pharmacy costs are the highest they have ever been.

In the United States, health care coverage has evolved from a simple fee-for-service system (the patient pays directly for individual health care services) to a complicated system of public and private, often managed, health care. Public insurance consists of coverage

afforded by the Medicaid and Medicare systems. While Medicare is a federally funded program that covers all adults over sixty-five, Medicaid is a state-administered program that covers individuals who meet certain state-defined criteria for eligibility. Private insurance is largely employer sponsored, with a much smaller portion of private insurance being purchased by consumers directly from insurance companies. Whether publicly or privately insured, however, mental health needs have been grossly underestimated until recently and consumers have been very underserved. Additionally, there is a large segment of the population that is either uninsured or underinsured, whose physical and mental health needs have a sizeable effect on health care in the United States.

Pre–Step Prep

Lidia Hernandez is thirty-seven years old. She lost her husband in a hit-and-run car accident three weeks ago. Now a single mother of three children ages six, twelve, and seventeen, Lidia must find a job and become the primary provider for her family. A high school graduate, she has been offered a position as a clerk in a small office close to her home at minimum wage, but the job will not begin for another three weeks and does not offer health benefits. Her six-year-old daughter has asthma and has lately required visits to the emergency room every few weeks for episodes of asthma exacerbation. With the death of her husband, Lidia and her children have no insurance, having been covered through his job, and even then the $20 co-payments to the pediatrician were becoming onerous. Lidia's uncle, Marco, has come from Puerto Rico to live with Lidia to help her with the children and to provide support. Marco is sixty-six years old, has a history of depression, and was recently diagnosed with hypertension and high cholesterol, for which he takes two pills prescribed by his doctor. He is not currently receiving treatment for his depression, as it has been difficult to find an outpatient clinic that will take his insurance. (Select the single best answer for each of the questions that follow.)

1. As a single mother of three dependent children, and working at minimum wage, Lidia would most likely qualify and need to apply for what kind of health insurance for herself?

a. Medicare

b. Medicaid

c. SCHIP

d. Private insurance
e. Managed care

2. Lidia's children would mostly likely qualify for what kind of insurance?

a. Medicare
b. Medicaid
c. SCHIP
d. Private insurance
e. Medicaid or SCHIP

3. Because Marco is sixty-six years old, his medical insurance is covered by what federal program?

a. Medicare
b. Medicaid
c. SCHIP
d. Private insurance
e. Medicaid or SCHIP

4. The medication Marco takes for his high blood pressure and cholesterol may be covered by what program?

a. Medicare Part A
b. Medicare Part B
c. Medicare Part C
d. Medicare Part D
e. Medicare Part E

5. Mental health problems like Marco's depression are often missed in the patient interview, as the stigma of having mental illness may cause physicians to shy away from asking about it. Which of the following is true?

a. 1 in 4 adults has a diagnosable mental illness in a given year.
b. 1 in 17 adults suffers from serious mental illness.
c. Mental illness is the leading cause of disability in those age 15 to 45 in the United States.
d. None are true.
e. All are true.

6. Before Lidia's husband passed away, the Hernandez family had insurance coverage through Mr. Hernandez's job. Even though the $20 co-pay was a lot, given the number of times they have had to see the pediatrician lately, they continued to pay it because it allowed

them to see the pediatrician of their choice, who was out of their managed care network. Dr. Herrera is Spanish speaking, has an office in their neighborhood, and has treated all three of the Hernandez children since they were babies. What type of managed care organization would allow patients to see physicians outside of the managed care network for an additional co-pay?

a. HMO
b. PPO
c. POS
d. Behavioral health carve-out
e. Pharmacy benefit plan

Key Terms

Biostatistics: the application of statistics to topics in biology, including public health, clinical trials in medicine, genomics, and ecology.
Epidemiology: the scientific study of factors affecting health and illness in populations.
Health economics: the branch of economics concerned with issues related to public health and the health care industry, including the meaning and measurement of health status, the production of health and health care, the demand for health and health services, health economic evaluation, health insurance, the analysis of health care markets, health care financing, and hospital economics.

Managed Health Care

The idea of managed care was conceived by Dr. Paul Ellwood in the 1960s, as a way to contain rising medical costs. In its ideal form, managed care (which is largely for-profit) would provide **affordable care for everyone by focusing on preventive medicine, health maintenance, and monitoring** the use of care. Managed health care systems include health maintenance organizations (HMOs), preferred provider organizations (PPOs), point-of-service plans (POSs), and similar networks of physicians or hospitals that follow specific guidelines regarding the delivery of health care to a specific group of people at a predetermined rate or set of rates. Each of these systems offers a slightly different package in terms of what care is covered and to what degree, who may administer that care, and what the patient's financial contribution to that care will be.

Managed care did not fully come of age until the 1980s, however, due to a combination of regulatory restrictions and market acceptance. Fee-for-service medical care has been largely replaced by managed care, an outcome that has been con-

Market-driven Medicine

Dr. Paul Ellwood is the health policy analyst who coined the phrase **health maintenance organization** (HMO) in the 1960s. The term describes an organization that competes on the bases of price and quality and combines insurance and health care into a single entity. Dr. Ellwood wanted to apply market forces to the cost and quality of health care—thus, if health care became a competitive market, cost would be driven down and quality would be driven up.

troversial. Critics argue that for-profit, managed medicine has been unsuccessful in stemming the rising rate of medical inflation, which is several times higher than the inflation rate, and that corporations have earned billions of dollars while access to medical care for Americans has decreased and the number of uninsured have increased. On the other hand, critics may concede that resources are limited and that some means of apportioning care may be necessary. How that care is apportioned is an ongoing subject of debate.

Complaints of lack of choice and decreased access to care have raised concerns that for some health care providers profits have been more of a goal than improving health. Consequently, focus has shifted from the cost-saving aspects of managed care to the quality of care that is given. Doctors, hospitals, and the organizations that contract with them are being scrutinized. Access to the Internet and other sources of information have made patients more informed than they have ever been, and they are looking for ratings of performance and outcome measures and making their health choices accordingly. Many HMOs have responded to complaints of lack of choice by allowing patients to see doctors out of network without a referral. "Open HMOs"—also called "wraparound HMOs" or "point-of-service" (POS) plans—are now providing some coverage with co-pays for out-of-network services.

Managed care has traditionally been represented only in the realm of private insurance. In the past few years, however, some form of managed care has infiltrated both the Medicaid and Medicare systems. Aspects of managed care have been adopted to determine pharmacy benefits, manage behavioral health "carve-outs," and manage medical care itself.

HMOs

HMOs usually have some form of prepaid health plan through which comprehensive health services are covered for a set fee. Procedures, tests,

Premiums, Deductibles, and Co-pays

Premium: the amount of money an insurance company charges for insurance coverage.

Deductible: the amount of money a patient must pay out of pocket before their insurance plan will start paying for health expenses. Usually calculated annually.

Co-payment: also called co-insurance, the out-of-pocket expense for service that a patient must pay in addition to the deductible. To encourage patients to use their primary care physician and in-network doctors, managed care plans usually charge higher co-pays for out-of-network doctors and certain services such as emergency room visits and specialist care.

Example: The patient has a $100 annual deductible and a $20 co-pay for primary care visits. If the contracted cost of a visit to their primary care physician is $150, on the first visit the patient will pay $120—the $100 deductible and the $20 co-pay—and the insurance company will pay the remaining $30. On the second visit, the patient will pay only the $20 co-pay and the insurance company will pay the balance of $130.

The Veteran's Health Administration—A Success Story?

The federally funded Veteran's Health Administration in the U.S. Department of Veteran's Affairs (VA) might be seen as one of the country's largest managed care organizations. In 2005, the VA spent $31.5 billion on health care, VA hospitals treated 587,000 people, and VA outpatient clinics had 57.5 million visits. In the mid-1990s, VA hospitals were reputed to be dirty, dangerous facilities where patients received inadequate care. Since then, through some creative management and investment in information technology, the VA has become an unexpected leader in quality care. The NCQA rated the VA significantly higher than hospitals in the private sector.

and referrals to specialists often have to be approved before the HMO will pay for it. In different types of HMOs, doctors may be salaried to work in an HMO's facility, or the HMO may have contractual agreements with groups or individual physicians to provide care at a predetermined rate.

PPOs

PPOs contract with community doctors, hospitals, and other providers to provide health care at a previously determined discounted rate. Payment by the patient occurs when the care is received. In a PPO, patients may have greater flexibility in selecting the physician of their choice but at greater expense, usually in the form of a higher deductible or co-pay.

Accreditation of Managed Care

The National Committee for Quality Assurance (NCQA) is a private, not-for-profit organization that assesses and reports on the quality of managed care plans. Its focus on accreditation and performance measurement allows patients to make informed decisions regarding the purchase of a health care plan. Performance measures may include patient satisfaction, quality of care, and access to care. One anticipated effect of accreditation is to apply market pressure to improve the quality of health care. Approximately 75 percent of managed care plans are NCQA accredited—that is fast becoming a minimal standard, although it is not mandatory.

Private and Employer-funded Health Insurance

Most nonelderly Americans obtain health insurance coverage privately, as an employee benefit. Employers with many employees may receive a group rate from an insurance company, which is less expensive than an individual rate, where one person purchases health insurance independently. With the group rate, the cost is shared by employee and employer. Insurance coverage is

often extended to the employee's family, resulting in roughly half of Americans covered by employer health plans being employees and the other half being employee family members.

Businesses are not required to offer health insurance, so being employed does not necessarily mean one has insurance coverage. If the required premium is still too high despite the employer contribution, some employees may choose not to participate in the plan offered. Also, some employees may not be able to participate in their employer's health plan because they work only part-time or have not worked at the company long enough.

The number of firms offering health benefits is decreasing. According to a report by the nonprofit Kaiser Family foundation, 69 percent of firms offered health benefits in 2000; in 2006, only 61 percent of firms offered some health benefits to some of their employees. The decrease in the number of firms offering health benefits can be attributed primarily to the rising cost of health care. Even large firms are having difficulty affording health care costs.

The Case of GM

In 2005 General Motors was one of the few large firms left that offered fully paid health insurance to its employees, their families, and its retirees. In June of that year *USA Today* reported that, after a $1.1 billion quarterly loss, the company was looking to have employees share some of the cost of health coverage. The cost of providing health care for its employees was estimated to add as much as $1,500 to the cost of each of the 4.65 million vehicles sold by General Motors. Lee Iacocca, GM's chief executive officer, said it was well known that the auto industry spent more per car on health care than on steel. GM stood to save $1.4 billion in cash by charging its retirees $150 a month for health care.

Some companies have tried to hold the line on increasing health care costs by shifting some of the burden onto employees. Unfortunately, increasing health care expenses for employees (mostly by raising co-pays, deductibles, and premiums) will not be enough to overcome the rising costs of health care, prescription drugs, and new medical technologies, which are consistently outpacing the rate of inflation. Compounding the situation is the rapid growth in the elderly population.

If not provided by one's employer, health insurance may be purchased directly from an insurance company by an individual, but only 5 percent of Americans do that. Individual plans are much more expensive than group plans and often have more limited benefits. The Kaiser Family Foundation reported that in 2005, 60 percent of adults who sought private insurance coverage had difficulty finding a plan they could afford and that 20 percent were denied coverage, charged a higher price, or had a specific health condition excluded from coverage.

A Brief History of Public Health Legislation

- 1937—Technical Committee on Medical Care is formed (Children's Bureau, U.S. Public Health Service, Social Security Board).
- 1939—"National Health Act" is proposed. All employees and their dependents would be covered for physician care, hospital stays, medicines, lab tests, and diagnostics. Employees and employers would contribute to a health insurance fund. Bill was killed by the American Medical Association's National Physicians Committee.
- 1944—President Roosevelt declared "the right to adequate medical care and the opportunity to achieve and enjoy good health."
- 1945—President Truman calls for a comprehensive, prepaid medical insurance plan for all people administered by the Social Security system.
- 1947—Truman tries again, unsuccessfully.
- 1949—Truman tries again, this time proposing a compulsory national health insurance plan financed by federal payroll taxes.
- 1951—Truman forms the President's Commission on the Health Needs of the Nation to assess needs and recommend solutions.
- 1960—Amendments to Social Security are proposed, increasing federal grants to

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Public Health Insurance

Sixteen percent of Americans have their health insurance coverage provided by some public agency—this includes Medicare for the elderly, and Medicaid, SCHIP (State Children's Health Insurance Program), and other state programs for the eligible nonelderly.

Medicare

Medicare provides health insurance for the elderly (sixty-five and over) and the disabled. Federally funded and administered, it offers the following benefits:

- **Medicare Part A**—compulsory hospital insurance (covers care at a short-term nursing facility, hospice, and some home health care)
- **Medicare Part B**—voluntary medical insurance (covers physician services, outpatient services, preventive care, and the cost of durable medical equipment)
- **Medicare Part C**—voluntary managed care
- **Medicare Part D**—managed pharmacy benefits (covered under the Medicare Prescription Drug Improvement and Modernization Act of 2003, implemented in 2006)

Medicare costs have become a growing concern for politicians and the public, and in particular for the population of baby boomers who have just become the new elderly. Although Medicare costs are rising more slowly than health care costs in the private sector, the Medicare system is funding many more people and much more expensive care than originally anticipated. And indeed, Part A trust fund reserves are expected to be exhausted by 2018. Perhaps the greatest challenge Medicare has to face is covering the health care costs of the elderly and disabled in the face of a declining ratio of workers (people paying into the sys-

tem) to beneficiaries. The program still does not provide for dental care, vision care, or long-term care.

Until 2006, Medicare did not cover pharmacy benefits. Previously, some Medicare recipients may not have been able to pay out of pocket for prescription drugs. Without their medications, more people may require hospital admission to manage their medical issues acutely, resulting in increased cost to the system. The Medicare Prescription Drug Improvement and Modernization Act of 2003, among many things, attempted to address this problem by allowing for managed pharmacy benefits. The elderly and disabled choose among several plans offered in the health care marketplace. However, the selection of a plan is not simple, as deductibles, co-pays, premiums, and formulary choices differ with each plan.

As of July 2006, 90 percent of the 43 million individuals on Medicare had some kind of prescription drug coverage, either through Medicare Part D or some other source (employer-paid plans, the Veterans Health Administration, state programs, etc.). While only 10 percent of the Medicare population remains without a prescription drug benefit, 10 percent is *4.4 million Americans.*

There may be barriers associated with the voluntary enrollment provision of Medicare Part D. Individuals who decide to postpone participation may face a financial penalty. Some may not enroll at all. Some elderly and disabled may not be competent to navigate the complications associated with choosing and signing up for a particular plan. The formularies (lists of covered drugs) of some plans may not cover all of an individual's medication needs.

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states for medical programs for older people and for older people not on public assistance but without medical or disability insurance. President Kennedy appoints the Task Force on Health and Social Security for the American People to assess and prioritize health and welfare proposals.

- 1962—Kennedy asks that old-age, survivor, and disability provisions of the Social Security Act be amended to provide health insurance protection.
- 1964—U.S. Senate Special Committee on Aging, Subcommittee on Health of the Elderly, states that private insurance is unable to provide the large majority of older Americans with "adequate hospital protection at reasonable premium cost."
- 1965—President Johnson unveils a program proposing hospital insurance for the aged under Social Security and health care for needy children, which leads to enactment of Medicare and Medicaid legislation.
- 1972—Medicare is expanded to cover those under age sixty-five with permanent disabilities.

Medicaid

Medicaid is publicly funded health insurance for the poor and disabled. It is jointly funded by the federal and state governments and administered by the individual states. Medicaid coverage provides

Fast Facts: Medicaid

- *Poor* is defined as having an income of less than 100% of the federal poverty level, which in 2005 was less than $20,000 for a family of four.
- According to the Kaiser Family Foundation, a parent in a family of three, working full-time at minimum wage, could not qualify for Medicaid in 25 states in 2005.
- SCHIP covers children who are low income but whose families earn too much to qualify for Medicaid.

pharmacy benefits and has traditionally been comprehensive. States are required to cover those who meet poverty criteria. Some states, however, cover those who are up to several hundred percent above the poverty level, as these individuals are still too limited financially to afford other insurance coverage. Individual states are struggling more and more with limited budgets and poor populations with growing health needs. In many states, eligibility criteria are becoming stricter. While those who qualify may have comprehensive coverage, those who do not are often left uninsured, their health needs unmet.

Medicaid covers four main groups of nonelderly, low-income people: children, their parents, pregnant women, and people with disabilities. Half of all Medicaid beneficiaries are children. Together, Medicaid and SCHIP (State Children's Health Insurance Program) cover 34 million children. Despite this, there were still over 8.1 million uninsured children as of 2004. Up to 75 percent of those uninsured children may have been eligible for either Medicaid or SCHIP but were not enrolled. Some parents may not realize that their children are eligible. Some may have difficulty navigating the enrollment process.

Medicaid covers 8 million people with disabilities, which includes over 1 million disabled children. Eligibility for people with disabilities is often restricted, however, to those with incomes below the federal poverty level.

The Uninsured

Uninsured is defined as being without health insurance for twelve months. In 2005, **46 million Americans under sixty-five were uninsured.** If people who went without insurance for more than one month were included, the number of uninsured increases to 64 million. The number of uninsured does not include the 10 million illegal immigrants who are uninsured and reside in the United States.

Most people without insurance come from low-income working families. While many children from those families qualify for Medicaid or SCHIP, the low-income adults may only qualify for Medicaid if

they are pregnant, disabled, or have dependent children in the house. The uninsured are likely to be poorly educated, minorities, in poor health, or part of the near poor.

The uninsured are less likely to have regular outpatient care and are therefore more likely to be hospitalized for health problems that may have been avoidable. They are also less likely to receive timely preventive care such as screening tests for cervical and colon cancers, and often are diagnosed only in later stages of disease, when they become symptomatic and when the prognosis is much poorer. Indeed, the uninsured have a higher mortality rate than the insured. Some estimates suggest that providing insurance could reduce mortality by as much as 10 to 15 percent, amounting to about 18,000 preventable deaths per year.

The uninsured are twice as likely to come from households where there is difficulty paying for basic monthly expenses such as rent and food. When the cost of seeing a doctor is weighed against paying rent or buying food, medical care is often postponed or not sought at all. The uninsured may also be unable to comply with recommended treatments that are too expensive for them to afford. Uninsured children are at especially high risk for preventable hospitalizations and missed diagnoses of serious health conditions.

Federal spending on care for the uninsured has not kept pace with the growing number of uninsured. The cost of care for the uninsured in 2004 was estimated to be about $41 billion. Government spending available to pay for this was only about $34.6 billion, according to the Kaiser Family Foundation. Most of the money gets paid to hospitals, which provide treatment for a large portion of the uninsured. And charity care by physicians has been decreasing, due to time and financial constraints. As a result, those without insurance may actually be charged much

Fast Facts: The Uninsured

- 8 of 10 uninsured came from working families in 2005, almost 70% from families with one or more full-time workers, 11% from families with part-time workers.
- Only 19% of the uninsured are from families in which no one works.
- Adults are more likely to be uninsured than children.
- 1/3 of Hispanic and Native Americans are uninsured.
- 21% of African Americans are uninsured.
- 19% of Asians are uninsured.
- 80% of the uninsured are native or naturalized citizens; up to 50% of legal noncitizens may be uninsured.
- Almost 50% of all uninsured adults have a chronic health condition.
- Almost 60% of uninsured adults have gone more than two years without some kind of insurance coverage.
- 35% of uninsured were low-income adults without children, 22% were other adults without children.
- 16% of uninsured were low-income parents, 8% were other parents.
- 14% of uninsured were low-income children, 5% were other children.

Source: Henry J. Kaiser Family Foundation (2006).

Note: "Low income" includes those with family incomes less than 200% of the federal poverty level, which was $39,942 for a family of four in 2005.

Costs of Underinsurance

- The expense of uncovered services and cost sharing can quickly become overwhelming. In one recent year, 24% of insured families spent more than $2,000 on health care. Individuals with chronic illness spent significantly more, so much so that medical bills became the second-most frequently cited reason for declaring bankruptcy.
- The medical costs of postponing treatment can be severe: 36% of insured patients who postponed treatment reported temporary disability that included significant pain and suffering, and 14% reported long-term disability as a result. Serious consequences were even higher for those who never got the treatment they needed.

Source: Henry J. Kaiser Family Foundation (2006).

more for health care services than those with even minimal coverage.

The Underinsured

Tens of millions of Americans have health insurance, but the coverage it allows may limit access to or payment for needed health services. Having medical insurance is only the first step in accessing health care. In 2001, 10 percent of insured nonelderly adults reported that they lacked pharmacy benefits, 29 percent lacked dental coverage, and 37 percent lacked vision coverage.

Health insurance plans will typically cover hospital and physician care, but the extent of coverage will vary significantly. Cost-sharing provisions (in which the cost of treatment is shared between the insurance company and the patient) may include deductibles and co-pays. Individuals who purchase coverage on their own are more likely to have limits on coverage, mostly in the form of benefit restrictions or additional cost sharing. Maternity, mental health care, and prescription medication benefits are often limited. Limitations may also come in the form of benefit caps, under which an individual's paid coverage over their lifetime is capped at a predetermined maximum amount. Once the insurance company has spent that amount, it will not cover anything further.

Because of limited benefits or expensive cost sharing, even those who have insurance face many of the same barriers to treatment that the uninsured face. Confronted with having to pay hundreds of dollars out of pocket, patients may postpone seeking treatment, may not be able to get certain medications, or may avoid seeking treatment altogether, causing stress and disability and eventually increased expense in the form of missed days at work and decreased functionality. While those without insurance are the most at risk for serious financial and health consequences, research indicates that as much as a fifth of those with insurance are actually underinsured and will continue to have to make difficult decisions with regard to their care.

Mental Health Care

Mental illness is more common than has been realized until recently. The National Institute of Mental Health reports that

- 1 in 4 adults has a diagnosable mental disorder in any given year.
- 1 in 17 adults suffers from serious mental illness.
- Mental illness is the leading cause of disability in those age 15 to 54 in the United States.

The National Institute of Mental Health (NIMH) is one of 27 components of the National Institutes of Health (NIH), the federal government's principal biomedical and behavioral research agency. NIH is part of the U.S. Department of Health and Human Services.

Historically, mental health care has been varied and largely dependent on how mental illness and those with mental illness were perceived. This persists to some degree even today, as the stigma of mental illness still affects access to treatment. As with those who are uninsured and underinsured, those with mental illness tend to be marginalized in a way that prevents them from receiving the same level of care for either medical or mental issues, resulting in greater and more serious disease, with poorer prognoses.

In the 1970s and 1980s mental health care costs, primarily in the form of inpatient drug treatment and long-term psychotherapy, rose almost twice as fast as medical costs. Employers paying for those benefits responded by decreasing mental health benefits—to the point that patients and their families were paying for a significant portion of costs out of pocket.

As advocate groups and professionals in mental health became more outspoken regarding the inequity between medical and mental health care, research pointed more and more to the biological basis of mental illness, which forced insurers to acknowledge that mental illness resulted from more than just poor lifestyle decisions, as addiction was often viewed, or some kind of character weakness, as depression and anxiety disorders have been viewed. New pharmacological treatments and evidence-based psychotherapies quieted the notion that professionals are unable to agree on the diagnoses and treatment for mental disease.

A major breakthrough for mental health advocates came in 1996 with the passage of the Mental Health Parity Act. The act represented a declaration that mental health is no less important than medical health. More needs to be done, however. The mentally ill are still more likely to be medically sick or homeless than the general population. The

Mental Health Parity Act

The Mental Health Parity Act (MHPA) was signed into law on September 26, 1996. The act requires that annual or lifetime dollar limits on mental health benefits be no lower than any such dollar limits for medical and surgical benefits offered by a group health plan or health insurance issuer offering coverage in connection with a group health plan.

mentally ill die at a younger age, are more likely to be incarcerated, and experience decreased access to all health care, not just mental health care.

Almost one-quarter of mental health costs can be attributed to treating schizophrenia, amounting to $33–$65 billion per year in the United States, or between 1.5 percent and 3 percent of national health expenditures. With a prevalence of 1 to 2 percent of the population, patients with schizophrenia constitute 10 percent of the totally and permanently disabled population and consume 10 percent of Social Security benefits.

Health Care Regulation

U.S. Food and Drug Administration

In 2006, the U.S. Food and Drug Administration (FDA), the oldest consumer protection agency in the nation, commemorated the one-hundredth anniversary of its founding law, the 1906 Pure Food and Drugs Act. The FDA is the federal agency responsible for ensuring that foods are safe, wholesome, and sanitary; that human and veterinary drugs, biological products, and medical devices are safe and effective; that cosmetics are safe; and that electronic products that emit radiation are safe. The FDA also ensures that these products are honestly, accurately, and informatively represented to the public. The FDA is also responsible for advancing the public health by helping to speed innovations that make medicines and foods more effective, safer, and more affordable; and helping the public get the accurate, science-based information they need to use medicines and foods to improve their health.

Most commonly, physicians refer to FDA studies indicating safety, efficacy, and approved usages of prescribed medication.

Joint Commission for Accreditation of Healthcare Organizations

An independent, not-for-profit organization, the Joint Commission for Accreditation of Healthcare Organizations (JCAHO) is **the nation's predominant standard-setting and accrediting body in health care**. Its mission is "to continuously improve the safety and quality of care

provided to the public through the provision of health care accreditation and related services that support performance improvement in health care organizations." To earn and maintain accreditation, hospitals and other health care facilities must undergo an onsite survey by a Joint Commission survey team at least every three years. Laboratories must be surveyed every two years.

Joint Commission standards address the facility's level of performance in key functional areas, such as patient rights, patient treatment, and infection control. The standards focus not simply on an organization's ability to provide safe, high-quality care, but also on its actual performance. Standards set forth performance expectations for activities that affect the safety and quality of patient care. If an organization does the right things and does them well, there is a strong likelihood that its patients will experience good outcomes. The Joint Commission develops its standards in consultation with health care experts, physicians, measurement experts, employers, and patients.

Health Insurance Portability and Accountability Act

Passed by Congress in 1996, the Health Insurance Portability and Accountability Act (HIPAA) addresses several medical regulation issues, focusing on patient privacy and confidentiality and the electronic transmission of patient information.

Cost Control and Quality Management as Ethical Concepts

Cost control is a variant of rationing health care. Given limited resources, one may come to the conclusion that in order for all to have access to care, resources must somehow be divided among everyone. The question of who is to receive what kind of care—or, more broadly, how to divide those resources—is complicated and beyond the purview of this review. One way to keep costs of health care down, however, is to make sure that the care people receive is of good quality. Poor quality of care will only serve to increase costs over time, as patients will need further attention to their medical needs.

The concept of "quality management" of health care requires that the quality of health care will not fall below a particular standard of care and that unnecessary costs will not be incurred. The degree of oversight and monitoring required to maintain a standard of care is addressed in the psychiatric annotation to the American Medical

Association's principles of medical ethics: "It is ethical for a physician to submit his or her work to peer review and to the ultimate authority of the medical staff executive body and the hospital administration and its governing body."

Step Prep

Lidia Hernandez is thirty-seven years old. She lost her husband in a hit-and-run car accident three weeks ago. Now a single mother of three children ages six, twelve, and seventeen, Lidia must find a job and become the primary provider for her family. A high school graduate, she has been offered a position as a clerk in a small office close to her home at minimum wage, but the job will not begin for another three weeks and does not offer health benefits. Her six-year-old daughter has asthma and has lately required visits to the emergency room every few weeks for episodes of asthma exacerbation. With the death of her husband, Lidia and her children have no insurance, having been covered through his job, and even then the $20 co-payments to the pediatrician were becoming onerous. Lidia's uncle, Marco, has come from Puerto Rico to live with Lidia to help her with the children and to provide support. Marco is sixty-six years old, has a history of depression, and was recently diagnosed with hypertension and high cholesterol, for which he takes two pills prescribed by his doctor. He is not currently receiving treatment for his depression, as it has been difficult to find an outpatient clinic that will take his insurance. (Select the single best answer for each of the questions that follow.)

1. As a single mother of three dependent children, and working at minimum wage, Lidia would most likely qualify and need to apply for what kind of health insurance for herself?

a. Medicare
b. Medicaid
c. SCHIP
d. Private insurance
e. Managed care

2. Lidia's children would mostly likely qualify for what kind of insurance?

a. Medicare
b. Medicaid

c. SCHIP
d. Private insurance
e. Medicaid or SCHIP

3. Because Marco is sixty-six years old, his medical insurance is covered by what federal program?

a. Medicare
b. Medicaid
c. SCHIP
d. Private insurance
e. Medicaid or SCHIP

4. The medication Marco takes for his high blood pressure and cholesterol may be covered by what program?

a. Medicare Part A
b. Medicare Part B
c. Medicare Part C
d. Medicare Part D
e. Medicare Part E

5. Mental health problems like Marco's depression are often missed in the patient interview, as the stigma of having mental illness may cause physicians to shy away from asking about it. Which of the following is true?

a. 1 in 4 adults has a diagnosable mental illness in a given year.
b. 1 in 17 adults suffers from serious mental illness.
c. Mental illness is the leading cause of disability in those age 15 to 54 in the United States.
d. None are true.
e. All are true.

6. Before Lidia's husband passed away, the Hernandez family had insurance coverage through Mr. Hernandez's job. Even though the $20 co-pay was a lot, given the number of times they have had to see the pediatrician lately, they continued to pay it because it allowed them to see the pediatrician of their choice, who was out of their managed care network. Dr. Herrera is Spanish speaking, has an office in their neighborhood, and has treated all three of the Hernandez children since they were babies. What type of managed care organization would allow patients to see physicians outside of the managed care network for an additional co-pay?

a. HMO
b. PPO
c. POS
d. Behavioral health carve-out
e. Pharmacy benefit plan

Suggested Readings and Web Sites for the Highly Motivated

American Medical Association. *Principals of Medical Ethics,* www.ama-assn.org/ama/pub/category/2512.html.

Henry J. Kaiser Family Foundation (2006). *The Uninsured: A Primer* (#7451–02). Menlo Park, CA: Henry J. Kaiser Family Foundation. The foundation web site, http://kff.org, is an excellent resource for what doctors need to know about the health system. (The information in this chapter attributed to *The Uninsured* was reprinted with permission from the Henry J. Kaiser Family Foundation. The Kaiser Family Foundation, based in Menlo Park, California, is a nonprofit, private operating foundation focusing on the major health care issues facing the nation and is not associated with Kaiser Permanente or Kaiser Industries.)

Joint Commission for Accreditation of Healthcare Organizations, www.jointcommission.org.

National Institutes of Health, National Institute of Mental Health, www.nimh.nih.gov.

U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services, www.cms.hhs.gov.

U.S. Food and Drug Administration, www.fda.gov.

Answers to Step Prep

1. b
2. e
3. a
4. d
5. e
6. d

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