

Gayle L. Macklem

Evidence-Based School Mental Health Services

Affect Education,
Emotion Regulation Training,
and Cognitive Behavioral Therapy

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Gayle L. Macklem
Massachusetts School of Professional Psychology
221 Rivermore Street
Boston, MA 02132
USA
Gayle_Macklem@mspp.edu

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Preface

The need for efficient and effective mental health counseling in schools is well accepted as is the fact that the school setting is ideal for meeting the mental health needs of children and adolescents, given relatively easy access to students, the presence of school-based mental health workers, and the fact that parents feel they know something about and are fairly comfortable with schools and their personnel. This text presents school counseling in the framework of the growing popular three-tiered model and incorporates the newest and best-supported mental health therapeutic approaches. Adaptations of cognitive–behavioral therapy to fit the school setting are presented, advocating for a more uniform protocol so that practitioners only have to learn a single more general approach that fits the realities of working with small groups in schools. Beyond this, affective education at each of the three tiers is discussed and, in particular, emotion regulation is stressed, given that without these additions to prevention and intervention work, the populations that school psychologists and other mental health workers must service are less likely to benefit from best practices. Work with school-aged students must include training in emotion awareness, emotion knowledge, emotional expression, and emotion regulation. The most current research from various fields supports cognitive–behavioral therapy, emotion regulation training, and affective education.

A particular contribution to school-based counseling involves strategies and approaches to prepare younger students and, importantly, students with special needs to benefit from evidence-based approaches. Concepts must be simplified and made concrete, metacognitive weaknesses must be addressed, and generalization must be addressed from the start of interventions. The precursor skills needed to deal with the complex strategies of cognitive–behavioral therapy must be included in the training.

There have been many contributions to the mental health field that deal with cognitive–behavioral therapy for specific disorders, for clinical work in the community or mental health clinics, and for using cognitive–behavioral therapy with children. There are far fewer resources for school-based practitioners who have different demands on their time, limited resources, and different challenges in general. School-based practitioners need to learn how to add detailed affective education and emotion regulation training to school-based interventions as well as to consider a uniform protocol for mental health intervention in schools. Finally, these aspects of prevention and intervention need to be placed into a three-tiered model. These are the goals of this text.

It is important to acknowledge the several individuals who have been enormously helpful in the completion of this text. Beverly Kaplan deserves special thanks for so strongly urging that this text be written. Dick Macklem deserves considerable appreciation not only for his strong and dedicated support, but also for his proofing efforts in preparation of the manuscript. Hunter and Summer Ward contributed their wonderful artwork to the text and their help is greatly appreciated as well.

Boston, MA

Gayle L. Macklem

Specific Group Activities and Exercises

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Emotion Expression Boards
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Drawing and Showing
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Developing an Emotion Vocabulary
Class Book of Feeling Words
If-Then Plans
Positive Self-Talk
Feeling Thermometers
How Many Degrees?
Anger Flies
Shift
Crossing the Line
Emotion Puzzles
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Riding the Ferris Wheel
Thought Tracker (Stallard, 2002b)
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Mood Diary (Hakeberg, Berggren, Carlsson, & Gustafsson, 1997)
Making Predictions
Blue Shift
Reframe Your Thought
Map to NEWFAST
Middle School Challenge
Full Moon

About the Author

Gayle L. Macklem, MA, NCSP, LEP, is a Massachusetts-licensed school psychologist and a Massachusetts-licensed educational psychologist. She has served in the field of education for over 30 years. A former president of the Massachusetts School Psychologists Association (MSPA), she serves as the Technology Chairperson of the state association. She is an adjunct instructor in School Psychology at the Massachusetts School of Professional Psychology (MSPP) in Boston. She writes curriculum and writes on topics of interest to educators. She is a frequent presenter at regional and national conferences. Ms. Macklem is the author of Springer's *Practitioner's Guide to Emotion Regulation in School-Aged Children* (2008) and *Bullying and Teasing: Social Power in Children's Groups* (2003).

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Chapter 1

The Challenge of Providing Mental Health Services in Schools

It has never been easy to meet the mental health needs of children in schools. Practitioners have always had to face the challenge that educators and administrators do not consider meeting students' mental health needs as a top priority. However recent federal initiatives have triggered increased concern about students' mental health. The need is great and society is increasingly looking to schools to meet these needs while schools, at the same time, are faced with dwindling resources and low levels of interest in meeting mental health as apposed to academic needs. There are easily identifiable material and human resource barriers to mental health programming in schools. Add to these issues both cultural and family barriers, and the task becomes formidable. As barriers are discussed, some suggestions are made to address them.

It is considered “imperative” by most researchers and policy makers that schools meet mental health needs of students particularly when academic achievement and learning in general are affected, with full realization that schools cannot meet every need of every student (Paternite, 2005). The growth of school-based services to meet the mental health needs of children and adolescents has been driven to some extent by federal initiatives. The US Surgeon General’s report in 1999 and the US Public Health Services report in 2000 placed students’ mental health in focus. Both reports advocated for school-based approaches to meeting mental health needs (Paternite, 2005). The President’s New Freedom Commission on Mental Health (<http://www.mentalhealthcommission.gov/>) reiterated the concern that there are fragmentation and gaps in mental health services for children and adolescents. Recommendations for improvements have been made, which were supported by the American Academy of Pediatrics (American Academy of Pediatrics Policy Statements, 2004). Schools were identified again as part of the answer to meeting the significant mental health needs of young people.

Although high quality evidence-based interventions are available in the literature that could be implemented in schools, they are rarely delivered in schools. There are many reasons for this as there are extremely challenging issues involved in successfully transporting or maintaining programming outside of demonstration programming in which controlled research studies take place (Reinke, Herman, Stormont, Brooks, & Darney, 2010).

The Need for Mental Health Programming

We often hear that the *need is great* when it involves the mental health of children and adolescents in schools and indeed this is the case. According to the US Surgeon General, approximately 20% of children and adolescents show signs and symptoms of a mental health difficulty each year (U. S. Department of Health and Human Services, 1999). Five percent of students show extreme functional impairment. One in every five students has a diagnosable mental, emotional, or behavioral disorder (Ray, Henson, Schottelkorb, Brown, & Muro, 2008). The onset of major illness can occur as early as 7–11 years and can be identified during this period (Masi & Cooper, 2006). Sadly, as few as one sixth of young people who need services actually receive them, with recent estimates of those in need ranging from 20 to 38% (American Academy of Pediatrics Policy Statements, 2004; Weist, Stiegler, Stephan, Cox, & Vaughan, 2010). Some studies indicate that from 75 to 80% of children and adolescents who need services do not receive services. These students do not find school easy. Poor academic performance and inconsistent attendance are early signs of emerging mental health problems or of problems that already exist (DeSocio & Hootman, 2004). The cost of neglect of these students is high. Over half of adolescents who do not finish high school have a diagnosable psychiatric illness (Stoep, Weiss, Saldanha, & Cohen, 2003). The social and emotional needs of students are as important as their educational needs (Short, 2003).

Twelve-month prevalence estimates from the National Health and Nutrition Examination Survey have been recently reported (Merikangas et al., 2010). They identified 8.6% of children with attention deficit hyperactivity disorder (ADHD), 3.7% with mood disorders, 2.1% with conduct disorder, 0.7% with panic disorder or generalized anxiety disorder, and 0.1% with eating disorders. Boys were identified with attention deficit disorder 2.1 times to girls. Girls show two times the incidence of mood disorders as compared to boys. Only half of a sample of 3,042 students had approached a school-based mental health professional for treatment. If students do seek help for mental health problems, the question becomes, are services available? Slade (2003) notes that there are substantial differences in school services according to the region of the country, urbanicity, and school size. Rural schools, schools in the Midwest and South regions of the country, and small schools are less likely to offer mental health services in the form of counseling than other schools.

If we look at the students already identified with emotional and behavioral disorders, this group of children and adolescents has the poorest outcomes of all disability groups. School-based services are seriously inadequate for students with emotional/behavioral disorders (Kern, Hilt-Panahon, & Sokol, 2009). These students are often segregated in restrictive settings where they get even fewer related services than they would get in regular schools. Interestingly, 9–14% of students who are considered for services are not identified or serviced under the severely emotionally disturbed special education category, probably because they are able to function to some extent in school. Their academic performance is not significantly impaired

nor is their behavior unacceptably out of control. This does not mean they do not need service for emotional difficulties, but they do not receive them (Tharinger & Palomares, 2004). The situation is even less promising for children of color and for those students from backgrounds of poverty.

Anxiety disorders are the most common mental illness of school-aged students. Beesdo, Bittner, and Pine (2007) reported that the incidence of social anxiety disorder alone among the several anxiety disorders was 11%. The incidence of social anxiety disorder was found to be highest in students from 10 to 19 years, and leads to depression, making it an adolescent-onset disorder related to increased risk of depression. Chronic high levels of inhibition appear to be a precursor of social anxiety disorder by adolescence (Essex, Klein, Slattery, Goldsmith, & Kalin, 2010). Unfortunately, even if the mere 11% of children with anxiety disorders who receive treatment actually improve, 30% develop a new anxiety disorder after recovery from the initial incident (Dozois & Westra, 2004).

Students with anxiety disorders often meet the criteria for more than one disorder. Commonly, they exhibit symptoms of depression or depressive disorders, and they may also exhibit externalizing disorders (Mychailyszyn, Mendez, & Kendall, 2010). With increasing comorbidity among children whose primary designation is anxiety, school functioning is increasingly impaired. There is additionally a group of children with anxiety disorders and comorbid ADHD. This group does particularly poorly in school and experiences more cognitive and academic vulnerability than children with anxiety alone. They also exhibit reduced perception of anger (Manassis, Tannock, Young, & Francis-John, 2007).

Depression is the leading cause of disability all over the world (Herman, Reinke, Parkin, Traylor, & Argarwal, 2009). Beesdo et al. (2007) reported that the cumulative incidence of depression in a 10-year prospective longitudinal study of 14–24-year-olds was 27%. Depression is a significant public health issue and there is urgent need for preventive efforts. Up to 80% of students with depression do not receive treatment. For those who do receive treatment, effective interventions lag behind those for other conditions. Depression is one of the most common disorders in adolescence (Essau, 2004). It affects between 2 and 5% of adolescents at any point in time with serious ramifications (Lewinsohn & Clarke, 1999). Whereas there are ample data on prevention of aggression and other externalizing disorders, the evidence for prevention of depression and/or anxiety is low (Sims, Nottelmann, Koretz, & Pearson, 2007). A lot of the data that we have for decreasing risk of developing depression for preadolescent and adolescent groups is found in studies on indicated interventions, which service students showing some symptoms but not a full-fledged disorder. Individualized interventions have also shown some evidence for decreasing risk.

A study, which explored incidence of depression in middle school-aged students, determined that 18.4% of girls and 11.1% of boys between the ages of 13 and 17 years were depressed. Depression was associated with school difficulties including concentration, social relationships, self-reliance, reading, writing, and the point of view that schoolwork is highly taxing. Researchers strongly feel that students

reporting academic difficulty should be screened for depression (Fröjd et al., 2008). Students with depression or dysphoria, who also have dysfunctional cognitive attitudes, exaggerate the significance of failure in school and have difficulty regulating their thinking about failure situations. When they receive feedback from teachers or test scores their level of depression increases. When they make errors, this feedback triggers negative thinking and mistakes on subsequent tasks (Holmes & Pizzagalli, 2007).

In recent years, educators have become more aware of the fact that depression begins early on. We know today, children as young as 3 years of age can develop a major depressive disorder (Luby, Si, Belden, Tandon, & Spitznagel, 2009). A longitudinal study of children from 5 months to 5 years of age found that 15% of study dren with strong symptoms tend to have mothers with a history of depression and exhibited difficult temperaments themselves. A major challenge is identifying children with depression because depressed children tend to withdraw and be secretive. Symptoms of depression in young children include serious loss of interest in play, sleep problems, and strong guilt or shame. In another study, preschoolers with physiological regulatory symptoms, such as heart rate, were more likely to have early school adjustment difficulties than their peers (Miller, Seifer, Stroud, Sheinkopf, & Dickstein, 2006). A community sample of 4-year-olds demonstrated that comorbidity is also found in this age group. The comorbidity rate was 6.4% (Lavigne, Binns, LeBailly, Hopkins, & Gouze, 2009). Interestingly, anxiety and depression are related as early as 5 years of age. Teacher-rated symptoms show significant increases in symptoms from 5 to 9 years of age. Teacher ratings are more reliable than parent ratings as functional impairments associated with risk are identified more easily in school. Teacher informants are particularly important (Synder et al., 2009).

Students with anxiety and depressive disorders are not the only ones who need mental health services in schools. Students with autism spectrum disorders are identified in increasing numbers, with 70–97% receiving services in special education (Allen, Robins, & Decker, 2008). A greater percentage of students in this categorical group need social emotional supports. Children with learning disabilities also have difficulty in social-emotional areas (Elias, 2004).

There is a high prevalence of victimization in schools today, including bullying and peer harassment. The rate of bullying involves 60% of students by middle school (Elias, Kress, & Hunter, 2006). Both bullies and bully-victims demonstrate poor emotion-regulation skill deficits as well as aggressive behavior. The problem is particularly acute at the secondary school level where there are few prevention or intervention programs for bullying (O’Brennan, Bradshaw, & Sawyer, 2009). Adolescents who are relationally bullied and victimized by peers show increased emotion dysregulation over the short term (McLaughlin, Hatzenbuehler, & Hilt, 2009). There are of course additional long-term effects of having been bullied (Macklem, 2003). Mental health issues, social difficulties, and health risk behaviors often occur together in adolescents (Domitrovich et al., 2010).

Prevention Science

Traditional school services including pullout-counseling groups, special education programming, and on-site casework, and guidance are not enough. These services are not sufficient to address the enormous needs of the growing numbers of students coming into schools with mental health challenges (Noam & Herman, 2002). The new role desperately needed for mental health professionals in schools has to do with prevention expertise. Some individuals may dismiss prevention work as a futile effort due to the fact that most prevention programs show only a modest impact on outcomes. Yet, many researchers point to the research progress that has been made in regard to prevention science in spite of this fact (Domitrovich et al., 2010). Merry (2007) argues that there is as yet no clear evidence for the effectiveness of universal programs delivered in schools to all students. In the case of prevention of depression, Merry found that many studies were shown to reduce symptoms in the short term, but few programs demonstrated that they could prevent depression. Part of the problem may be the way we measure outcomes. Our rating scales have wide normative ranges and are not sensitive enough to demonstrate the small mean changes that we would find in prevention programs. And, our expectations for prevention may be unrealistic. For example, Durlak and Wells (1997) conducted a met-analytic study of 177 primary prevention programs and concluded that outcomes were similar to or better than preventive interventions in medicine. Preventing only a few cases or decreasing the intensity of symptoms for some students may be well worth the effort in a practical sense.

A synthesis of reviews of mental health programs for students determined that universal programming to bolster protective factors is needed especially for high-risk children (Browne, Gafni, Roberts, Byrne, & Majumdar, 2004). Researchers concluded that programming should not address a single problem behavior given students in the real world usually exhibit a cluster of interrelated problems. Issues that schools need to address include early intervention, accessibility, culture policies, and barriers to providing services. Our current attempts to meet the mental health needs of students in schools are unconnected and unintegrated. This results in competition for funding, attention, and support. We need organized, integrated, and effective programming for the students for whom the interventions are most appropriate.

The difference between effectiveness and efficacy is important to understand. When an intervention is developed under optimal conditions, it involves randomized controlled trials. The intervention is evaluated in order to determine if it can qualify as an empirically supported practice. This is deemed efficacy research. Effectiveness research involves testing the program in the real world (Ogden, Beyers, & Ciairano, 2009). Effectiveness establishes whether the program can be generalized to new and more complex populations, how feasible it may be, and also what the cost-effectiveness may be taking into consideration the efficacy of the program (Anderson, Jacobs, & Rothbaum, 2004). We have many more efficacy studies available than effectiveness studies for work in the mental health field, and

certainly even more limited studies when interventions are applied to schools. Unfortunately, limitations in regard to research are not the only deterrents also we face a plethora of additional barriers to mental health programming in schools.

Barriers to Mental Health Programming in Schools

The barriers that schools may encounter in attempting to develop mental health programming to meet students needs can be formidable. A list of many barriers to mental health programming in schools is found in Table 1.1.

Table 1.1 Possible barriers to implementing mental health services in schools

<i>Monetary and other resource concerns</i>	<i>Myths and attitudes</i>
Financial limitations	Things cannot change
Expense of programming	High stakes testing is all that matters
Competing priorities for use of funds	Power exists only at the top
Counterproductive competition for sparse resources	The situation is hopeless
Limited time	The family is the cause of the child's high risk status
Capacity limitations (space/materials)	Problems will go away
<i>School staff issues</i>	The system will not allow progress
Too many conflicting demands	The individual cannot make a difference
Staff do not always see clear benefits	Testimonials support the program du jour
Administrators ask too much	<i>Administrative issues</i>
Low confidence in skills	Many separate initiative and projects
Professional development is needed in other areas	Delay of implementation or policy
Staff are isolated or "burned out"	Liability concerns (central office)
Reliance on specialized services	Marginalization in policy and practice
Limited qualifications of staff	Do not hold staff accountable
Low fidelity of implementation	Schools should teach the basics, not social emotional learning
Lack of trust in the administration	Meeting needs of unidentified students is not mandated
Attitude that teachers have "no say"	Discount the importance of evidence
Discount of the importance of evidence	Attempt to demand change
Teacher unions protect the status quo	<i>Student and family issues</i>
High teacher turnover	Limited resources of families
Lack of or inadequate training	Difficulties with transportation
<i>Programmatic/Planning issues</i>	Protection of student confidentiality
Flavor of the month initiatives	Language and cultural barriers
Focus on most severe problems	Feel isolated from decision-making
Fragmentation	<i>Other</i>
The program that is needed does not exist	The community does not support the program
Statistical versus practical significance	A program is already in place and it is good enough
Misrepresentation of target impact	The person who was in charge has been reassigned
Adopting a fallback stance (if we can only reach one child, all is well)	
Prefer local approaches to evidence-based approaches	
The program works for some students but not others	
The program works in other places but not here	

Material Resource Barriers to Mental Health Programming in Schools

Lack of resources in schools can be a formidable barrier to addressing student mental health needs. Poor office spaces, crowded classrooms, and insufficient funding, are barriers to change (Adelman & Taylor, 1999; Eisenberg, 2009; Weist, Rubin, Moore, Adelsheim, & Wrobel, 2007). School personnel need time, space, materials, and equipment as new programs are implemented and these need to continue over time. Urban schools, in particular, are stretched for resources (Atkins, Graczyk, Frazier, & Abdul-Adil, 2003).

Cost is most certainly a very serious constraining variable to mental health programming in schools. It is particularly difficult to overcome. Schools are plagued with underfunding or fragmented fiscal support (Kataoka, Rowan, & Hoagwood, 2009; Satcher & Druss, 2010; Weist et al., 2009). Particularly stressful is the differing levels of funding depending on the current economy. This makes planning exceedingly complicated. Some individuals believe that additional funding for mental health services would tax already limited school resources. Some feel that advocating for and funding mental health programs would undermine the primary academic mission of the school (Herman et al., 2009). Prevention researchers have called for a new stream of revenue that is unlikely to materialize. Schools will need to work creatively with their current resources for the time being (Tharinger & Palomares, 2004).

When schools lack mental health programs, school-based mental health workers tend to rely on community mental health providers, but 1 in every 7 adolescents has no health insurance (Crespi, 2009; Primm et al., 2010). Whereas 16% of the US population is uninsured, 25% of African Americans and 40% of Hispanics are uninsured. Transportation may be an issue as well, even if a free or reduced-cost clinic is available.

Human Resource Barriers to Mental Health Programming in Schools

In addition to lack of materials and other concrete resources, staff resources need to be addressed. A major problem is that schools do not have adequate mental health staff trained to deliver interventions and programs with the most supportive data. Specifically schools do not have sufficient mental health staff trained to deliver cognitive-behavioral therapy (CBT) to students already identified with mental health disorders. Schools may not have sufficient staff to form teams to implement universal interventions for all students, or to provide targeted interventions for all students with high risk (Andrews, Zabo, & Burns, 2002; Satcher & Druss, 2010; Silva, Gallagher, & Minami, 2006; Stein, 2008). Almost 65% of school psychologists for example say that they are too busy to provide the range of services that would reduce psychopathology. Some are overwhelmed with “test and place”

activities, some are isolated with no access to colleagues with the same training or needed training for provision of supervision, and others are itinerant serving several schools (Davis, McIntosh, Phelps, & Kehle, 2004; Walker, 2008).

The ratio of school psychologists to students determines the type of services that can be provided, lower ratios are of course preferable, and the gain for students is considerable in direct counseling services (Curtis, Hunley, & Grier, 2004). The time constraints in implementing evidence-based programs are a significant barrier (Salloum, Sulkowski, Sirrione, & Storch, 2009). Practitioners have the additional problem of finding room in school schedules to deliver mental health services (Mihalic, Fagan, & Argamaso, 2008). School staff can be sorely taxed when trying to fit programs into existing school schedules while not taking time from critical academic subjects yet also trying to avoid taking time away from electives and free time which risks student resentment, resistance, or outright refusal of mental health services. School schedules are packed.

Large-scale programs need site coordinators. Some individuals volunteer for the position, others are appointed, or are asked to take on these additional duties by administrators. It is critical for the site coordinator when undergoing organizational change. Often these staffs are very busy yet they are key to maintaining staff interest (Eisenberg, 2009). Coordination of a full continuum of preventive intervention services is very time consuming (Weist et al., 2007). When these individuals are influential with other teachers or they champion the program, success is more likely. Haynes (2003) recommends developing school-based mental health teams that are proactive in regard to individual students and can work on improving school climate in general.

Limited training is a resource issue. One size fits all training approaches are not effective, and instead ongoing feedback and support from an individual with expertise are needed as programming is implemented (DuPaul, 2003). Insuring teacher participation in training is difficult at times (Mihalic et al., 2008). Inadequate training and supervision of staff can guarantee failure, as can high staff and administrator turnover (Salloum et al., 2009; Weist et al., 2007). Teacher turnover is a factor that can sorely test program sustainability as can teacher deviation from the content (Fagan & Mihalic, 2003). Teacher turnover requires additional training as new staff members are introduced to programs.

We do not yet have much data to guide in regard to the type or degree of training that is needed to maintain the effects of new programs in schools (Ringeisen, Henderson, & Hoagwood, 2003). We do know that support for teachers needs to be on-site. Ongoing training and workshops facilitate staff commitment to address student needs. School psychologists are trained to provide this training if called upon to do so. The content of training could include information about intervention integrity, barriers to integrity, how to collect data, how to analyze data, how to make data collection easy and imbed it in what staff are already doing, strategies for engaging students, how to use feedback, consultation skills, and strategies to deal with limits on staff time (Brown & Rahn-Blakeslee, 2009; Fagan, & Mihalic, 2003). Strategies are needed for working with a wider range of individual differences and to recognize when a student is not functioning well (Adelman & Taylor, 1997; Aviles, Anderson, & Davila, 2006). Teacher training needs to include classroom management

techniques. Teachers cannot deliver universal preventive mental health programming when students are disruptive, draining instruction time. Booster training sessions are also critical for ensuring that programs are implemented correctly and commitment is reengaged (Mihalic et al., 2008). Teachers must believe that the program is valuable and makes a difference, or they will not feel ownership or feel supported. Not only teachers but also paraprofessionals need professional development opportunities to gain awareness of the social emotional needs of children (Adelman & Taylor, 1997; Aviles et al., 2006). There are some data available to suggest that beyond initial training coaching, modeling, feedback and support of colleagues, and administrators are critical variables (Weist et al., 2009).

Administrators must be on board in order to implement small projects to comprehensive programming in schools. When they are not, the barrier may be too great to overcome. Administrators may deny that a school has problems such as smoking or drugs or bullying. Community reactions can be stressful for administrators who identify problems. Yet, it is not likely that a program can be sustained unless it has an administrator support (Fagan & Mihalic, 2003). In addition, there are some data to indicate that when teachers are told by administrators to implement a program, they will do so with fairly good integrity even if they have not accepted and do not like the program themselves. At the other extreme, autocratic administrators who do not communicate well, and who do not provide support for staff, do not foster adequate program implementation (Lochman, 2003).

One strategy for convincing administrators of the importance of mental health interventions is to stress how treatment of symptoms benefits the student and staff in terms of improved behavior in the classroom and improvements in school achievement (Ginsburg & Drake, 2002). Mental health programming must be sold to schools and communities. School administrators can be convinced to buy-in by connecting the program to outcomes for which schools are accountable. In other words, we need to demonstrate the connection between improvements in mental health and long-term gains in school achievement. Mental health interventions must show gains in both mental health and academic achievement (DuPaul, 2003; Ringeisen et al., 2003).

School Cultural Barriers to Mental Health Programming in Schools

Schools are systems. Individuals in school systems can have different beliefs and attitudes. A difficult barrier to mental health programming in schools has to do with introducing an evidence-based program into a school. Professionals in education lean toward practices that are based on testimonials of peers and believe that these are best. These testimonials can be overwhelmingly influential if the individual supporting them has leadership ability. School staff may decide to adopt such practices without investigating the evidence base that does or does not support them (Lembke, McMaster, & Stecker, 2010).

Too many American teachers do not feel that children's social functioning is their responsibility (Brown & Rahn-Blakeslee, 2009). Among those who do believe that children's social emotional functioning is part of their responsibility, the social skills that they are most concerned about have to do with managing order in the classroom. Of even more concern in regard to cultural barriers is the skepticism with which many educators express in relation to empirically supported treatments (Salloum et al., 2009). They dismiss data arguing that statistics can be made to show anything.

It is common for teachers to be stressed around the mandates of No Child Left Behind act (<http://ed.gov/nclb/landing.jhtml>) and high-stakes testing. This has led to teachers giving less attention to any content that is not mandated. A good example of this is the fact that many children with learning disabilities tend to have social difficulties, and yet addressing social deficits for these children is not mandated (Bryan, Burstein, & Ergul, 2004). School staff members feel that programming to meet mental health needs competes with needed academic interventions (Eisenberg, 2009; Weist et al., 2007). Health is not the primary mandate of schools (Adelman & Taylor, 1999). Many content areas and subjects have been reduced or cut out to accommodate time needed to teach the content of mandated achievement tests used to demonstrate student progress. A complication is that teachers who are resistant will require different interventions than those in which everyone is motivated to accept a new program (DuPaul, 2003). There may also be problems involving the mental health staffs in schools. Counselors who are cynical about organizational change do not engage with students or parents to the same degree as their colleagues (Lochman et al., 2009).

There are ways to address some of these barriers. Eisenberg (2009) suggests that teachers can be recruited to support mental health services when they are not significantly inconvenienced. For example, when servicing at-risk students, rotate the pullout period so children do not miss the same class every time groups meet. Space issues can be reduced if general education classrooms are used for a pullout group during a given teacher's prep-time. Mental health professionals need to be highly respectful of cooperating teacher's time, materials, and organization. We need to ask as little as possible of classroom teachers. A few other suggestions for decreasing the stress of teachers when students are pulled from class for mental health services is to shorten intervention sessions by providing multiple sessions per week for shorter periods. Younger students may actually benefit from these adaptations (Ray et al., 2008). We also need to address the attentional and behavioral issues that teachers are concerned about in counseling sessions. Scheduling is a related stressful problem for practitioners as well as teachers. Working with administrators to coordinate schedules of students who will participate in an intervention is not only a good idea but also be necessary (Ginsburg & Drake, 2002). Sometimes school psychologists and other mental health workers ask teachers to send students to sessions. Teachers are not always in a position to remind students to leave class to attend groups. The number of children coming and going in some elementary school classes is a scheduling nightmare. It may be necessary to go to each student's class and take them for sessions rather than leaving that burden to the child, who may have memory or organizational weaknesses, or to the teacher.

Family Barriers to Mental Health Programming in Schools

Family support makes a huge difference in the success of mental health programming in schools. If the notion of receiving treatment makes a parent feel criticized or blamed, the intervention will be undermined (Silva et al., 2006). Ginsburg and Drake (2002) suggested to parents about reducing stress or coping with stress because the concept of coping with stress is less anxiety producing than the word “treatment.” Home-school connections and a sense of community must be fostered (Adelman & Taylor, 1997). Parents need to be onboard for a variety of reasons. Families and schools benefit when parents are partners in treatment and feel that they have some ownership. It is no easy task to fully engage families (Weist et al., 2007). In fact, all key stakeholders, including parents, should be involved when conducting research or implementing new programs (DuPaul, 2003). Collaboration with families and community members in the design, implementation, and evaluations of interventions increases the likelihood of sustainability.

Technical Complications Presenting Barriers to Mental Health Programming

Research has provided a good deal of information for school practitioners who are interested in designing interventions and bringing evidence-based programs to their schools. However there is still much that we do not know. Many mental health services are available for elementary-aged students, but there are fewer programs for adolescents. Programs are much less likely to be implemented at the high school level in spite of the fact that the need has doubled in the past 25 years (Aviles et al., 2006). Efforts to implement a program at the high school level can run into several difficulties, one of which is where to implement the program in the school day. Logically, a mental health program might fit well in a high school health class, but even here there is tremendous pressure to cover content dictated by state and district mandates leaving very limited time for preventive or universal mental health programming (Merrell, 2010).

Kiselica (2001) notes that primary prevention is not practiced in schools very often. When primary prevention is present in a school, the quality of school-based prevention practices has been found to be low due to implementation difficulties (Gottfredson & Gottfredson, 2002). Implementation is a major hurdle when planning and introducing new programs into schools. There is a large gap between what researchers develop and deem efficacious and what practitioners actually do (DuPaul, 2003). Data do not support the idea that model programs can simply be picked up and implemented in schools (Elias et al., 2006). Some programs will only be effective if they are implemented as they were designed (Mihalic et al., 2008). Many empirically supported programs need to be implemented in a scripted form in order to get the same effect as the original work was documented. School staff

may feel that they need to take into account what can be customized to fit specific needs, values, and resources of their schools. Unfortunately when this is done, practitioners cannot count on outcomes.

Mental health professionals themselves may undermine programs when they have different philosophies than that which existed in the program selected for implementation. This occurs when they interject their own ideas rather than following the program guidelines and when they do not collaborate regularly with staff (Weist et al., 2009).

Even when implemented well, the outcomes of programming may not be the same as in demonstration programs. The school setting is significantly different from the conditions under which effectiveness research is conducted. Effectiveness researchers have more resources, are better trained, and have more effective supervision. They are also more likely to use behavioral treatments (Garczynski et al., 2005). Subjects in effectiveness studies tend to have only one disorder whereas it is more common for students in schools to be experiencing more than one problem. The situation is different enough for some to question over-focusing on efficacy in highly controlled research. This may have resulted in evidence-based treatments that are not acceptable in practice (Langberg & Smith, 2006).

Factors that affect the degree to which programs are implemented with integrity include the complexity of the treatment, the time involved, available materials and resources, the number of people that are needed, the motivation of those involved, and the perceived effectiveness of the intervention (Brown & Rahn-Blakeslee, 2009, p. 143). When and when not to implement programs flexibly can be confusing. Practitioners are conflicted about implementing programs exactly as scripted versus when they can adjust interventions to meet specific needs. Evidence-based programs with manuals are considered positive resources but even in this case some manuals have limitations (Salloum et al., 2009). Flexibility can be constrained by publication agreements (Domitrovich et al., 2010). In order to successfully implement a program and sustain it in a school, the program must be implemented consistently; parents, teachers, and students must be included and involved; multiple intervention modalities must be involved; the content of the program must be integrated into the general classroom; and program components must be developmentally appropriate.

Many prevention programs are not evaluated in schools, which is critical in order to improve services and contribute to improvement of school policy (Ringeisen et al., 2003; Weist et al., 2007). Evaluation of programs and interventions is very important if the programs are going to be sustainable. Program evaluation involves determining how things are going in the school setting. Program evaluation may involve case studies, intervention at a single site, quantitative or qualitative data collection, and impact at the local level (Carey & Dimmitt, 2006). In order to evaluate a program, outcome measures may have to be designed.

There are other important measurement requirements to sustain mental health programming. Monitoring plans are critical. Ongoing collection of data allows practitioners to make immediate changes as information indicates problems. Integrity monitoring is needed, and forms need to be distributed and collected from school staff. Teachers may need reminders to record data. Sensitive measures of

social emotional learning are not yet available although some strength-based tools are under development (Merrell, 2010). Self-reports do not work well for young children, and teacher-rating scales have reliability issues. It is not likely that observational tools would be useful for programs of short duration. School staff members need to understand that collecting data is not an effort to evaluate individuals, but rather to increase the likelihood that students make progress. In some cases, checklists will need to be developed, and permanent products will need to be identified (Brown & Rahn-Blakeslee, 2009). Keep in mind that early reports to advertise achievements are helpful in maintaining enthusiasm (Fagan & Mihalic, 2003). Canary (2008) suggests that schools create a 'community of care' around the need to monitor progress and improve outcomes.

Cultural Diversity Barriers to Successful Mental Health Programming in Schools

Even when schools have decided to implement comprehensive mental health services, there is yet another barrier to reducing risk for emotional disorders when practitioners have not given consideration to cultural differences and uniqueness of students. Some groups of children receive less attention than needed. For example minorities, children of color, urban residents, and girls receive less attention in regard to provision of services (Hudley, 2001; Weist et al., 2007). It may surprise some school workers that girls are included as receiving less attention than needed. In a large violence prevention study, girls over 12 years of age were found to be most at-risk for deviant behaviors (Rodney, Johnson, & Srivastava, 2005).

We need to ask whether evidence-based treatments that were developed in one culture are appropriate for other cultural groups that do not share the same language or the same values (Bernal, Jiménez-Chafey, & Domenech Rodríguez, 2009). Significant disparities exist in mental health care for children of diverse races and cultures (Primm et al., 2010; Satcher & Druss, 2010). Disparities are related to biases, social disadvantages, limited English proficiency, remote geographic settings, and a different cultural understanding of health care services. Negative social factors contribute to poor mental health among minority groups such as racism, racial bias, and discrimination, as well as a higher rate of trauma. Children who are English language learners may be negatively evaluated in the school setting (Canino & Spurlock, 2000). Stigma and cultural beliefs may cause some students and families to avoid looking for help. Compared to children of African American parents, Caucasian parents are twice as likely to seek help for their children who evidence behavioral difficulties (Bussing, Zima, Gary, & Garvan, 2003). Acculturative stress is another factor that needs to be considered. For example, acculturative stress is related to physiological problems, poor concentration, and worry symptoms in Hispanic students (Suarez-Morales & Lopez, 2009).

Although African Americans and Hispanics have a lower risk of emotional disorders over their lifetime than White Americans, their illnesses last longer and

are more disabling (Primm et al., 2010). Latino children and adolescents are less likely to receive help for mental health problems. In fact, 88% of Latino children have unmet needs (Masi & Cooper, 2006). Minority children are twice as likely to experience poverty and are at greater risk than most other children for mental health problems. Stressful events are common among low-income and ethnic minority students in American society (Haynes, 2003). These students have been underrepresented in prevention research as well (Roosa & Gonzales, 2000). Population growth rates in recent times have been highest for Hispanic, Pacific Islander, and Asian students (Zhou et al., 2004). Preliminary data from the National Latino and Asian American Study (NLAAS) involved a national sampling of 2,095 Chinese, Filipino and Vietnamese, Japanese, Koreans, and Asian Indians. The study was conducted in May 2002 through December 2003. It is the first national study to explore rates of mental illness and treatment use among these groups of Asian Americans. Asian Americans in general have lower rates of mental illness than whites and seek treatment less often, although the rate of seeking treatment is higher among Vietnamese Americans than other Asian groups. Risk factors for all of these groups consist of lower perceived social status, unfair or threatening treatment experiences, generational conflict around acculturation, cultural stress, and little access to care.

Developing Cultural Awareness and Sensitivity

Developing even a little expertise in cultural diversity is a very challenging goal. It may be that a more realistic goal is developing sensitivity and appreciation of differences in general. One approach to increasing sensitivity is to adapt programs so that they are more relevant to the local population and cultures in spite of the risk that effectiveness will be decreased (Bierman, 2003). We know that norms around emotional expression, emotional experience, and emotional regulation are imbedded with culture. The context for expressing emotions and the triggers that elicit them or do not elicit them differ according to culture. Children from various cultures have been taught to interpret emotional experiences differently. They do not adhere to the unwritten rules for expressing or controlling emotional expression adhered to by the American White middle class students. Nor do they necessarily agree that talking about emotions is a proper behavior (Canino & Spurluck, 2000; Denham, 2005; Hoffman, 2009).

Parenting practices differ according to culture, and this could be misinterpreted when working with families. In low-income high-risk communities, African American parents who are overcontrolling have healthy rather than unhealthy children (Roosa, Dumka, Gonzales, & Knight, 2002). Latino parents rely on their teenagers to be very much involved in caretaking roles with younger siblings and again this is not unusual in Latin culture (McIntosh, Jason, Robinson, & Brzezinski, 2004). Children and adolescents of different cultures react differently to identical parenting styles. Latino parents engage with school personnel only when the school

workers meet their expectations of believability, trustworthiness, and when workers can communicate that they understand Latino culture. It is important not to assume that differences constitute a deficit and instead evaluate behavior within its own contexts. We also need to keep in mind that there is considerable variation among cultural groups and also among a specific cultural group when there are multiple socioeconomic levels or differences in immigration status.

Efforts to adapt programs to cultural differences tend to assume that differences are located in behaviors and norms instead of in the situation itself, in which people are interacting. For example, direct eye contact depends on the situation. Sometimes direct eye contact shows respect and sometimes it shows disrespect, depending on culture (Hoffman, 2009, p. 542). Unfortunately, adapting programs with the goal of making them more culturally inclusive have not been very successful (Herman et al., 2009). There are considerable ongoing efforts to improve this state of affairs. Ginsburg and Drake (2002) explored the feasibility of adapting a cognitive-behavioral treatment for anxiety disorders for low-income African American teenagers in a pilot study. They reduced the length of treatment. They shortened each session. They changed the examples in the manuals to make them more familiar to the children and more appropriate by including situations that students would have experienced including crime and violence. Although the sample was small, three out of four students who completed the program no longer met the criteria for their primary disorder. Ethnicity did not differentially predict improvement. Peer support for one another was particularly beneficial. Rosselló and Bernal (1999) found that CBT was successful for reducing symptoms of depression in Puerto Rican teenagers. These studies provide preliminary data to suggest that CBT may be cross-culturally effective.

It is known that exposure to violence is a risk factor for African American students, Hispanics, Native Americans, and Native Hawaiians. Violence prevention programs are most effective for boys under the age of 12 years (Rodney et al., 2005). This means that prevention programs must be delivered early in students' school careers. Finally, instead of concentrating on deficits in individual children and how we can change students, it might be more productive to see what can be done to change social contexts and systems (Hoffman, 2009). An important goal may be to create and support positive emotional climates in schools.

Addressing Concerns and Improving Outcomes

Rather than looking at mental health services in schools as add-ons or as only addressing concerns in reaction to problems, we need to think of mental health services as an integral component of school-wide programming (Sugai, 2003). In order to prevent mental disorders in school children, we need multi-year, evidence-based primary prevention programs that target core competencies (Battistich, 2001). We need a continuum of mental health education, problem prevention, early intervention, and treatment to meet the needs of all students including those in both general and special education (Paternite, 2005).

Nationally we are in a process of implementing the three-tiered public health model into school organizations to address academic concerns. We need to address mental health in the same manner. We need to improve school climates and implement evidence-based universal programming for all students, which constitutes Tier 1. We need targeted interventions for students at risk of developing mental health problems at Tier 2, and we need indicated programming for students already showing strong signs and symptoms of emotional problems or already demonstrating emotional disabilities at Tier 3. We need to match programming and interventions to local school contexts. We need ongoing staff development over time. We need to improve the programs that have already established efficacy and effectiveness on a continual basis. We need to target both academic and mental health outcomes (Reddy, Thomas, Newman, & Chun, 2009). We know that what we are doing now is not enough.

School personnel need to become aware of the advances in evidence-based programs and interventions, in prevention science, and in emotion science, in order to take on new roles so that they can really make a difference. For example, we know that emotion recognition is a precursor of emotion regulation and this tells us that we need to spend time on emotion literacy. We know that deficits in emotion regulation are an integral component of a wide range of mental disorders (Berking et al., 2008). This tells us that we need interventions that directly address and teach emotion-regulation strategies and skills. At the Tier 1, universal level, we now know that emotion regulation plays a critical role in children's early school success (Graziano, Reavis, Keane, & Calkins, 2007). Emotion regulation is a core skill, important in children's social and academic success (Eisenberg, Sadovsky, & Spinrad, 2005). School-aged children with stronger emotion regulation skills achieve at higher levels (Gumora & Arsenio, 2002). Emotion regulation plays a unique role in middle school students' grade point average, over and above other cognitive factors (Gumora & Arsenio, 2002). Emotion literacy and emotion regulation are related to a number of indices of social competence and grades for high school students (Márquez, Martín, & Brackett, 2006b). Emotion regulation also predicts intercultural adjustment (Yoo, Matsumoto, & LeRoux, 2006). Additionally, emotion recognition, especially of anger, predicts adjustment in these populations.

At the Tier 2 and 3 levels, we have data to indicate that children with ADHD and other at-risk children need emotion management skills so that they can change the behaviors that are so annoying to other children and isolate them in rejected groups rather than keeping them with mainstream children (Wiener & Mak, 2007). We have data to indicate that emotion awareness and emotion regulation training needs more explicit attention in CBT programming in order to improve the effectiveness of these interventions (Berking et al., 2008; Hannesdottir & Ollendick, 2007). Drug prevention programs need to include emotion regulation skills training such as anger management and resistance skills (Nichols, Mahadeo, Bryant, & Botvin, 2008). We have evidence to indicate that school-based programs can result in improved emotion knowledge, emotion regulation, and emotional competence (Smyth & Arigo, 2009). The evidence supports emotion regulation training for

students at risk and for students with emotional disabilities. Emotion regulation can promote resilience in all children and can help students hang on to positive moods. Emotion regulation facilitates intrinsic motivation and gives students strategies to repair negative emotions (Kashdan, 2007). We have considerable work to accomplish.

Chapter 2

Evidence-Based Tier 1, Tier 2, and Tier 3 Mental Health Interventions in Schools

Providers of mental health services to students in schools are now mandated to provide evidence-based interventions when servicing children and adolescents. This mandate is particularly strong when servicing identified students. However, the process of locating and providing services is more challenging than may be initially realized. Currently, school services tend to be fragmented and practitioners have not been in the habit of researching the adequacy of the attractive packages of materials found in catalogues before selecting a program or intervention. Researching the plethora of packaged programs and curricula on the market, many of which unfortunately have inadequate effectiveness support, can be daunting. When consulting various registries, practitioners must determine how each registry evaluated the various programs they may include, in order to determine the degree of evidence available for the prevention and intervention activities under consideration. Using a three-tiered approach, several programs appropriate for the several tiers, which also address emotion literacy and/or emotion regulation, are reviewed.

There are a number of terms that can be confusing when schools are involved in planning to meet students mental health needs. We see terms such as empirically supported, research-based, evidence-based, proven, well-established, promising, efficacious, and probably efficacious (Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001; Lembke & Stormont, 2005). These terms are not equivalent and it is important to distinguish between them. An understanding of the term evidence-based is particularly important as it can be misunderstood and misused.

The Division of Clinical Psychology of the American Psychological Association (APA) established a task force, to set standards for considering a treatment as an empirically supported treatment (EST) (Albano & Kendall, 2002). A treatment deserving of the EST label must be compared to a no-treatment or alternative treatment control group, already established treatment, or placebo condition in a randomized controlled trial and shown to be statistically superior. It must have a manual and appropriate statistical data analysis. The efficacious designation requires two independent research settings. The probably efficacious term is reserved for one study or research from one center with no conflicting data. Hoagwood et al. (2001) further described the operational criteria for well-established treatments to involve two or more studies showing the interventions to be superior to medication, placebo, or alternative treatment, or that the interventions is equivalent to an already established treatment or nine single-case case studies showing equivalence of superiority.

The advantages and disadvantages of evidence-based programs have been discussed in the literature (Cooney, Huser, Small, & O'Connor, 2007). The odds of a program working are better with an evidence-based program and resources are less likely to be wasted if strong programs are adopted. Evidence-based programs tend to include materials, staff training, and other technical assistance. Stakeholders are more likely to listen when evidence-based programs are proposed, as there is supportive data to present for their consideration including cost–benefit information. The disadvantages of ESTs include cost, the fact that these programs must be implemented with strong fidelity, and the fact that the program may not fit the particular school site.

This APA group is not the only group that has provided terminology or descriptive information that can be used to judge effectiveness of programs. The Society for Prevention Research established a committee to write standards for effective prevention programs (Flay et al., 2005). This group defines an efficacious intervention as one that has been tested in at least two rigorous trials involving specific populations with sound data collection procedures and controls, meticulously analyzed, showing consistent positive effects, and including at least one long-term follow-up study. An efficacious intervention will have a manual, provide training, be evaluated in the real world with attention to implementation, a discussion of the practical importance and for whom generalization would be appropriate. Those programs ready for dissemination would provide evidence of readiness, cost information, and tools so that implementation and outcomes can be measured.

Division 16 of APA and the Society for the Study of School Psychology established a task force on evidence-based interventions in school psychology. The task force developed a Procedural and Coding Manual for Review of Evidence-Based Interventions “to identify, review, and code studies of psychological and educational interventions for behavioral, emotional, and academic problems and disorders for school-aged children and their families” (Stoiber & Kratochwill, 2001, p. 6). The goal was to help people make decisions about the quality of research evidence for various programs and interventions. The identification of evidence-based interventions for school implementation is considered to be a long-term effort and will be of considerable assistance to schools in matching programs to needs as more data accumulates.

A very clear description of what variables constitute an evidence-based program is provided by Cooney et al. (2007). An evidence-based program is one which has been evaluated and research produces the expected results which are attributed to the program rather than other factors. Additionally, an evidence-based program has been evaluated by experts in the field other than the creators of the program, and it has been declared as evidence-based by a federal agency or a respected research group or registry. A distinction is made between evidence-based and research-based programs. Evidence-based programs contain components that are empirically supported and thus are research-based. However, not all research-based programs are evidence-based because they have not been demonstrated to be effective. The term evidence-based has also been used to refer to treatment studies as well as programs. However, the criterion used to call a given treatment evidence-based has

Table 2.1 Practical definition

A practical definition
An evidence-based program is one that has been evaluated by experts in the field other than the creators of the program, outcomes are attributable to the program itself, and it has been declared evidence-based by a federal agency or a respected research group or registry

not been as rigorous. Metaanalytic reviews of treatments have been cited as a demonstration of the strength of evidence for interventions (Hoagwood et al., 2001). A metaanalysis is a study involving the statistical aggregation of the results of many studies. Whether or not the effects of a treatment are significant depends on the number of individuals in the research study. Metaanalysis allows researchers to determine the direction of effects that do not depend on the number of participants (McCarthy & Weisz, 2007). Although we do not have a pure measure of treatment effectiveness, effect size is a useful tool for comparing studies. A practical definition of an evidence-based program can be found in Table 2.1.

When we consider child and adolescent mental health, evidence-based practices differ from those for adults. In the former, the family is often involved and there are developmental issues to consider. Although issues of child development and context are very important, they are not routinely addressed in research on the interventions for children that are to be implemented in schools. Although treatments have been identified for different disorders of childhood, the studies to support them have most often been connected with university driven, tightly controlled studies. Treatments with solid efficacy cannot assume to be effective in other settings. Complications in school settings include monitoring to make sure that treatments are implemented with fidelity, involvement of heterogeneous populations, high caseloads, the types of services beyond the immediate interventions, the organization of the setting, the culture and climate of the setting, and the motivation of those who will implement programs. These and other factors make implementing a program or an intervention in a school quite different from the controlled situation in which the program was determined to be effective (Hoagwood et al., 2001).

Unfortunately, most school-based programs currently in place to provide mental health services have no evidence to support their effectiveness (Rones & Hoagwood, 2000). Randomized controlled conditions measure efficacy but do not address effectiveness which is critically important when considering programs to implement in schools. We need to know what actually works in schools. When we consider research in schools, it is extremely challenging to conduct research in schools with randomized controlled trials, which is the so-called “gold standard” (Christenson, Carlson, & Valdez, 2002). Control is difficult in applied research, as the realities of school-life do not fit tightly-controlled research designs. Schools are complex contexts. Given that randomization is not always possible, researchers have used quasiexperimental designs. Rather than randomly assigning students to either a treatment group or a control group and comparing outcomes, students are compared to similar students; however, participating in each group is predetermined, most likely because students are already placed in a given class and are not randomly assigned to classes. Quasiexperimental designs are more realistic and

much easier to implement in schools. Quasiexperimentally designed practices often have been evaluated only once or twice rather than multiple times. Some have been evaluated in a particular state or area of the country rather than in many different settings and may not work as well when implemented elsewhere. Programs and treatments been shown to prevent particular behaviors to different degrees.

Programs that are designated evidence-based are not all equally effective. They are not equally likely to be implemented successfully in a given school. It is important to look at these differences in programs when considering them for implementation (Cooney et al., 2007). Tanenbaum (2005) argues that practical clinical trials are needed for schools. These studies compare clinically relevant interventions with diverse populations in real-life settings and evaluate a variety of outcomes. All of these considerations leave school practitioners with the problem of matching their students and community, along with their district's model, to the programs that are available (Kutach, Duchnowski, & Lynn, 2006). Registries with lists of evidence-based programs that have met the particular organization's criteria for effectiveness are available to assist in selecting potential programs and treatments. Sample agencies are listed in Table 2.2.

Various registries are sponsored by federal agencies or research organizations. Of course each registry has its own standards and terminology to determine if a given program should be listed or endorsed. Most lists are problem oriented. Some programs are listed by more than one registry but some caution needs to be used in that programs that might be equally effective and could be listed by one agency and not another given the differences in the criteria for inclusion.

Table 2.2 Examples of frequently referenced program agencies

Frequently referenced program agencies

SAMSA: National Registry of Evidence-based Programs and Practices.

<http://www.nrepp.samhsa.gov/>

Promising Practices Network. <http://www.promisingpractices.net/programs.asp>

CASEL: Collaborative for Academic, Social and Emotional Learning (SEL programs).

<http://www.casel.org/programs/index.php>

CSPV: Prevention Research Center for the Promotion of Human Development at Penn State, the Center for the Study and Prevention of Violence. <http://prevention.psu.edu/>

USDOE: The United States Department of Education's Exemplary and Promising Safe, Disciplined, and Drug-Free Schools Programs 2001 (USDOE) (US).

<http://www.ed.gov/admins/lead/safety/exemplary01/exemplary01.pdf>

CSMHA: Center for School Mental Health at the University of Maryland School of Medicine (Recognized Evidence-based Programs Implemented by Expanded, School Mental Health Programs). <http://www.schoolmentalhealth.org/Resources/Clin/QAIRsrc/Summary%20of%20Recognized%20Evidence%20Based%20Programs6.14.08.doc>

Blueprints for Violence Prevention: Center for the Study and Prevention of Violence, University of Colorado at Boulder. <http://www.colorado.edu/cspv/blueprints/matrix.html>

OJJDP: Office of Juvenile Justice and Delinquency Prevention, US Department of Justice.

<http://ojjdp.ncjrs.gov/programs/mpg.html>

Find Youth Info: Evidence-based Program Directory.

<http://www.FindYouthInfo.gov/ProgramSearch.aspx>

The California Evidence-based Clearinghouse. <http://www.cebc4cw.org/search/select>

Kutach et al. (2006) developed a guide for decision-makers addressing school-based mental health. Their interest was primarily prevention programs. In reviewing the literature they emphasized the fact that schools typically implement multiple programs as problems arise, but most of the programs implemented are not empirically based. In addition, most studies involved young children with only a handful addressing middle or high school students. Programs are available to prevent the development of emotional disorders or to improve student functioning. The guide lists 92 programs ranked by each of five sources as the most effective, or are ready for dissemination. Two-thirds of these address emotional regulation at least to some extent or address social competency. The majority of the programs listed are currently implemented in schools. Indicated programs listed contain a specific and limited number of skills to be taught and also include specific therapeutic approaches targeting students with internalizing disorders, or behavior management strategies to target externalizing disorders. This group points out that there are notable differences in the amount of time involved, in the specific activities included, and in the role of teachers and parents in the various programs. Social skills curricula per se, so commonly implemented in schools are not listed as evidence-based. Social skills training is still considered experimental with more data needed. As of 2006, the well-known Systems of Care (<http://systemsofcare.samhsa.gov/>) and Positive Behavior Supports (<http://www.pbis.org/>) were not listed as evidence-based. These interventions target outcomes for systems vs. outcomes for individual students. They did not provide packaged materials that could be easily implemented in schools as of the time of completion of the guide.

The Three Tiers of Intervention

Social skills training programs are an extremely popular school based intervention. However, Elias and Weissberg (2000) point out that short-term social skills programs, by themselves, do not result in sustained learning. Emotional and social skills need to be practiced and reinforced continuously. Only in this way will skills generalize. Skills and strategies need to be integrated into the regular curriculum, into the life of the school as a whole, in students' families, and in the broader community. This requires very comprehensive programming involving both prevention and intervention. The well known three tiers of intervention model fits this conceptualization. In its 1994 report, *Reducing Risks for Mental Disorders: Frontiers for Prevention Intervention Research*, the Institute of Medicine (IOM) proposed a set of definitions related to behavioral health, and correlated with levels of health risk (Mrazek & Haggerty, 1994). These definitions are based upon a "continuum of care" spectrum that encompasses three categories of prevention: universal (Tier 1), selective (Tier 2), and indicated (Tier 3) (Gordon, 1983).

In tiered models, differentiation in treatment is based on evidence-based components, which progressively increase in intensity. This increases the likelihood of positive outcomes for all students. The time that a student is exposed to the

treatment may increase as a student progresses through the tiers. Tier 2 interventions do not replace Tier 1 interventions, but rather are supplemental to Tier 1 interventions. Some students need not only more time but also more intensity. Delivery of service changes from large group to small group and for some students to individualized interventions as well. Training becomes more explicit as students with the most need progress through the tiers. Examples of programs and interventions at each level can be described. The programs described in the following sections represent a variety of developmental levels that are targeted at various school levels, and demonstrate differences in their respective evidence-bases to support the programs. The programs described address emotion regulation to some degree or address emotion literacy. They are simply a few of many programs and interventions available.

Tier 1: Universal Programs

Universal programs are provided to all students in individual classrooms. They are presented to every student in the class simply because the child is in the class (Wilson & Lipsey, 2007). Programs delivered to all students are proactive, preventive, and reduce the risk of stigma for students who are served (Domitrovich et al., 2010). Much of the available research has centered on universal programs; and in particular, programs for students during elementary school who have externalizing disorders. There has been significantly less research on interventions for middle and secondary students and for students with internalizing symptoms or disorders. There has been surprisingly little integration of programming addressing mental health needs across the school levels or between prevention and treatment, although researchers are moving in this direction. This is a significant need as single interventions or programs may not adequately address the complexity of problems leading to mental health problems. Integrated models use similar language and a basic framework that involves the same processes in different contexts and at different levels. In integrative models, students who do not respond to Tier 1 interventions get a second hit at Tier 2, and again at Tier 3 if they do not make progress. So, the students with the most significant needs are well served along with all other students. There may be an added effect for students serviced at all three or at least two levels. Integrated whole school programming may also be more stable and less likely to be diluted or dropped over time as the administration and teachers in the school system change.

There are many programs and treatments for various problems that students may exhibit. Of these, many include or address issues of emotion regulation to some degree, although they do not typically focus on emotion regulation as the primary organizing construct. In addition, many do not take students' developmental levels into consideration (Kovacs et al., 2006). Students acquire regulation skills differently and can exhibit a variety of diverse coping strategies. A major report of social and emotional learning (SEL) school-based programs by the Collaborative for Academic,

Social, and Emotional Learning (CASEL Update, 2007; Payton et al., 2008) compared 324,303 students who participated in SEL programming during the school day to students who did not. SEL programs are typically universal or Tier 1 programs. This study reviewed more than 700 programs, selecting out 317 designed to teach students skills “to recognize and manage emotions, set and achieve positive goals, appreciate the perspective of others, establish and maintain positive relationships, make responsible decisions, and handle interpersonal situations effectively” (Payton et al., 2008, p. 1). Across studies, students scored 11–17 percentile points higher on standardized achievement tests, but only when the programs were implemented by school staff rather than researchers. Classroom programs were effective in multiple areas. Programs needed to be well executed in order to demonstrate this degree of success and needed to be supported by policy, leadership, and professional development. In addition, programs developed skills in students sequentially, used active forms of learning, provided sufficient time on task, and targeted specific skills explicitly.

At Tier 1, a universal intervention that has a strong focus on emotional literacy and at the same time has a strong research base is the *Incredible Years* (IY) program, which includes three different curricula for parents, teachers, and children (Webster-Stratton & Herman, 2010). The program is an early intervention model targeting risk factors across settings. The IY program has two goals, to enhance both social-emotional and academic competence, which includes understanding of feelings and decrease of negative attributions, with a second goal to reduce conduct problems. The program involves teacher-training, parent training for caretakers of children 2–7 years of age, and two child-training components. The child-training components include one for students in kindergarten through grade 2 (Tier 1), and one for small groups of children aged 4–8 years of age who have already been exhibiting behavior problems (Tier 2) (Webster-Stratton & Reid, 2008). The Tier 1 program consists of the parent and teacher components as well as the *Dina Dinosaur* curriculum with 60 lessons implemented two to three times a week by classroom teachers with whole group discussion, practice activities, and home activities to generalize learning. The *Dina Dinosaur* program trains children in emotion literacy, empathy, friendship and communication skills, anger-management, interpersonal problem-solving, and how to be successful at school (Webster-Stratton & Reid, 2002, 2003).

The IY program has been adapted for use by preschool and elementary level staff as a prevention program. This adaptation is designed to increase social, emotional, and academic competence and to decrease problem behaviors, which interfere with success in the classroom. In addition, the program has been piloted with groups of children with special needs including autism. Outcomes have included increased feeling words vocabulary and increased appropriate responses to problematic social situations. Children who participated demonstrated increased engagement in classroom activities (Joseph, Webster-Stratton, & Reid, 2006). Some consider the IY program “the most-researched, most-supported early intervention for young children exhibiting signs of conduct problems” (Reinke, Herman, Stormont, Brooks, & Darney, 2010, p. 105).

The Tier 2, selective aspect of the program with 60 lessons and small group activities is implemented with groups of five or six children. Although the model suggests weekly 2-h “pull-out” sessions for 20–22 weeks, school psychologists could implement the Tier 2 interventions as a pullout program for children already demonstrating defiance, opposition, impulsivity, and or aggression for shorter periods over a longer time span during a semester. This aspect of the program focuses more intensively on understanding and communicating feelings, friendship development, anger management, social problem-solving, and following school rules (Webster-Stratton & Herman, 2008, 2010).

There are multiple studies demonstrating the efficacy of the IY parent programs including randomized controlled group studies by independent investigators and studies involving low-income mothers with diverse backgrounds. Studies of the child training aspect of the program involving intervention and wait-list groups have demonstrated posttreatment decreases in externalizing behaviors with increases in prosocial behavior (Webster-Stratton, Reid, & Hammond, 2001). Children who participated in the IY *Dinosaur* program (supported by teacher training around classroom management) demonstrated improvements in concentration, emotional regulation, and social skills compared with control group students. Program impact for high-risk children was greatest (Webster-Stratton, Reid, & Stoolmiller, 2006). Implementing the program in early childhood settings had an important effect on teachers. Teachers who participated in training and in implementing lessons were significantly more nurturing, were less critical, were more consistent in management, and focused more on promoting social and emotional behaviors (Joseph et al., 2006). To increase comprehensiveness, the IY program can be integrated with school-wide Positive Behavior Supports (PBS) for example, as the IY program adds support for parents and families. Both interventions promote positive school climates (Webster-Stratton & Herman, 2010). The US Office of Juvenile Justice and Delinquency Preventions chose the IY programs as an exemplary best practice model. IY has been identified as a model program by Center for the Study and Prevention of Violence (Reinke et al., 2010).

The *PATHS* (Promoting Alternative THinking Strategies) program is a universal and comprehensive SEL intervention for students in kindergarten through fifth grade. The program content includes emotional understanding, self-control, social skills, and social-problem-solving skills. The *PATHS* curriculum was designed by Kusché and Greenberg in 1994 to facilitate social and emotional competence. The specific skill areas addressed include emotional literacy, positive peer relations, problem solving, and self-control (Webster-Stratton & Reid, 2008). Classroom teachers implement the program. Kam, Greenberg, and Walls (2003) explored implementation quality and found that significant effects of implementation the *PATHS* curriculum in a large cohort of first grade students was found *only* when teachers implemented the program correctly, and when the program had strong principal support. The Substance Abuse and Mental Health Services Administration (SAMHSA) of the National Dropout Prevention Center/Network rated the *PATHS* program as a model program. It received the highest rating from the Blueprints Project of the Center for the Study and Prevention of Violence at the University of

Colorado. It received a select rating from CASEL, and was rated a promising program by the Centers for Disease Control and Prevention, and the US Department of Education, Safe and Drug-Free Schools Program's Expert panel.

A randomized control study of the *PATHS* program found greater improvements in emotional understanding and social problem solving in the intervention group along with lower rates of externalizing behavior problems 2 years after the intervention (Greenberg & Kusché, 2002). An outcome study involving both typical and special needs students with diverse backgrounds showed that students participating in the intervention learned significantly greater emotion vocabulary than controls as well as demonstrated significant increases in emotion knowledge, although the second finding was not evident in special needs students. Improvements were identified in reasoning about how others feel, in understanding that others could hide feelings, and in understanding how feelings could change. The *PATHS* curriculum influences children's ability and comfort level in both talking about feelings and managing feelings, but not in how emotions work (Greenberg, Kusché, Cook, & Quamma, 1995). In a more recent study of *PATHS*, researchers identified decreases in depression, increases in knowledge of feelings, and increased ability to recognize feelings of others. A 2-year follow-up of this group demonstrated continued reduced internalizing and externalizing problems (Kam, Greenberg, & Kusché, 2004).

The lesson format of *PATHS* is easy for teachers to master and use. The supplemental activities take more time and effort for teachers and are less comfortable for teachers to use. The supplemental activities involve interactive problem solving, class meetings, or the integration of the curriculum with the schools' Language Arts curriculum (Greenberg et al., 1995). Outcomes measured using the *PATHS* curriculum include feelings vocabulary, questions about feelings, emotional experiences, cues to recognizing emotions, understanding simultaneous feelings, display rules for emotions, and changing feelings (reported in Wells, Barlow, & Stewart-Brown, 2003). School psychologists specializing in early childhood will be interested in the preschool version of *PATHS*. Domitrovich, Cortes, and Greenberg (2007) conducted a randomized clinical trial evaluating an adaption of the *PATHS* curriculum. They found that Head Start children who participated in the program had higher emotion knowledge, were less socially withdrawn, and were rated as more socially competent according to both teachers and parents as compared to the control group.

Domitrovich et al. (2010) describe an integrated model using *PATHS*, which involves the addition of classroom management with the *Good Behavior Game*. The Good Behavior Game is a simple behavioral strategy used for groups, which has been studied and independently replicated in over 20 studies across grade levels and is the only documented practice by teachers that has effects over time (Embry, 2002). The integration of the social-emotional skills intervention with the *Good Behavior Game* has been designated with a new title, *PATHS to PAX*. Pax is Latin for peace, productivity, and harmony (Weist, Steigler, Stephan, Cox, & Vaughan, 2010). Implementing the combined program resulted in significant reductions in both internalizing and externalizing symptoms and this has been shown to hold

1 year after intervention implementation. A randomized controlled trial of *PATHS to PAX* is ongoing. In Baltimore, The “Excellence in Mental Health Initiative” explored an even more comprehensive model in which they are implementing *PATHS to PAX* at the universal level along with the *Coping Power* program at Tier 2 (see below) (Weist et al., 2010).

Carol Allred designed the *Positive Action* program in 1982 (<http://www.positive-action.net/>). This program teaches SEL skills and character development to students from age 3 to 18 years of age. The components of the program include a curriculum, interventions to improve school-wide climate, parenting classes, and a variety of kits for various school staff, parents, and the community. The elementary level program consists of 140 fifteen to twenty minute scripted daily lessons in six units. The affective education components include: the relationship of thoughts, feelings, and actions; knowledge about feelings and self-control; and empathy and positive actions for being honest with oneself and others and for getting along with others. Using a matched-control design and school-level achievement and disciplinary data, the program improved student achievement, and reduced disciplinary referrals (Flay, Allred, & Ordway, 2001). A replication study was able to find similar results and in addition found that effects endured through middle and high school with positive effects for behavior. Effects were as large or larger in high-risk schools (Flay & Allred, 2003). Although most prevention programs focus on behavior to prevent behaviors, the *Positive Action* program focuses on positive actions, behaviors, thoughts, feelings, and values. It has been considered to be an effective program by the Office of Juvenile Justice and Delinquency Prevention, a model program by SAMHSA, and a promising program by the US Department’s Safe, Disciplined, and Drug Free Schools (Stiegler & Lever, 2008).

The Oregon Resiliency Project was launched in 2001 with an emphasis on prevention and mental health promotion and has developed five programs: *Strong Start for Pre-K*, *Strong Start for Grades K-2*, *Strong Kids for Grades 3-5*, *Strong Kids for Grades 6-8*, and *Strong Teens for Grades 9-12*. Each curriculum has elements in common as well as elements that fit the particular age group. The two *Strong Start* curricula focus on understanding and managing six universal emotions. The two *Strong Kids* curricula emphasize understanding and managing one’s own feelings and other feelings, as well as including one unit on solving people problems. *Strong Teens* utilizes more sophisticated language and problem scenarios appropriate for this age group. Lessons are taught once per week for 35-50 min depending on grade level. More specific components that nicely fit emotion education include cognitive restructuring, empathy training, and stress reduction such as relaxation (Merrell, 2010).

It is important to indicate at the outset that this program has quasiexperimental research support and there have been no published studies as yet using randomized clinical trials or replication studies (Merrell, 2010). However, the programs deal directly with emotions and are worth consideration. Additionally, there have been quite a number of dissertation studies looking closely at the program. A number of studies exploring the effects of these programs have provided some evidence of significant outcomes. Gains in social-emotional knowledge have

been demonstrated: among sixth graders (Fuerborn, 2004); among upper elementary and middle school students along with reductions in internalizing symptoms (Gueldner, 2006); among at-risk students in grades 3–5 using a Tier 2 intervention (Brown, 2006); among fifth graders (Faust, 2006); among fourth and fifth graders with concomitant decreases in internalizing symptoms although the effect size for symptom reduction were small (Tran, 2007); and among first graders who showed increased knowledge and significant decreases in symptoms (Whitcomb, 2009). Dissertation research has also demonstrated that *Strong Start* can be implemented with integrity (Whitcomb, 2009) and that positive gains could be maintained 2 months postintervention (Harlacher, 2008; Merrell, Juskelis, Tran, & Buchanan, 2008). A booster session, praise, and precorrection were helpful generalization activities. The curricula have social validity and can be implemented inexpensively and with fidelity (Merrell, 2010).

There have been some additional studies beyond the dissertation studies. Published pilot studies involving general education middle school students and with high school students identified as having significant emotional difficulties have demonstrated significant and meaningful changes in social-emotional knowledge and negative symptoms (Merrell et al., 2008). Kindergarten students participating in *Strong Start* demonstrated gains in prosocial behaviors and decreases in internalizing behaviors as reported by both teachers and parents (Kramer, Caldarella, Christensen, & Shatze, 2010). Similar gains were demonstrated for second grade students using *Strong Start* with improvements in internalizing behaviors and prosocial behaviors particularly for children at-risk when the intervention group was compared to a nonequivalent control group (Caldarella, Christensen, Kramer, & Kronmiller, 2009). Important for school psychologists, the program developers and overseers are working on an assessment tool to measure student assets and resiliency. Of the number of studies reported regarding the Oregon Resiliency Project, the majority used the curricula at a Tier 1 level. One study was included using the curricula at the Tier 2 level, which suggests that school-based mental health practitioners have the option of using the curricula for either a Tier 1 or Tier 2 intervention should they feel that this program best meets the needs of their school.

The *Penn Resiliency Program* (PRP) teaches cognitive behavioral and social problem solving in a manualized curriculum designed for both elementary and middle school levels and is designed to be taught by trained school personnel. The program is the most widely evaluated depression prevention program for youth (Gladstone & Beardslee, 2009). This universal prevention program uses Albert Ellis' ABC model. The model stresses activating events (A), beliefs about activating events (B), and consequences that are both emotional and behavioral (C), interact with one another, influence each other, and include one another (Ellis, 1991). In the PRP students learn that beliefs affect both emotions and behavior.

There have been a number of controlled studies completed utilizing the PRP, most of which have utilized randomized controlled research designs. These studies measured the effect of participating in the program on depressive symptoms. Generally, they show that the program prevents symptoms or reduces symptom

levels in many children and results can last up to 2 years postintervention (<http://www.ppc.sas.upenn.edu/prpsum.htm>). One study of particular interest was an effort to prevent cooccurring depression with behavior problems. Using the PRP, middle school students exhibiting elevated levels of conduct problems were prevented from developing elevated depressive symptoms compared to a group receiving no intervention (Cutuli, Chaplin, Gillham, Reivich, & Seligman, 2006).

Researchers also explored whether the PRP program might be more effective if it were delivered in all-girl groups vs. coed groups. Girls who participated in all-girl groups were less hopeless and attended sessions regularly, but both coed and all-girl groups were effective in reducing symptoms of depression (Chaplin et al., 2006). One school-based pilot program added a parent component. Because students demonstrated significantly reduced symptoms when the parent program was added and were also less likely to report high levels of anxiety, practitioners may consider adding a parent component if they feel this program meets the identified needs at their school (Gillham et al., 2006).

The PRP has been evaluated empirically over several years with children and teens from various ethnic and cultural backgrounds in universal studies and in targeted studies (Gladstone & Beardslee, 2009). For students at high risk for depression, the program appears to have meaningful preventive effects although practitioners need to be careful when considering this program depending on their population. An important study utilizing PRP involved low-income Latino and African-American students at the middle school level. Investigators found beneficial effects for Latino students 6 months postintervention and also at 2 years postintervention. There was no beneficial effect for African-American students at either of the postintervention mark (Cardemil, Reivich, & Seligman, 2002). A follow-up study confirmed the group's original findings at 24 months postintervention, i.e., beneficial effects for Latino children but not for the African-American children (Cardemil, Reivich, Beevers, Seligman, & James, 2007).

The *FRIENDS* Program is a group-based intervention. It is targeted for both children and adolescents at-risk for anxiety and depression and has also been implemented as a prevention program. Therefore, it has been used at both Tier 1 and Tier 2 levels. The *FRIENDS* acronym stands for *F*eeding worried, *R*elax and feel good, *I*nnner thoughts, *E*xplore plans of actions, *N*ice work, *R*eward yourself, *D*on't forget to practice, and *S*tay cool. When used as a Tier 1, universal, skills-based program for schools, a number of tightly controlled studies have supported the efficacy of the program. It has been successful with children who speak English, and those who do not, in reducing symptoms of anxiety. When utilized in a community setting, 73% of children with an identified anxiety disorder improved, reducing both anxiety and depressive symptoms (Farrell & Barrett, 2005). The *FRIENDS* program includes: psychoeducation, relaxation strategies, cognitive restructuring with positive self-talk, problem solving with exposure, self-rewards, goal setting, and relapse prevention. Parent training and booster sessions are an integral part of the program and there are separate workbooks for children (6–11 years) and adolescents (12–16 years). The program was designed so that it would be implemented for 10 weeks, with two booster sessions, and a 6-h parent component

delivered in four sessions. Parents are urged to practice strategies with their children daily. Children are urged to make friends and to learn from one another. Children are also given attention training and are encouraged to evaluate their successes positively (Shortt, Barrett, & Fox, 2001).

Lowry-Webster, Barrett, and Lock (2003) evaluated the success of the *FRIENDS* program implemented by trained teachers in seven schools involving children from 10 to 13 years of age. Children who participated in the program reported fewer symptoms after the intervention with the high-anxiety students reporting significantly reduced symptoms of depression. Results were maintained 1 year later. Eighty-five percent of children scoring above the cut-off scores for anxiety and depressions were without diagnosis at follow-up whereas, 31.2% of students in the control group received diagnoses. Lock and Barrett (2003) delivered the *FRIENDS* program to students in grades 6 and 9. They found that primary aged students reported the greatest improvements in symptoms of anxiety. This suggests that early intervention is important. Researchers demonstrated that the universal intervention showed great promise in reducing symptoms of anxiety as well as improving children's ability to cope with symptoms. Ollendick, Barrett, Dadds, and Farrell (2006) evaluated the universal *FRIENDS* Program used with sixth and ninth graders, in comparison to control groups receiving no treatment. They found fewer high-risk children 36 months postintervention.

The *FRIENDS* Program has been implemented in British Columbia schools. A review of literature by Vancouver scientists prepared for the British Columbia Ministry of Children and Family Development determined that the *FRIENDS* program appeared to be efficacious across the entire spectrum as a universal prevention program, as a targeted prevention program, and as a treatment intervention (Waddell, Godderis, Hua, McEwan, & Wong, 2004). In 2004, the British Columbia Ministry of Children and Family Development decided to implement the *FRIENDS* program as a risk reduction strategy for anxiety. It was delivered in cooperation with the Ministry of Education. School professionals delivered *FRIENDS* as a classroom-based universal prevention program or as an early intervention to children who were thought to be at higher risk for anxiety disorders. More than 77,000 children in grades 4 and 5 participated in the program in British Columbia between 2004 and 2007, where it is called *Friends for Life*. *Friends for Life* is the only childhood anxiety prevention program acknowledged by the World Health Organization. There are now 8 years of comprehensive validation studies across several countries involving different languages and using rigorous randomized control studies. Materials for school-based mental health workers interested in this program are available online (<http://www.crownpub.bc.ca/hitlist.aspx>).

Symptoms of posttraumatic stress disorder (PTSD) can interfere with adjustment and academic success. The *Cognitive Behavioral Intervention for Trauma in Schools* (CBITS) is a standardized brief CBT intervention originally designed for an inner-city mental health clinic (Stein et al., 2003). Currently, the program is intended for students aged 10–14 years of age and is implemented by school-based mental health professionals. One to three individual sessions, two parent training sessions, a teacher meeting, and ten group sessions are typical. Students are taught

a new set of skills at each session and homework is collaboratively developed to address symptoms of PTSD, depression, and anxiety as a result of witnessing or experiencing violence. In 2001–2002 school mental health practitioners implemented CBITS with middle school students who had been exposed to violence and evidenced symptoms of PTSD. The intervention group was compared to a wait-list group. Students who participated in the intervention had significantly lower scores on a tool measuring symptoms of PTSD. In addition, they had lower scores on depression and evidenced less dysfunction. CBITS has been designated a promising or proven school-based intervention (Cohen et al., 2009).

During 2004–2006, the Task Force on Community Preventive Services, an independent group appointed by the Center for Disease Control and Prevention, published a review of interventions for treating trauma in children (Centers for Disease Control, 2007). This independent group of scientists evaluated art therapy, play therapy, drug therapy, and the debriefing technique to indicate whether or not that these interventions might have enough evidence to indicate that they were sufficiently effective. Researchers found they did not. What they did find effective was group and individual CBT. CBT has sufficient evidence to say that it reduces symptoms of depression, anxiety, and posttraumatic stress in both children and teens. The task force reported that mental health organizations believe more than 75% of professionals working with children and adolescents with PTSD currently use treatment that is not effective (Wethington et al., 2008).

Tier 2: Selected or Targeted Programs

Selected or targeted (Tier 2) programs are delivered to students who are carefully selected because they show some risk factors. Students can be identified by universal screening or by teachers who identify social, emotional, or behavioral difficulties in their students (Wilson & Lipsey, 2007). The subgroups of students identified for selected interventions are at a higher risk of developing disorders than their peers (Domitrovich et al., 2010). Strategic targeted interventions are designed to intervene with children at-risk around a particular issue. These interventions use a group format. The interventions should be highly structured and use a manual. The advantages of manual-based interventions include the fact that the specific content has already been identified and is described in detail, the procedures are clearly defined and outlined in detail, activities are included, and outcome research is available to support them. The complications are that the manualized interventions may not match particular student needs, the timing of the sessions may not match the context, and the intervention may provide materials to teach skills but may not address the complications of implementing the program (Christner & Forrest, 2008).

It is very helpful when identifying students for additional services to compile as much information as possible about the child's knowledge and use of emotion regulation strategies. We know that the use of emotion regulation strategies vary according to age, gender, and culture (Haga, Kraft, & Corby, 2009). Also important

is to be aware of age-associated differences and gender differences in emotion regulation. This data will be enormously helpful in matching needs to interventions; in setting priorities and goal setting; and in designing, monitoring, and determining outcome measures (Kovacs et al., 2006). There are a number of Tier 2 interventions to consider when planning school interventions.

Trauma-focused Cognitive Behavioral Therapy (TF-CBT) has the most research support for school-aged children. This model has been tested and found efficacious by several independent research teams and has been adapted and evaluated for Latino children (Foa, 2009). Cohen, Deblinger, Mannarino, and Steer (2004b) found that 8–14-year-old sexually abused children experienced significantly greater reductions in PTSD and depressive symptoms, as well as reductions in negative behavior, shame, and negative attributions when treated with TF-CBT as compared to those treated with child-centered therapy. A metaanalytic study of treatments utilizing TF-CBT met the criteria for a well-established program (Burns et al., 2008).

The *Primary Project* is a selected school-based mental health prevention program for children at-risk (Cowen, Hightower, Pedro-Carroll, Work, & Wyman, 1999). Children that are targeted are from 4 to 9 years of age, or preschool through grade 3. Trained paraprofessionals work with identified children one-to-one using child-directed play for 10–14 weeks, in 30-min sessions per week. Outcomes that are addressed include increased task orientation, behavior control, and social skills. Data indicates that children show improvement in task orientation postintervention. Compared to a control group, children participating in the Primary Project improved on five to seven indicators of school adjustment including anxiousness and assertiveness (Nafpaktitis & Perlmutter, 1998). Ratings by SAMSA's National Registry of Evidence-based Programs and Practices indicated that multiple studies provide ongoing documentation and the intervention is effective in promoting outcomes. A step-by-step manual is provided to implement the project and tools for training are available. Recommended outcome and screening protocols are available.

The *Anger Coping Program* is a cognitive-behavioral intervention for a group of 4–6 aggressive children at the elementary or middle school level. This program has an 18-session group format which runs 45–60 min in schools (Lochman, Nelson, & Sims, 1981; Smith, Lochman, & Daunic, 2005). The groups are structured, have goals and objectives, and involve specific activities or exercises. Anger management is central. There have been a number of evaluations of this program, although the evaluations have primarily been conducted by the designer of the program. One study involved boys from 9 to 12 years randomly assigned to four groups. Two groups were taught anger coping and boys in these groups reduced aggressive and disruptive behaviors (Lochman, Burch, Curry, & Lampron, 1984). In a quasiexperimental study with boys in the same age range, researchers found that longer sessions produced greater improvement in off-task behaviors (Lochman, 1985). Using control groups, boys in the anger-coping group exhibited effects that lasted longer, had higher self-esteem, and lower rates of irrelevant solutions to social problems, although delinquent behaviors did not improve (Lochman, 1992). In a fourth study using a control group, Lochman, Coie, Underwood, and Terry (1993) found effects for only a subgroup of aggressive and rejected students.

Tier 3: Indicated Programs and Interventions

Indicated programs and interventions target students who are identified as having symptoms related to mental disorders (Domitrovich et al., 2010). In schools these students may have Individualized Educational Plans and may or may not be diagnosed with a disorder. School-based practitioners who service larger populations of students and who have identified specific groups of students with similar status so that they can put together somewhat homogenous groups will want to explore many of the well-supported manualized programs in order to determine if one or more of these programs might be suited to their population. Evidence-based manualized programs are available for addressing anxiety, depression, anger, and posttraumatic stress.

The *Coping Cat* Program, developed by Philip C. Kendall, Ph.D., is a CBT manualized and comprehensive treatment program for children who exhibit anxiety disorders (Kendall, Kane, Howard, & Siqueland, 1990). The *Coping Cat* program is the most widely used program for decreasing anxiety, specifically targeting students with separation anxiety disorder, generalized anxiety disorder, and/or social phobia. The *Coping Cat* program is multifaceted as it involves the parent/family as well as the child. Parents are taught to be coaches, to arrange play dates, and to hold small group gatherings of children in their homes. The program uses modeling, exposure, and relaxation training to help students develop realistic expectations. In addition, modeling, imaginal and in vivo exposure, role-play, relaxation, and reinforcement contingent on performance constitute the behavioral aspects of the program. Students develop coping statements and self evaluate their performance. They learn an acronym “*FEAR*” for *Feelings, Expectations, Actions, and Reward* (Gillham, Reivich, Jaycox, & Seligman, 1995). The main principles of the program are:

- Recognizing feelings and bodily reactions to indicate anxiety
- Identifying situations that provoke anxiety or negative expectations
- Changing self-talk from anxious to coping self-talk, and determining coping actions
- Exposure
- Self-evaluation and reinforcement (Albano & Kendall, 2002)

There are actually three programs: the *Coping Cat* program for children aged 8–13 years with a parent component and available in several languages; the group *Coping Cat* program designed for four to five students; and the *C.A.T. Project* for older students aged 14–17 years. All three programs have manuals. The manuals and training materials can be obtained online (http://www.workbookpublishing.com/cat_prod.php?cPath=21_26). Comprehensive materials are available to practitioners. There are two workbooks, one for children 8–13 years and one for students 14–17 years. In addition, training DVDs, offers to assess treatment integrity, and a computer-assisted intervention called *Camp Cope-a-Lot* are available. Sessions can be implemented individually or in groups.

The *Coping Cat* program is considered the best researched protocol for students aged 7–16 years who are demonstrating anxiety. Children of various races and ethnicities were included in studies. Several randomized clinical trials have evaluated the *Coping Cat* program. Two different research teams have been involved.

Kendall (1994) compared outcomes of children with a variety of anxiety disorders participating in the program with outcomes to those of wait-list children. Sixty-four percent of children 9–13 years old who participated were diagnosis-free after treatment compared to 5% of wait-listed children. Gains were maintained 1 year later. A follow-up study showed gains lasted from 2 to 5 years (Kendall & Southam-Gerow, 1996). A second randomized clinical trial with 9–13 year olds (Kendall et al., 1997) showed that 50% of participants were diagnosis-free after the intervention and the remaining youth had a significantly fewer symptoms. Gains were present 1 year later. Another follow-up study this time 7 years later, determined that 90% of children treated in the earlier study maintained gains and did not meet criteria for an anxiety disorder. However, at this time it is difficult to identify which ingredients are primary in determining outcomes (Kendall, Aschenbrand, & Hudson, 2003).

According to SAMHSA's National Registry of Evidence-based Programs and Practice (http://nrepp.samhsa.gov/programfulldetails.asp?PROGRAM_ID=82), there have been at least 16 published outcome studies of the *Coping Cat* treatment along with replication studies. The intervention has been implemented in Australia, Canada, the Netherlands, and the United States and has been translated into six languages. SAMHSA's outcomes ratings are strong, whereas, readiness for dissemination ratings has not been as strong. The Promising Practices Network lists the *Coping Cat* program as promising, a lower rating possibly because the developer participated in the evaluation studies (<http://www.promisingpractices.net/program.asp?programid=153>). It has been given a "well-supported" by research evidence rating by the California Evidence-Based Clearinghouse for Child Welfare (<http://www.cachildwelfareclearinghouse.org/program/125>).

The program has been used and adapted in Canada where it is called the *Coping Bear* program (Connolly et al., 2007). In 1996, Barrett adapted the program for Australia children and renamed it the *Coping Koala* program. When the *Coping Koala* program was implemented either alone or with an additional family component and compared to wait-listed children receiving no treatment, 69.8% of participants were diagnosis-free of anxiety disorders, whereas, only 26% of wait-listed children were without diagnoses. Family problem solving and parent training provided added benefits. Long-term follow-up of a subset of participants showed that benefits were maintained (Farrell & Barrett, 2005). This study and subsequent research confirming benefits, led to the development of a group intervention. Shortt et al. (2001) conducted an evaluation study involving children from 6 to 10 years of age with anxiety disorders, and followed the children for 1 year postintervention. At 12 months, 68% of children were free of diagnostic criteria for anxiety disorder. The *Coping Koala* program was renamed the *FRIENDS* program in 1999.

Two CBT approaches that have received particular attention in research for treating adolescent depression are the Beck, Rush, Shaw, and Emery (1979) approach and the Lewinsohn, Clarke, Hops, and Andrews (1990) approach. The Lewinsohn approach is called the *Coping with Depression* course. Lewinsohn felt that both behavior and thoughts sustained depression, and if one made changes in either, symptoms would improve. Beck considered cognitive processes alone the major underlying variable in maintaining depression.

Researchers have compared Beck's CBT with supportive and family therapy (Brent et al., 1997). All participants in both interventions had moderate to severe depression. The principle driven CBT treatment begins with psychoeducation, followed by quite flexible, less structured individual treatment. Cognitive restructuring is emphasized with use of behavioral activation and problem solving, as needed. The positive response rate has been 60%. A study, known as "The Pittsburgh Program," demonstrated that there were large, reliable effects when the CBT program was compared with alternative psychosocial treatments for adolescents.

In contrast, Lewinsohn's *Coping with Depression for Adolescents* program is a highly structured group course with a workbook and homework including all of the core CBT techniques plus social skills and relaxation training. The program is designed to help at-risk adolescents gain control when feeling negative by changing maladaptive thinking, and resolving conflicts (Gladstone & Beardslee, 2009). Outcomes for this intervention were tested in two trials. Results were very positive with a response rate of 65% in one trial, and 47% in the other, especially with less severe depression (Weersing, Rozenman, & Gonzalez, 2009). The program also appears to have a significant preventive effect.

Research determined that both models could be effective under controlled conditions although there was always a small group who did not improve. Key questions in depression prevention and treatment involve how to increase the percentage of adolescents who improve, how to reduce relapse, and can CBT work outside of tightly controlled laboratory conditions (Curry & Becker, 2008)? Efficacy has been established but questions remain about effectiveness. Materials for the *Adolescent Coping with Depression* and *The Coping with Stress Course*, a more universal program, along with additional materials can be found online (<http://www.kpchr.org/public/acwd/acwd.html>).

Horowitz and Garber (2006) examined interventions for depression and found that both selective and indicated prevention programs were more effective than universal programs at follow-up although some of the universal programs they looked at were indeed effective. However, interventions using teachers were not as effective as those involving mental health staff. Effect sizes were small to moderate right after completing the interventions and 6 months later. The more effective interventions were more treatment than prevention. More recently, researchers have found that prevention programs produced significant reductions in symptoms with larger effects for high-risk students, for girls, and for older adolescents (Stice, Shaw, Bohon, Marti, & Rhode, 2009). In addition, programs with shorter duration and homework were more successful than others.

The *Coping Power Program* is a longer version of the *Anger Coping Program*. The program has multicomponents and was designed for use as students' transition from elementary to middle school, or as students' transition to adolescence (Lochman & Wells, 2002). The *Coping Power* program is implemented in schools over 2 years. There are 8 sessions in the first year and 25 in the second year with sessions lasting 40–60 min. Components of the program consist of goal setting, awareness of feelings, awareness of physiological cues, use of

coping self-statements, distraction strategies, relaxation skills when provoked or angered, organizational and study skills, perspective taking, attribution training, social problem-solving, dealing with peer pressure, and refusal skills associated with neighborhood pressure (Lochman & Wells, 2004, p. 573). There is an important parent component consisting of 16 sessions over a 2-year period, with parents meeting at school. To encourage parent attendance, babysitting and a stipend have been provided. Outcomes at 1 year postintervention in a small sample of boys indicated lower rates of self-reported covert but not overt delinquency, and only in the *Coping Power* groups with a parent component. There were significant effects on teacher ratings of improvements in school misbehavior the year after the program in both cases. This was attributed to the child-component of the program alone. The program did not have equivalent effects for both White and African-American boys. When a teacher directed component was added to the parent and child components, preventive effects were noted in regard to delinquency and substance abuse use for older students at moderate risk (Lochman & Wells, 2003).

Olatunji and Lohr (2004) analyzed the efficacy of treatments for anger, looking at factors that may account for changes other than the treatment itself. Their analyses suggested that unknown nonspecific factors clearly contributed to improvement and they concluded that the evidence for the efficacy of anger reduction programs is limited. These researchers, however, do not feel that interventions should be discontinued because they are definitely necessary, and are better than no treatment at all. On the other hand, a different metaanalysis looked at school-based interventions for aggressive students and concluded that although school-based programs generally are developed and implemented by researchers rather than school staff, they have “generally positive effects” (Wilson & Lipsey, 2007, p. S141). Universal and targeted interventions were most common with somewhat larger effects when programs included a behavioral component. Larger treatment effects were found in students at highest risk. In the case of universal programs, the students who benefit most were from disadvantaged backgrounds. In the case of selected/indicated programs, the students demonstrating negative behavior benefited most. This is logical given one cannot see improvements unless there is a problem in the first place. Interestingly, most of the studies involved demonstration programs and there is actually surprisingly little data available to tell us about the effectiveness of programs in every-day real-world practice.

Chapter 3

Strengthening School-Counseling Interventions

Schools and school districts are at different stages in their development of school-based mental health services. Whether schools are trying to develop comprehensive services or just trying to improve what they already are providing, there are many reasons why school mental health counseling is less successful than we might think. For example, social skills training alone is not sufficient; there are considerable implementation challenges to consider; finding an adequate screening tool for Tier 2 or 3 prevention or intervention work is difficult, and finding tools specifically for identifying emotion regulation weaknesses takes considerable work. It is imperative to improve what is currently being provided by addressing issues such as generalization, dosage and time effects, matching programming to deficits, and addressing contextual factors, as well as planning and implementing both progress monitoring and outcome evaluation. Suggestions are made for dealing with this myriad of challenges so that we can improve what we currently do and plan appropriately for more comprehensive programming.

Once a school district has decided to implement comprehensive school-based mental health services, the goal is to tackle this effort following best practices. However, some schools and school districts are not yet ready to tackle this effort and may want instead to review what they are doing, move more slowly, and make improvements in what is already in place. There are a number of ways to approach either task, and both will require some to a great deal of change in a school. Change is not easy in any system. Both approaches are considered.

There are key advantages to providing mental health services in schools beyond what is mandated by special education. Providing mental health services in schools can help students avoid the stigma associated with visiting a hospital or clinic, although receiving services in school could also result in peer rejection if schools do not guard against this possibility. School-based services avoid transportation and insurance issues and can result in longer commitment to completing mental health interventions. Schools have access to background information such as performance over time in the school setting, and to peer functioning. Schools provide an efficient way to reach a large number of students and also have ready access to outcome data such as disciplinary records and teacher reports (Farrell, Meyer, Kung, & Sullivan, 2001). The American Academy of Pediatrics, Committee on School Health (2002–2003) advocates strongly for school-based mental health services (Taras, Young, & The Committee on School Health, 2003). There is also suggestion that mental

health services in schools may be increasing partly because more educators now recognize that emotional problems interfere with school performance (Slade, 2002). However, services in schools remain highly variable.

Implementing Comprehensive School-Based Mental Health Services

When considering implementing comprehensive school-based services, a popular organizing strategy is to think of a three-tiered approach (Levitt & Merrell, 2009). A three-tiered approach is efficient. Each tier is comprised of an intervention of increasing strength and increasing likelihood of producing the outcomes that are expected (Greenwood, 2009). In an organized and healthy school setting, universal preventions are provided for all students and address the needs of 80–90% of the student population. The goal is to reduce new or possible mental health problems. Secondary or selected interventions are provided for students at risk of developing mental health problems. These efforts address the needs of 5–10% of students. Tertiary or intensive interventions address the needs of 1–5% of the student population, reducing the effects of symptoms that may already be problematic (Levitt & Merrell, 2009). An evidence-based program needs to be selected to match the school population. A starting point would be to look for a program with a strong theoretical model (Farrell, Meyer, Kung, et al., 2001). CSMHA at the University of Maryland School of Medicine updates its list of programs and provides age/grade level information, provides the topics addressed in the various programs, lists the primary implementer, denotes the structure of each curriculum, and lists program recognition by various agencies. CSMHA organizes programs into three tiers and also by internalizing and externalizing disorders. This is a very helpful resource for schools. Yet another important consideration is how the new program can be incorporated into a school's vision or mission statement and how it can complement statewide standards (Farrell, Meyer, Kung, et al., 2001).

Tier 1: Implementation Challenges

It is quite difficult to transport evidence-based interventions and program to a school–real world setting. Implementation challenges have become a focal point of both researchers and practitioners (Probst, 2008). Certainly the level of implementation affects the outcomes of prevention programs (Durlak & DuPre, 2008). A whole range of contextual factors affect implementation. Domitrovich and Greenberg (2000) pointed out that many of the best programs had not monitored or verified program integrity as of 2000. If implementation data is not collected, it is impossible to determine what actually occurred as a program was put in place, and it is difficult to put a lot of faith in what it is about a given program that may or may not have

produced change. In addition, it is important to learn what obstacles implementers face. Implementation data is used to improve the quality of a program. Aspects important to examine include adherence to the original program, dosage, how responsive participants may be, and program differentiation. When a program is determined not to work, without the implementation data we do not know if it really did not work or it was not implemented adequately (Hahn et al., 2007).

When a program is implemented in the naturalistic setting, conditions are no longer under maximum control, and chances that implementers will make modifications or implement program components inconsistently increases. Specific implementation issues to monitor and measure include the degree to which service delivery meets program goals, whether all students or only select students were involved, classroom control, student responsiveness, and the degree of participation by students (Mihalic, 2002). It is important to pay attention to problems associated with implementation and what might be helpful to overcome obstacles (Fagan & Mihalic, 2003). Selecting and adopting a prevention program must be done carefully, or implementation fidelity will be jeopardized. The program must fit the school's values and goals (Noonan et al., 2009). At least, moderate levels of training and technical assistance are needed. The importance of training cannot be underestimated (Mihalic, Fagan, & Argamaso, 2008). Additional training beyond what was originally planned may be necessary, as well as weekly coaching (Weist, Stiegler, Stephan, Cox, & Vaughan, 2010). Administrative support is critical, and formal agreements may ensure administrative support (Lynch, Geller, Hunt, Galano, & Semon, 1998).

In universal programming, implementation fidelity depends on teacher's ability to implement programs as they were designed, since mental health workers in schools are in supportive rather than administrative roles. The degree of burnout teachers may experience, the degree to which teachers believe they can make a difference, administrative support, and degree and type of training each affect teachers' ability to implement programs (Ransford, Greenberg, Domitrovich, Small, & Jacobson, 2009). These factors influence the number of lessons delivered in the classroom and whether or not generalization practices are put in place. Teachers in lower grades in general deliver more lessons and engage in more generalization efforts than secondary teachers. Chronic overload and burnout negatively affect teacher preparation time. Teachers are also less likely to implement more innovative aspects of programs (Hahn, Powers, Rayens, & Myers, 2002). Implementation needs to be monitored through teacher questionnaires, interviews, and observations (Dusenbury, Brannigan, Hansen, Walsh, & Falco, 2005; Hahn et al., 2002; Lynch et al., 1998). Experienced teachers have been found to be more likely to deliver programs as designed. Roles for mental health professionals include identifying appropriate programs to meet needs, teacher training, progress monitoring, and program evaluation.

There are additional factors that can interfere with implementation, and one critical factor relates to student behavior. Better behavior is significantly associated with more material taught, and in turn, when teachers use more interactive techniques, students behave better. Teachers need training in classroom management

techniques, which school psychologists can provide. Finally, teachers who believe that a program is effective implement the program with more fidelity (Brackett, Rivers, Choe, & Adams, 2008).

Tier 1: Adaptations to Evidence-Based Programs

Although certainly not restricted to Tier 1, there is conflict in regard to treatment integrity versus tendencies to adapt programs to meet local needs. A cautionary goal may be to select programs with features that allow for some flexibility in the first place (Mihalic et al., 2008). The conflict, which has to do with quality implementation of empirically supported interventions and programs, yet allowing for enough flexibility to meet needs, is called “diffusion” (Ozer, Wanis, & Bazell, 2010). Input of local staff and stakeholders is considered particularly important as programs are chosen and implemented, just as treatment integrity is considered very important.

A common reason for adaptations of curricula has to do with meeting the needs of cultural groups. Common strategies for making programs culturally appropriate include the following: making minor changes so that the program *appears* more relevant and appealing, highlighting the importance of the health issue for the cultural group, or deeper level changes to make the program consistent with the values, beliefs, or practices of the specific cultural group. We clearly need more data so that we know which components of which programs can be modified as compared to elements that cannot be modified, especially because some teachers may not even realize that they are making changes (Ozer et al., 2010). Researchers note that although teachers’ adaptations tend to be reasonable, some teacher suggestions involve strategies that are not empirically supported. We need to be aware of the tendency to adapt programs, and we need to make sure that these adaptations do not undermine core components not only at Tier 1 but also at Tiers 2 and 3. We may need to accept the fact that some adaptation of interventions may be inevitable (Schulte, Easton, & Parker, 2009). It is helpful to note that positive results have been obtained when teachers have implemented about 60% of components of interventions.

Screening for Tier 2

Many school mental health practitioners are running Tier 2 groups, although their school or district many not yet have implemented comprehensive services. At this point, we can address the needs of both the school teams who are planning comprehensive services and also address the needs of practitioners who are interested in improving the services they do provide. Identification of students for Tier 2 mental health interventions cannot be haphazard. The identification needs to be carefully planned.

Screening has been used in both the health professions and in education for a long time (Catts, 2006). The accuracy of screening depends on how well a tool separates students who are at risk as compared to those who are not at risk. A screening tool needs to be short and easy to administer. Screening tools are characterized by both sensitivity and specificity. Sensitivity has to do with how well the tool identifies students at risk who are actually at risk, or true positives. Specificity has to do with accuracy of a screening tool in identifying students as not at risk who later function well, or true negatives (Jenkins, Hudson, & Johnson, 2007). Genrich and McGuire (2009) argue that use of an evidence-based screening tool in the form of a questionnaire is an effective way to identify adolescents at risk for mental illness because symptoms of mental disorders are usually present for 2–4 years before onset of the full illness. Scoring positively on a screening tool is typically followed by an interview. The 35-item *Pediatric Symptom Checklist* (Jellinek et al., 1999) is used in primary care settings, but mental health screening in schools is another matter. In schools, the *Systematic Screening for Behavior Disorders* by Walker and Severson (1992) is a multigated system that might be considered as a screening tool.

Levitt and Merrell (2009) suggest that the quickest and most time-efficient method for identifying students for Tier 2 interventions is simply teacher nominations. Teachers are good at identifying children with externalizing disorders but not as good at identifying internalizing disorders. Therefore, caution is needed if teacher nominations are used. Teacher nominations can only be considered a first step. Student self-report is another approach, yet there are problems here as well. Students may not be verbal enough, old enough, or sophisticated enough to manage self-report measures, which often contain Likert scales. Children need to be able to read the items and relate them to themselves. This approach is not helpful for young, special-needs, or less-capable children. Levitt and Merrell suggest the “rule of two” when trying to identify students with internalizing disorders, i.e., collect data from *two* informants, using *two* assessment methods, and in *two* settings (p. 20). Zeidner, Matthews, and Roberts (2006) suggested yet another approach. There are factors that have been identified relating to difficulty regulating emotions. These include temperamental variables such as irritability, rapid rise of emotions, and high intensity of emotions when they are expressed. Misappraisals, inability to improve mood or shift emotions, lack of ability to handle specific emotions or specific contexts are additional behaviors that need to be identified in individuals. These are the behaviors of children for whom Tier 2 interventions would be appropriate.

The New Freedom Commission on Mental Health recommended the *Columbia University TeenScreen* program as a model program (Weist, Rubin, Moore, Adelsheim, & Wrobel, 2007). The goal for using this program is to identify adolescents who may be depressed and suicidal. However, this type of mental health screening continues to be controversial. Opponents cite both government intrusion and family privacy as concerns, even though screening is voluntary and requires active consent both of the family and the teenager. Additionally, schools who consider this type of screening need to determine if they have the resources in their school and community to deal with the data the screening might generate.

Aspects of broad-based mental health screening include the following: evaluating privacy safeguards, liability issues, establishing connections in community agencies for backup and follow-through, identifying age groups at risk, clear follow-up procedures, staff training, identifying a culturally sensitive tool, and determining how screening will fit into the full continuum of mental health services in the school. A successful project in the Seattle Public Schools utilized the *Mood and Feelings Questionnaire* (Angold et al., 1995) along with externalizing questions from the *Youth Self-Report* (Achenbach & Rescorla, 2001). This screening project was utilized at the middle school level (Stoep et al., 2005).

Tier 2: Interventions

When the universal program is not working for specific students, instruction must be adjusted, and intensity must be increased. This needs to be done without unduly taxing school resources and staff (Daly, Martens, Barnett, Witt, & Olsen, 2007). Tier 2 interventions often involve smaller group size, more time for instruction, an intervention targeted at the right level, explaining concepts more explicitly, more opportunities for guided practice, and corrective feedback (Chiodo, 2006). Tier 2 interventions need to involve evidence-based interventions or programs. In 2002, CSMHA listed several programs appropriate for this level to include the *Adolescent Coping with Stress Course* by Clarke and Lewinsohn (1995), The *Penn Optimism Program* by Gillham, Jaycox, Reivich, Seligman, and Silver (1990), and *FRIENDS* or *Friends for Life* by Barrett (1999, 2004, 2005). Secondary prevention programs for internalizing problems may focus on specific skill deficits using CBT or behavioral activation practices. Levitt and Merrell (2009) also suggested the *Coping with Stress Course*. The special interest for this intervention is that it deals with emotion and emotion regulation. Children of 5 to 8 years of age need emotion education and in particular need to learn a few basic emotion regulation skills. Students of 8 to 11 years of age need more specific strategies for interpersonal interaction, and attention must be paid to the beliefs that they are developing about emotions. This is a key developmental level for the integration of emotional regulation and cognitive and behavioral aspects of emotion that are needed to develop social competence. Secondary students also need social-emotional skills and diversity training (Farrell, Meyer, & Sullivan, 2001). The significant changes at adolescence allow for more sophisticated understanding of emotions and more sophisticated emotion regulation strategies.

Identification of Students for Tier 3

Assessment is an important component when planning interventions. When attempting to identify students for Tier 3, a variety of different domains may need to be assessed in different ways including self-report, observations, or use of

structured tools (Barlow, 2005). Measures must be sensitive enough to identify developmental levels, contextual factors, and individual differences. If we are particularly interested in emotion and emotion regulation, multiple methods of assessment may be necessary (Zeman, Klimes-Dougan, Cassano, & Adrian, 2007). The function of an emotion is important to assess. This would include the frequency, intensity, and duration of an emotional episode. We know that if any one of these variables is either elevated or depressed too much, psychological issues will be present as well.

There are limitations when using each of the various types of tools available in evaluating students at Tier 3. A student's reading and language abilities may present problems when using self-reports for Tier 3 identification just as when self-reports are used as screening tools. Young children respond to the extreme choices when they are presented with Likert scales. Interviewer differences can compromise interview techniques, and interview tools lack standardization (Zeman et al., 2007). There are several interview approaches for assessing emotions and several validated parent report scales, but no validated teacher report measures have been developed at this time. Additional assessment approaches include observations, parent reports, and teacher reports. Projective tools remain controversial, although they are sometimes used to supplement other approaches. Sociometric techniques can elicit important data from peers, although peers can be influenced by reputational bias and gender biases in the same way as adults. Yet peers are able to identify symptoms of social anxiety in their classmates and may be helpful in assessment of the social skills of anxious teens (Miers, Blöte, & Westenberg, 2010).

Identifying children for more intensive interventions can be challenging especially when we do not want to miss children who hide their distress. Cole, Dennis, Martin, and Hall (2008) have identified some behaviors that we should be aware of and look for among school-aged students. First, we want to look for students who exhibit emotions that are not typical in a given situation or context. Students who show anger in situations that would not distress most students would fit this group. Another important behavior to watch for is seen in the child who behaves inappropriately in reaction to certain situations or contexts. The child who wanders the playground hugging the walls instead of approaching other children and trying to join in the play would fit this category. We want to be aware of the student who exhibits emotions more intensely than others or exhibits emotions for a longer time than peers. This child is not able to shift his or her attention away from the event, person, or situation when he or she cannot handle the situation that has occurred. This student may not even try to distract himself, or if he does distract himself, it does not help. The student who becomes upset for one reason or another, and his or her emotion lasts all morning interfering with school productivity, would fit this category. The child who gets upset and has significant difficulty calming down or recovering even when adults are sympathetic and trying to help, needs to be identified. All of these children are in need of interventions.

School psychologists have a number of scales to consider when exploring emotions and emotional behavior. Caution is needed because although scales may be correlated and even have the same name, this does not mean that they give the

same data. We need to be particularly careful when comparing scales with the same label because they may not be measuring equivalent behaviors (Myers, Bour, Sidebottom, & Murphy, 2010). Scales use different definitions of the constructs being measured and different item overlap when measuring similar constructs. Merrell (2008) recommends that data from symptom rating scales be confirmed with direct observations. Rating scales should never be used alone to determine disability, as diagnostic errors can be made. Tubbs (2007) found that children who exhibit symptoms of angry outbursts, have difficulty with transitions, are easily frustrated, are unempathetic, have difficulty expressing feelings, and difficulty calming down after upsets can be misdiagnosed as having Attention-deficit/Hyperactivity Disorder. Use of the *Emotion Regulation Checklist* (Shields & Cicchetti, 1997) and the *Carey Temperament Scales* (Carey & McDevitt, 1995) would indicate that the emotion dysregulation of these children comes from feelings of sadness and anxiety. The *Emotion Regulation Checklist* is an adult-reporting scale, usually completed by a parent or teacher about a given child. Research with this tool and others have determined that highly anxious children have difficulty managing not only worry but also sad and anger experiences. Anxious children experience high-intensity emotions and have little confidence in their ability to regulate emotions (Suveg & Zeman, 2004).

There are a number of tools for measuring internalizing symptoms. The *Multidimensional Anxiety Scale for Children* (MASC; March, Parker, Sullivan, Stallings, & Conners, 1997) measures four factors: physical symptoms, social anxiety, harm avoidance, and separation/panic anxiety (Velting, Setzer, & Albano, 2004). The *Screen for Anxiety and Related Emotional Disorders* (SCARED; Birmaher et al., 1997) has 41 items and is a child and parent report instrument measuring several anxiety disorders and school refusal. Achenbach's *Childhood Behavior Checklist* is also helpful (Achenbach, 1991). The *Mood and Feelings Questionnaire* (MFQ; Angold et al., 1995) is a 33-item rating scale of depressive symptoms. This tool is used in clinic and community population studies (Moor et al., 2000).

The use of tools to look at self-regulation is rare in school settings. One reason may be that the complexity of emotion regulation makes valid and reliable assessment quite challenging (Weems & Pina, 2010). A handful of tools have been developed to specifically measure emotion regulation, although they are primarily used for research purposes at present. One possibility is using these tools as pre- and postintervention measures rather than as identification tools, or practitioners might use aspects of these tools or items from the tools as monitoring devices during intervention.

Phillips and Power (2007) developed a 32-item self-report for adolescents, the *Regulation of Emotions Questionnaire*. This tool distinguishes between internal and external emotion regulation. The *Emotion Regulation Checklist* (ERC) developed by Shields and Cicchetti (1997) is a 24-item scale completed about a child by adults. It has both positive and negative items that explore emotional control or lability, emotional intensity, valence (attractiveness or aversiveness), flexibility and appropriateness of emotions in context. The tool has two factors. The Lability/Negative factor is composed of items assessing mood swings and angry reactivity.

The Emotion Regulation factor involves questions around adaptive regulation such as equanimity, emotion understanding, and empathy (Shields & Cicchetti, 1997, 1998). The tool has distinguished well-regulated from dysregulated students. This tool was adapted for the National Study of Child Care for Low-Income Families. The adapted scale as used by this study can be found online (http://www.acf.hhs.gov/programs/opre/other_resrch/eval_data/reports/common_constructs/com_ch5_low_inc_fam2.html). A possible use for this tool may be for Tier 2 identification given it is fairly short and very easy to use. It might also be used as one of many outcome measures.

The *Cognitive Emotion Regulation Questionnaire* (CERQ-K; Garnefski, Rieffe, Jellesma, Terwogt, & Kraaij, 2007) was developed from an adult scale. It is now available for use with children of 9–11 years of age. The original CERQ (Garnefski, Kraaij, & Spinhoven, 2001) is considered useful for adolescents who are 12 years and older. Nine different strategies used to cope with negative events are measured: self-blame, other blame, rumination, catastrophizing, acceptance, putting things into perspective, positive refocusing, refocusing on planning, and positive reappraisal. Martin and Dahlen (2005) determined that self-blame, rumination, catastrophizing, and positive reappraisal were the most useful predictors of negative emotions.

When evaluating how well a student is developing emotionally and how well a given student regulates emotion to set treatment goals for Tier 3, interviews are helpful (Southam-Gerow & Kendall, 2002). The *Kusche Affective Interview-Revised* (KAI-R; Kusche, Beilke, & Greenberg, 1988) is a tool designed to explore a student's emotional understanding. It consists of an interview designed with open-ended questions, which are scored using a manual. This tool has been used with elementary and middle schools students in research and can be helpful at Tier 3. It includes measures of general knowledge about emotions, emotion vocabulary, ability to relay emotion experiences, understanding of emotional states of oneself and others, understanding emotion regulation, emotion changes, and display rules. It is described in detail in Kats-Gold and Priel (2009). The *Coping with Emotional Situations Scale* evaluates children's emotion regulation strategies from preschool through middle childhood. Parents and teachers complete the scale, which results in three summary scales: emotional venting, constructive strategies, and avoidant strategies (Eisenberg, Fabes, Nyman, Bernzweig, & Pinuelas, 1994).

There are fewer tools for use with adolescents. The *Difficulties in Emotion Regulation Scale* (DERS; Gratz & Roemer, 2004) was originally developed for use with adults and focuses on the regulation of negative emotion (Rottenberg & Gross, 2007). This tool has six factors: nonacceptance of emotional responses, difficulty engaging in goal directed behaviors, difficulty controlling impulses, lack of emotional awareness and limited access to strategies, and lack of emotional clarity. The DERS has recently been studied for use with adolescents. Researchers have found gender differences using this tool. Girls may have less access to effective emotion regulation strategies because they score higher on measures of maladaptive coping than boys. Boys, in turn, reported lower levels of emotional awareness (Gratz & Roemer, 2004; Neumann, van Lier, Gratz, & Koot, 2010). The *Emotion*

Regulation Questionnaire (ERQ; Gross & John, 2003) is used to evaluate the use of two specific emotion regulation strategies: cognitive reappraisal and expressive suppression. This tool may be helpful in monitoring progress or again, as a pre- and postintervention tool for older students.

Functional behavioral assessment is critical at Tier 3 because we want to know whether or not a child can use emotion regulation strategies in the real world, particularly in situations that require emotional control and awareness of other's emotional needs. A functional assessment involves both direct and indirect measures and should involve all stakeholders (Kern, Hilt-Panahon, & Sokol, 2009). Indirect measures include rating scales, interviews, and self-report instruments. Indirect measures are significantly less time-consuming than observations with data collection but have some serious limitations. Floyd, Phaneuf, and Wilczynski (2005) reviewed studies of indirect assessment instruments measuring functional relations. They evaluated only tools with at least three studies to support them, two of which were conducted by independent researchers so the tools could be considered empirically supported. Only two instruments were located that could meet these criteria. The *Motivation Assessment Scale* (MAS; Durand & Crimmins, 1992) consists of 16 items scored on a 7-point scale measuring four classes of functional relations. These were attention, tangibles, escape, and sensory functions. The *Functional Assessment Interview* (FAI; O'Neill, Horner, Ablin, Storey, & Sprague, 1997) is a detailed interview for parents and teachers with 11 sections designed to identify variables affecting behavior and to facilitate hypothesis generation. Researchers concluded that the limitations on research for these indirect tools have not provided sound evidence that would support their wide use, especially when used without additional direct measures of behavior. Alter, Conroy, Mancil, and Haydon (2008) compared the FAI and MAS with the results of functional analysis such as antecedent-behavior-consequence assessment and determined that at least for young children, the agreement was low.

Direct observation with data collection is important. The choice of behaviors to measure might include emotional behaviors such as eye contact, efforts to control breathing, procrastination, tuning out when stressed, worrying, rumination, hiding one's face or body, emotional intensity, and emotional outbursts. A functional assessment must also identify triggers and replacement behaviors (Kern et al., 2009). Direct identification and measurement of triggers and maintaining factors, and effectiveness of coping skills may be very helpful as well (SAMHSA/CSAT Treatment Improvement Protocols). Direct observation should accompany use of indirect measures such as rating scales. An observational code for measuring behavior including frequency of social interaction, positive social behaviors (helpful, encouraging, and facilitative), overall level of task engagement, and negative behavior has been developed (Cummings, Kaminski, & Merrell, 2008, p. 933). As valuable as functional assessment may be, Lane, Kalberg, and Shepcaro (2009) argue that functional assessment-based interventions at the secondary level with students who evidence emotional and or behavioral disorders cannot yet be considered an evidence-based practice. With secondary students, functional assessment can, however, be considered a promising practice. Table 3.1 is a sample of possible tools

Table 3.1 Tools for practitioners to help identify student weaknesses and to measure progress

Tools for practitioners	
<i>The tools listed below comprise a range of scales. Some have primarily been used in research, others are very new, and still others have been available for some time. One way to use them is to identify the very specific behaviors or issues that are weak in students and need to be strengthened. Practitioners may want to use a given scale to identify a few behaviors that are particularly weak, and these become not only the behavioral goals for interventions but the several behaviors (four to six) can also be isolated from the scales and used to monitor progress. Several scales with brief information are listed here.</i>	
<i>Emotion Regulation Checklist (ERC)</i>	23 items on a 4-point Likert Scale completed by parents
<i>Carey Temperament Scales</i>	Completed by parents for children of 1 month to 12 years of age
<i>Multidimensional Anxiety Scale for Children (MASC)</i>	Self-report age 8–19 years
<i>Screen for Anxiety and Related Emotional Disorders (SCARED)</i>	Self-report age 8–19 years
<i>Childhood Behavior Checklist</i>	Completed by parents or teachers for children of 6–18 years of age
<i>Mood and Feelings Questionnaire (MFQ)</i>	33-item self-rated questionnaire, a shortened form is available
<i>Regulation of Emotions Questionnaire</i>	A research tool
<i>Cognitive Emotion Regulation Questionnaire (CERQ-K)</i>	Multidimensional questionnaire used to identify the cognitive emotion regulation strategies used (a research tool)
<i>Kusche Affective Interview-Revised (KAI-R)</i>	An in-depth interview
<i>Difficulties in Emotion Regulation Scale (DERS)</i>	36-item multidimensional self-report measure
<i>Emotion Regulation Questionnaire (ERQ)</i>	Ten item self-report measure examining reappraisal and suppression
<i>Motivation Assessment Scale (MAS)</i>	16-item questionnaire
<i>Functional Assessment Interview (FAI)</i>	Teacher report

for practitioners to use to help identify the specific weaknesses that students may exhibit that could be used as goals for intervention, as behaviors to monitor, and also used to measure student progress in reaching those goals.

Tier 3: Interventions

CSMHA listed several programs as of 2002 that would be appropriate at Tier 3 (Kutach, Duchnowski, & Lynn, 2006). These include the *Coping Cat* program by Kendall (Flannery-Schroeder & Kendall, 1996), the *FRIENDS* program by Barrett (1999), and the *Adolescent Coping with Depression Course* by Lewinsohn (Clarke, Lewinsohn, & Hops, 1990). These have been reviewed in Chap. 2.

Improving Tier 2 and 3 Interventions

It is common for school mental health workers to provide social skills training for students who need intervention with Individualized Educational Plans. However, in an important article by Gresham, Sugai, and Horner (2001), evidence was provided to indicate that research does *not* indicate that generalization of social skills training occurs across settings or over time. Although gains in problem solving in a given setting can be demonstrated, this does not affect peer interactions. Social skills training interventions as they are currently used are not changing behavior when students are interacting with peers. Smith and Giles (2003) expressed concerns about poor generalization of social skills. Farmer, Pearl, and Van Acker (1996) also questioned the effectiveness of social skills training because of poor generalization, and Leffert and Siperstein (2003) have raised similar concerns. Studies show only limited, inconsistent, or modest effects of training on peer relationships and interactions. Elias and Weissberg (2000) emphasize that social-emotional skills cannot be taught in one lesson each week but instead require practice and reinforcement in all areas of students' lives. Sansosti (2010) reports that small-group social skills training has minimal effects in the natural environment. Beyond this, training global skills does not seem to work for children with special needs. A meta-analysis of school-based social skills interventions for children with autism spectrum disorders showed only limited effectiveness (Bellioni, Peters, Benner, & Hopf, 2007). Elementary age students have the poorest generalization effects. Generalization is weak when training is provided in pullout settings. Generalization effects with preschoolers are sporadic and short-lived (Connell, Carta, & Baer, 1993).

Why is not training more effective than it seems to be? Typically, training is not systematic, it is not evaluated for effectiveness, and it is not designed to match specific deficits. Particularly important, generalization is not built into the design of interventions (O'Callaghan, Reitman, Northup, Hupp, & Murphy, 2003; Sansosti, 2010).

Improving Interventions: Generalization

A seminal article by Stokes and Baer (1977) addressed a technology of generalization. They described nine approaches to program generalization: train and hope, sequential modifications, introduce to natural maintaining contingencies, training sufficient exemplars, training loosely, using indiscriminable contingencies, and programming common stimuli (p. 350). Train and hope interventions ignore practical generalization. Sequential modification is similar to an afterthought where if generalization does not occur as a result of an intervention, the practitioner makes an effort to change something. Introduction to natural maintaining contingencies involves choosing behaviors to teach that will be reinforced in the real world, i.e., training behaviors to which peers will respond positively, or training behaviors that result in peer attention and interaction. For example, in situations in which

there is no natural reinforcement, students can be trained to recruit reinforcement by asking “How did I do?” When researchers added recruitment of contingent praise to a training practice, effects generalized to the classroom (Connell et al., 1993). Still another approach might be to restructure students’ environments so that inappropriate behavior is not reinforced.

Training sufficient exemplars might involve using a second trainer to teach the same responses taught by the first trainer, or training students on the same skill in several settings. The idea is to decrease the tight connection between a single element in training and the child so that the child will be able to respond to more than one person or respond appropriately in more than one setting. Stokes and Baer (1977) were encouraged to find that a small number of exemplars was actually sufficient. However, the number of exemplars appears to vary widely, so to improve results, practitioners need to include a number of exemplars during training. Several settings and several trainers could be involved, making sure that at first the exemplars are similar to training sessions and then as training progresses, the exemplars become diverse. Training loosely may surprise practitioners given the lengthy discussion around implementation fidelity. Practitioners need to use many cues, lots of examples, lots of different scenarios, life-like role-play or video modeling, and they need to both fade cues and delay reinforcement. Nikopoulos and Keenan (2007) used a video modeling technique to teach social initiation skills and reciprocal play.

Use of indiscriminable contingencies could involve use of intermittent reinforcement or delay of reinforcement. Programming common stimuli could involve using students’ peers in training because they are readily available in the school environment. Choosing students who are functioning one or two degrees better than the target student is a way of providing models that are attainable and also may provide friendships for the target student. Another approach is to make the experimental setting resemble the regular classroom or another key environment such as the playground, by using the same materials, the same peers, or the same physical stimuli. Mediated generalization occurs when self-control procedures are used. Self-control procedures include self-recording and self-reinforcement. Training students to generalize could involve use of systematic instructions to support generalization. A good example provided by Stokes and Baer involves telling a student to relax at each step of a hierarchy of situations that increasingly provoke fear responses.

In addition to this impressive list of generalization strategies, Stokes and Baer (1977) list more specific tactics that promote generalization. These involved varying instructions when training as well as adding social reinforcers and backup reinforcers, using classmates so that the training session can be similar to the real world, reinforcing self-reports of desirable behavior, applying self-recording and self-reinforcement, and reinforcing only *some* incidents of generalization rather than all. Of course, even this list does not include all of the ways to promote generalization. Practitioners can give homework, use behavioral momentum, offer booster sessions, utilize overlearning, and teach students specific self-control strategies to improve generalization. Practitioners need to provide lots of practice with new skills using role-play, games, and easy activities until students can use the new skills fluently or automatically. It is extremely important to train teachers,

parents, and other staff to cue students to use skills and to teach students to cues themselves using cue cards and self-recording. Sample cue cards and self-recording approaches are found in Table 3.2.

Practitioners need to talk to students about transfer during training, i.e., how and when they will use skills. Students need to talk about and explain the strategies they will use. When students explain the new strategy to themselves, generalization improves (Crowley & Siegler, 1999). It is important to include parents and teachers

Table 3.2 Cue cards and self-recording

Students need cues in order to overcome strong emotions and begin to control them. Cue cards can serve this purpose. Cue cards are reminders that children keep in their pockets or desks to remind them of the strategy that they are working on to prevent strong emotion from interfering with school performance or social success.

Self-recording is a technique to increase the likelihood that students will learn emotion regulation strategies that they have been taught. Self-recording also provides practitioners with data that they can use to monitor student progress and to determine whether or not students are reaching goals.

Sample Cue Card

Sample Self-Recording Tool



When I get angry, I can:

- Walk away
- Ask a 'Why' question
- Find something else to do
- Find an adult to talk with
- Think of a better way to react

Place a check mark each time you use one the following strategies that you though would work for you.

Record

When I was upset this week, I did the following:

What I did	Checks
Walked away from the situation (to give myself time to think about how to react)	
Asked a question (to see if I interpreted the event or comment the way it was intended)	
Got very upset or did something (that got me in trouble, made other kids angry, or made me feel badly later)	

and the students themselves in goal setting. We need to be sure to recruit parents, teachers, and peers to reinforce new behavior. Finally, it may be especially helpful to teach the cooperative and self-management skills that teachers value.

Osnes and Lieblein (2002) reviewed 93 articles from journals focusing on behaviorism and concluded that generalization continues to be elusive and practitioners will need to demonstrate not only the immediate effects of their work but also the generalization of new behaviors, which will require considerable effort. Generalization is not going to occur in the absence of explicit programming (O'Callaghan et al., 2003). We need to place much greater emphasis on generalization planning when working with students, as very little evidence of generalization is observed when this is not done (Connell et al., 1993; Kirby & Bickel, 1988; O'Callaghan et al., 2003; Smith & Giles, 2003). Motivation to use the new strategies needs to be addressed. Some students need contingency management to even attempt to use new skills in real-life settings or complex settings such as the playground (Kirby & Bickel, 1988; Langberg, Epstein, & Graham, 2008). Contingency management may be important for most young students and for many students with special needs. When planning intervention sessions, practitioners need to consider including many different generalization strategies in sessions especially when working with groups, in that some students will require more generalization strategies than others.

Dosage and Time Effects

Issues related to treatment fidelity include concerns around dosage effects. It is important to know the dosage effects for different interventions and the dosage effects for subgroups of students (Sanetti & Kratochwill, 2009). There is very little research to help us answer this concern. When an intervention is not successful, the relative brevity of the intervention could be the reason (Sheffield et al., 2006). In some reports, programs of more than 6 months duration were more effective than shorter programs. Bellioni et al. (2007) report that some researchers suggest that at least 30 h of instruction over 10–12 weeks is necessary for social skills instruction. McIntosh, Vaughan, and Zaragoza (1991) provided data to indicate that longer interventions were more successful than shorter interventions especially if they lasted at least 24 weeks. We might expect to find that dosage effects would differ for students of different age and disabilities.

One reason why duration of training is important is that Mihalic (2002) reported data around one program where it was demonstrated that low-income students needed the complete program to benefit substantially and that overall, programs need to deliver the intended dosage. Additionally, when staff delivered the *Resolving Conflict Creatively Program* using fewer lessons than intended, children actually did worse than those who received no lessons at all (Aber, Jones, Brown, Chaudry, & Samples, 1998). When school staff members do not deliver the total programs, it is often that they perceive that their time is limited. Time constraints

may be eased if planners consider the time available when choosing a program in the first place (Mihalic et al., 2008). Researchers have utilized school administrators to assist in guaranteeing time by asking them to hold teachers accountable for program delivery (Weist et al., 2010). This may be important for program sustainability as well.

Time can affect implementation in other ways. When implementing a program called *Coping Power* (Lochman, Wells, & Lenhart, 2008), additional time was needed to teach urban students in grades 4–6 the vocabulary of emotions, which is a critical component of the program. It is not unusual for students to have a limited emotion vocabulary, but program designers did not plan for this contingency. Still another issue involving time is the need for booster sessions after completing programs. Hammond, Westyhues, and Hanbidge (2009) found that children who participated in a booster program had marked increases on outcome measures. Interestingly, treatment effects are sometimes larger after some time, than immediately after treatment (Hannan, Rapee, & Hudson, 2000). And finally, practitioners need to keep in mind the point at which an intervention may be expected to exert its greatest impact can vary according to who is implementing the program (Greenwood, 2009).

Matching Programming to Deficits

Matching skills that will be taught to the actual deficits that a student exhibits is not only appropriate but also saves time (Bellioni et al., 2007). It is important to match specific deficits with specific intervention strategies (Gresham et al., 2001). Interventions that teach skills are obviously appropriate for students with skill deficits. Students with performance deficits do not need skills training. Some children have self-control deficits, and others have fluency deficits. If someone is capable of managing their anger but does not, then the intervention might address lack of motivation or include strategies to make students aware that particular strategies would help. If a child does not know how to manage his anger, then the intervention would teach the skills necessary to do so (Ciarrochi, 2006). Skipping the step of matching interventions to needs wastes time and could result in decreased cooperation of students because they may feel that the sessions are unnecessary.

Interventions for students who need to learn skills include modeling, coaching, reinforcement, rehearsing, and direct instruction with feedback and reinforcement. This may be needed for entire sequences of behaviors or for one or two steps in a specific behavior. Children with performance deficits may benefit from contingency management. Children with social anxiety would fit this category for example. Students, who do not use skills that they know fluently, need rehearsal and practice with feedback (Gresham & Elliot, 1990; Gresham et al., 2001). Not only do the strategies differ according to student needs but also the teaching approaches must fit the student needs.

Address Contextual Factors

Contextual factors interfere with skill acquisition, limit the use of new skills, limit treatment adherence and generalization, and prevent both opportunity to benefit and energy to participate in treatment (Lundquist & Hansen, 1998). Students learn best in the company of peers with whom they would typically establish relationships (Carey & Stoner, 1994). Noncompliance must be addressed. Practitioners must check to see that the strategies a student uses fits the situations in which skills are needed. A student who is dealing with bullies needs a different strategy than one who is interacting with friendly students. A handicapped student may need different strategies on the playground with typically developing peers, as compared to the classroom where the student may be grouped with other students who also have special needs and a teacher is nearby. A student who must deal with a violent neighborhood needs different strategies than the student whose neighborhood is safe and accepting. Finally, it is important to train students in the environments in which they are expected to use the skills such as the classroom, the lunchroom, and the playground. It is especially important to hold group sessions on the playground in the fall and spring in schools to prepare students to participate in competitive and often stressful games, or to participate in the fast moving conversation typical of girls' groups. Older students may need rehearsal of new skills in the cafeteria with a small supportive peer group before trying out the skills with the general school population.

Additional Factors

There are many additional factors that interfere with providing adequate mental health services in schools. School psychologists are sometimes relegated to training in offices or counseling spaces rather than in relevant contexts. They often cannot form groups of students with homogeneous needs in small systems, or even in small-to-medium size schools. There is often little time left in a professional's schedules for conducting research, or should they have quick access to research, time is needed for adequate planning to address newer issues such as emotion knowledge and emotion regulation. If student issues are considered social or emotional, self-control issues need to be taught along with self-monitoring in addition to training social skills.

School-based mental health workers cannot effect change all by themselves. They need to enlist the support of teachers and parents and appreciate the fact that multiple systems influence student functions including teachers, family, classmates, and the community (Nastasi & Varjas, 2008). School e-mail affords an opportunity to collaborate with teachers and parents, but care needs to be taken so that individual student information is not included and that student

confidentiality is protected. Through e-mail with blind copies to each parents, again to protect other people's children who participate in the group, school psychologists and other mental health workers can let teachers and parents know which skills are being taught or practiced as well as how to elicit and reinforce the new behaviors further contributing to generalization. School e-mail also opens opportunities for the general education of parents and teachers, although great care needs to be taken when using to answer specific questions. When answering specific questions or when communicating about individual students, the telephone is safer. A sample communication with teachers and parents can be found in Table 3.3.

When there is inadequate collaboration with significant adults in a child's life, mental health counseling will either not generalize or may be ineffective. Mental health workers in schools need to develop interdisciplinary collaboration with other professional in schools, form partnerships with stakeholder groups, and learn the school and community cultures. Unfortunately, there is not always sufficient attention to addressing contextual or cognitive factors that would interfere with mastery of skills. Provision of mental health services in schools that will be successful requires expertise and hard work.

Table 3.3 Engaging support and assistance from parents and teachers

A strategy to prevent anxiety from interfering with school performance

We would like to share a strategy designed to prevent worries from interfering with school performance on tests and other high stress situations for children such as talking in front of the class. This strategy works well for many students. It involves postponing worrying until a specific time that is set aside for "worrying" later on in the day. In order for this strategy to work, we need the support of both parents and teachers.

When parents find children worrying on the day on which testing (or other stressful event) is scheduled to take place, they are asked to remind children not to spend time worrying about the event, but rather to think about something else. Some children will need suggestions of something to think about such as activities that will take place after school, or spending time with a favorite pet for example.

As the event approaches in school, teachers are asked to direct students to write a sentence about the worry and to place it in the box, which students will have decorated with an image to represent the worry and have placed in their desks. Teachers then ask students to think about something else. At the end of the day, teachers are asked to remind students to take the worry slip out of the box and take it home.

Parents are asked to check with children to see if they have brought any "worries" home with them. If so, parents are to indicate that it is now the scheduled time to "worry" if they would like to do so. Parents can help at this point by talking with children to determine if the "strategy" helped by decreasing tension and allowing the child to perform better.

It is very important to avoid telling children to entirely forget about the worry, or not to think about it ever or at all, because this approach has been shown to increase anxiety. When children are told not to think about the situation at all, this suggests that the "worries" should be suppressed, which increases anxiety. Postponing anxiety rather than suppressing it has the effect of addressing a child's immediate anxiety but has a bonus of avoiding behavior, which may increase the anxiety. Additionally, postponing anxiety does not suggest that the worries children have are immature or nonsense, but rather that the worries can be controlled to some extent.

Progress Monitoring and Outcome Evaluation

At Tier 1 we are interested in collecting outcome data on the effects of the universal prevention program. This involves students as a group. Progress monitoring is critical at Tiers 2 and 3, and this involves collecting data on individual students. The goals of progress monitoring involve estimating rate of improvement, identifying who is not making progress, and providing data to design more effective interventions (Fuchs & Fuchs, 2006). The data we want to collect may refer specifically to symptom reduction or to use of the strategies we are teaching. We also want to collect data on the effects of symptom reduction on school and peer functioning depending on a given student's needs.

If we were monitoring symptom reduction, we would collect self-report data. This can be done easily using paper and pencil checklists. Most of the commercial rating scales cannot be used over and over again in short periods of time because they will not show change and they take too long to complete alienating teachers and parents. Even systematic direct observation takes too much time to be used frequently (Briesch & Volpe, 2007). If we are monitoring use of strategies, we can collect self-reports of use of strategies with paper checklists. There are several tools that might be used with adolescents as pre- and postintervention data to indicate the types of strategies students used. Levitt and Merrell (2009) suggest using small lists of specific rating scale items to create monitoring tools. Selecting the items on which students were rated most poorly allows group leaders to set goals and use these specific items to measure progress.

When items are prepared for students to self-record, the wording of questions is important. For example, Whalen et al. (2009) used electronic diaries with 8–12 year olds and felt that children were reluctant to report negative moods but students were more cooperative when asked to report moods described as low positive. Behaviors to fit individual students might include on-task behaviors, academic productivity, test performance especially for anxious students, classroom participation especially for anxious students, decreased outbursts for angry students, improved memory for students dealing with depressed mood, increased interactions with peers particularly for students with depressive symptoms or with social anxiety, or reductions in inappropriate or disruptive behaviors for students having difficulty controlling intensity of emotion. Examples of data collection approaches can be found in Table 3.4. Data need to be collected from teachers and parents, and from students themselves. Data need to be collected before interventions begin, while the intervention is underway, and before students are determined to have sufficiently improved to stop treatment. An example of initial data collection is found in Table 3.4.

An ongoing data collection tool for teachers to use is presented in Table 3.5. This tool can be used in the same way that monitoring tools are used for academic skills. Data can be collected several times a year for all students and those students who do not show growth may be provided with additional training.

Table 3.4 Emotion expression data sheet for teachers to complete

Emotion expression data sheet	
Student:	
Date:	
<i>Please complete this brief tool to help us understand how this student expresses anger.</i>	
Briefly describe how this student expresses anger (specific behaviors).	
Give an example of angry behaviors or statements observed in class.	1.
Give an example of angry behaviors or statements observed in a low structure area (school grounds, corridors, cafeteria, etc.).	2.
How intense was the anger when it was expressed in each case? <i>Please rate it 1–10 (with 10 being most intense).</i>	1. 2.
How appropriate was the anger when it was expressed? <i>Please rate it 1–10 (with 10 being most intense).</i>	1. 2.
How long did it take for this student to recover from the incidents described above? (Please estimate the number of minutes).	1. 2.

Table 3.5 Teacher monitoring form to record student growth in “emotion” vocabulary

Ask students to write in as many words to describe feelings at each level as they can. Select the emotion that the group has been working on, i.e., happy, sad, angry, frustrated, upset, etc.

<i>Student:</i>		<i>Date:</i>
	<i>Level</i>	<i>Emotion</i>
Intense	5	
Strong	4	
Average	3	
Some	2	
Neutral	1	

Templates for sad and anxious feelings.

<i>Name:</i>		<i>Date:</i>
		<i>Write in as many words to describe feelings at each level as you can.</i>
Extremely sad	5	
Very sad	4	
Sad	3	
A little sad	2	
Neutral	1	

<i>Name:</i>		<i>Date:</i>
		<i>Write in as many words to describe feelings at each level as you can.</i>
Extremely scared	5	
Very scared	4	
Scared	3	
A little scared	2	
Neutral	1	

Current Issues

Currently underidentification of internalizing disorders is a problem. What is needed are good identification methodologies, and comprehensive programs to address internalization symptoms and disorders (Manassis & Monga, 2001). Establishing comprehensive programs necessitates change. In order to get change in a system, the people in the system must change. Change begins with the behavior of adults. A critical mass of school staff must be convinced that the change is beneficial. If comprehensive services are going to be established in schools, the staff must not be overly stressed. Tasks must not be extremely time-consuming or require excessive effort, training and support must be provided, progress must be monitored, and outcomes must be measured. Prevention programming can be compromised by underestimating the time and effort needed to implement practices and interventions (Noell & Gansle, 2009). It remains difficult to select a program to fit a particular school. One reason is that it is difficult to compare the effects of one school-based program to another partly because many of the existing programs borrow extensively from one another (Izard, 2002). In addition, very few prevention programs can meet tight evaluation criteria so that they show positive and strong long-term outcomes due to the gap between research and practice (Izard, 2002). This fact is only one aspect of the impetus to draw emotion theory and research into prevention and intervention protocols.

Dysregulated emotions are predominant in the development of anxiety, depression, aggression, and other disorders. Izard (2002) points out that addressing emotions as motivational factors or organizing variables that can support change is missing from the vast majority of preventive interventions. Most school-based programs do not treat emotion regulation extensively beyond occasionally addressing anger control. Izard presents seven principles for emotion-centered prevention and intervention. These include the following principles:

- The activation and utilization of positive emotions increase social ability, personal well-being and constructive behavior.
- Negative emotions influence learning and memory, and certain negative emotions provide the basis for empathy and prosocial behavior.
- Modulated emotion expression mediates emotion utilization.
- Emotions activated or sustained by different processes may require different regulatory techniques.
- Emotion patterns in states and traits create complex motivational conditions and challenges for approaches to emotion modulation and utilization.
- Emotional deprivation in early life results in dysfunctional emotion systems.
- Modular and relative independent emotion and cognitive systems require the fostering of intersystem connections.

Izard (2002) supports these principles with facts and suggestions. For example, positive emotions have many preventive benefits. This suggests that providing participative activities that children enjoy should enhance learning. Practice making connections between emotions and behavior is important and can be done through

interactive games. Inducing empathy through role-play helps students learn to distinguish various emotions and keep emotional arousal at a moderate level, as well as distinguishing negative emotions and learning to label them. Teaching children to control their facial and vocal emotional expression contributes to control of feelings. Izard feels that young children need to be taught to reduce intense emotions through positive or benign physical activity, whereas older students need active cognitive-behavioral techniques, which take more time and effort. This is an important distinction. Emotion must not be stopped or suppressed but instead be redirected. Emotions are not bad because they give us information that can be very important, but some emotions are unjustified or prejudiced. Students need to learn about individual emotions and the connections between emotions and cognitions through group discussion and role-play. Interventions must address more than one emotion because students experience patterns of emotions. Students need to learn which emotions commonly occur together. Students need to understand that emotion regulation is important because it gives us a way to use our emotions to reach social, cognitive, academic, and personal goals.

There is significant interest in self-regulation among interventionists and researchers. Posner and Rothbart (2000) have written: "...understanding self-regulation is the single most crucial goal for advancing an understanding of development and psychopathology" (p. 427). The research on emotion and emotion regulation specifically is exciting for those who provide interventions for children because these processes are basic for normal and abnormal functioning (Rottenberg & Gross, 2007).

Chapter 4

Affect Education at Tiers 1, 2, and 3

Affect education involves emotion knowledge including: emotional intensity, universal emotions and triggers, and positive emotions; emotion awareness to include lexical knowledge and verbal identification of emotions; verbal and non-verbal emotion expression including knowledge of display rules; and emotion regulation which merits its own separate discussion. Research to support the necessity of addressing these aspects of affect education in school-based group counseling is described. Areas in which there has been significant research are featured. Determining appropriate components of affect education for Tiers 1, 2, and 3 is addressed along with several methods of identifying students' needs for additional work in the area of affect education.

Often in the USA, popular movements provide the impetus for change in education rather than change driven by advances in science. A science journalist rather than a scientist popularized the concept of emotional intelligence. Daniel Goldman published his book on *Emotional Intelligence: Why it can matter more than IQ* in 1995. This book fascinated the public and educators as well, starting a popular movement and even influencing public policy to some degree. However, John D. Mayer and Peter Salovey initiate the scientific field of emotional intelligence (Mayer & Ciarrochi, 2006). Salovey and Mayer's original definition of emotional intelligence (abbreviated as EI) was "the ability to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey & Mayer, 1990, p. 189). Mayer, Salovey, and Caruso (2008) point out that the EI field of literature at this point has gone way beyond the scientific research available to support it. They feel that EI as it is used today covers too many concepts. The claims made by the emotional intelligence popular movement do not have anywhere near the research support required to validate the concept, although increasingly some aspects of EI such as emotional knowledge would be helpful to many individuals (Mayer, 2006).

The publication *Promoting Social and Emotional Learning: Guidelines for Educators* appeared in 1997 (Elias et al., 1997). The authors applied the ideas of EI to education in this publication (Hoffman, 2009). The Social Emotional Learning (SEL) movement followed and has taken hold in the USA, the UK, Israel, Singapore, Latin America, Canada, Australia, and elsewhere (Diekstra & Gravesteyn, 2008). The SEL movement has generated hundreds of programs with varying

evidence-bases and school policies. However, implementation of SEL concepts and programs has not been a top priority in schools.

Before examining SEL and other programs, it is important to consider several basic issues. SEL includes emotion education or emotion literacy. Emotion literacy is a broad concept. Because it is a relatively late addition to the general curriculum of many schools, it is not yet clear or agreed upon what exactly would constitute evidence-based emotion education for school-aged children. It is worthwhile to examine the many aspects of emotional literacy and to determine which aspects have sufficient evidence to consider including them in school programming. In addition, the relationship of emotion or affect education to preventive mental health (Tier 1), to interventions for children who are identified as “at risk” for mental health issues (Tier 2), and to interventions for children who are already identified as exhibiting emotional disorder (Tier 3) needs to be explored. This may help clarify whether or not affect education should be a legitimate component of general school curricula.

Affect Education

The assumption of affect education is that emotional literacy is comprised of skills that can be learned or abilities that can be developed or enhanced. Saarni (2000) considered emotional competency a set of emotional skills that could be learned. These skills, considered broadly for discussion, included:

- Emotional awareness
- Understanding other’s emotions based on context and cues
- Competency in using the emotion vocabulary of one’s culture
- Empathy
- Understanding the effects or consequences of emotional behavior
- Use of emotional regulation strategies
- Expressing and sharing appropriate displays of emotions in interpersonal relationships
- Acceptance of one’s personal emotional experience (emotional self-efficacy)

Ciarrochi (2006) described EI-relevant processes and behavior to include skills related to emotion regulation, expressive behavior, and social–emotional awareness. Additionally, he included mood awareness and understanding, issues of context, emotion perception, empathy, decision-making, and skills related to disbelieving unhelpful thoughts and emotions. Ability to identify emotions, express emotions, use emotions, understand emotions, and effectively manage them is included among many EI concepts as well (Ciarrochi, 2006, p. 252). The abilities model of EI as described by Matthews, Zeidner, and Roberts (2002) might be boiled down to: emotion perception and expression; use of emotion to help one think; emotional understanding; and emotional control. For example, Brackett’s RULER program lists five components of emotional literacy: recognition, understanding, labeling,

expression, and recognition of emotion (Brackett et al., 2009). Hannesdottir and Ollendick (2007) add knowledge around facial expressions, body language, context, and identification of feelings as psychosocial components that should be included in Tier 3 interventions.

There is a lack of consensus in the literature regarding the components of affect education, emotional intelligence, and the range of skills that are found in the various programs on the market. Therefore, an organization is needed in order to determine which aspects, concepts, and skills have an evidence-base sufficient for consideration in school-based programming. An umbrella term that is used frequently in the research literature is emotion understanding (Southam-Gerow & Kendall, 2002). The relevance and importance of emotion understanding have been addressed in the research literature. Delayed or limited emotion understanding can place children and adolescents at-risk. Cook, Greenberg, and Kuche (1994) found that children with behavior problems in the early grades demonstrated measureable deficits in emotion understanding. In one study children were asked to share personal examples of ten different emotions. They were also asked to describe the cues used for recognition of five emotions in themselves and others. The task was challenging for this group of children. Their difficulty was not associated with cognitive ability, but rather deficits in emotion understanding. Differences in emotion understanding may be complicated by disability as has been found in children whose mothers were depressed, in young children with autism, in maladjusted children, in children and adolescents identified with anxiety disorders, and in youth under moderate to severe stress for various reasons (Southam-Gerow & Kendall, 2002).

For discussion purposes, emotion understanding can be subcategorized into emotion knowledge, emotion awareness, emotion expression, and emotion regulation.

Certainly, all of these are related and interrelated. For example, Eisenberg, Sadovsky, and Spinrad (2005) point out that language skills and emotion regulation affect one another. Adequate emotion understanding may lead to or enhance emotion regulation. There are actually a variety of skills and/or abilities that can be developed under each category. Emotion knowledge involves the understanding of the functions of emotions in everyday life, the information role of emotions, and the normalcy of emotions. Connecting emotions with behavior or action tendencies, triggers for specific emotions, and physiological or body signs or signals as well as mastering the contextual fit for emotion triggers could be included under this subcategory as well.

Considerations for emotion awareness might include emotion perception, both verbal and nonverbal emotion expression, and emotion regulation. Emotion perception involves perception and identification of emotions in oneself and others. Emotion expression includes verbal and nonverbal expressions as well as deciding whether or not to moderate expressions to fit the particular situation, and being aware of adjusting one's expressions to follow the display rules of one's culture. Nonverbal expression and communication includes facial expressions and the body language that is associated with specific emotions. Verbal expression and communication leads to a discussion of the effects of language on emotion knowledge, expression, understanding, and developing a sufficient vocabulary to be able to effectively communicate emotions.

Finally, emotion regulation is such a critical aspect of affect education that it warrants lengthy discussion. The development of emotion regulation, its importance, the issues of dysregulation of emotions, and the multitude of approaches to teaching children and adolescents to tolerate or manage negative emotions and even to increase positive emotions needs to be understood by practitioners developing interactions so that these are carefully taught to children who have deficits. Emotion regulation needs to be covered specifically and in detail because of the now impressive amount of research available and the fact that emotion regulation may be a higher level skill than emotion knowledge, awareness, or expression, which in turn may be precursors to emotion regulation (Mayer et al., 2008). The research support for each category of emotion concepts can be examined.

Emotion Knowledge

Emotion knowledge is important. It is related to better functioning. We have considerable evidence to indicate that children and adolescents with more emotion knowledge function better than their peers. Young children's knowledge about emotions affects the quality of their social interactions and is connected to their social competence. Children with a high level of emotion knowledge tend to have more verbal skills than their peers and also demonstrate enhanced adjustment. Importantly, there is a connection between emotion knowledge and academics (Eisenberg et al., 2005). When students are not competent in emotional knowledge, they may experience feelings and behaviors in reaction to social cues that do not fit the context appropriately (Ackerman & Izard, 2004). Once emotion knowledge is accepted as important for preschool and school-aged children, the question we might ask is what do students need to know about emotions? A simplified concrete understanding of brain biology is very helpful for students being serviced at Tiers 2 and 3 at least. Even young children can understand how emotion works in the brain at a very concrete level using simplified language. This type of explanation can give students a visual image to understand what they are experiencing, a reason to explain what is happening to themselves, and ideas about interfering with biological processes so that they can feel as if they are in control of their emotions. It is therefore important that school-based mental health practitioners understand the biology of emotion and how the brain functions.

There has been an explosion of studies in the field of affective neuroscience in recent years. Researchers have been utilizing new tools such as the fMRI (functional magnetic resonance imaging), which has allowed them to explore activity in the brain, while their research subjects are aware and can cooperate with them by completing various tasks. Researchers can present all sorts of stimuli to research subjects and watch how this input is processed in the live brain. Although much has been learned, there is undoubtedly a great deal more to learn as technologies improve. Emotional brain circuitry has particularly interested researchers. The brain structure that has been the focus of a great deal of research is the amygdala,

a brain structure that looks like an almond. The amygdala has been demonstrated to be important for interpreting emotional and social signals, which are important to the individual (Goswami, 2006). The amygdala is particularly sensitive to the facial expressions of others. Interestingly, children with autism who also have poor social cognition have larger amygdala. This possibly might make them more sensitive to and reactive to facial expressions, especially around the eyes. Consequently, children with autism spectrum disorders tend to avoid eye gaze.

There are considerable individual differences in how individuals react to emotional input. LeDoux (1997) described two routes information coming into the brain. The slower route carries information in the form of nerve impulses from the ear to the thalamus, another brain structure. The thalamus is like a way station. It in turn sends information to another processing center where the information is analyzed to determine if a reaction is needed. The carefully considered and appropriate signals are then delivered to the amygdala. This is the slow route. The fast route, on the other hand, sends information directly to the amygdala without judging the information or bothering with any details. This is important and necessary because if a speeding car is coming toward a person, that individual reacts without consciously thinking and safely gets out of the way. However, the slow route might be preferred in certain social situations. For example, when another student coming quickly toward a child and startles him, slowing down and taking the extra time to evaluate the possible threat would prevent inappropriate reactive behaviors such as striking out and hurting the child who may have no aggressive intentions at all. Over many centuries it has been critical for our brains to protect us from the many dangers of the environment such as “lions and tigers and bears” as well as flash floods, falling trees, and others who might attack us. LeDoux explains that there are far more brain circuits from the amygdala to the thinking part of our brains than vice versa. The prefrontal cortex is the thinking, reasoning, and planning part of our brains. The challenge we have today is to exert conscious control over the fast survival pathway when it is not relevant, so we can control culturally inappropriate or dangerous behaviors as well as unhelpful thoughts and interpretations. The slow route allows us to reduce the intensity of our emotions such as anger and fear to manageable levels so that we can function well.

In practice, teaching students about the brain and emotions falls under the “psychoeducational” aspect of interventions. Psychoeducation, in the case of children with anxiety disorders for example, would provide both the children and their parents with an understanding of the biology of anxiety and anxiety disorders which may be of considerable help in dealing with anxiety (Victor & Bernstein, 2008). Hannesdottir and Ollendick (2007) provide additional details about aspects of psychoeducation to teach which might include: the nature of emotions; the fact that emotions are harmless, natural, and necessary; the fact that avoidance maintains anxiety; as well as efforts to reduce the fear of experiencing intense anxiety or other emotions. They recommend talking about “hot” or intense emotional thoughts, and “cold” or rational thoughts, and how to generate positive emotions. It is important to consider each of the various aspects of emotion education or emotional literacy to include in our work with children.

Emotion Awareness: Individual Differences

A discussion of the fact that we are not all alike is particularly important in emotion education. We differ in several aspects from one another in regard to our emotions (Ekman, 2003). The time that it takes for each person to become aware that he or she is experiencing an emotion can vary. This has to do with the speed of emotional onset or “rise time.” Rise time can be very slow to very fast. Not only rise time but the height of emotion or the level of intensity with which individuals experience various emotions can greatly vary from student to student. Some children and adolescents can reach a level of intensity of emotion which places them at high risk for reacting in ways that they will later regret or will get them in trouble. The length of time or duration that individuals experience an emotion also varies. Some students reach high levels of emotion and stay there longer than their peers. Not only are they at risk for inappropriate action tendencies, but also they cannot think well during peak emotional intensity. These students may experience intense excitement when at parties, during recess games, or when they are in amusement parks. After experiencing intense emotion, we need to recover physiologically as our hearts and bodies cannot safely maintain very high levels of stimulation. Again, there are individual differences in recovery time, the time it takes to calm down and return to baseline. Some students recover quickly and others find recovery quite challenging. Much of the individual differences we see in students are related to their biology, temperaments, or early learning experiences. Gaining control over some aspects of their biology is a great deal easier for some children than others. Students and school staff need to appreciate these differences.

A critical concept for students to understand is that emotions are neither good nor bad. We tend to think of emotions that get us in trouble as “bad.” Anger, for example, can get us into trouble, particularly if we are aggressive toward another person, so children may think of anger as a “bad” emotion. Certainly, if one student attacks another because she is angry with that student, she may hurt the other student, or get into difficulty with his teacher and peers, or get punished. But, when an older sibling protects a younger brother from a bully or when an adolescent discovers someone is stealing from his locker, anger can provide the motivation and courage to do something about these injustices. When fear makes a student so anxious that he can’t perform well on a test, or speak in front of the class, or initiate toward a small group of students, it certainly isn’t helpful. But, when fear stops us from taking unnecessary or foolish risks when we are dared to do something dangerous by equally foolish peers, fear is a helpful emotion. Fear helps us pull back when we need to do so for our own safety; anger facilitates our ability to protect ourselves, or others. Anger helps us let others know that there has been a violation (Sherman, 2008). When our emotions are not working for us, i.e., get us in trouble, prevent us from performing well in school, interfere with establishing friendships or maintaining friendships, they warrant a label of “unhelpful” or “negative.” It is important to keep in mind that the so-called negative emotions are only unhelpful if they prevent us from living full lives. The general label “negative”

applied to emotional states or to specific emotions doesn't always indicate a problem. Some students may enjoy a good cry or enjoy attending sad movies. Some students love a good argument, even if it is loud and sounds emotional or angry (Ekman, 2003). We also need to talk with students about unjustified emotions (Izard, 2002). If we feel hatred when we interact with others who are different from us, our emotions can be more than simply unhelpful and could hurt others.

Emotion Knowledge: Intensity

Students need to appreciate that emotions occur in degrees or intensities. We can feel “a little” sad, “a little” worried, or “a little” angry. At the other extreme, we can feel so angry that we experience an out-of-control episode and become aggressive or even violent. When emotions are experienced in the extreme, individuals may find themselves in a danger zone where it is extremely difficult to think rationally or resist action tendencies associated with the specific emotion experienced. Children with fast rise times who reach higher peaks of emotional intensity will have a hard time regaining control (Ekman, 2003). We are not all alike. We need to help students who have difficulty with anger or anxiety to develop hierarchies of situations or events that trigger emotions (Barlow, Allen, & Choate, 2004). Hierarchies organize the problem events from least upsetting to most upsetting. Developing hierarchies leads to the next step of attaching strategies for dealing with each step of increasing intensity, as strategies differ depending on the intensity of emotion experienced. High emotional intensity can interfere with thinking and a strategy will need to be automatic when emotional intensity is very high.

Emotion Knowledge: Universal Emotions and Triggers

There are seven emotions (anger, contempt, disgust, fear, happiness, sadness, and surprise), which researchers suggest are universal in that there is evidence to suggest that they are experienced by all people in all cultures. Ekman (2003) postulates that the triggers for these emotions are universal as well. Various emotions are triggered by specific events. Anger is triggered by physical interference when we are attempting to reach a goal. It is also triggered by threat of harm. Frustration, another person's anger, sudden loss of support, something moving toward us at great speed, and sensing danger and being unable to do something about it are additional triggers for anger. Sadness is triggered by losses such as rejection, when our self-esteem is attacked, or when we experience a loss of health. The specific loss, rather than loss itself, may differ from person to person, situation to situation, and culture to culture.

Interestingly, emotions not only have universal triggers, but we may learn to react to triggers that are “close” to the universal triggers, especially when we make

these associations at a young age, or during a highly emotional event according to Ekman (2003). Students need to identify their learned triggers, as it may be easier to disassociate from these emotions than those associated with universal triggers. An emotion can be triggered by the individual himself/herself, by thoughts, or by someone with whom we are interacting. Once triggered, the emotion in turn initiates an emotion-specific facial expression and associated body or physiological reactions (Holodynski & Friedlmeier, 2006). When we experience anger intensely, we also experience bodily reactions and our action tendency will be to move toward what we think is causing our anger. Sadness is triggered by loss and is experienced in our bodies not only with physical symptoms, but also a tendency to withdraw. Sadness is one of the longer lasting emotions. Fear is experienced in our bodies and our action tendency is to move away or freeze. There is more research on fear than on any other emotion.

We try to control emotions from the time we are infants. We try to prevent feeling upset, from feeling too angry, too sad, or too fearful. In our efforts to prevent or “avoid” intense negative emotions and emotional experiences, we develop behaviors and think in particular ways to protect ourselves. In the case of anxiety, we may try to avoid situations that trigger fear, or we may engage in a lot of worrying with the hope that this will keep our fear under control or even prevent something “bad” from happening. Unfortunately, this could result in missing out on a lot of positive experiences or we could use up a lot of energy worrying needlessly. Students who understand that they may be able to learn strategies to interfere with emotional cycles tend to function better. Strategies that are more likely to be successful tend to have to do with changing our interpretation of triggers and our control of action tendencies associated with emotion. Appraisal processes play a key role in the regulation of emotion (Ackerman & Izard, 2004). Appraisals determine how stressed students feel in emotionally charged situations. Appraisals determine how threatening the student’s interpretation of the situation may be and can lead to inadequate responses. Appraisals influence our moods (Mills, Reiss, & Dombeck, 2008). When working with older children and adolescents, there are additional emotions to discuss such as guilt, envy, jealousy, shame, and embarrassment. Students need to explore these emotions as well and learn something about them. This is important because guilt, shame, envy, and embarrassment do not have unique facial expressions or clear signals. Feeling responsible for our own behavior when it is discordant with our personal standards triggers more complex emotions such as shame and guilt.

Emotion Knowledge: Positive Emotions

It is important to talk about positive emotions as well as negative emotions when providing affect education. There may be more than a dozen positive emotions but we do not have labels for all of them, although we do have some labels including: amusement, contentment, excitement, relief, wonder, and ecstasy. Positive emotions

can motivate us and help relieve negative emotions. Ekman (2003) reminds us that the signal for positive emotions is in the voice rather than facial expressions. Students need to learn to label positive emotions when they are experiencing them, and they need to learn how to generate positive emotions in order to deal with their negative emotions.

Emotion Awareness

Students need to learn to effectively process emotions in order to: identify them in themselves and other people; communicate needs; display emotion or choose not to do so; label emotion in order to get assistance to cope with stress; and to signal others that they may be reaching critical intensities of emotion. Emotion expression serves as a signal in these ways (Southam-Gerow & Kendall, 2002). Researchers have recently proposed and actually provided some evidence to support the idea that emotion processing in children occurs along two pathways: lexical semantic and visuospatial. These pathways tap into different cognitive abilities (Herba, Landau, Russell, Ecker, & Phillips, 2006; Vicari, 2000). One pattern recruits lexical information or verbal knowledge, and the other recruits visual spatial aspects of facial expressions. Both pathways have to do with emotional identification and expression.

Emotion Awareness: Lexical Knowledge and Verbal Identification of Emotion

We know that verbal ability is important. It is related to our emotional life and is important in emotional awareness, particularly in regard to identifying and labeling emotion. Verbal ability is related to children's performance on tasks measuring emotion knowledge (Ackerman & Izard, 2004). Unfortunately, there has not been a lot of research examining the vocabulary students use to refer to emotions. However, there is some data to suggest that children who use a wide variety of emotion words as compared to their peers also tend to talk more about other's emotions; they use emotion vocabulary socially and are better liked by peers (Fabes, Eisenberg, Hanish, & Spinrad, 2001). We tend to categorize and label our present feeling of emotion using our knowledge of emotions just as we might label colors or events. When a current feeling of emotion is labeled, we experience "having an emotion" (Barrett, 2006). As children grow and use language, they use more and more complex emotion words (Fabes et al., 2001). Better-regulated children elicit more complex language and label their internal states with more ease than their peers. Ability to talk about one's emotions contributes to self-regulation particularly when children are young (Eisenberg et al., 2005). Children

differ in how easy or difficult it is to identify and label emotions across and within age groups. When we are able to identify emotions successfully, we can activate efforts to decrease the intensity of affected states (Ciarrochi, Heaven, & Supavadeeprasit, 2008). Differences may be related to early trauma, avoidance which causes children to become separated from and unable to label their feelings, and when parenting methods do not involve talking about emotions.

There are benefits for being able to identify emotions and describe how we feel. Language skills are related to children's ability to distract themselves when frustrated. The ability to identify and label emotional cues has been shown to make social interactions easier. Children who are less competent in emotional labeling are more likely to have behavioral and learning problems (Izard et al., 2001). Adolescents who can identify and describe feelings have been shown to be more optimistic, less depressed, and less anxious. In early and middle adolescence, students with emotional disorders have been found to have difficulty developing the ability to distinguish between sadness and anger and to use referents to these emotions easily. Adolescents with oppositional and conduct problems have difficulty in this area as well. These students evidence deficits in fluency, complexity, and specification of emotion vocabulary. Emotion language also appears to be influenced differently in adolescents with externalizing versus internalizing disabilities. More extraverted children use a wider range of emotion words possibly because they are less anxious, have less fear of punishment, have less fear of making errors, and may be more confident (Dewaele & Pavlenko, 2002).

Emotion Awareness: Emotion Vocabulary

Children younger than 8 years of age tend to have a limited vocabulary of emotion words. Even 11-year olds have not yet developed the vocabulary repertoire of adults (Aldridge & Wood, 1997). There are gender-related rules for talking about emotions and their causes (O'Kearney & Dadds, 2004). Boys have more difficulty with emotion regulation than girls, which may be related to emotion language (Eisenberg et al., 2005). Boys prefer expressive or behavioral referents for emotion, whereas girls tend to be more inner-directed. Emotion language in adolescents is age-dependent. In one study, primary and secondary students were asked to generate words to express feelings. Secondary students generated more words to fit various categories such as negative adjectives, sad feelings, etc. Students who were 14 years of age and older produced significantly more individual vocabulary words and girls produced more words than boys, except for happy and scary feeling words (Doost, Moradi, Taghavi, Yule, & Dalgleish, 1999). For typically developing children, emotion vocabulary skills predict achievement up to 4 years later and these skills additionally support social competence as well (Izard et al., 2001).

Schrauf and Sanchez (2004) determined that individuals know more negative emotion words than positive emotion or neutral emotion words. Positive emotions are processed superficially, whereas negative emotions are processed slowly.

Negative emotions require more attention and detail, and as a result, require more words. This has been found cross-culturally. Interestingly, the amygdala increases perceptual sensitivity for negative words (Barrett, Lindquist, & Gendron, 2007). In a recent study, investigators considered the possibility that emotional stimuli are processed automatically with little or no emotional awareness. Nasrallah, Carmel, and Lavie (2009) found that negative words in general have preferred access to resources needed for processing, rather than only fearful faces having priority over other input. Negative valence appears to be processed automatically as compared to neutral items (Sutton, 2008). Negative words have a processing advantage. In fact, researchers suggest that negative words may capture attention even when the individual is unaware of the valence of the words. In an effort to explain why this may be the case, researchers have proposed a variety of explanations. They suggest that negative words may have informational properties that positive or neutral words do not; or they may require less information in order to be categorized; or they may focus attention because they require semantic versus phonological or semantic processing; or negative words are consolidated into working memory more quickly and have stronger memory traces.

The issue of emotion words for second language learners needs to be considered given the increasing number of English language learners in our schools. Emotion words in a student's first language are not always identical in the student's second language. The ability to process emotion words in a second language is less automatic (Segalowitz, Trofimovich, Gatbonton, & Sokolovskaya, 2008). Importantly, this is not due to weaker word recognition in the second language. Weak emotion vocabularies are not connected to other word vocabulary deficits in English language learners. The effect that this might have is important. Vano and Pennebaker (1997) determined that problem behaviors were found with higher frequency in students who had greater disparities in emotion word vocabularies between English and Spanish. In addition, Spanish-speaking students with weak emotion vocabularies in English evidenced passivity and day dreaming in class. Researchers are already recommending general oral vocabulary training for second language learners. The studies presented here emphasize that emotion word vocabulary also needs to be stressed for English language learners (Lervåg & Aukrust, 2010). Use of new emotion vocabulary in English language learners may be avoided due to fear of ridicule and this also needs to be taken into consideration and avoided (Dewaele & Pavlenko, 2002).

Interestingly, individuals with low emotional awareness and weak emotion vocabularies do not use specific terms to explain feelings. Instead, they use cognitive terms. So, rather than saying they feel bad, they say "I feel confused" or "I feel tired." Tired is a body sensation. Commonly, these students may use an undifferentiated emotional state to explain how they feel such as "I feel bad" (Ciarrochi & Blackledge, 2006). This use of language may help us identify students who need work to increase their emotion vocabulary. To maximally benefit from social-emotion interventions and specific therapies, students need an age-appropriate working knowledge of emotion vocabulary words. This is especially important for students with emotional difficulties. Therapeutic techniques

such as cognitive-behavioral modifications assume that inner speech mediates behaviors or actions. Using self-talk can change cognition and thereby also change behavior (Mayer, Lochman, & Van Acker, 2005). A student's limited emotion vocabulary is a major deterrent in group counseling and psychotherapy (Shechtman, 2007, p. 80). Mental health workers feel that helping troubled students express their distress by putting their feelings into words is important in processing emotional experiences. In schools we clearly must increase efforts to emotion vocabulary.

There hasn't been much evidence available to indicate why an adequate emotion vocabulary might be helpful until recently. Eisenberger, Lieberman, and Williams (2003) asked research participants to play a computer game. As part of this game, the player experienced rejection. Experimenters used fMRI to determine what parts of the brain showed activity in response to rejection. Participants who reported the least distress to rejection showed activity in their prefrontal cortex (PFC). Experimenters hypothesized that verbalizing thoughts in their PFC suppressed the activity in the amygdala. Lieberman and colleagues (2007) also used fMRI with adults and were able to demonstrate that simply labeling pictures decreased the subjective emotional experience of looking at the pictures. Research participants were asked to look at pictures of faces with positive and negative expressions. The faces expressing negative emotions triggered an increase of activity in the amygdala even when the pictures were presented very fast. When the subject labeled a picture as angry, the activity in the amygdala and related limbic regions decreased (Lieberman et al., 2007). In a second study, participants connected the facial expression presented with either a male or female name, or the name of the emotion being expressed. Again, labeling the emotion downregulated the intensity of the negative emotion that participants experienced. At the same time that activity in the amygdala decreased, activity in the PFC increased. Labeling emotions puts a "break" on the emotional response to negative stimuli. Importantly, emotion labeling, rather than labeling in general, had the effect of dampening the emotional cycle. Lieberman feels that labeling, talking about, or writing by itself alone decreases the stress of negative emotions even if these acts do not change thinking. The act of labeling breaks the cycle of emotion. The simple fact of naming makes all the difference. Emotion words clearly are very important and cannot be bypassed or neglected in interventions for students at all three tiers.

Emotion Identification and Expression: Visuospatial Processing

Emotion awareness and emotion expression are very closely related in the literature and in research studies. Visuospatial emotion processing has been researched in studies involving the development of expression of emotions and in the recognition and identification of facial expressions. Facial cues are a primary way that we communicate emotions. Facial cues are an important component of social interaction as they allow us to interpret the way others may be feeling (Yuki, Maddux,

& Masuda, 2007). The development of emotion (expression) recognition develops over a long period of time, from a very young age through early adulthood. Both accuracy and speed of processing improve over the developmental period, but the rate of development varies according to: the category of emotions under discussion, gender, socioeconomic status, and verbal ability (Herba & Phillips, 2004).

Culture also makes a difference, as we are more accurate in judging expressions of members of our own culture. The more familiar that individuals are with a given culture, the more accurate they are at judging the emotions of people of that culture (Yuki et al., 2007). Facial cues are weighed differently when an individual interprets emotions according to their own culture. It is important to control emotional expressions in East Asian cultures. Members of East Asian cultures attend closely to expressions that are evident in the other person's eyes rather than their mouth, which is a key cue for Americans. Context also matters when we are attempting to identify and understand emotions, especially when the emotions being expressed are quite similar. For example, facial depictions of disgust are very similar to facial expressions of anger and so these two emotions may more challenging to distinguish, whereas facial expressions of fear and disgust are quite different and easier to distinguish. It is not only the facial expression being displayed that is important for identifying the emotion experienced, but students must also be aware of the expression that is expected in the particular situation or context as this makes a difference (Aviezer et al., 2008). This seriously challenges our efforts to teach students to identify facial expressions of emotion, especially for those children who evidence difficulties in this area.

Researchers studying identification of facial expressions tend to use intense expressions in their studies. Research using intense expressions suggests that the developmental progression of recognizing facial expressions is happy earliest, then sad or angry, and finally surprise or fear. Speed of processing is another focus of research and there is evidence to suggest that fearful faces are processed faster than sad or neutral faces (Chen, Alvarez, Amador, Malone, & Dennis, 2005; Dennis & Chen, 2007a, 2007b). When less intense expressions are investigated, the progression may be different. Researchers have investigated children's ability to match facial expressions that were subtle rather than intense (Herba et al., 2006). In this case, age effects were strongest for matching facial expressions of fear and disgust. Age also has some effect on matching expressions of sad and happy, but has no effect on expressions of anger. Gao and Maurer (2009) found that 5-year olds could identify more subtle expressions of happiness, but even by age 10 years children are likely to label subtle expressions of sadness as fearful. However, by age 10, children could identify fear even if the expressions were subtle. Accurate decoding of subtle expressions appears to develop slowly. Interestingly, pictures of high intensity expressions are hard to match for all emotions except for sad facial expressions (Herba & Phillips, 2004). Students are more accurate when expressions are displayed at lower intensities. This finding is important because researchers did not use language. When using primarily visuospatial tasks, researchers found that boys' ability to match emotional expressions was faster than girls; whereas studies that involve language more often find girls more capable. Other studies have found that

older adolescents interpret more subtle and complex facial expressions more negatively than younger students (Van Beek & Dubas, 2008). We must also appreciate that the environments in which children grow up may bias students toward particular emotions (Herba & Phillips, 2004).

The ability to recognize nonverbal forms of emotional expressions is very important for successful social interaction. Poor abilities in this area can affect social behavior and place students at risk for poor adjustment (Izard, 2002; Sheaffer, Golden, & Averett, 2009). Accurate facial recognition of emotion requires perceptual learning including spatial attention and memory and also requires knowledge and experience with emotions, which we can improve (Sheaffer et al., 2009). Children with various disorders who develop biases in identifying facial expressions also exhibit social difficulties. Children who have been mistreated have difficulty recognizing emotion from facial input. Individuals who demonstrate reluctance in expressing emotion tend to have more intense psychological symptoms (Barr, Kahn, & Schneider, 2008). Adolescent girls show a more negative bias in interpreting complex facial expressions compared to boys. Depressed adolescent girls tend to perceive high intensities of anger in more subtle expressions. More depressed students express low levels of positive emotions and regulate sadness ineffectively (Feng et al., 2009). Some children with handicaps need to see more intense expressions in order to accurately identify them. Nonsymptomatic girls whose mothers were depressed needed to see more intense sad expressions in order to accurately identify the emotion displayed as compared to controls. These girls made considerably more errors when asked to identify facial expressions of anger (Joormann, Gilbert, & Gotlib, 2009).

There is evidence associating accurate perception of facial expressions with prosocial behavior. The ability to identify fearful facial expressions has been shown to predict prosocial tendencies and behaviors and is a better predictor of prosocial behavior than gender, mood, or scores on an empathy scale (Marsh, Kozak, & Ambady, 2007). Prosocial behavior appears to be related to facial expressions of distress, fear, and possibility sadness as well. Individuals with very poor ability to recognize fearful expressions have been shown to exhibit antisocial tendencies. The development of emotion expression recognition, and the brain regions that support this development, continually improve throughout the school years (Herba & Phillips, 2004). Again, in schools we need to work with handicapped children to improve their abilities to more accurately interpret facial expressions.

A student's current mood also needs to be taken into consideration because mood has an effect on attentional biases and exerts strong effects on information processing. Recent research indicates that individuals in a positive mood attend to global components of incoming information, while individuals in negative mood tend to narrow their visual field and attend to details that are highly relevant. This may be adaptive in certain occupations, which require intense attention to detail (Schmitz, De Rosa, & Anderson, 2009). However, children distort their interpretation of a facial expression in accordance with their mood at the time. Individuals in a sad mood are more likely to utilize detail-oriented, effortful, and analytical processing (Ambady & Gray, 2002). Additionally, the brain analyzes facial

expressions at very early stages of attention processing and, as a result, some children and adolescents demonstrate automatic attention toward negative information. This may predict difficulty in a student's ability to regulate emotional arousal later on (Dennis, Malone, & Chen, 2009).

Emotion Expression: Display Rules

Learning the appropriate expression of emotion according to one's culture is complicated given individual biological and temperamental differences and environmental differences such as parenting practices, peer influences, and degrees of acculturation. Research interest in aggression, along with interest in social emotional expression, has led to the concept of "display rules." These rules or guidelines have to do with controlling behavior driven both by emotions and cultural rules having to do with what is and is not acceptable in a given culture (Underwood, Coie, & Herbman, 1992). Display rules involve a student's decision to either express the emotion that the student is experiencing, or to hide or "mask" the demonstration of emotion. If a student decides to mask the emotion he or she is experiencing, there is a choice to either show no emotion at all, or to demonstrate a culturally appropriate or more acceptable emotion than one is feeling at the time.

When interpreting a student's knowledge of display rules, researchers use experimental situations that are designed to elicit emotions such as sadness, embarrassment, or disappointment. Early research suggested reporting of display rules increased in students until grade 5 (Underwood et al., 1992). Researchers found that girls were more competent in dealing with disappointment. Vignettes were presented to third-, fifth-, and seventh-grade students to explore students' use of display rules for anger. By age ten, students tended to use display rules more than younger students. Girls used display rules for anger more than boys, although boys increased their use of display rules, as they grew older. Early adolescent African American girls used display rules less than younger girls and were more direct and assertive in social situations. There was a trend for aggressive students to use display rules less than their peers. Students used more display rules when interacting with teachers than with peers. Rather than expressing anger toward teachers, some students either showed no emotion at all, or said that they would feel sad. Researchers suggested that when children mask emotions, they tend to mask more than one negative emotion. Children find it easier to learn to mask behavior than facial expressions.

Children learn to use display rules as early as 2–3 years of age (Misailidi, 2006; Parker et al., 2001). Josephs (1994) investigated both the use and understanding of display rules in 4- to 6-year olds. The 6-year olds were more capable of identifying the difference between real and displayed emotion. Interestingly, in a follow-up study, preschoolers were able to use display rules before they were able to distinguish the difference between real and displayed emotions. More recently, researchers investigated second-grade children's knowledge and use of display rules for anger.

Researchers found that more valid measures of use of display rules are obtained when children are observed directly, rather than relying on what children report what they do. When observed in the live situations, children expressed less anger than they said they would when responding to vignettes. In the live situations, the second-grade students also used more cognitive techniques to hide anger. Girls generated more strategies for how to hide their anger when responding to vignettes. However, in the live situations, they demonstrated similar behaviors as boys (Parker et al., 2001).

Not all children find display rules easy to master. Children with specific language impairment lag behind their peers in understanding the impact of emotional expression on relationships (Brinton, Spackman, Fujiki, & Ricks, 2007). Delinquent boys frequently misinterpret facial expressions of disgust as anger. Researchers hypothesize that this may be a possible cause for their aggressive behavior (Sato, Uono, Matsuura, & Toichi, 2009). Individuals who are depressed tend to have a negative bias when judging others' faces and, when this occurs, there is a diminished outcome from treatment. This may be related to self-centered rumination in depressed individuals (Raes, Hermans, & Williams, 2006). Positive affection and control by parents are related to children's use of display rules with fathers being particularly important (McDowell & Parke, 2005). Interventions designed to teach students display rules is important. When children know prosocial display rules and practice taking emotional roles in counseling group sessions, they behave in a prosocial manner.

Ekman (2003) described five types of display that children utilize to fit social contexts: simulation, inhibition, intensification, deintensification, and masking. Students may simulate or act as if they are experiencing an emotion when in fact they are not. A student may simulate surprise when he or she actually knew a secret ahead of time. An adolescent may simulate happy excitement to please her boyfriend when she really isn't interested in the outcome of a ballgame at all. A student may give the impression that he has no emotional response to a situation (inhibition) in order to present himself to his peers as if he were "cool." A student may demonstrate much stronger emotion (intensification) than he actually feels to please the person who gives an unwanted or boring gift. Deintensification may be a critical skill to master when a student is being teased and wants to hide growing anger. Masking involves displaying an emotion that is different from the emotion being experienced such as: when the student smiles when he or she is actually upset or angry, or a student presents a stoic expression when frightened, or when a student receives excessive praise and becomes the center of attention. A stoic expression is valued as culturally appropriate humility in Western cultures.

Children learn culturally appropriate display rules in their families and also in peer groups. The motivation for learning is a desire to elicit a desired response from others such as acceptance (Shipman, Zeman, Nesin, & Fitzgerald, 2003). Older children are less likely to show negative emotion in peer situations. They understand that control of their emotional displays is very important for social success. They know that intense emotional displays will not be accepted or supported by the peer group. When younger children use inappropriate expressions of emotions, they

are met with verbal dissatisfaction or criticism. This helps them learn. Children who are not accepted by the peer group may not be exposed to the same opportunities to learn.

Affective Education in Schools

Recently, there has been considerable interest in bringing affective education into the school curricula. However, it has been challenging to convince stakeholders that affective education has a place in the general school curricula in spite of acute awareness of the need for preventing emotional difficulties and the need for interventions to facilitate mental health in at-risk students and in students who are already demonstrating emotional disabilities. The major focus of schools remains achievement rather than prevention of emotional disabilities. Instead of coordinated and major programmatic infusion of emotional supports into schools, a plethora of small and isolated prevention and intervention programs have been introduced resulting in fragmented services that often result in disappointing outcomes. These fragmented efforts have flaws that guarantee inadequate results. Interventions are not attached to the central mission of schooling. They do not address the teaching goals, which are used to measure success. Staff development and staff supports have been poorly conceived, while coordination, monitoring, and evaluation have been neglected in regard to mental health prevention and intervention (Kress & Elias, 2006, p. 593).

In 1994, the Fetzer Institute facilitated a meeting which introduced a now well-known term, “social and emotional learning” or SEL, and generated a new organization, the Collaborative for Academic, Social and Emotional Learning (CASEL), which has served as an organizational arm and dissemination tool for researchers. CASEL has attempted to identify skill areas and competencies that are valid and which foster healthy functioning of children and adolescents. During this time, both the educational and therapy fields driven by accountability and cost-effectiveness initiated strong directives for evidence-based interventions. These resulted in changes in therapy manuals from a looser structure to scripted treatment and standardized interventions. In education, written school reform plans appeared. In research, the “gold standard” became randomized clinical trials to improve evaluative efforts and to demonstrate effectiveness of programs (Kress & Elias, 2006). This led to extensive data collection by CASEL, and other agencies, providing detailed reviews of the effectiveness of programs and the identification of implementation factors including:

- The need for direct instruction.
- Practice with guided feedback, prompts or cues, and generalization by infusing skills into all areas of a student’s experience.
- Extension of skills to school staff, administrators, and school policy.
- Multiyear, multicomponent, and multilevel programming.

- Involving families.
- Support and training for school staff.
- Connecting interventions with academic achievement.
- (Kress & Elias, 2006, pp. 595–596)

Although there is an acute need for mental health prevention and intervention services, the “No Child Left Behind” (NCLB) legislation (2002) tied school funding to scores on tests, changing the accountability structure, and sapping time and attention away from mental health concerns. So in spite of ever-expanding research and availability of evidence-based programs, many schools are not implementing practices. There has been limited implementation of research-based curricula in schools and, when this has been attempted, there have been considerable difficulties in implementing strong programs. Hallfors and Godette (2002) collected data from 104 schools in 12 states and found only 19% of schools reported implementing evidence-based curricula correctly. Ennett et al. (2003) found that few school staff delivered program content effectively, although more recently training along with evidence-based practice has been more successful. When factors related to decisions to adopt evidence-based practices have been considered by schools, problems included lack of staff time, need for local assessment data, and finding research to show which curricula were effective (Rohrbach, Ringwalt, Ennett, & Vincus, 2005). On the other hand, several states have included social–emotional learning in their state standards. Illinois has established SEL learning standards (http://www.isbe.state.il.us/ils/social_emotional/descriptors.htm). The New York State Department of Education has developed draft Social/Emotional Development and Learning (SEDL) standards (<http://www.emsc.nysed.gov/sss/sedl/>). The Anchorage School Board in Alaska has developed social and emotional learning standards and benchmarks (<http://www.asdk12.org/depts/SEL/>).

A technical report was drafted for CASEL with the outcomes from three scientific reviews (Payton et al., 2008). These reviews of a spectrum of studies examined the impact of SEL programs on the skills that the various programs tried to teach as well as on attitudes, behavior, emotional distress, and academics. The reviewers concluded that the programs were effective for students: in school and after school; in urban, suburban, and rural settings; with racially and ethnically diverse students; and for students with and without behavioral/emotional problems. This report also made it clear that adding SEL programming to the school curricula does not detract from school achievement. A second critical consideration for schools was the finding that school staff could deliver programs as effectively as researchers, and in some cases, better than the experts themselves. SEL programs are universal, Tier 1 programs. In regard to Tier 2 and 3 interventions, CASEL has also delineated strategies for school-based student support staff to include school psychologists, school counselors, school social workers, and nurses. These strategies include: coaching, collection of data, collaboration, making connections between the fragmented services that already exist, cofacilitation of lessons, providing booster support, and providing resources to families (CASEL Update, 2007).

SEL is not without its critics. SEL is actually an umbrella term covering a wide range of programs with divergent approaches and focuses. Hoffman (2009) reports that there are over 200 types of programs in use in the US. Implementation of SEL programs varies widely. The programs range from add-ons to quite comprehensive whole school interventions that affect school climate for all members of the school community. Hoffman argues that the ideals of “caring, community, and diversity” are hard to meet when programming focuses on “control” strategies and individualistic models. There are additional problems around SEL programming. In spite of the extensive work of CASEL, large-scale independent and systematic evaluations of many of the SEL programs do not yet exist. Evaluation research that has been completed has not involved experimental designs for the most part. Many studies have not been published in journals that require peer review. Hoffman further argues that more work is needed on linking ideals with practices and urges a change in focus from finding deficits in children to changing social and cultural contexts so that positive emotional climates can be obtained.

There are several issues that are yet to be resolved in regard to SEL programming. One of those has to do with dosage effects, which is just beginning to be explored. Rosenblatt and Elias (2008) were interested in the transition from elementary to middle school, which often results in a decline in grade point averages (GPA). They compared the drop in GPA between two groups of urban students. Students receiving higher dosages of a social–emotional intervention saw decreased effects of the transition on GPAs as compared to peers. Researchers did not differentiate dosage effects by gender, socioeconomic levels, or racial/ethnic background in this study, so more work is needed on this point.

Affect Education in School Prevention and Intervention

The idea of implementing interventions primarily focused on affect education or emotion literacy is new. We do not yet have available well-researched, evidence-based, and primarily affective education interventions that have also been implemented in schools as Tier 1, 2, or 3 interventions. The primary Tier 1 approach at present involves SEL programming. There are two issues to consider when exploring SEL programs to determine which programs might have a strong focus on emotion literacy. The first issue is whether a program has sufficient focus on affective education. Our society is strongly focused on violence prevention to the extent that many to most programs have major emphasis on character education, prosocial decision-making, social problem solving, or social skills development. This is of course important and it is certainly appropriate to focus on societal interests and concerns. All students need to develop skills to prevent violence, aggression, and bullying as these concerns are growing. However, here we are interested in a more basic consideration, i.e., the extent to which universal prevention and intervention programs have a strong focus on affective education, or have a large component that addresses affective education, or have an effect on emotion knowledge or

education. The second concern is finding programs with research support, particularly for programs that have been successfully implemented in the school setting. Given these concerns, a few programs are reviewed below which have at least some components of affective education.

When we consider the three tiers for prevention/intervention in schools, we can look at the different levels of invention as differing in strength and possibly also in focus of intervention. Intensity can be looked at as a focus in specific components or in terms of time exposed to treatment, or in the size of the group or other factors. Tier 1 universal interventions typically have goals around appropriate social interaction and teach some skills to improve social interaction, or general school functioning, which may include academic functioning. Tier 2 interventions tend to involve the same or similar components as the universal intervention, possibly with some additions such as a change in the size of the group or a change in instructional approach. Tier 3 interventions tend to be much more focused. In the case of affect education, the universal intervention might include emotion understanding and several emotion regulation skills; the Tier 2 intervention might include more practice, direct instruction, and a focus on skills not mastered in the Tier 1 intervention, while Tier 3 interventions might include a very specific focus on anxiety reduction, depression reduction, self-regulation, or anger management.

Components of Emotion Understanding and Emotional Literacy

It is important to think about the many concepts, strategies, and skills that could fit under the emotional literacy umbrella. Researchers and theorists have attempted to isolate the general components that could be addressed in emotional literacy programs, but there is no general agreement at this time. It is helpful to look at the various proposals in order to come to some determination about what might be covered in a broad school program. At all three Tiers, Greenberg and Pascual-Leone (2006) feel that four types of emotional processes are important. These include: emotional awareness, emotion regulation, interpreting emotions and connecting them with rational thinking, and emotion transformation or change. One example of an effort to promote emotional literacy is the *Emotional Literacy Programme* following the *RULER* model of emotional literacy (Brackett, Rivers, Choe, & Adams, 2009). The *RULER* model is based on five aspects of emotion literacy including: Recognition, Understanding, Labeling, Expression, and Regulation of emotions. The goal of this model is to teach a rich emotion vocabulary. Lessons are integrated into the existing school curricula.

The most sophisticated skill of emotion education is emotion regulation. Emotion regulation is considered a major developmental achievement of childhood. Holodynski and Friedlmeier (2006) assert that the "...acquisition of strategies for modifying the quality, intensity, duration, and frequency of emotions is a major developmental task" (p. 87). Research indicates that all students who can use a variety of emotion regulation strategies will improve their adaptive functioning and

mental health in general, and for those with identified disabilities strategy, training is particularly important (Haga, Kraft, & Corby, 2009; Smyth & Arigo, 2009). Teaching emotion regulation strategies has been demonstrated to be important and beneficial in treatment group interventions, in expressive writing, and in school-based universal programs. Teaching emotion regulation strategies is not easy, given use of strategies varies across age, gender, and culture (Haga et al., 2009).

Due to the complexity of emotion regulation, it can be helpful to look at attempts to categorize emotion regulation strategies in an effort to simplify planning. Koole (2009) has discussed categorization in detail pointing out that the variety of strategies for emotion regulation is extremely large making the task quite difficult. Some researchers have described eight categories of regulation skills or strategies:

- Nonverbal expression.
- Verbal or written expression of feelings to others which can be direct or indirect.
- Attempts to change the situation verbally or by reframing one's thinking.
- Gathering information or taking someone else's point of view.
- Leaving the situation or avoiding events and situations.
- Passive or indirect strategies such as ignoring emotions or negative talk.
- Distraction which can be positive or negative.
- Seeking comfort from family, friends, or prayer.

Some researchers have separated strategies into personal and interpersonal categories. Others look at the level of processing that would be needed in order to use a strategy such that self-calming would be at a basic level and self-instruction would be at higher level (Holodynski & Friedlmeier, 2006). Strategies have also been categorized as automatic or deliberate (Richard, Lauterbach, & Gloster, 2006). Bridges and Grolnick (1995) list four classes of strategies to include: attention regulation, self-calming strategies, interactive strategies, and symbolic or verbal strategies. Work with adults suggests three categories of strategies: repair, maintenance, and dampening strategies (Kokkonen & Pulkkinen, 1999). Finally, emotion regulation strategies have been categorized by the *targets* of regulation, such as attention, knowledge (appraisals), and somatic expressions of emotion (facial expressions, postures, internal bodily reactions, and motor movements). Unfortunately, this results in messy groupings (Koole, 2009).

A very interesting proposal suggests looking at the psychological functions of emotion regulation (Koole, 2009). From this point of view, we would look at need-oriented emotion, goal-oriented function, and person-oriented emotion regulation. Need-oriented strategies might include refocusing attention away from negative input toward positive input. Also included in this category would be addressing biases in interpretation of emotions and dealing with attempts to regulate emotion by eating, smoking, or taking drugs. Goal-oriented strategies would include distracting oneself by engaging in activities that require a lot of cognitive activity, including reframing emotional events and situations, suppressing emotions, exaggerating responses, and "letting it all out." Person-oriented strategies would include attentional counter-regulation, expressive writing, remembering past events, and relaxation such as progressive muscle relaxation and controlled breathing. Each function

addresses attention, emotion knowledge, and physical reactions. Interestingly, Koole indicates that when dealing with each of the three categories, certain strategies work better than others. For example, if goal orientation is critical, attentional strategies and reframing work better than venting or suppression of emotions. If needs are critical, cognitive strategies do not work well. Attentional avoidance can result in increased negative thinking. Progressive muscle relaxation works when person-oriented emotion regulation is the issue. The advantage of cognitive strategies, which are so important in treatments for anxiety and depression, is specifically related to goal-oriented emotion regulation.

Kovacs et al. (2006) suggested that we think of emotion regulatory difficulties in terms of coping with stress. There is a simple and well-known method of categorizing emotion regulation strategies using coping literature. This involves emotion-focused strategies such as turning one's attention away from something that is upsetting, avoidance, or looking the positives. The other category involves problem-focused strategies in which the individual tries to improve the situation, generates alternative solutions, or weighs options (Dennis & Kelemen, 2009; Southam-Gerow & Kendall, 2002). Important to understand is that problem-focused strategies may not always be preferred in that they work better for anger than for fear. By elementary school, students understand that both of these regulatory categories can be used to deal with stress by becoming involved in, or disengaging from, events. Elementary-aged students prefer direct action and support seeking strategies. Reframing and decision-making increase from early elementary school to late elementary school. Problem-focused strategies are used frequently in students from age 10 to 14 years (Hample & Petermann, 2005).

Some coping strategies work better for certain students with particular issues versus others. Active coping strategies result in better adjustment for young children at least (Grolnick, Bridges, & Connell, 1996). But, active coping, distraction, and social-support-seeking do not work when stressors are uncontrollable or chronic as in some city environments and can lead to hopelessness. When adolescent boys in these environments try to deal with uncontrollable stressors using active strategies, they feel worse. Ruminative coping is associated with hopelessness for adolescent inner-city, low-income girls (Landis et al., 2007). Of course, there are many coping strategies with a variety as wide as the range of emotion regulation strategies. Researchers have identified as many as 107 coping strategies (Sabiston, Sedgwick, Crocker, Kowalski, & Mack, 2007). Zeidner et al. (2006) list six "types" of coping: repressive coping involving suppression of feelings and repressing negative emotions; emotion-focused coping in which a student might look at a difficult situation positively; problem-focused coping with active efforts to resolve situations; avoidance coping with efforts to distract oneself; repair of negative emotions as in when a student is trying to do something fun; and disclosure coping with efforts to write about stresses, labeling emotions, or restructure one's view of events. Importantly, these researchers point out that all strategies are adaptive in particular situations.

Finally, Gross (1998) distinguished between antecedent-focused and response-focused emotion regulation and determined that these have different adaptive

outcomes. Antecedent-focused regulation occurs before appraisals result in peak emotion. Strategies in this category would involve selecting one situation over another by avoiding certain situations and attempts to modify or change the situation and what one pays attention to in the situation, such as attending to only one aspect of a situation. In addition, modifying what you think when in a challenging situation fits in this category. Cognitive reappraisal is an antecedent-focused strategy. It works because it reduces emotion and bodily experiences without impairing thinking. Response-focused emotion regulation takes place after one is already dealing with emotion; for example, suppressing thoughts, feelings, or behavior. Inhibition does not work for modulating anger or sadness. Although we do not know very much about regulating sadness, talking about feelings helps to regulate sadness. Attempts to change the situation are helpful as well. Passive strategies do not relieve either anger or sadness. Leaving a problematic situation does not regulate anger. Different strategies are needed for different emotions (Rivers, Brackett, Katulak, & Salovey, 2007).

Chapter 5

Importance of Emotion Regulation Training for Children and Adolescents

Emotion regulation continues to be a hot topic and is sufficiently important to merit separate consideration. The concept is complex with many components. Emotion regulation develops depending on both environmental factors at each stage of development and also on intrinsic factors such as child temperament, which accounts for individual differences. Beyond this, culture plays a dominant role. The neurobiology of emotion regulation helps us understand the interconnectedness of cognition, attention, working memory, mood, and emotion regulation. Seriously limited, or poor, emotion regulation fits most if not all childhood disorders. Disorders such as attention deficit hyperactivity disorder, bipolar disorder, and borderline personality disorder have been described as primarily disorders of emotion regulation. Inability to regulate emotion and poor emotion regulation interfere with academic success and social success in dramatic ways. Lack of training in emotion regulation has been used to explain why interventions have limited success in some of the children who participate in mental health counseling.

Emotion regulation is a critical component of affect education that has attracted a significant amount of research and clinical interest. This aspect of emotion education has not been overlooked in that strategies to downregulate excessive and maladaptive emotion are included in a wide variety of Tier 1, 2, and 3 interventions. Emotion regulation is a complex concept; however, even developing a definition has currently generated discussion and debate resulting in no agreed upon definition (Bridges, Denham, & Ganiban, 2004; Eisenberg & Spinrad, 2004; Greenberg, 2007; Hoeksma, Oosterlaan, & Schipper, 2004). Some of the different aspects of this complex concept include:

- Exploring different types of emotion regulation, determining the temporal sequencing of strategy use, and finding out ways to measure emotion regulation (Bridges et al., 2004).
- Differentiating emotion regulation, which is implemented by significant adults vs. regulation controlled by the student, and whether emotion regulation is goal directed or unintentional (Eisenberg & Spinrad, 2004).
- When emotion regulation is needed, what are the goals, and how regulation is achieved (Hoeksma et al., 2004).
- Whether or not automatic emotion regulation processes can be changed and how (Greenberg, 2007).

- To what extent is language related to emotion regulation (Eisenberg, Sadovsky, & Spinrad, 2005).
- Whether or not there are individual differences in emotion regulation and what this may mean (Goldsmith & Davidson, 2004).

This is only a representation of the topics associated with emotion regulation in the literature and does not include the brain bases of emotion regulation or how emotion regulation is related to various disabilities in which school-based mental health workers are interested.

The pace of research on emotion regulation is intense, which has resulted in considerable excitement among clinicians and researchers who feel that emotion regulation processes are critical for adaptive functioning and physical health (Smyth & Arigo, 2009). Emotion regulation is strongly affected by culture. In the US culture, learning to regulate emotions in particular ways is critical for school success and mental health. Emotion regulation is a core strength that is required for healthy cognitive, as well as emotional growth (Eisenberg et al., 2005). Good regulation of all emotions except fear is associated with prosocial behavior (Rydell, Thorell, & Bohlin, 2007). Gumora and Arsenio (2002) have provided research findings to indicate that emotion regulation plays an important role in the grade-point averages of students. The progression from parental or other adult regulation to self-regulation is thought to be one of the most critical tasks of growing up. In early adolescence, students who could control emotional displays had better relationships with peers, were more prosocial, and were less aggressive (Vobach & Foster, 2003). In adolescence, emotional control is a key variable in maintaining good relationships. Mastery of emotion regulation can promote resilience, help to moderate moods, contribute to intrinsic motivation, and help repair negative emotions (Kashdan, 2007). Emotion regulation is a basic aspect of healthy development (Dennis, Malone, et al., 2009). Emotion regulation along with affective dispositions and academic emotion contributes to students' grade point averages (Gumora & Arsenio, 2002). Dennis (2006) considers emotion regulation as the most crucial capacity in students' emotional development.

Emotion regulation is required when one experiences a conflict between how one feels at a given moment and how one needs to act in a particular situation, such as when a student feels angry, but expressing that anger may be costly. Expressing intense anger can get a student in trouble. Emotion regulation is needed when a student needs to force himself or herself to present differently than he or she feels, as in the case of experiencing considerable fear but needing to appear calm. When faced with a large growling dog or a frightening group of bullies, a student may need to downregulate emotion. Emotion regulation is needed when an adolescent needs to change the informational load that he or she is experiencing in order to control his or her behavior, as in looking away from someone who is threatening, or as in controlling a car when a tire has suddenly blown out. Students may want to use a strategy to prevent emotions from peaking in many situations. To get back in control, the input of the emotional system needs to be changed (Hoeksma et al., 2004).

Emotion regulation is a subset of the more general concept of self-regulation. Both emotion regulation and self-regulation have developed somewhat independently in

spite of the extent to which they are related (Tamir & Mauss, in press). Davidson (2009) reminds us that self-regulation can be learned just as any other skills can be learned. Of course, those of us who work in schools know that it is not equally easy for all children to master self or emotional regulation.

Holodynski and Friedlemeier (2006) suggested five stages of emotional development and regulation. The first phase occurs in the first 2 years of life. The second phase surrounds the preschool years. The third phase is childhood and the fourth phase covers adolescence. The final phase is adulthood. There are both environmental and biological influences on a child's development of emotion regulation. Environmental influences include parenting style, parental bond and interaction with their child, peer influences including display rules, and cultural expectations. Biological influences include child temperament, neurobiology, and attention (Fox & Calkins, 2003).

Environmental Influences: Influence of Parents, the First Few Years

Parenting style and interaction with their young children during the first 2 years of life teach a child emotion regulation through modeling and social referencing. In addition, emotion regulation is influenced by the emotional climate of the home, which is communicated to the infant and toddler through the interactional style of the parent with the child, and through the attachment relationship. Family emotional expressiveness and the mother–father relationship for intact families are influential as well (Morris, Silk, Steinberg, Myers, & Robinson, 2007). Parents also influence children's ability to control their emotions by encouraging emotional expression, by expressing emotions themselves, by comforting their child, and by talking about emotions (Kim, 2009). Parents' reaction to the negative emotions that their child expresses makes a difference. Children who have good physiological regulation have some protections against adverse parenting environments (Rogosch, Cicchetti, & Toth, 2004).

During the first 2 years of life, infants learn about emotion through parent–child interactions. Precursor strategies of emotion regulation can be observed in the sucking behavior of infants, in the looking away of infants when they are distressed, or when infants are over stimulated. Parents who are in tune with their infants react as soon as they see that their young child is expressing an emotion. They mirror their infant's emotion to help the little one begin to understand emotion and infants in turn, learn to imitate their parents' facial expressions. The infant is learning that facial expressions provide important information. For example, mother's smile suggests that everything is okay. Toddlers learn to display emotions while their parents use distraction to help them change the intensity of the emotions that they are experiencing or to change to a calmer state. Parents also encourage compliance with cultural norms (Holodynski & Friedlemeier, 2006).

Typically developing 2-year-olds demand help with emotion regulation from their parents. Sensitive parents of toddlers provide physical or proximal contact, a trinket,

a toy, or a verbal reinterpretation of emotional situations when their toddlers seek them out for support. Toddlers can also provide emotional comfort for themselves by sucking their thumbs or a pacifier, or by clutching a blanket (Holodynski & Friedlemeier, 2006). Toddlers' early emotion regulation behavior, which involves seeking physical comfort or using self-soothing strategies, are associated with behavioral controls in middle-class European American children. This is not the case for African American children in that these regulation strategies were associated with later externalizing behaviors (Supplee, Skuban, Shaw, & Prout, 2009).

The interaction between mother and toddler is interactive with each one influencing the other. Mother's attempts to teach emotion regulation is complicated by the child's temperament. Mother may not be successful with toddlers who exhibit highly negative emotional arousal. Mothers with less reactive children are more successful when using physical contact to calm their children. With less reactive children, mothers are able to teach distraction techniques and interactive strategies, and the less reactive children are able to use them later when they are frustrated or stressed (Mirabile, Scaramella, Sohr-Preston, & Robinson, 2009). Ability to use distraction when frustrated is positively related to ability to cooperate with peers whereas venting or focusing on objects when frustrated is related to peer conflict (Calkins, Gill, Johnson, & Smith, 1999). Early development of the ability to regulate oneself, at least at the level of physiology, is extremely helpful for children later on, when they need to master more challenging emotion regulation strategies (Silk, Shaw, Skuban, Oland, & Kovacs, 2006).

Typically developing 2-year-olds recognize facial expressions, use verbal labels, and talk about emotional topics. Discriminating sadness and anger is more difficult for them. Again, sensitive parents of toddlers manipulate the environment, so demands of the situation at hand are manageable. Parents also make suggestions, which children can use to help regulate their reactions under stressful conditions. As toddlers become better able to use strategies on their own, mothers no longer intervene directly (Kopp, 1989). Mothers who neglect their infants' feelings do not understand their children's emotions. They tend to miss emotional expressions of their children and interpret emotions as sad when they are not (Hildyard & Wolfe, 2007). Mother's negative, controlling behaviors appear to inhibit the development of self-control in their children when mother is not available because their children are relying on mother's external support (Fox & Calkins, 2003). Two-year-olds become aware of what they want and what parents expect. This allows them to begin to function independently and to regulate themselves in difficult situations using calming, distraction, and even reinterpretation to some degree (Holodynski & Friedlemeier, 2006).

Environmental Influences: The Preschool Period

Children learn emotion regulation strategies by interaction with competent parents who directly teach strategies or make demands of their children. Parents also reinterpret situations and events for their children in order to help them learn to change how they feel about a situation. Parents model how they regulate emotion themselves for their

children and their children imitate these efforts. Parents talk with children about how they display emotions; the cause and consequences of emotions and how their child can influence his or her own and others' emotions (Gottman, Katz, & Hooven, 1997). Parent practices can have a powerful effect on their children's emotion regulation. Parents vary in many ways as they work to obtain compliance. One dimension has to do with approach and avoidance parenting. Parental approach involves talking about potential rewards and what good things can happen. Parental approach facilitates persistence although it can also result in frustration when children cannot reach goals, or can focus a child on always needing to "win" and developing a high need to obtain rewards. Parental avoidance involves warning about problems or safety, or making threats. A focus on threatening statements by parents tends to have the effect of children pulling away when tasks are challenging. In addition, parental avoidance encourages avoidance in children and can result in more upset when children are challenged. Parenting interacts with child temperament in complex ways. When a child is anxious and mother uses low control, fearful children comply because they feel so uncomfortable. Fearless children respond well to warm parenting that supports motivation to behave (Dennis, 2006).

When parents provide structure and rational guidance in emotional situations, they are impacting emotion understanding and emotion regulation. Parents provide verbal scripts for children. Children use these scripts later on when they need to self-regulate without mother's help. This type of parental scaffolding facilitates emotion understanding and regulation (Southam-Gerow & Kendall, 2002). Parents who are sensitive encourage preschoolers to regulate their emotions themselves in the same way they encourage behavioral controls. Sensitive parents and caretakers help their children talk about emotions, so children will make the connection between the causes and consequences of emotions and behavior. Parents model different ways of displaying emotions, and talk about and directly train children with these strategies to control emotions. Sensitive parents reinterpret events for their preschoolers, model strategies, encourage children to imitate strategies, and teach them that those emotions children feel and those that others feel can be influenced (Gottman, Katz, et al., 1997). In addition, parents make demands of their children to downregulate the intensity of their emotional displays. By 4 years of age, preschoolers are able to use distraction strategies that fit the context of the situations (Holodynski & Friedlemeier, 2006). One emotion regulation strategy that some believe works well for preschoolers has been described as "mental travel time" (Bischof-Köhler as cited in Holodynski & Friedlemeier, 2006). This strategy involves remembering past and future motives and thinking of those when deciding whether to act or not. Children who master this strategy are better able to wait in a relaxed way.

For those preschool and early school-age children who do not have sensitive parents or who have parents who suffer from psychopathology, learning to regulate emotions can be a more challenging task. In 4–7-year-old children, emotion regulation can be compromised when their mothers report symptoms of depression (Blandon, Calking, Keane, & O'Brien, 2008). When mothers exhibit depressive symptomatology, preschoolers and young school-aged children demonstrate immature strategies for regulating emotion and do not seem to learn the complex strategies

for managing negative emotions. This is particularly evident in children who are physiologically more reactive. These highly reactive children are more sensitive to negative family environments, reduced support, and negativity expressed in the family. As mothers express more negativity themselves, their more reactive children do not show the same decline in negativity that more advantaged children demonstrate during this developmental period. Mothers' negative type of parenting is also associated with slower decrease in their children's emotional behavior over time, but this relationship is less strong (Southam-Gerow & Kendall, 2002).

When mothers are less skilled in scaffolding, their children become dysregulated and exhibit depressed behavioral control by 4 years of age (Crnic, Hoffman, & Baker, 2006). When mothers are depressed, there is a particularly high impact on the development of emotion regulation in that children's behavior does not decline in negative emotional behavior as fast as peers (Blandon et al., 2008; Rogosch et al., 2004). Maternal depression is clearly a risk factor for dysregulation. Parenting is also especially important in the case of children who have high anxiety. Anxiety runs in families. Parents of anxious children worry that their inhibited children cannot manage. They tend to react by overprotecting them or by dismissing the child's distress, which makes the child insecure (Hannesdottir & Ollendick, 2007). Preschoolers with emotional difficulties tend to over-identify sadness in others' expressions, and this type of error is associated with increasing behavioral difficulties. Negative emotional lability is also associated with behavioral difficulties (Martin, Boekamp, McConville, & Wheeler, 2010). Reticent inexpressive preschoolers tend to have more symptoms of anxiety and depression (Cole, Zahn-Waxler, Fox, Usher, & Welsh, 1996).

The influence of fathers on their children's emotion regulation has drawn very little attention from researchers. There are some data to indicate that fathers mask emotional expression. When fathers show their children clear expressions, their children are more skilled in recognizing emotional expressions (Dunsmore, Her, Halberstadt, & Perez-Rivera, 2009). Bruedigam (2004) further explored emotion expression of fathers in the form of "framing." Fathers tend to use mild or neutral framing when playing or reading to their children. This is thought to help children learn about emotions without overwhelming them. High positive or negative framing from parents does not facilitate emotion understanding, whereas mild framing makes a positive impact on emotions understanding (Colwell & Hart, 2006).

During the preschool period, children express less negative emotion as they learn strategies to control negative emotions (Cole, Tan, Hall, & Gumble, 2007). There are age differences in the effortful control of negative emotions (Lewis & Stieben, 2004). Three- and four-year-olds look for social support from parents and extended family members when they experience negative emotions. As they become more confident, they learn that they can tolerate an emotional experience on their own (Holodynski & Friedlemeier, 2006). As might be expected, children favor the emotion regulation strategies that were taught by their mothers. Over time, preschoolers' ability to regulate their emotions increases while negativity decreases, but practitioners need to keep in mind that there are considerable individual differences (Blandon et al., 2008; Cole et al., 2007; Holodynski & Friedlemeier, 2006). Changes

in emotion regulation strategies are related to increasing language and cognitive abilities as well as brain maturation (Kalpidou et al., 2004).

Preschool children are able to plan for and use active emotion regulation strategies. They can distract themselves and reinterpret frustrating or disappointing events to some extent (Kalpidou et al., 2004). Although their regulation strategies may not be successful all the time, the increasing language and cognitive skills in addition to brain maturation provide the impetus for developing competencies. Knowledge of basic emotions is present in most 3-year-olds (Ackerman & Izard, 2004). However, 3-year-olds do not know how to control emotions in that although they realize that it is possible to control emotions, they do not yet have the strategies to do so (Dennis & Keleman, 2009). Only when they reach 4 and 5 years of age do children have the needed strategies to regulate emotions. At this point, they can plan for and use distraction and can reinterpret situations (Kalpidou et al., 2004). Although their regulation strategies may not be successful *all* the time, their increasing language and cognitive skills and brain maturation provide the ability to develop competency (Blandon et al., 2008). Young children try out different strategies and learn to shift their attention when behaviors are of no help. They can match anger and sadness to appropriate situations. Anger tends to generate more attempts to deal with situations especially when paired with the ability to shift attention away when frustrated. This helps regulate the intensity of the emotions that they are experiencing. Sadness tends to generate distraction or withdrawal strategies in young children, which help them recover from stress (Dennis, Cole, et al., 2009).

Preschool children tend to favor strategies such as venting and rumination, which are relatively ineffective (Dennis, Malone, & Chen, 2009). But by age five, children have learned to talk to themselves. They have mastered some strategies to inhibit their emotions, and they tend to feel and show the appropriate emotions expected in their culture. Typically developing 5-year-olds understand that the feelings they display do not have to be the emotions they feel, and they also realize that they have some control over this (Holodynski & Friedlemeier, 2006). Children with greater capacity and competency in using emotion regulation strategies are in a good position to achieve academically and socially (Howse et al., 2003). However, connection between poor behavioral control and peer rejection begins very early (Wood, Cowan, & Baker, 2002).

Intrinsic Influences: Child Temperament

Temperament is considered a biological or physiological phenomenon that is more important in the early years and can be moderated by sensitive parenting (Calkins, 2004). Although there are many different temperamental variables that have been explored in the literature, several seem to be particularly related to emotion regulation. Negative affectivity is the likelihood that a child would become easily angered, anxious, fearful in new situations, or easily saddened. Irritability is related to both greater internalizing and externalizing behaviors and depressed social competence (Lengua, 2003). Low emotion regulation and high negativity when expressing emotions

are associated with more problems with behavior, problematic peer interactions, and later psychopathology (Calkins & Howse, 2004; Eisenberg, Cumberland, et al., 2003). Children who are successful in their peer relationships tend to have stronger attentional regulation and low negative emotionality (Eisenberg et al., 1996).

Researchers have been interested in the relationship between early temperament and later effortful control. There are early temperamental precursors that are related to emotion regulation. Early fear reactivity for example is related to effortful control (Hill-Soderlund & Braungart-Reiker, 2008). Other researchers have demonstrated that early inhibition and irritability constitute risk for internalizing disorders later on, especially for girls (Letcher, Smart, Sanson, & Toumbourou, 2009).

Negative emotional reactivity is related to emotion regulation. Emotional reactivity has to do with threshold, intensity, and duration of emotional arousal (Fox & Calkins, 2003). Children must learn to control negative emotional reactivity to avoid emotional difficulties (Calkins, 2004). Reactive/inhibited children with poor attention regulation have higher levels of behavior problems (Sanson et al., 2009). The most significant chance for poor outcome occurs when students are highly reactive in emotional situations, express negative emotions, and do not have adaptive strategies for regulating emotions (Eisenberg, Fabes, Guthrie, & Reiser, 2000). High anger emotionality and weak regulation of positive emotions predict externalizing problems but also prosocial behaviors (Rydell, Berlin, & Bohlin, 2003). When the conditions are stressful, a child with significant reactivity may have difficulties that would not be observed in low stress conditions (Silk et al., 2006).

Effortful control is important in relation to emotion regulation. Effortful control is the ability to control one's reaction to input so that a goal can be reached. It develops by 4 years of age. Children with strong effortful control can focus and shift attention, can manage positive and negative emotional reactivity, and are less likely to be frustrated in situations (Fox & Calkins, 2003). Effortful control is associated with the development of conscience (Rothbart, Ellis, Rueda, & Posner, 2003) or conscientiousness (MacDonald, 2008). Boys with high effortful control are more sympathetic than peers (Eisenberg et al., 2007). Tubbs (2007) found that children who have difficulty with transitions are prone to angry outbursts, have difficulty expressing their feelings, are easily frustrated, sad, and have a hard time calming down after becoming upset. These children are exhibiting emotional dysregulation due to a combination of temperament and weak emotion regulation. They are sometimes misdiagnosed as exhibiting attention deficit hyperactivity disorder (ADHD). The ability to cope actively and successfully with emotion is more important than temperament alone (Blair, Denham, Kochanoff, & Whipple, 2004).

Environmental Influences: School-Aged Students and Peers

School-aged children develop more conceptual knowledge about emotions and emotion regulation. At this age, emotions are felt more quickly and with greater complexity. One major emotional achievement of early and middle childhood is the internalization of culturally expected behaviors that generate the emotions of pride

and shame. By this time, the parent or caretaker no longer needs to be present in order for the school-aged child to regulate emotion (Holodyski & Friedlemeier, 2006). School staff professionals need to appreciate that emotion regulation, general mood or disposition, and academic affect each contribute uniquely to students' grade point averages.

Children practice and improve emotion regulation strategies while playing with siblings and peers. Peers and siblings model regulation just as parent models do. Children may also direct each other to use strategies (Holodyski & Friedlemeier, 2006). They become more aware of and more compliant with cultural norms for displaying emotions. Children learn to "mask" or hide the emotions they feel to avoid hurting others, to avoid embarrassment, to get attention, to make others feel sorry for them, and to get help (Hubbard & Coie, 1994). Anger, sadness, and fear have display rules that are mastered at different ages. Anger is socialized early through pressure from parents. Sadness and fear are socialized after the age of eight. Gender role differences for emotional displays are enforced early in elementary school with the same sex parent taking the major role in training (Feito, 1997). Although display rules for anger may be addressed early on, display rules for anger are more complicated than for other emotions. Teasing is one way that parents, siblings, and peers teach display rules. Children can often use display rules before they realize that they know them (Southam-Gerow & Kendall, 2002). Practice with display rules takes place in the context of interactions with peers, and the most practice is gained once in school (Fox & Calkins, 2003).

Emotion regulation is related to social competence (McDowell, Kim, O'neil, & Parke, 2002). Peers, for school-aged students, are a source of emotional support. Peers model emotional control for one another. Children who are rejected by the peer group are denied practice in developing emotional control, which is very important during this period (Fox & Calkins, 2003). By the age of 10, children use problem-focused coping strategies. Cognitive restructuring and decision-making strategies increase from early to late elementary school and expand in variety. Typically developing school-aged children know when to display or mask emotions. They also accurately interpret their own and others' emotions. These skills facilitate social competence (Eisenberg et al., 2005). More sophisticated distracting and recovering strategies are mastered in middle childhood (Hample & Petermann, 2005). Although direct action and support seeking are typically used by elementary school students, cognitive coping strategies including cognitive restructuring increase as students move from early to late elementary school. Students who are moody or who display negative emotions experience more peer rejection than others (Hubbard & Coie, 1994).

Teachers also contribute to students' emotion regulation. Teachers' relationships with their students make an enormous difference. Classroom climate is also important. Emotion dysregulation places students at risk for rejection from peers because peers like students who have strong effortful control in regard to their emotions. Stronger emotion regulation is also linked to better achievement in school (Gumora & Arsenio, 2002; Howse et al., 2003; Shipman, Schneider, & Brown, 2004). Stronger emotion regulation is positively connected to teacher reports of students' academic success and productivity. Having strong emotion regulation skills often

results in better student–teacher relationships (Graziano et al., 2007). Importantly, it is also associated with early literacy and math achievement scores on standardized tests. Practitioners need to keep in mind that students who have difficulty regulating themselves at home may also have difficulty in school and vice versa (Howse et al., 2003).

Environmental Influences: Adolescence

Research does not support the popular conceptualization of adolescence as a period of emotional stress or crisis. Only a minority of teens experience adolescence as a time of moodiness and negativity. Emotional development continues on during the adolescent period with significant individual differences being evident. Most adolescents cope with the normal changes that occur in an emotionally positive manner (Weiner, 1997). Parents continue to be important and influential in regard to emotion regulation especially in regard to their awareness and acceptance of their own emotions and their adolescent’s emotions. Parents coach emotions of their teens during adolescence (Yap, Allen, Leve, & Katz, 2008). Parents can also be unhelpful. Mothers who frequently dampen their adolescents’ positive emotional expressions or invalidate their adolescent’s expression of positive emotions have teens who exhibit depressive symptoms (Yap et al., 2008). This is even more evident if parents are highly controlling (Feng et al., 2009). Fathers who respond negatively to adolescent emotional behavior and mothers who are dysregulated contribute to their adolescent’s emotion regulation difficulties (Yap, Allen, & Sheeber, 2007). Parental psychological problems resulting from financial strain or neighborhood stress affect parent–adolescent relationships, and this has been demonstrated to result in more negative adjustment in urban African American adolescents (Gutman, McLoyd, & Tokoyawa, 2005).

Emotion regulation is one of the most crucial processes of the adolescent developmental period (Keseke, Zelazo & Lewis, 2009). The ability to regulate emotions in adolescence depends very much on the considerable cognitive changes that occur during this period, which differ significantly even among healthy teens. The appearance of new emotional states occurs before the adolescent can regulate them. Adolescents typically have notable difficulty managing executive functions for modifying emotional decisions. The more intense emotions that adolescents experience require executive functions, which can inhibit emotional tendencies. Performance monitoring is related to emotion regulation. Younger teens often are unable to adjust their thinking and behavior when emotional situations are intense or important to them. Those students who have difficulty switching between higher-order rules, or who have difficulty shifting in general, also have difficulty managing how they view emotional situations when more than one way of looking at things is a possibility. As the brain and especially as executive functions develop, the teenager is better able to monitor behavior and focus on alternative ways of looking at situations and events, disengaging from emotional cues, and regulating negative emotions. Adolescents

with deficits in executive functioning such as students with ADHD have difficulty regulating emotions and are at risk for developing anxiety or depressive symptoms because of the intensity of emotions they feel. Anxious expectations of peer rejection can lead to withdrawal among adolescents; whereas, angry expectations of peer rejection can trigger aggressive interactions (London, Downey, Bonica, & Paltin, 2007).

Adolescence is a period during which affective reactivity increases and students are more vulnerable to emotional dysregulation. Teens in the early adolescent period, who can both regulate emotional displays and also are good at recognizing the emotions that their friends are displaying, are considered friendly by peers (Vobach & Foster, 2003). Young adolescents continue to distinguish between sadness and anger and to react to cues for sadness or anger appropriately (O’Kearney, 2001). However, negative affect increases in many cases between grades 8 and 9 (Ciarrochi, Heaven, & Supavadeepravit, 2008). At the same time, positive emotions have been found to decline somewhat between grades 8 and 11, with boys experiencing more decreases in daily mood than girls, but girls showing higher depressed mood without any changes over time (Weinstein, Mermelstein, Hankin, Hedeker, & Flay, 2007). In middle adolescence, students are more vulnerable to problems in the regulation of emotion. Sixteen-year-olds, for example, are logical thinkers but have not mastered emotional regulatory control, which can complicate decision-making and place them at risk (Steinberg, 2005). Regulatory ability improves in late adolescence.

Adolescent girls experience an increase in ability to tolerate negative emotions (Gunlicks-Stoessel & Powers, 2008). As self-regulatory ability matures, so does ability to initiate new emotional tendencies and ability to change emotional tendencies in behavior (Yap, Allen, & Ladouceur, 2008; Yap et al., 2007).

In adolescence, students develop the ability to evaluate their behavior in terms of how it relates to reaching goals. Adolescents learn to accept their feelings and deal with the emotional reactions of others (Holodynski & Friedlmeier, 2006). Emotional perspective taking develops in adolescence along with neurobiological changes (Choudhury, Blakemore, & Charman, 2006). Improvement in emotion regulation ability is related to the physiological changes in the brain that shift control to the thinking/rational part of the brain (McRae, 2009). Hample and Petermann (2005) identified two peaks in the maturation of metacognitive processes during adolescence so that there may be biphasic developmental changes in the development of complex strategy use. This can be appreciated by the fact that cognitive restructuring improves somewhat during early adolescence but then decreases in middle adolescence for a while.

Environmental Influences: The Influence of Culture

Emotional expression, experience, and regulation are extraordinarily influenced by culture. Cultures differ in regard to interpretation of affective experiences and regulation strategies. For White American middle class students, there is a strong cultural push to control behavior and emotions. It is a cultural expectation in the current

mainstream US to talk about emotions. This is not a value in all cultures (Hoffman, 2009). Holodynski and Friedlmeier (2006) explored culturally specific ways in which individuals interpret emotional experiences. Students raised in Western cultures experience emotions as something taking place internally. They are taught to value the expression of emotion. Anger is acceptable when the goal is standing up for one's rights or the rights of others. Anger must be expressed appropriately without physical aggression although the latter is not pervasive in American culture. Pride is also acceptable and bragging rights are valued. Students in the current mainstream culture prefer problem-focused and action-strategies for regulating affect.

Culture shapes emotion regulation as individuals interact. Different cultures have different beliefs about self-regulation in general, and these beliefs determine the ways in which emotions are expressed and even in the way that emotions are felt by individuals. Children are taught differently from culture to culture. Mothers of different cultures teach their children to regulate negative emotions in order to control the expression or display of negative emotions. US mainstream American mothers intervene when their children express a negative emotion. Japanese mothers are proactive in making sure that their young children do not experience negative emotions by keeping their children from being exposed to over-stimulating contexts (Holodynski & Friedlmeier, 2006). Cultural norms are influenced by education, socioeconomic status, locale, family beliefs, family values, discrimination, and historical context (Denham, 2005; Holodynski & Friedlmeier, 2006). There are differences in the range and intensity of emotions which individuals from different cultures display as well as the specific emotions that fit particular contexts and attitudes toward different emotions (Mauss, Bunge, & Gross, 2008). Strategies and skills for regulating emotions that are learned in one culture may not be appropriate or accepted in another culture (Canino & Spurlock, 2000). There are subtle differences in how we interpret emotions from one culture to another. We are better at judging the emotions of individuals from our own culture when we look at facial expressions (Yuki, Maddux, & Masuda, 2007). In some Asian cultures, emotions are believed to result from situations. Individuals from these Asian cultures believe that emotions are tendencies to act and need to be controlled. Pride is unacceptable and the regulation strategies that are valued are distraction, reappraisal, and self-calming. East Asian families exhibit more controlled expression of emotions and when interacting with others, they attend to others' eyes in order to determine how that individual is feeling (Yuki et al., 2007).

The fastest growing minority in the USA is the Hispanic population. Hispanic children must deal with a number of psychological adjustment issues. Psychosocial upset among Hispanic children and adolescents is connected with anxiety and physiological symptoms particularly when the family is disadvantaged. Difficulty with the English language is associated with increased anxiety in Mexican American students. Well-being is compromised in Hispanic students when they perceive discrimination. Daily stress and acculturation stress among Cuban Americans are correlated with difficulty concentrating and excessive worries. Anxiety, perceived discrimination, and preoccupation with language weaknesses increase the likelihood of decreased school performance (Suarez-Morales & Lopez, 2009). Acculturation complicates matters. For example, immigrant Mexican American students report

much higher social anxiety and loneliness than Mexican American students born in the USA. In both cases, acculturations stress and English proficiency are associated with differences between these two groups (Polo & Lopez, 2009). Responses to intervention may also depend on culture. When thinking about interventions at the Tier 2 or 3 level involving children who have less experience with the current mainstream American culture, it is important to consider issues of stigmatism so the intervention does no harm (Coleman, Walker, Lee, Friesen, & Squire, 2009).

Poverty can result in multiple stressors and risks such as neighborhood violence, greater residential crowding, and lower residential quality. All of these are associated with additional physiological discomfort and difficulty with self-regulation (Raver, 2004, p. 348). Certainly children with good regulatory skills deal better with cumulative stresses than those with weaker abilities. It is important to remember that most ethnic minority children, whether or not they experience low family income and other risk factors, can develop good regulatory skills and positive emotional competency because their caretakers are sensitive and competent.

Intrinsic Influences: The Neurobiology of Emotion Regulation

It is particularly helpful to understand the neurobiology of emotion regulation. There are several reasons why this is the case. It is helpful for clinicians to understand the biological bases of emotion for developing interventions and also for educating families, as psychoeducation is a component of many programs and interventions at Tier 1, 2, and especially at Tier 3. Practitioners need to explain the relationship between felt emotion and the fact that emotion has a biological or neurobiological base. This understanding, especially the fact that there are wide individual differences at the brain level, dispels the mystery of dysregulated emotion. This understanding makes dysregulation less frightening and helps students realize that emotions can be controlled when they interfere with goals. This understanding even at a simple level can decrease the stigma of dysregulated emotion and can offer a pathway to improved functioning.

The brain regulates emotion through our neurology, physiology, and thinking (Dodge & Garber, 1991). The emotional system of the brain interconnects with a variety of structures. Most of these structures communicate back and forth in a series of positive and negative loops that allow the system to change. The emotional system has a regulatory role, which can be activated by situations and thoughts (Hoeksma et al., 2004). The cognitive system of the brain receives information from the emotional system in the brain, and, in return, the cognitive system influences the emotional system (Greenberg, 2007). The intensity of emotion that we experience is related to the activation of the peripheral nervous system; facial muscles and how they move, vocal cues, expressive behavior, and the activation of neural systems (Barrett, Bliss-Moreau, Duncan, Rauch, & Wright, 2007). The neural mechanisms in the brain that have to do with regulation in general are related to the same mechanisms that control higher order processes (Bell & Wolfe, 2004). This suggests that we should see some significant changes in regulation throughout development.

From the perspective of neurobiology, emotion and cognition work together to process input and to determine resulting action tendencies. The same processes that generate emotion also regulate emotion (Campos, Frankel, & Camras, 2004).

Three brain structures are particularly important for understanding emotion regulation: the amygdala, the prefrontal cortex, and the hippocampus. Of course, these are not all of the structures involved and the brain is a very complex organ, but what is most helpful is a simplification of the neurobiology of emotion. A metaanalysis of 385 fMRI studies shows that all emotional input is associated with increased activity of the amygdala, for both negative and positive emotions (Costafreda, Brammer, David, & Fu, 2008). Simply, the amygdala does not produce affective experiences but rather it increases our sensitivity toward emotional input by influencing how input from our senses is processed in the brain. Sensitivity to affect is represented by the activity of the amygdala. The connections that the amygdala has with other areas of the brain indicate that this structure is the nexus for modulating emotional experiences and sensory processing particularly of the visual system (Barrett, Bliss-Moreau et al., 2007). The amygdala is key in the detection of possible threat and is involved in the experience of both fear and anxiety. However, the amygdala evaluates the emotional significance of *all* input and determines how fast we react depending on to what degree the amygdala is activated. The higher the activation, the faster the system works, and importantly, the more negatively the input is interpreted.

The amygdala is activated in reaction to unfamiliar faces, fearful vocalizations, and to anything that is emotionally important to us (Herba & Phillips, 2004). It is involved in the formation of attitudes, in stereotyping, and in person perception (Ochsner & Lieberman, 2001). The amygdala is involved in interpreting both emotional and social signals especially from others' faces and eyes. Children with autism spectrum disorders who have poor social cognition have large amygdala (Goswami, 2006). They demonstrate abnormal activation of the amygdala when they try to understand the social meaning of eye gaze. Because of this, and other brain differences, these children do not get the full social and emotional meaning of cues from others (Ochsner & Liberman). Children with ADHD show a high level of amygdala activity when looking at neutral faces and evaluating them to determine whether or not they appear fearful (Brotman et al., 2010). Excessive amygdala activity in relation to other brain structures appears to be related to a tendency toward impulsive aggression. There is increased activity in the amygdala in depressed individuals (Lambert & Kinsley, 2004). Adolescents with bipolar disorder have been found to have smaller amygdala, which may make it difficult for them to regulate mood (DelBello, Zimmerman, Mills, Getlz, & Strakowski, 2004). It is important to appreciate that whenever a student is stressed, and that student also has reduced emotion regulation, it will be very difficult for the student to regain control once he or she is upset (Siever & Weinstein, 2009).

Emotion and cognition contribute equally to the control of thought and behavior (Gray, Braver, & Raichle, 2002). The prefrontal cortex has reciprocal connections with the hippocampus and the amygdala. The prefrontal cortex and hippocampus are among the various brain structures that help us manage emotions (Tarasuik, Ciorciari, &

Stough, 2009). The prefrontal cortex is important for emotion regulation in that it is critical in downregulating negative affect. Individuals who experience too little activation of this structure may have difficulty regulating negative emotion (Davidson, Fox, & Kalin, 2007). The prefrontal cortex is also the brain area that serves higher-order cognitive functions (Arnsten, 2009). It is the thinking part of the brain, the reasoning area, and the planning area, and it is particularly sensitive to stress. When an individual is exposed to uncontrollable stress, the prefrontal cortex loses its ability to function appropriately. The more prolonged the stress, the higher the risk of changes in the prefrontal cortex. The prefrontal cortex is also involved with goal-directed activity and working memory (Gray et al., 2002). The prefrontal cortex becomes more specialized and efficient during adolescence. This is important because more intense and complex emotions require more regulation by the executive functions of the brain. The hippocampus triggers the release of stress hormones and stores the facts of emotional experiences, or the memory of emotional experiences.

Intrinsic Influences: Emotion Regulation and Attention

Emotion regulation has both monitoring and executive components (Compton et al., 2008). Emotional control has to do with the ability to focus and shift attention as needed (Yap et al., 2007). Attention control is a foundation process, which many researchers feel facilitates the regulation of negative emotion (Belsky, Friedman, & Hsieh, 2001). Brain mapping studies show blood flow in the brain. When this is done as a child is processing emotion, and the child is given a task that requires intense concentration or attention, the blood flow decreases in the prefrontal cortex. This demonstrates the intimate connection between attention and emotion and makes sense, given that attention and emotion processes have overlapping circuitry in the brain. Attention can regulate emotion. Emotions, in turn, can influence a child's ability to pay attention when that child is experiencing stress. This is the reason that children who have weak attentional ability also have difficulty controlling their emotions and behavior (Trentacosta & Izard, 2007).

The executive attention network is important in the self-regulation of both positive and negative emotions. This makes the connection between emotion regulation and attention even more clear (Posner & Rothbart, 2007). Individual differences in the variability of emotions are related to differences in executive functioning. In turn, this connectivity affects emotion regulation (Hoeksma et al., 2004). Control of attention appears to be a critical step in the development of emotion regulation. Individual differences in the ability to maintain attention or to shift attention away from something upsetting have to do with self-control of attention. Negative situations are processed more rapidly in the brain than positive events and when an individual experiences emotion intensely, attentional processes become biased toward negativity (Carretié, Mercado, Tapia, & Hinojosa, 2001). Anxiety narrows if an individual cannot disengage his or her attention away from negative thoughts about himself or herself or of situations. In this situation, negative emotions become

more intense and last longer (Calkins, 2004; Caston & Mauss, 2010). In anxious children, attention shifts toward threatening input (Goswami, 2006). Important to understand is that anxious children do not pay more attention or attend more quickly to perceived threats, the problem they have is difficulty disengaging from threatening input (Calkins, 2004). Children who have difficulty regulating attention are at risk for emotion dysregulation (Shields & Cicchetti, 1998). Individuals with high trait anxiety experience decreased orienting and executive attention when emotional faces capture their attention (Dennis & Chen, 2007a).

Intrinsic Influences: Attention Shifting

The ability to shift attention or more specifically to shift the focus of attention is an important skill for school success. This is particularly the case when a child is trying to attend to more than one interest, such as the student is whispering next to her at the same time that her teacher is giving instructions. This skill is also required in many social situations. Some students have difficulty not only shifting between competing interests but also from being inattentive to being engaged (Bortoli & Brown, 2002).

Children with disabilities have considerable difficulty shifting focus (Bortoli & Brown, 2002). Children who can shift their attention and persist are better able to tone down their negative emotions (Chang & Burns, 2005). However, there are significant age effects when we consider the ability to shift attentional focus and attentional sets (Rosso, Young, Femia, & Yurgelun-Todd, 2006). During adolescence, the prefrontal cortex becomes more mature, and there is a concurrent improvement in emotional functioning in normal adolescents (Yurgelun-Todd & Killgore, 2006).

Emotion Regulation: Working Memory

“Working memory is the capacity to hold information for short periods of time” (Philipose, Alphas, Prabhakaran, & Hillis, 2007, p. 37). Working memory is both verbal and spatial. Both verbal and spatial working memory are represented in the brain, with verbal working memory associated with the left hemisphere and both verbal and spatial working memory associated with the right hemisphere. Individual differences in amygdala activity predict performance in working memory tasks; in particular, more activity in the amygdala results in faster response time in high working memory load conditions (Schaefer et al., 2006). This provides evidence to indicate that the amygdala influences the cognitive brain. There is also evidence to indicate that the executive attention network supports self-regulation (Rueda, Posner, & Rothbart, 2005).

Individuals with more working memory capacity express less emotion because they are able to deal with emotional input in a more controlled and less emotional manner (Schmeichel, Volokhov, & Demaree, 2008). Individuals with poor working memory underperform on academic tests that raise anxiety (Johnson & Gronlund, 2009).

Anxiety affects working memory through students' worrying. Students who cannot inhibit worrying behavior are less efficient when they are involved with tasks requiring working memory. Worry uses up available working memory processing resources. Worrying is called anxious apprehension in the literature. It is verbal behavior involving self-talk. Worry easily interferes with academic testing situations. Anxious arousal, on the other hand, is more physiological. High negative emotion, which involves anxious arousal, interrupts spatial working memory rehearsal (Li & Luo, 2005; Shackman, Sarinopoulos, Maxwell, Pizzagalli, & Davidson, 2006). Individuals with high anxiety take more time to perform effectively in many academic and social situations (Eysenck, Derakshan, Santos, & Calvo, 2007).

The most researched effect of anxious performance in school is math performance. Math anxiety is not seen when a student is working on simple problems typically, but is evidenced when difficult problems are involved. Students with high anxiety take much longer to get the same number of items correct than low anxious students because they engage in slower, more effortful processing. High anxious students are less efficient because they need to work much harder to perform at the same level as peers on math tests requiring working memory, such as problems requiring procedural knowledge (Ashcraft & Kirk, 2001). Working memory can also be affected by stereotype threat such as "girls aren't good at math" (Beilock, Rydell, & McConnell, 2007). Reminding students that they are capable or giving other reassurances such as they belong to a group with a different stereotype (smart girls) may eliminate these negative effects (Rydell, McConnell, & Beilock, 2009). When the pressure is high, even students with more working memory capacity may use less efficacious strategies and performance can be negatively affected (Beilock & Decaro, 2007). Students with anxiety disorders may need an accommodation consisting of more time to perform in testing situations.

Intrinsic Influences: Emotion Regulation and Mood

Emotions and moods are related but are actually distinct states in that they differ according to duration, intentionality, cause, consequences, and function (Beedie, Terry, & Lane, 2005). A mood is a state of prolonged emotion that when chronic, can be an indicator of a disorder (Reed, 2005). Moods changes are slow and involve diffuse feelings that are somewhat connected to situation as compared to emotions, which are quick-moving reactions to a specific trigger. Emotional reactions are experienced more strongly when they match a preexisting mood (Rottenberg, 2005).

The response of the amygdala depends on a student's current mood or motivational state except in the case of amygdala response to fear, which appears to be hard wired. Otherwise, individuals respond to input depending on its relevance to their current mood. Mood disorders not only affect the amygdala but also affect the prefrontal cortex and other brain structures. Students who are depressed show high amygdala activation, when they look at sad or fearful facial expressions, and their recurrent sad thinking contributes to decreased information processing

and difficulty focusing attention. Current sad mood has been shown to correlate with decreased reaction time when trying to identify attentional targets, especially in girls (Wang, LaBar, & McCarthy, 2006). Students who smoke have to deal with a stronger urge when in a negative mood as negative moods increase attention to drug cues (Bradley, Garner, Hudson, & Mogg, 2007). There is a link between smoking and inattention. Adolescent smoking may be an effort to feel better in vulnerable students (Gardner, Dishion, & Posner, 2006). Negative mood also increases attentional biases so that individuals respond to food cues and feel hungry when upset (Hepworth, Mogg, Brignell, & Bradley, 2010).

Our mood changes the way our visual system filters what we are looking at. When we are in a positive mood, our visual system takes in a lot of information, forming a broad or global view of the world. We take in peripheral information including more objects in the environment. This may be positive or negative depending on individual goals. For example, when working on tasks that require detailed attention, a positive mood may distract one's focus because the field of vision is expanded. When individuals are in a negative mood, they experience "tunnel vision" (Schmitz, De Rosa, & Anderson, 2009). Tunnel vision is also called "weapon focus" in that people perceive local components, which again may be helpful or problematic depending on individual goals. Some tasks require close attention to detail and strong focused attention. In this case, a negative mood might facilitate performance. Forgas (2007) found that arguments had a greater effect on their audience when the person arguing was in a negative mood because the person's communication was more concrete. Bäuml and Kuhbandner (2007) argue that negative moods facilitate item-specific processing. Item-specific processing not only reduces the likelihood that individuals would attend to any interfering information but also would help people remember whatever they are attending to or doing. Clearly, mood would affect academic performance.

Emotion Regulation: A Limited Resource

The brain is fueled by glucose, which is unfortunately not in never-ending supply. In other words, it can be depleted temporarily if a child engages in a task that requires a significant amount of self-regulation (Shamosh & Gray, 2007; Zlatevska & Cowley, 2007). Both the emotional and cognitive systems seem to depend on the same source of limited-capacity resources (Compton et al., 2008). Self-regulation depends on glucose. When energy is depleted, subsequent tasks will be more difficult and subjectively feel as if the tasks take longer than they actually do. Students with low self-esteem and those who use rumination when stressed have less ability to recover from a task taking a great deal of energy. Interestingly, individuals who decide on their own to exert self-control experience less depletion, but those who are required to exert self-control by others, such as parents or teachers, experience more depletion (Muraven, 2008; Muraven, Gagné, & Rosman, 2008; Muraven, Rosman, & Gagné, 2007). Being pressured to exert self-control requires more strength and energy than

having freedom to exert self-control. School psychologists also need to know that receiving contingent rewards to exert self-control also depletes resources, as individuals given rewards perform more poorly on a subsequent task than those receiving noncontingent rewards. We may be asking many students who have to work harder to stay in control especially students with ADHD, those with high anxiety or depressive symptoms, and those with behavior disorders. These are not the only students affected by this phenomenon, even students with strong fluid reasoning can become stressed when they must regulate their emotions, possibly because they are using so much working memory, or because they tend to choose complex tasks rather than selecting the easiest way to do things (Shamosh & Gray). All of these students have to work harder to meet requirements and to remain in control. Even particular emotion regulation strategies such as emotion suppression deplete energy.

It is important to know what we might do to help students regain energy or strength so that they can function in the next class or on the next task. Baumeister (2002) found that rest made a difference. Experiencing positive emotions also allows individuals to recover. Feelings of autonomy have helped students replenish energy (Muraven et al., 2007). Students who were given a rest by engaging in a “light” or easy task and those who received a small surprise gift recovered as well (Tice, Baumeister, Shmueli, & Muraven, 2007). Even training in self-control strategies appears to improve self-regulatory capacity (Muraven, Baumeister, & Tice, 1999).

Emotion Dysregulation

Difficulty with emotions and emotion regulation can affect functioning in a variety of ways. Adolescents who are pessimistic feel that they are unable to influence their peers and tend not to even try to develop or maintain friendship networks (Ciarrochi et al., 2008). Low emotional competence can affect help seeking. Adolescents who are unskilled in emotional competence are the least likely to ask family or friends for emotional support or to go to professionals for help. When asked, they do not even intend to seek assistance from anyone (Ciarrochi, Wilson, Deane, & Rickwood, 2003).

Students with poor emotional awareness and weak emotion regulation are more likely to use drugs (Hessler & Katz, 2009). Poor self-regulation may be intimately related to substance abuse and similar difficulties (Baumeister, 2002, 2006). Anger in African American middle school students also has a small effect on drug use (Nichols, Mahadeo, Bryant, & Botvin, 2008). Adolescents with poor emotion regulation and difficulty with emotional expression are more likely to use drugs and have adjustment issues (Hessler & Katz, 2009). Repetto, Zimmerman, and Caldwell (2008) suggest that African American adolescent boys may use marijuana to regulate their moods. Those with more intense emotion and emotional lability along with poor regulation experience more depressive symptoms, which they tend to deny or think too much about (Silk, Steinberg, & Morris, 2003). Internalizing adolescents tend to use inefficient strategies to regulate emotion regulation such as

self-blame and rumination (Garnefski, Kraaij, & van Etten, 2005). Both externalizing and internalizing difficulties increase the likelihood that an adolescent will begin to smoke cigarettes although internalizing leads to smoking only in girls (Crone & Reijneveld, 2007). Inattention has also been associated with tobacco use in middle adolescence (Gardner et al., 2006).

Emotion Dysregulation: Internalizing Disorders

There are considerable individual differences in how we react to emotional input (Van Reekum et al., 2007). Children with learning disabilities have lowered emotional regulation as compared to students without learning disabilities (Bauminger & Kimhi-Kind, 2008). They have difficulty with social interactions and poor social skills. They have inadequate emotion vocabulary and consequently have difficulty recognizing feelings in themselves and in others. They often feel angry and confused in class (Elias, 2004).

Major depression is related to a decreased emotional reactivity to sad situations and events (Rottenberg, 2005). Dysfunction in the prefrontal cortex and the amygdala is found in individuals who are depressed (Davidson et al., 2007). In the case of depression, increased activity occurs in both the amygdala and prefrontal cortex so that individuals also have difficulty focusing attention (Lambert & Kinsley, 2004). The prevalence of depression in preschoolers is about the same as for school-aged children (Luby Si, et al., 2009). Adolescents with depressive symptoms report intense and labile emotions. They exhibit less effective emotion regulation than their peers (Silk et al., 2003). The emotional avoidance and thought suppression of anxious students may interfere with school success, increase anxious behavior in response to emotion cues, and impede adaptive responding (Salters-Pedneault, Tull, & Roemer, 2004). Children with anxiety disorders have trouble controlling not only worries but also sadness and anger in reaction to experiences. They report experiencing emotions at a high intensity and have little confidence in their ability to downregulate (Suveg & Zeman, 2004). Many children with both depression and anxiety disorders internalize their emotions and withdraw, which makes them difficult to identify (Côté et al., 2009). Students with symptoms of anxiety or depression need to build positive emotions in order to help them strengthen their ability to deal with stress (Beesdo, Bittner, Pine, Stein et al., 2007). Suveg, Hoffman, Zeman, and Thommassin (2009) identified commonalities to both anxiety and depression, which included poor emotional awareness, dysregulation, and weak regulation of emotions. High negative affect was common to both disorders. In PTSD, the amygdala is more active in response to stress and is more active during symptomatic periods. The degree of activity of the amygdala is associated with intensity of symptoms. Sections of the prefrontal cortex in these students are smaller and not as responsive as needed. The prefrontal cortex under-responds to emotional input, and the hippocampus has less volume as well (Shin, Rauch, & Pitman, 2006).

Emotion Dysregulation: Externalizing Disorders

Studies of the emotional processing of children with ADHD indicate deficits in (underdeveloped) emotional language, emotion regulation, emotion expression, and also in emotion recognition, specifically difficulty recognizing emotion expressed in others' faces (Kats-Gold & Priel, 2009). Research has further demonstrated that students with ADHD have an overall emotion-processing deficit beyond difficulties identifying emotions expressed on faces. Students with ADHD have considerable difficulty using context to understand emotions (Da Fonseca, Sequier, Santos, Poinso, & Deruelle, 2009). Executive function impairments and ADHD symptoms predict dysfunctional emotion regulation. ADHD symptoms additionally predict depressed social competence (Wahlstedt, Thorell, & Bohlin, 2008).

Recent evidence suggests that children with ADHD prepare to pay attention to incoming information differently because of poor connections between attention networks in the brain. There seems to be a disconnection between the center that allocates attention and the visual processing networks (Mazaheri et al., 2010). Neurobiologists have also identified abnormal connections between the amygdala and the prefrontal cortex in individuals with ADHD, suggesting a possible reason for the disinhibition identified in children and adolescents with ADHD. In individuals with fewer ADHD symptoms, the hippocampus tends to be enlarged, which could possibly indicate that the hippocampus is functioning in a compensatory manner (Plessen et al., 2006). Students with ADHD have quick rise time when they experience emotions and they experience extremes of emotions, which Goldstein and Naglieri (2008) feel may be "...an impulsive inability to separate thought from emotion" (p. 863). The attentional issues experienced by children with disabilities make it difficult for them to create strategies because they are not attending to the information available and have difficulty managing shifts during social engagement. Focused attention is necessary to continue to interact with a playmate when other playmates are nearby, noisy, calling out, or doing something interesting (Bortoli & Brown, 2002).

A special case is the child with comorbid ADHD and anxiety. At the brain level, researchers feel that there is impairment in a gating mechanism in the brains of this group of students between the prefrontal cortex, the hippocampus, and the amygdala. Functioning differently, this mechanism lowers the prefrontal cortex inhibition and lets in greater input from the amygdala. This allows a greater influence of anxiety processes (Levy, 2004). Children with comorbid ADHD and anxiety disorders are at greater risk for long-term problems, less sensitive to auditory anger, and less responsive to certain treatments (Manassis, Tannock, Young, & Francis-John, 2007). Their anxiety is different from that of children with anxiety disorders alone, particularly in reduced auditory perception of anger. Impaired verbal working memory appears to be impacted in this group of children with comorbid disorders along with frontal lobe weaknesses that affect inhibition of negative emotion and consequent responses to environmental stimuli.

Students who have behavior problems are thought to have ineffective ability to regulate negative emotions. Interventions must impact these inefficient brain systems

(Lewis et al., 2008). Children with behavior problems have been shown to exhibit deficits in emotion understanding and an over-engaged rigid style of emotion regulation (Cook, Greenberg, & Kuche, 1994; Lewis et al., 2008). Aggressive students who are rejected by their peers show more negative emotion than others and have difficulty regulating both the way they express emotions and their internal experience of emotion (Eisenberg et al., 1996). Maltreated children exhibit a variety of dysregulated emotional behavior. They show early fears and patterns of angry and labile emotion as well as flat and blunted emotions. Maltreated children are angrier than peers, more reactive, and more irritable. They display emotions that are inappropriate and are inflexible when interacting with peers. They also exhibit weaknesses in emotion understanding, emotion communication, and emotion recognition skills. They appear to be trying to protect themselves from real and perceived threats. They experience more intense emotions and depressed empathy (Shields & Cicchetti, 1998). Abused children demonstrate atypical shifting of attention and focusing. They get stuck and ruminate on distressing thoughts. Their ability to modulate their attention is poor, which may contribute to their emotion dysregulation.

In bipolar disorder, neurobiologists have found smaller amygdala and hippocampal structures, with larger reductions in the amygdala. These differences can be detected early in the illness in adolescents (Blumberg et al., 2003). Recent work on bipolar disorder has identified a phenotype labeled “Fear of Harm” (Papolos, Mattis, Golshan, & Molay, 2009). Individuals fitting this category exhibit attention and executive deficits, anxiety, aggression, sensory sensitivity, and sleep/wake cycle problems. Students with borderline personality disorders exhibit a high intensity of negative emotionality combined with a deficit in executive attentional controls (Posner et al., 2003). Individuals with either borderline or antisocial personality disorders exhibit a low threshold for impulsive aggression. This low threshold appears to be related to excessive amygdala reactivity (Siever & Weinstein, 2009).

When impaired or inappropriate emotion regulation is present, there may be consequent behaviors that are also inappropriate. These are associated with poor social interactions, with inappropriate and risky behaviors, and in the repetitive negative thinking exhibited by students with psychiatric disabilities (Herba & Phillips, 2004; Mathews & MacLeod, 2005). The brain base of emotional dysregulation is clear.

Chapter 6

Emotion Regulation Training at Tiers 1, 2, and 3

Emotion regulation is a critical life skill. This chapter offers suggestions for three-tiered prevention/intervention training to develop emotional literacy and emotion regulation. Approaches and strategies for increasing students' basic understanding of emotions are discussed. Strategies are suggested for increasing students' knowledge of the functions, causes, and effects of emotion, and also for understanding emotional action tendencies. Strategies are suggested for increasing students' ability to connect situations or events with emotions, for understanding display rules, and for increasing emotion vocabulary. Improving students' awareness of emotion intensity, ability to shift emotions, ability to recognize emotion patterns, and ability to downregulate emotions is important and approaches are recommended. Increasing students' ability to use cognitive strategies receives special emphasis. The research available to support this training is explained.

As we think about work with students in schools, we must focus on both prevention and intervention. Two aspects of emotion science that are strongly related to these goals are emotion understanding and emotion regulation (Southam-Gerow & Kendall, 2002). The goal is to use emotion research to enhance our work with children. In the case of prevention at Tier 1, the goal is to improve emotion literacy and to teach some life skills. In the case of Tier 2 and 3 counseling work, the goal would include more advanced training in emotion regulation with more explicit teaching of strategies. Emotion understanding includes: the ability to label, appraise, and understand other's facial expressions; to understand our own internal emotions as well as those of others; to be able to label emotions and emotional experiences; and to understand cultural display rules. Emotion regulation has to do with ability to manage or change how we think of our emotional experiences and events. Emotion regulation involves a particular focus on regulating intensity and duration of negative emotions as needed and to use those skills when interacting with others, which may involve decreasing or masking the emotions we feel. Emotion regulation includes increasing positive emotions (Izard, 2002; Kats-Gold & Priel, 2009). Emotion regulation is intimately related to a sense of well-being, self-efficacy, and successful communication.

Research indicates that emotion understanding and emotion regulation are particularly relevant for the purpose of improving psychosocial interventions (Southam-Gerow & Kendall, 2002). Students are often distressed by their own emotions as well as by situations and events. Interventions are more and more focused on facing

rather than avoiding emotions. This is important because prior interventions may be misinterpreted as teaching students not to feel negative emotions rather than to understand those emotions is useful. Emotions provide energy and motivation, and we can learn to cope with them when they interfere with goals or are not helping us. Emotion focus has not been of much interest in the past in interventions to improve students' mental health, but today is attracting considerable attention.

Three-Tiered Prevention/Intervention Strategies to Develop Emotion Literacy and Emotion Regulation

Tier 1 involves universal training of emotion literacy and emotion understanding, using an evidence-based program. There are a large number of SEL programs to explore for this purpose, which have an adequate evidence base sufficient to be implemented in schools. It is important to select an evidence-based program that includes the aspects of emotion literacy and emotion understanding described by emotion science researchers. Tier 2 interventions involve adding time, changing or strengthening teaching methodology, or adding more advanced and intensive training. There are also a number of curricula that may be appropriate for more than one level. A universal curriculum could be used at Tier 1 or Tier 2, or a curriculum similar to the universal curriculum could be used at Tier 2 or Tier 3. Tier 2 interventions may involve the same concepts, or even the same lessons that are presented in the universal curriculum, but in this case they would be managed differently. Another choice at Tier 2 would be an intervention such as a parallel curriculum. Tier 3 interventions also involve evidence-based curricula and there are a good number of evidence-based programs from which to choose for Tier 3 interventions depending on the characteristics and issues presented by students, and the students' level of development.

Emotion Regulation Training

Emotion regulation training involves a number of concepts and skills. The first issue to address is motivation to change. Children in school do not typically have much choice about whether or not they will participate in counseling or intervention services at any of the three tiers. Motivation to change is particularly important in the case of a student having difficulty with anger. Students also need to understand a little about physiology of emotions. Students need to learn about their own bodily signs of rising emotions, and their personal triggers. They need to master a repertoire of emotion reduction strategies. This will take some time, as strategies must be practiced until they generalize, and can be generated with adequate speed in emotion-provoking situations. Students need to learn to self-monitor

Table 6.1 Topics covered in emotion training

Emotion literacy and regulation
Emotion knowledge and understanding
Positive, negative, and mixed emotions
Function and causes of emotions
Approach and avoidance of emotion
Emotion recognition
Emotion expression in others
Connecting situations/events with emotions
Emotion expression
Emotion expression and body language in ourselves
Display rules and masking
Verbal expressions of emotion/emotion vocabulary
Emotional intensity
Emotion regulation
Shifting emotions
Strategies for downregulating
Using attentional ability to regulate emotions
Using our heads to regulate our emotions

and self-record by completing anger, anxiety, or mood logs. They need to learn to use self-cuing words or phrases, or reassuring phrases. They need to practice self-talk, self-reinforcement, self-evaluation, and practice problem solving. They need to be able to use the skills they are learning in all school environments, with peers, and at home with their families.

The remainder of this chapter will deal with resources in the form of approaches and activities to supplement work with children and adolescents in teaching about emotions and when training emotion regulation strategies. This work is designed as a resource to support evidence-based programs at each instructional intervention Tier. They can be used to make concepts more clear at the Tier 1 universal level. They can be used to provide additional targeted practice and to enhance understanding of concepts at Tier 2. They can be used to provide adaptations, to make concepts concrete, to provide intensive practice, and to facilitate generalization at Tier 3. The activities and approaches to be addressed are listed in Table 6.1.

Approaches and Strategies to Increase Student’s Basic Understanding of Emotions

Emotion understanding is complex and has many facets. A basic understanding of universal emotions for younger students and basic plus complex emotions for older students is important. Not only do children need to develop some knowledge about basic emotions, but they also need to be able to identify how they feel. Knowing how one feels lets the student judge the importance of the situation at hand and to

begin to figure out what to do next. If we experience confusion instead of a simple strong emotion, it makes it difficult to know what to do next. The action we take to deal with strong negative feelings is related to emotion knowledge and our ability to tolerate negative emotions (Barrett, Gross, Christensen, & Benvenuto, 2001).

There are seven so-called “universal” emotions. Researchers have determined that seven emotions have unique facial expressions that are recognizable in all cultures. These are: happiness, sadness, anger, surprise, fear, disgust, and contempt (Ekman, 2003). When we talk with children however, we tend to talk about only four emotions: happy, sad, mad, and scared. We need to expand this basic list. Researchers additionally feel that interventions designed to teach emotion regulation must focus on increasing positive emotions as well as addressing negative emotions, as positive emotions affect the course and duration of experiencing negative emotions. Increasing positive emotions may refocus attention and interfere with overfocusing on negative emotions, as ruminating on negative emotions is common in students with emotional problems (Ehrenreich, Fairholme, Buzzella, Ellard, & Barlow, 2007).

Positive and Negative Emotions

Ekman (2003) has written that he believes that there are more than a dozen universal “happy” or positive emotions and the English language does not have single words for all of these emotions. He lists amusement, contentment, excitement, relief, wonder, and ecstasy among the positive emotions for which we have English words. These positive emotions motivate us to work to maintain the feelings they generate. Interestingly, Ekman indicates that it is the voice rather than the face that provides the cues for positive emotions (Ekman prefers the term “enjoyable” to positive). Positive emotions are helpful for dealing with negative experiences and for building resilience to stress (Beesdo et al., 2007; Tugade & Fredrickson, 2007). “Savoring” is a form of emotion regulation that can extend experiences that give us pleasure (Tugade & Fredrickson). Savoring occurs when we anticipate something pleasant. Sharing experiences by talking with others is a form of savoring, and simply remembering positive events with pleasure involves savoring. Savoring is correlated with feeling satisfied, with optimism, and with self-control. Positive emotions contribute to resilience. Students who can generate positive emotions when they are needed can recover from bouts with negative emotions. Positive emotions can help students become more flexible, more social, and better problem-solvers (Greenberg, 2002). Positive emotions are thought to have a restorative function (Folkman, 2008).

Anger is a complicated emotion in that both too much anger and too little anger result in physical problems affecting our health (Salovey, 2006). Anger is a critical emotion to include when teaching students about emotions because it has consistently been found to predict behavior problems (Kim, Walden, Harris, Karrass, & Catron, 2007). Anger is related to elevated blood pressure and heart rate in adolescents

(Kerr & Schneider, 2008). The connection between anger and school achievement stress has been found in girls but not boys. Anger can be expressed outwardly or inwardly. Depression and sadness are associated with anger. Boys who have low emotion control are likely to act out in order to cope with anger when it becomes too intense. Generally, children who are highly reactive and expressive when angry are more likely to exhibit both acting out and internalizing behaviors. When a child is expressing anger, it may be that the child is trying to avoid feeling anxious or sad. Underregulated anger and overregulated sadness or anxiety leads to acting out behaviors (Cole, Dennis, Martin, & Hall, 2008).

Unfortunately, anger has not been given the same attention in research as aggression (Kerr & Schneider, 2008). Anger does not always lead to aggression. Students need to understand that expressing anger does *not* reduce the intensity of the anger they may be experiencing. Instead, ignoring what is bothering them, trying to understand why something has occurred to anger or upset them, and reacting in a different manner are helpful. For example, communicating feelings in a calm voice when one is angry works well (Travis, 1982). Anger feeds anger. Practitioners need to understand that, for some children, anger lasts a long time, whereas other children experience anger in short bursts. Some children find that anger intensity drops down quickly and others experience prolonged anger (Ekman, 2003). Students can learn to express an adaptive amount of anger, but just as when dealing with other negative emotions, a student's beliefs about his or her ability to deal with intense emotion must be addressed (Salovey, 2006).

Students who can regulate sad feelings tend to experience positive social relations (Rivers, Brackett, Katulak, & Salovey, 2007). Sad children are more suggestible than their peers (Levine, Burgess, & Laney, 2008). Importantly, sadness can interfere with students' memory for academic material. Rice, Levine, and Pizarro (2007) showed students a sad film and instructed children to dampen their sad feelings and not show that they felt sad. These instructions are contrary to much of the current teaching about dealing with negative emotions. However, research suggests that younger children tend to distract themselves by thinking of something happy or by stopping thinking about the sad film, whereas 10-year old children tended to reframe their thinking about the content of the film or told themselves that it was "just a movie." Of significance is the fact that the children who disengaged from feelings of sadness remembered more of the content of the film than those who were instructed to work through their feelings, or those who received no instruction at all. Research has demonstrated that disengagement negatively affects memory for emotional thoughts, but it facilitates memory for academics because sad thoughts contribute to slowing information processing and to attentional distraction (Wang, LaBar, & McCarthy, 2006).

Anxiety impairs concentration and can interfere with learning. Anxiety narrows focus of attention. Fear is associated with physical withdrawal, whereas anger is associated with both approach and avoidance (Hauser, Carter, & Meier, 2009). Anxious students may feel helpless. They worry that "bad things" will happen to them and they will not be able to respond effectively (Gazelle & Rudolph, 2004). Research suggests that anxiety worsens over time. Anxiety is a risk for depression

and substance use or abuse (Kendall, Aschenbrand, & Hudson, 2003). Children with anxiety disorders have trouble managing sadness and anger in addition to worry. The ability to identify, label, and understand the causes and consequences of symptoms of anxiety is necessary in order to learn to regulate reactions to anxiety-provoking situations and events (Kendall, Suveg, Comer, & Sood, 2009). Active coping is critical for controlling anxiety. Interventions should focus on active strategies. Also, because students with anxiety have such little confidence in their own ability to regulate emotions, interventions must also deal with confidence building (Suveg & Zeman, 2004).

Multiple and Social Emotions

Multiple emotions about a single event, person, or situation develop over time as children grow (Southam-Gerow & Kendall, 2002). Children as young as 6 or 7 years of age can understand the concept of “mixed” emotions with training, although the concept is difficult for preschool children (Peng, Johnson, Pollock, Glasspool, & Ham, 1992). The ability to experience mixed emotions may be different from, and occur later than, the ability to understand mixed emotions (Larsen, To, & Fireman, 2007). Multiple positive emotions are easier for children to grasp than a positive and negative emotions occurring together. It is also easier for children to accept multiple emotions toward a classmate than toward a parent. All researchers do not accept the popular concept of “mixed” emotions (Ekman, 2003). Instead of experiencing several emotions at once, it may be that emotions occur in an extremely rapid sequence. Students also need to understand that there are “patterns,” or combinations, of emotions that commonly occur together such as sadness and anger, sadness and fear, or guilt and fear (Izard, 2002). They also need to understand that the same situation could evoke different emotions in different people.

Social and moral emotions occur earlier in typically developing children than previously thought. Emotional development is rapid in the first 5 years of life. A core set of emotions to include anger, sadness, enjoyment, fear, interest, and surprise can be identified during the first year of development. The beginnings of guilt, shame, embarrassment, and pride emerge in the second year of development (Cole, Luby, & Sullivan, 2008). Students understand emotions from age 5, although their depth of understanding improves with age (Berti, Garattoni, & Venturini, 2000). Shame, embarrassment, and guilt are considered more complex emotions. Recent research indicates that these emotions also develop much earlier than previously thought (Luby, Belden, et al., 2009; Luby, Si, Belden, Tandon, & Spitznagel, 2009). Guilt and shame may develop as early as 3 years of age. Children who are demonstrating significant symptoms of depression experience more frequent feelings of guilt. High levels of feelings of shame have been related to onset of depression even in preschoolers. Embarrassment is a more fleeting emotion than shame or guilt (Eisenberg, 2000). Guilt is an agitation-based emotion, whereas shame is associated with overfocus on others’ opinions and is more painful. Guilt

and shame often occur together in children and both are related to other emotions such as fear, anxiety, and sadness. Jealousy is an important emotion to discuss with students as it can fuel interpersonal difficulties. Jealousy results when a child feels that a friend's relationship with another child threatens his or her relationship with that child. The fear is of being replaced or of being unfavorably compared with the person perceived to be interfering (Parker, Low, Walker, & Gamm, 2005). Jealousy is a problem early on and remains a problem until early or middle adolescence. Open expression of jealousy is not accepted by the peer group and highly jealous children have social difficulties as jealousy contributes to peer victimization, social rejection, and loneliness. Jealousy often occurs with envy. Pride is a self-conscious emotion that is accurately identified by age 4 or 5 years. Children start to talk about pride later than they talk about happy or sad emotions. Recognizing pride in another child requires attending to posture as well as the facial expression. As children gain experience in competition and social comparison, experiences of pride become more salient (Tracy, Robins, & Lagattuta, 2005).

Strategies for Increasing Positive Emotions

Interventions designed to teach emotion regulation must include *increasing positive emotions* as well as addressing negative emotions because positive emotions affect the course and duration of experiencing negative emotions. Increasing positive emotions can refocus attention and interfere with overfocusing on negative emotions as in ruminating on negative emotions, which is common in students with emotional problems (Ehrenreich et al., 2007). Strategies for increasing positive emotions are neglected in most prevention and intervention programs (see Table 6.2 for a sample of strategies to increase positive emotions).

Scheduling pleasant activities has been a component of treatment for depressed students for some time. Involvement in pleasant activities can improve mood (Lewinsohn, Clarke, Rhode, Hops, & Seely, 1996). There is some research to indicate that when parents rate children's depression and participation in activities, children's depression is related to increased involvement with pleasant activities (Wierzbicki & Sayler, 2006). Students can be given a list of pleasant activities and asked to rate them in regard to how often they are involved in specific activities, and how much they enjoy that participation (Weisz, 2004). Activities can be selected

Table 6.2 Sample cognitive strategies to increase positive emotions

Relax
Meditate
Smile when you feel sad (acting opposite)
Think about your blessings
Find something positive in a negative situation
Appreciate the ordinary things

From Linehan (1993b); Tugade and Fredrickson (2007)

to serve as a baseline. Students can be taught to set goals to increase participation in pleasant activities. They can create graphs to self-monitor participation in pleasant activities. A long form “Child Pleasant Events Schedule” can be found online (http://www.therapyworks-online.com/handouts/emotionalregulation_kids.pdf) to help practitioners create lists of pleasant activities appropriate for a given student. *What do you think?* is an exercise to help students learn to rate activities. This is important as later on they may be asked to rate their own efforts to use strategies and techniques taught in counseling sessions. Practitioners can ask students to rate the activities associated with lessons in regard to how enjoyable the activity was as well as whether or not they feel that they learned something from the activity. Practice in making judgments is important in counseling interventions and this initial task is not very stressful.

Strategies to Increase Students’ Knowledge of Function, Causes, and Effects of Emotion

Emotion understanding also has to do with knowledge and beliefs about emotions and how emotions work (Southam-Gerow & Kendall, 2002). Limited emotion understanding is a risk factor for anxiety and depressive disorders. Early understanding is based in concrete and external concepts. As children get older, understandings become more complex and students focus more and more on internal explanations at least for simple emotions. It takes time for a similar understanding to develop for emotions such as pride, shame, and embarrassment. The fact that emotions can affect behaviors at a later time is also a more complex understanding.

Personal triggers for emotions need to be identified by students so they can describe why events, people, and situations upset them. Triggers can be automatic, biological, and inborn, or they can be learned (Ekman, 2003). Some researchers feel that triggers can be weakened, but not eliminated. Triggers that are learned will be very similar to the more inborn trigger. If the learned trigger is very close to the inborn trigger, it will be harder to decrease its power. For learned triggers, the more frequently the situation was experienced, the more emotional the child was in the original situation, and the stronger the child’s original emotional reaction, the harder it will be to decrease the power of the trigger. In order to generate a strategy to reduce the intensity of one’s reaction, the student needs to realize that he or she is experiencing an emotion. The student needs to label the emotion and generate a “brake” of some kind (emotion regulation strategy). The immediate response to a trigger can be very short, or as long as an hour or more for different children. Emotions can be triggered by automatic or reflective appraisals, by a memory, by talking about a past event, or by other people telling a child what to be emotional about. Emotions can be triggered by one’s imagination, empathy with another person in distress, or by a violation of social norms. Emotions can be triggered simply assuming the muscular movements (facial and body movements) associated with a particular emotion, which is a way for children to generate an emotion when

they want to practice dealing with it. Each of these will trigger different degrees or intensities of emotion. There is no biological switch to turn off emotions. Students need to act to generate a strategy if they want to turn off an emotion.

Children need to be taught that different triggers generate specific emotions (Ekman, 2003). For example, some children are more sensitive to triggers for fear than other children. Fear is triggered by a threat of harm, a sudden loss of support, or something moving quickly into our line of vision as if it will hit us. Anger is triggered by interference when a student is trying to reach a goal. Some children have steeper gradients or rise time for their emotions, commonly called a “short fuse.” Anger is also much harder for a child to control when a child is in an irritable mood. Sadness is triggered by losses of all kinds. Sadness is the longest lasting emotion. Emotions produce the energy we can use to get help for ourselves, to reach goals, or to solve problems. Sadness, on the positive side, can make us more receptive to being comforted by others. Sadness can also cause us to pull back and rebuild resources, conserve energy, or drive empathy for a friend in distress. Anxiety can force a student to pay attention to the situation at hand. Anxiety increases alertness. Students need assistance in identifying their own triggers and in learning to anticipate them. Emotions also have action tendencies associated with them. Once an emotion is experienced and the student realizes that action must be taken, it is important to engage strategies before “feeding” the emotion by overthinking about it and making things worse.

Strategies to help students identify triggers include recording triggers, emotions, and behaviors in emotion “diaries.” A “Hassel Log” is a self-monitoring tool, which students can use to record triggers and how they handled the anger (Feindler & Ecton, 1986). Kellner and Tutin (1995) suggested calling this tool a “Mad Log” when working with younger students and instructing them to make entries at lunch, and again at the end of the day. Students of all ages can use this tool with teachers’ help. Younger students can use decals, write “happy” or “angry,” or draw a face to show how they were feeling. Older students can use a more detailed log recording both the situation and whether or not they used strategies to resolve whatever upset them. To use an “anger log,” depending on the age and abilities of students, students can record something about the incident, how they felt, the intensity of the anger they felt, whether or not they used a strategy, and how well it worked. For a more involved anger log or anger journal/diary that has been completed, see Table 6.3.

Understanding Emotional Action Tendencies

Emotional action tendencies are connected to an understanding of emotional language such that anger drives different behaviors than sadness might generate (Mouilso, Glenberg, Havas, & Lindeman, 2007). Avoidance is an emotion regulation strategy that works well in the short run, but does not work in the long run (Ciarrochi & Blackledge, 2006). Avoidance interferes with learning. It maintains anxiety in the long run. It may also heighten anxiety to perceived threat. Avoidance

Table 6.3 Sample of a completed anger log or journal

When did you get angry?	Where did you get angry?	Who was involved?	What do you think made you angry?	What did you do when you were angry?	How angry were you?	How did you feel after you recovered?	How do you think you handled this incident?
Before school	Getting off the bus	Classmate	A put-down	Pushed him	Lost control	Embarrassed	Badly
In class	Lining up	Teacher	Told me to go to the end of the line	Said something I shouldn't have	Very angry	Frustrated	Not so good
At lunch	Cafeteria	Classmate	Bumped me	Said "cut it out"	Angry	Okay	Okay
After school	On the way out	Classmate	Someone made me feel bad	Ignored it	Somewhat angry	Okay	Good

impedes adaptive functioning (Salters-Pedneault, Tull, & Roemer, 2004). The goal of avoidance is prevention of the emotional experiences in the first place. Emotional avoidance can be subtle as in: avoiding eye contact, putting off starting homework, or trying to control one's breathing. It can be cognitive as in worrying or rumination. Cognitive avoidance can also be seen when a student keeps telling herself things will be okay, or when she thinks about something else and does not attend to classroom directions about a test, or when she distracts herself when feeling threatened. Another form of avoidance would be wearing a hood over one's face when in high school, using a special pencil when taking a test, or wearing one's hat backwards when playing ball. These efforts are attempts to prevent emotional arousal. Avoidance is associated with anxious emotions. Anxiety is driven by avoidance motivation. Anxiety, in particular, interferes with use of adaptive strategies (Moses & Barlow, 2006).

Anger, on the other hand, is often driven by an approach motivational system (Carver & Harmon-Jones, 2009). Watson (2009) believes that anger shows characteristics of both approach and avoidance, but when anger is considered alone as distinct from other negative emotions, it is more closely related to approach. When anger is involved with approach, it is considered "anger-out." When anger is associated with avoidance, it is considered "anger-in." When a student is dealing with negative emotions, behavioral tendencies affect the attentional system creating attentional biases. Students who tend to experience anger-in may have a better chance to manage anger than students who tend to experience anger-out. However, students experiencing anger-in may require help directing their attention away from anger producing triggers, which threaten to consume their attention. Students who experience anger-out risk acting out aggressively (Stewart et al., 2010).

In helping children understand the action tendencies associated with different emotions, it is also important to talk about the effect of emotions in relation to academics.

Children as young as 5 understand the effects of emotions and physiological states on academics, but not until age 7 are children able to explain how emotions affect school performance (Amsterlaw, Lagattuta, & Meltzoff, 2009). Parents and teachers often tell children to get lots of sleep and eat a good breakfast, but they do not tell children to try not to feel sad, or worried, or angry, which would be more helpful. Information about how emotions work increases emotional awareness and helps students explain the experiences they encounter in a different way, and helps them overcome avoidance (Greenberg, 2002).

Strategies to Increase Students' Understanding of Emotion in Others' Expressions

Ability to "read" emotions in others' facial expressions is an important skill, but it can be challenging, especially when most facial expressions last only 2 s (Ekman, 2003). Five-year olds are able to recognize happy facial expressions, but even

10-year olds are likely to misjudge a sad face as fearful (Gao & Maurer, 2009). In fact, recognition of subtle emotional expressions improves into adolescence and beyond (Herba & Phillips, 2004). Given how common deficits in identifying facial expressions are among students with emotional and cognitive disabilities, time spent trying to improve students' skills is justified. For example, improvement in identifying the emotions in facial expressions can help anxious girls decrease social anxiety and improve self-esteem (Grinspan, Hemphill, & Nowicki, 2003). Elementary aged children can be taught to discriminate and identify emotion in faces with more success for girls than boys.

Nonverbal cues tend to be processed automatically without thinking. Attending to an automatic process slows it down. When a student is sad, processing is slowed. More deliberate processing takes place in students who are sad (Ambady & Gray, 2002). Sadness is the earliest emotion that children recognize in expressive body movements. Happiness is developmentally first when children observe facial expressions and anger is the first emotion recognized auditorally (Boone & Cunningham, 1998). Guilt, shame, and embarrassment do not have unique facial expression, so context and body language are needed to interpret these emotions (Ekman, 2003).

There are a number of activities to use to help children learn to identify emotional expressions in others. Students can create *Emotion Story Booklets*. Each booklet would portray a single emotion (happy, angry, sad, worried, embarrassed, jealous, etc.). For each positive and negative emotion, students could draw and/or write about things that might generate the particular emotion. This could be a long-term project, as students would continually add to it over time. For the negative emotions, students need to include what might make them feel better, or what they might learn from the situation they describe in the booklet. Using scenarios, practitioners can ask students to role-play emotional situations or events. Games can be used as in *Emotion Freeze*. In this game, students are asked to walk around the room and to "freeze," holding a position that clearly demonstrates the emotion that is called out. Students are asked to identify and describe the facial cues and body language that the child actor is using to express the emotion. For other activities, use scenarios or pictures from children's books that show a child falling down, a child being teased, a child losing a game, etc. and ask students to label the emotion and share what they might say or do if they saw a student who was in a similar situation.

Another strategy for teaching students to identify facial expressions they are observing is to have them imitate the expressions they see. Students are more efficient in identifying emotions when they use this strategy (Niedenthal, Krauth-Gruber, & Ric, 2006; Oberman, Winkielman, & Ramachandran, 2007). At a simple level, a bingo template filled with pictures of children expressing emotions can be created from advertisements or stories in magazines. Once created and photocopied, these "*Emotion Expression*" Boards can be laminated and a bingo-type game can be played. Using pictures of people expressing emotions (pictures of children are best), ask students to label the emotion they see and hypothesize why the child might feel this way. A source of pictures of faces displaying emotions appropriate for older students can be found in Ekman (2003).

Strategies to Increase Students' Understanding of Their Own Emotional Expressions

Emotional expression has to do with communicating our emotions through language or through nonverbal signals. Expressing emotions can be positive. Expressing sadness, for example, can elicit sympathy from others and solidify interpersonal connections with friends. Expressing anger can get others to pay attention to our needs. Expressing emotions can help us reach personal goals (Richards, 2002). Communicating emotion can be verbal or nonverbal. Students use language to communicate with others or within their own minds as in self-talk. Nonverbal communication includes facial expressions, tone of voice, gestures, and postures (Kats-Gold & Priel, 2009). Nonverbal communication can involve bodily or physical signals. Elementary aged students associate physical symptoms with a broad range of emotions. From age 7, students associate physical symptoms most frequently with fear. The physical symptoms most associated with fear are difficulty with breathing and one's heart beating fast (Muris, Hovee, Meesters, & Mayer, 2004). Recognizing one's own body signals is important.

One reason to understand one's own emotions is to successfully communicate our emotions to others. Younger students can use paper doll-type puppets with a number of facial expressions that can be changed (using Velcro or rolling tape to attach different faces). Help them practice communicating emotions to others and talking about the reactions one might get in return. Digital cameras make it possible to take pictures of an individual child displaying various emotions in response to specific situations. The pictures can be made into a booklet and the expressions can be practiced and studied. Young children can use hand-held mirrors to practice making facial expressions and labeling them. Counselors can print an emotion word on a series of *Emotion Cards*. Ask students to act out the emotion. Ask students to describe in detail how they showed the emotion (the facial and body positions or movements they used to create the emotion). What did their faces look like? What did their body look like and feel like? Do they think that others would understand how they were feeling? Counselors can also help children identify how they are feeling by asking them about their feelings. When students are upset we tend to ask "why?" questions. Instead of asking "Why do you feel this way?" we might ask "How do you feel right now?" A concrete experiential thought will result along with a quicker reduction of negative emotions and more flexible thinking.

Strategies to Increase Students' Ability to Connect Situations/Events with Emotions

Context plays a key role in reading expressions of facial emotions. Even the area of the face that one looks at is determined by context at least initially (Aviezer et al., 2008). Emotion regulation is also tied to context, with different contexts requiring different strategies (Southam-Gerow & Kendall, 2002). What might be adaptive for

European American middle-class typically developing children may not make sense or even be safe for children living in low-income and dangerous neighborhoods, or for students living with abusive parents, or in homes where drugs are used, or in homes where a parent has a mental illness. Practice in *Connecting Situations and Emotions* can take place when reading a series of descriptions of events, and asking students how they, or someone else, would feel in this situation (see Table 6.4 for a list of situations to discuss).

Children may need multiple cues to appreciate emotional events. Students can practice increasing the cues to help them fully experience emotional situations. After an upsetting event, ask students to label their emotional reaction, ask them to make a face to fit how they were feeling, and then describe their emotional reaction as if it were happening at the moment. Adding cues helps children recall what happened in more detail and to understand what caused them to feel in a particular manner (Liwag & Stein, 1995). Children aged 5 and 8 years improved their understanding and memory of times they felt happy, sad, or scared when they drew a picture of events in which they felt that way, and then reenacted the situation after drawing it (Wesson & Salmon, 2001). Using “Drawing and Showing,” students were much better able to relay information than they were when just “telling” about situations. This strategy would be very helpful when a situation has caused a child considerable stress or trauma.

Table 6.4 Connecting situations and emotions

Use these situations to practice connecting emotions with specific situations. Sometimes more than one emotion may fit the situation and students may not all experience the same emotion in a given situation. Ask students, “How would you feel if...?”

You were giving a talk in front of the whole class

You were being told you can't play

You think you are getting a really bad report card

The teacher moves your seat because you were talking to your best friend

You were taking a test that is really hard

You fell in the gym and broke your arm

School was canceled because of a snowstorm

You got an award for good citizenship

You hit a home run in the game at recess

A bully demanded your lunch money

You tripped over your feet in front of a girl/boy you like

Your best friend didn't want to be your friend anymore

Your teacher said you had been chosen to be in the advanced math class

You hated your lunch

A kid said he will “get you” after school

Someone made fun of you

You left your homework on the bus

You thought the kids didn't like you anymore

You got 100% on your spelling test

Your stomach was really upset

A kid you don't like told on you

A friend told you that you are in “big trouble”

Pictures can be used to help students connect emotions with situations. More complex pictures from magazines, newspapers, or video clips are good source of emotional expressions tied to situations. An excellent source of material for older students is Normal Rockwell's paintings found in books. Interpretation of the pictures may take some thought for students who have difficulty interpreting the expressions of others.

Game-like activities help students practice connecting emotions and specific events or situations. *Guess Why?* is a game to practice understanding the connection between context and emotions. Prepare strips of paper, each with an emotion word. Ask a volunteer in a group counseling session to act out the emotion. Tell students to pay close attention to facial and body language cues. When someone guesses correctly, ask students to brainstorm several events or situations that might have happened to trigger this emotion. *Making Connections* is an activity that addresses this concept in a slightly different way. This time, give students a short description of an event such as: sitting alone at lunch, a popular kid tells you to "get lost," you are chosen last for the game, an adult scolds you in front of your friends, someone calls you a name, etc. Ask two students to act out the scene. Next, ask students to explain the connections between the event and emotions that might result.

Strategies to Increase Students' Understanding of Display Rules and Masking

The idea of hiding emotions becomes understandable with time as does controlling or changing the emotions that one expresses to meet immediate goals (Southam-Gerow & Kendall, 2002). Students need to understand the advantages of compliance with one's culturally based display rules. Since display rules are part of the so-called "hidden curriculum" of a school, they need to be taught to many children with subclinical or diagnosed disabilities. *North, South, East, and West* is an activity to practice changing emotions quickly and masking emotions. Explain to students that sometimes it isn't appropriate to express the emotion that they feel at a given time. Sometimes it is better to hide how you are feeling. If you wanted to hide how you were feeling, you would use an expression that is different than the one that would let others know how you felt. For this activity, students can use a "mouth" mask (a mask that shows only a smiling mouth on one side and an unhappy mouth expression on the other side fastened to a straw for a handle). If they wanted to hide disappointment, they would hold the smile mouth in front of their face, for example. Practitioners can prepare four large cards with a different emotion word on each card, appropriate for the age of the group members (happy, mad, sad, scared, or use more sophisticated emotion words). Place the cards on the walls of each of four sides of the room so that all students can see them. Provide a "mask" for each student. Ask students to look at the cards on each of the four walls with the words happy, mad, sad, and scared (or other words you choose to use). Tell students that these words tell them which emotion to express. Practice how to

Table 6.5 Emotion shifting situations for North-South-East-West game

-
1. Your best friend invites you to go to the movies
 2. Your puppy is sick and you can't get him to the veterinarian until after school
 3. You get an "A" on the spelling test
 4. A big kid calls you a name and you don't want him to know you are scared
 5. You get picked last for the game
 6. A classmate tells the teacher on you
 7. The gym teacher offers extra time for free play
 8. Someone pushes ahead of you in line
 9. You find that you left your homework on the kitchen table
 10. You lose the ball game
 11. Your teacher scolds you when it wasn't your fault and you are angry, but if you say what you are thinking, you will be in big trouble
 12. The popular kids say you can't sit at their table
-

express each of the four emotions using facial expressions and body language without talking as you call out each emotion word, and coach students who may have difficulty expressing the emotion.

Students are now ready for the game. Explain that as students walk in place very quietly, a scenario will be read and students are to face the wall with the appropriate word and react by showing the emotion or by hiding how they feel using the mask. They will have to switch feelings quite quickly in this exercise so they need to listen closely (see Table 6.5 for the "North, South, East, and West" situations to pose). Add specific situations that fit the group of students.

Strategies to Increase Students' Emotion Vocabulary/Self-Talk

There are complex relations between language, emotions, and behavior. Verbal ability is related to emotion knowledge (Ackerman & Izard, 2004). Emotion recognition is associated with receptive vocabulary as is the ability of students to discriminate between thoughts, feelings, and behaviors (Sams, Collins, & Reynolds, 2006). Ability to generate strategies is related to expressive language skills (Cole, Dennis, Smith-Simon, & Cohen, 2009). Boys with language deficits have difficulties with emotion regulation as emotion regulation and language affect each other (Eisenberg, Sadovsky, & Spinrad, 2005). A student's knowledge of emotion vocabulary influences the speed and/or accuracy in perceiving expressions on people's faces (Lindquist, Barrett, Bliss-Moreau, & Russell, 2006). Talking about or writing about feelings helps regulate negative emotional experiences (Lieberman et al., 2007). Emotions and language may compete for cognitive resources in students who are emotionally distressed, or who evidence delayed language development (Bolnick, Spinrad, Eisenberg, Kupfer, & Liew, 2006).

Students need to be able to label emotions. Emotion vocabulary words help decrease emotional reactivity in the short term and also long term (Tabibnia,

Lieberman, & Craske, 2008). Simply naming the emotion a student is experiencing activates the prefrontal cortex and decreases the intensity of the emotion that is being experienced (Lieberman et al., 2007). In order to be able to name emotions, students need to develop a reasonable emotion vocabulary for their age. To assist students in *Developing an Emotion Vocabulary*, ask teachers to teach students emotion words as part of their routine vocabulary lessons. Ask them to have students record how many times they use the new emotion word during the day. Teachers can send the new emotion word home to parents and ask them not only to post it on the refrigerator, but also to use the word as they interact with their children. As new words are taught, whenever the word is used in class teachers can keep a class record and graph word use. Teachers can help students make picture books with pictures and drawings to illustrate the new words, students can write a story about the new word, or write a poem using the new emotion word. This type of training fits easily into the general English Language Arts curricula.

Teachers and parents can be helpful in developing young children's emotion vocabulary using dialogic reading. Books need to have social-emotional themes and adults need to ask questions to help children connect their own experiences with the character's experiences in the stories (Doyle & Bramwell, 2006). Adults can build emotion vocabulary in school-aged children through direct instruction, incidental teaching, and specially designed activities (Joseph & Strain, 2003). School psychologists need to recommend that parents and teachers "talk" about negative emotions. This improves children's emotional competencies and self-esteem (Marin, Bohanek, & Fivush, 2008). Students can learn new emotion vocabulary by listening to stories if teachers explain target emotion words as they read (Penno, Wilkinson, & Moore, 2002). Keep in mind that the average probability of learning a new word from context is only 15%. Out of every 100 new words students encounter in reading, they will only learn fifteen (Swanborn & de Gloppe, 1999). Learning new emotion words requires a lot of practice.

Teachers can help children create a *Class Book of Feeling Words*. Include stories, poems, and pictures that children generate. A poster board of feeling words can be set up in a classroom. Children can place their name next to the emotion they feel when they arrive at school and change the placement of their names throughout the day as their emotions change. In smaller groups, children can watch film clips or short segments of television sitcoms. Practitioners can ask students to name the emotions portrayed and to identify the reasons for the emotions. They can ask students to try to identify the emotion regulation strategies that the characters used (Kovacs et al., 2006). This type of activity is useful in Tier 2 interventions.

Implementation intentions are *If-Then Plans* that link the situation with the outcome; that is, if something negative occurs, a student would use a regulation strategy in order to be in control of the situation. If-then plans help students effectively manage their behavior. If-then statements are strongest when they include goal intentions (Gollwitzer & Sheeran, 2006). Implementation intentions have been associated with school achievement, but can also be used to help manage anxiety. One strategy is to teach students to say "If I feel out of control, then I will use controlled breathing to stay calm and relaxed." For anxious students who are frightened

of a particular event or situation, an implementation intention that includes an ignoring statement is helpful; that is, “If I start to worry that I can’t do the math, then I will immediately ignore that thought” (Gallo, Keil, McCulloch, Rockstroh, & Gollwitzer, 2009). This strategy for controlling fear enables students to down-regulate when they have challenging academic tasks to accomplish. Energy is not affected when using this strategy. This strategy is easy to train and practice using. Keep in mind that it may require “cueing,” or reminding students to use it.

Positive Self-Talk is important. The Mayo Clinic advises that positive thinking has health benefits. Students need to learn to take negative self-talk and give it a positive spin (<http://www.mayoclinic.com/health/positive-thinking/SR00009>). Children can practice this by giving themselves a negative self-talk example and asking themselves to brainstorm a positive spin. For example: “I can’t do this, I never did it before” could be changed to “I’m a little nervous but I’d like to learn to do it” or “Maybe I can learn to do it if I try.” Changing statements such as “It’s too hard” to “I can ask for help” or “I can try it another way” are important to practice. Children’s anxious self-statements predict anxiety. Treatment gains are related to changes in these anxious self-statements (Kendall & Treadwell, 2007). Students need to practice the self-talk they may need for difficult situations to prevent emotions from rising too fast. Statements such as “I will improve,” “I am trying hard,” or “I know what to do,” or “This emotion is uncomfortable but it can’t hurt me,” or “I will concentrate more in the future” are important to learn so that they can be used when a student is faced with challenging academic or social situations (Friedberg & McClure, 2002).

Strategies to Increase Awareness and Control of Emotional Intensity

In order to understand intensity of emotions, students need to rate emotions according to some scale. The most common scale is a “feeling thermometer.” *Feeling Thermometers* are used in many interventions designed to help children. A feeling thermometer is a visual analog scale. Employees of the Scott Paper Company developed the first visual analog scale in 1921. In 1923, a visual analog scale was redesigned horizontally and is used to this day for ratings of pain by medical personnel. It wasn’t until 1969, however, that a visual analog was used to measure mood (Ahearn, 1997). Students can keep feeling thermometers that they create on their desks to let the teachers know how they are feeling. Ask teachers to instruct students to indicate how they are feeling at various periods throughout the day and to talk about emotional intensity with students. At Tier 2, counselors can create feeling thermometers with students and use them for each counseling session. Group leaders can read scenarios and ask students what is the emotion the student in the scenario might be experiencing and how intense that emotion may be according to the context. If students do not agree, this will provide opportunity for discussion. Intensity scenarios for group discussion can be found in Table 6.6.

Table 6.6 Scenarios to use to discuss intensity

Intensity of emotions										
<p><i>Help students make thermometers with a simple number scale. Read each scenario and ask students to point to the number that corresponds to the degree of emotion they would experience in the situations described below</i></p>										
	1	2	3	4	5	6	7	8	9	10
Scenarios to use to discuss intensity										
<ol style="list-style-type: none"> 1. Tony thought that the other children in the game were cheating 2. Mike knew that his sisters would be upset when he told them they couldn't go to the concert 3. Alex heard that there would be no school tomorrow because of the snowstorm 4. Jen knew that the new student in her class needed a friend, but she was scared to support her when Amy teased her 5. Tyronne was invited to join a group in the cafeteria, but he found it difficult to talk with people he didn't know well 6. The popular kids in her class teased Latoya. She handled it pretty well 7. The girls told Tracy that she couldn't sit with the group in the cafeteria 8. Carlos could tell that the other kids didn't like him because he was never invited for a play date. He didn't feel angry about it, but everyday he felt worse 9. Drexel had two best friends who didn't like each other. This was a big problem because when one friend asked him to do something, the other friend would get angry 10. Ramon was a terrific ball player, but he couldn't stand it when he had to let a kid play on his team who was "no good." Ramon liked to win 11. Pepita hardly ever sat with anyone in the cafeteria until 1 day Lea asked her to sit next to her 12. Jing-Wei felt very strange at her new school. She couldn't understand what people were saying and people kept looking at her 										

How Many Degrees? is an activity for a small group of students. School psychologists teach students to connect a number to correspond with the intensity of various emotion words. They can create a 3D box, write a number on each surface, or use a die. Create a feeling thermometer with numbers corresponding to the numbers on the die, 1–6. State an emotion. Each student in turn can toss the die. The task is to think of an emotion word equal to the intensity of the number that shows on the surface of the die. For example, if the student throws a “6” and the emotion is anger, the word generated must be of very high intensity.

Practitioners can help students practice identifying the intensity of emotions by generating adjectives to fit various sentences. For example, different emotion words would fit the following two sentences: “He told a good joke and I laughed” (appropriate emotion words might be amusing or funny); “He told a joke that made me laugh so hard, I fell out of my seat” (in this case words such as hysterical, hilarious would

Table 6.7 Words for common emotions graduated for intensity

Happy	Sad	Angry	Frightened	Caring
Glad	Down	Sullen	Worried	Kind
Cheerful	Blue	Irritated	Scared	Considerate
Joyful	Miserable	Ticked off	Anxious	Sympathetic
Delighted	Dejected	Furious	Alarmed	Compassionate
Ecstatic	Depressed	Enraged	Terrified	Adoring

be more appropriate). Generate words to indicate different intensities of an emotion. Teachers can ask students to write a story featuring an emotion, but include several different intensities of the emotion in the story. At tier 2, it is helpful if practitioners teach five different words for each emotion discussed. Each word should represent a different degree or intensity of the emotion. Place each word on a flash card. Hand out the cards and ask students to first divide the cards into stacks, each representing a single emotion, and then to arrange them from least intense to most intense. See Table 6.7 for a list of words for common emotions graduated for intensity.

Anger can be a problematic emotion, so it is important to make sure that students have many words for anger to describe different levels of intensity. Table 6.8 is a lengthy vocabulary analog for angry feelings.

It may be useful to utilize words describing different intensities of anger that students commonly use until a broader vocabulary can be taught (see Table 6.9 for a list of words and phrases that some students might use to describe different intensities of anger).

Anger Flies is an activity that gives students a chance to practice connecting intensity of emotion with strategies. Give each student a piece of paper in the outline of a fly. Ask students to write a sentence about an event or incident that really makes them angry on the paper fly. Provide extra flies so that students can write several different incidents, events, or interactions that upset them, but remind them to write only one event on each card. Place a long strip of brown paper which you can call “flypaper” on a table and ask students to divide the length of the paper into five sections numbering each section 1 through 5. Each section represents a different degree of intensity of anger with 5 being the most intense. Tell the group that by working together, they are to arrange the flies on the flypaper. The comments on the flies are to be organized from the least annoying to most upsetting and placed in each of the five sections of flypaper. Ask students to try to agree, but if they cannot agree, overlap sections, but try to place some flies in each section. Each section now contains flies representing an increasing level of intensity of emotion. The next step is to agree on an emotion word to describe each level. When students have finished, there will be flies with comments in each section of the flypaper. Ask the group to think of a word describing the intensity of anger that the flies in that section represent. Now the flies are “stuck” on the paper, just as anger can get “stuck” when we are upset. The final step is to get the flies off the sticky flypaper by thinking of strategies to use to decrease the anger that the events or incidents have triggered. The strategy must fit the level of intensity of emotion.

Table 6.8 Vocabulary analog for anger

5	Furious Enraged Out-of-control Outraged Violent Frenzied Inflamed Irate Crazed	Level “5” represents a level of anger right on the edge of exploding
4	Incensed Hostile Inflamed Indignant Antagonized Frenzied	Level “4” involves intense feelings but there is still an element of control
3	Exasperated Indignant Aggravated Agitated Rankled Irritated	Level “3” is the level that the average person might feel most often when angry
2	Annoyed Bothered Disturbed Cross Impatient Ornery Upset Frustrated Fretful Piqued Vexed	Level “2” is the warning level, when the individual knows anger is present and that it is rising
1	Calm Tranquil At ease Unperturbed Contented Cheerful Collected Unbothered Clear headed Peaceful	Level “1” represents control, the person is not reacting to the anger triggers/ events or situations or is amused and unperturbed

Table 6.9 Student or “kid” language for angry feelings of different intensities

1	Extreme anger	Ready to blow up Blood is boiling Making the fur fly Ready to blow my top Experiencing a delirium Ready to blow my stack
2	Intense anger	Having a cat fit Having a hissy fit Flared up Stirring up a hornet’s nest Making bad blood Burned up Stormy
3	Anger	Worked up Miffed Peeved Ticked off Feeling tied up Getting my dander up Getting in my hair Getting my goat There’s a black cloud over my head Running a slow burn
4	Mild anger	Ruffled Stewed Getting stirred up Making me sore Getting on my nerves
5	Neutral feelings	Okay Cool Laid back Mellow

Strategies to Increase Students’ Ability to Shift Emotions

Shifting emotions can be very challenging for some students, particularly students who have attentional weaknesses in addition to emotional difficulties. Children who have intellectual disabilities also have considerable difficulty shifting their focus (Bortoli & Brown, 2002). Attention refocusing has been shown to be a successful strategy for reducing anger in students with particularly reactive temperaments (Morris, Silk, Steinberg, Terranova, & Kithakye, 2010). In order for students to utilize some of the Tier 3 interventions, students must be able to shift cognitive sets. This allows students to develop alternate appraisals of situations (Garland, Gaylord, & Park, 2009). With young students or students with disabilities, the concept of shifting can be taught with a simple game called *Shift*. Ask students to stand. Explain

that one signal (such as a bell or clap) will indicate that they should step forward. A different signal will indicate that they should step backward. When you call out “shift,” students will take a one-quarter turn to the right.

Students need to understand that shifting emotion helps us get “unstuck” from an upsetting thought or feeling. It allows us to rest, or take a break, even though we don’t want to forget about what is bothering us because we need to do something about it. Because many emotion regulation strategies require emotional shifting, it may help students to learn to use a verbal script as simple as the word “shift” while thinking of shifting their bicycle into a different gear to pedal up a hill. Another strategy has to do with attending to two sensory experiences at the same time, such as paying attention to one’s breathing *and* the temperature of the room. Deliberately attending to two sensory experiences at once does not leave much room for negative thinking.

Sharoff (2002) provided a number of techniques that are relevant for teaching students to shift perception and these would be useful when students need to shift emotions. Sensory diversion involves attending to visual or auditory details in the environment rather than attending to the upsetting event. Somatic diversion involves attending to feelings in one’s body. Fantasy can be used to use up attentional resources rather than focusing on the upsetting situation (imagining oneself in a pleasant or favorite environment). Shifting attention will cause emotions to shift as well. Focusing on a cognitive task, such as counting, can shift attention. The counting task must be a little bit challenging or this strategy will not be successful. Counting backward, for example, is useful, but must be matched to the ability of the student (counting backwards from 50, or counting backward from 100 by 3s or 7s for older or more competent students).

Crossing the Line is an activity to use to practice shifting emotions. Give students a strip of paper with two emotion words appropriate for their age and ability (happy-sad, frustrated-calm, frightened-relaxed, angry-silly, etc.). Place a ruler or chalk mark on the floor. Show students how to walk up to the marker displaying one emotion using one’s facial expression and body language, cross the marker, and fully express the second emotion. The other students in the group can guess the two emotions that are being displayed. Each student can have several turns. Table 6.10 contains a list of pairs of emotion words for this activity.

Work with students to practice shifting emotions when students are feeling calm. Prepare a series of cards with two or three emotion words, depending on the student’s age and abilities. Ask students to draw a card from a pile of cards and act

Table 6.10 Emotion word pairs

Happy-sad	Joyful-hopeless	Happy-angry	Energetic-tired
Brave-fearful	Shy-confident	Alert-sleepy	Proud-humble
Angry-content	Mean-nice	Silly-serious	Angry-calm
Strong-weak	Impatient-relaxed	Ashamed-proud	Serious-silly
Tense-relaxed	Worried-brave	Smug-shocked	Excited-disappointed
Controlled-uncontrolled	Bored-interested	Calm-agitated	Jealous-supportive

Table 6.11 Patterns of emotions occurring together

Emotional experience	Emotions experienced together
Social anxiety	Shame and fear
Feelings of depression	Sadness and anger
Aggressive feelings	Shame and anger

From Izard, Ackerman, Schoff, and Fine (2002)

out the emotions on the card. Each card contains words that require shifting such as: happy-mad-calm; angry-content-upset; confused-surprised-sleepy; upbeat-dejected-suspicious; or angry-afraid-nervous.

Strategies to Help Students Recognize Emotion Patterns

Izard (2002) called attention to emotion patterns. Some emotions tend to occur together such as sadness and anger, sadness and fear, or guilt and fear. Children who are bullied and/or rejected may experience both shame and anger. Children who deal with social anxiety when interacting with others experience shame and fear. Students who are sad or depressed may feel both sadness and anger. Those students who are aggressive feel shame as well as anger. It is important for students to not only understand that more than one emotion may be experienced in a given situation, but also they need to understand which emotions are most likely to occur together (Table 6.11).

Strategies to Increase Students' Ability to Downregulate

It is important to understand that the goal of emotion regulation is moderation rather than overcontrol or undercontrol, each of which can cause problems (Southam-Gerow & Kendall, 2002). Children at-risk for emotional problems tend to either inhibit expression of emotion or do not attempt to control the expression of emotion. *Emotion Puzzles* is a game in which students read or are read a scenario, which is analyzed according to the emotion that might be felt by characters in the scenario. Ask students to think carefully about how each character might feel and what that student could do to feel better. Discuss individual students' solutions with the group. Emotion puzzles for problem solving can be found in Table 6.12.

Relaxation addresses the bodily expressions of emotion and involves a variety of strategies such as controlled breathing. A meta-analytic study of relaxation techniques in adults indicated that relaxation training is effective in reducing anxiety (Manzoni, Pagnini, Castelnuovo, & Molinari, 2008). Some types of relaxation are more effective than others. Applied relaxation, progressive relaxation, and meditation have the greatest effect sizes for both individuals and groups. Controlled breathing has been associated with reduced distress and with improved general mood. There

Table 6.12 Emotion puzzles

Use these descriptions of situations to talk with students about the emotions the characters might feel. The exercise can be extended by talking about solving the problem and using strategies to change feelings

1. Ricky grabbed Eduardo's eraser from his desk saying, "My eraser is no good, I need yours"
 2. Enrica leaned across the table in art class to look at Melissa's picture. As she leaned over she knocked the water bottle over. Erica's painting was ruined
 3. Lateasia cut into the line of students waiting to get their lunch. Michala pushed her away
 4. Mickey walked up to Rasheed's Lego tower and said, "I can wreck that tower before you can stop me"
 5. Mark rushed over to the table in the back of the room when the teacher announced that recess would be indoors. He impulsively swept his arm across the table knocking everything off the table to make room for his toys. His teacher told Mark to go back to his desk and he would need to stay there for the entire recess. Mark yelled at his teacher saying he didn't leave all of that stuff on the table
-

has also been a lot of study of progressive muscle relaxation. This strategy involves successively tightening muscle groups and then relaxing them. Research shows that this strategy can calm down "state" anxiety and stress (Koole, 2009). Unfortunately, this strategy works better for typically developing students and perhaps for at-risk students, than it does for students with disorders. Additionally, it works better for some types of phobias rather than for all anxiety disorders (Barlow, Allen, & Choate, 2004). Calming techniques may be helpful as long as they are not identified as specific coping strategies for emotional distress. Diminution is a technique for decreasing the importance of a threat. It reduces the magnitude of the anxiety threat so that a student can generate a strategy to deal with it (Sharoff, 2002). Students can imagine an upsetting event progressively shrinking in size or a situation can be thought of as moving further away in space. If students should perceive the worries or angry thoughts as if they were "talking going on in their heads," students can use the metaphor of "turning down the volume" on speakers. Thought stopping techniques, on the other hand, have not been shown to be particularly useful.

Many students use music to help themselves downregulate. Music can help children calm themselves, fight boredom, and improve concentration (Saarikallio, 2009). The music chosen, however, needs to fit the child's taste and culture. An additional simple previously mentioned calming strategy involves counting. Counting backwards, or making a list of animals each beginning with a letter of the alphabet "a to z," engages attentional resources. Walking and counting may be helpful for some students as in counting the steps to the gym, or counting the number of steps needed to circle the building with the counselor if a student were very upset. Progressive muscle relaxation combined with paying close attention to feelings in one's muscles has been demonstrated to be helpful.

There is a relationship between breathing and experiencing feelings (Philippot, Chapelle, & Blairy, 2002). Students take deep breaths for 2 or 3 min counting as they exhale. Concentrating on one's breathing can reduce distress (Koole, 2009). *Steam Valve* is an activity to help students understand the relationship between breathing and emotions so that they can use this knowledge to change unpleasant emotions. Suggest

that students close their eyes and imagine a time when they felt a particular emotion to help them generate the emotion. Once they agree that they are experiencing the emotion, ask them to pay attention to the breathing pattern that is associated with that emotion (anxiety might be associated with fast shallow inhaling and exhaling, for example). Students record the breathing patterns that fit specific emotions and the breathing patterns associated with feeling calm. Help students understand that should they experience a distressing emotion, they need to recognize the breathing pattern that is associated with that emotion, then change that pattern to a more relaxed pattern (slower, deeper breathing). Use music that students agree generates a specific emotion such as fear, anger, or sadness. Stop the music and coach students to change their breathing pattern. In this way they are controlling the “steam valve.”

Strategies to Increase Students’ Ability to Regulate Emotions

Emotion regulation is partly heritable and partly learned. Identical twins are more similar in emotion regulation than fraternal twins according to their parents (Goldsmith & Davidson, 2004). Individual differences are significant and are related to executive functioning (Hoeksma, Oosterlaan, & Schipper, 2004). Individual differences additionally interact with context to affect behavior. Use of emotion regulation strategies is different at different ages and also different according to gender and culture (Haga, Kraft, & Corby, 2009). Emotion regulation predicts social functioning among children, so training in emotion regulation is expected to help students interact more successfully with peers. Emotion regulation strategies can help children compensate for temperament issues that might otherwise cause them to have adaptive problems (Lopes, Salovey, Cote, & Beers, 2005). Emotions are not the same as feelings. Feelings are the internal experience of emotions (Hoeksma et al., 2004). Students who have difficulty regulating emotions tend to experience a rapid rise of emotions and/or high intensity of emotions associated with temperament. In addition, they experience deficits in information processing as in difficulty labeling emotions or making hostile misappraisals, and they experience deficits in shifting so they get stuck and cannot change their moods (Salovey, 2006).

There are many ways to regulate emotions. We can distract ourselves, or sooth ourselves, as young children often do when distressed. We can increase positive emotions. A helpful strategy is to change a negative emotion by substituting a different emotion. Withdrawal emotions can be replaced with approach emotions. Soft emotions can stifle more rigid negative emotions. Students need a lot of practice role playing positive emotions showing the facial, postural, and voice intensity appropriate to fit a different emotion than the student is experiencing at the moment. These behaviors may help regulate the emotional event or experience as well as the expression of emotion (Greenberg, 2002).

Anxious children are sometimes described as having a negativity bias in that they process incoming information negatively as well as very rapidly if it seems to be threatening to them. When they allocate attention to processing negative

emotional information, there is less attention available for other tasks. The decreased attention resources affect attention performance in school. Emotions are task-irrelevant when a student is trying to perform well in school. A balance between threat sensitivity and attention control is needed to be efficient when working on tasks requiring executive attention (Dennis & Chen, 2007a, 2007b). Research indicates that some anxious children, particularly phobic children, fail to disengage from upsetting situations or events (Gerdes, Alpers, & Pauli, 2008). Students with good attention control can disengage their attention from negative input or negative thoughts about themselves (Caston & Mauss, in press). Overfocusing attention on negative thoughts or events makes students vulnerable to depressive symptoms.

Distraction is a strategy that is adaptive at young ages and can also be adaptive when students are older, depending on the situation. Distraction involves diverting attention away from something distressful and focusing on neutral thoughts (Sheppes & Meiran, 2008). Simply asking a person in pain to “think of something else” decreases the sensation of pain (Ochsner & Gross, 2005). Engaging the student in an attention-demanding task such as a math problem that is a bit challenging decreases pain as well (Ochsner, 2006). A secondary task that engages the person can reduce attention to emotions. If a student tries to use distraction or tries to think about the emotion in a different way (reappraisal) after emotion has already elevated, there is a cost. Late reappraisal depletes self-control and late distraction interferes with memory for the emotional situation. Researchers have compared distraction with reappraisal. Both are successful strategies in decreasing negative emotions, both decrease activity in some areas of the brain, and both increase activity in the prefrontal cortex of the brain. However, reappraisal works better than distraction in regard to decreasing negative emotions and it improves processing of interpretation of emotions and situations. Distraction, on the other hand, works better than reappraisal in decreasing the activity of the amygdala and in increasing activity in the prefrontal regions (McRae et al., 2010). Students need to learn to deal with upsetting information that is impinging on them.

One way to deal with stressful input in the classroom is to look away or shift attention away from whatever is causing negative emotions (Hoeksma et al., 2004). In schools, teachers can try to engage a student in an academic task or tell the student to think about something else. Thinking of something else requires practice. Attention control strategies that work best involve disengaging from irrelevant thoughts or worry, but not from other aspects of the environment (Caston & Mauss, in press). Students need to disengage from worrying and engage in thinking about academics.

Emotion regulation recruits executive control, spatial working memory, and an awareness of visual-verbal triggers (Berkman & Lieberman, 2009, p. 482). *Mindfulness training* encourages students to simply take notice of emotions and emotion-producing situations without trying to interpret them. Although this appears to be helpful, the mechanism to facilitate emotion regulation using this strategy is not fully understood (Koole, 2009). Mindfulness has been described as “paying attention to the moment” (Jha, Krompinger, & Baime, 2007, p. 109). A relatively small number of studies have been published to determine the efficacy

of mindfulness training, providing some evidence to suggest that mindfulness affects components of attention. Semple, Reid, and Miller (2005) conducted a pilot study with anxious children using mindfulness training with an effort to improve children's management of attention. They provided preliminary support to indicate that children of 7–8 years of age could learn mindfulness techniques, but larger studies are needed. Burke (2009) reviewed the current research and determined that mindfulness training is feasible with children, but we do not have empirical evidence of efficacy as yet.

Some students have a hard time disengaging. One strategy that may help is to explain to students that when they are dealing with sadness, they tend to become preoccupied with details and ignore the big picture. To help students understand this concept, play *Tunnel Vision*. Hold up a picture with strong emotional content such as a bullying situation in front of a window. Take the picture away. Ask students to write down what they saw in the picture. Then ask them to write down what they saw outside the window. Students who overfocus may recall some of the details of the picture, but not the details out of the window, or they may recall details of the picture that are neutral versus details with high emotional content. This will provide opportunities for discussion and an opportunity to help students expand their worldview. Students evidencing a narrow focus when they are preoccupied with negative emotions need to learn to cue themselves. Help them understand that thinking “My focus is narrow right now and I need to expand it,” may facilitate disengagement. The ability to use this strategy when needed also requires practice (Ekman, 2003).

Spiral is an activity to help students calm down and improve their attention using a game that children have played for years. Ask young children to stand dominos on end very close together making a spiral. When stressed, children may knock the spiral down because they are not concentrating. Direct them to start over. While they work on this task, model self-talk and ask children to imitate it such as “I can do this. I can concentrate and stay calm.” Encourage completing the task at which time children can tip one domino and enjoy watching the falling dominos as energy runs through the spiral rewarding their effort.

Strategies to Increase Students' Ability to Use Cognitive Strategies

All emotion regulation strategies work in some situations. However, many strategies have costs. Some regulation strategies impair cognitive performance affecting memory, academic achievement, and concentration. Some strategies have social costs as well. Some regulation strategies give no relief from negative emotions, and some affect physiological functioning (Mauss, Evers, Wilhelm, & Gross, 2006). Importantly, different strategies are needed for different contexts and circumstances, in that the best thing to do depends on the particular situation. For example, in a threatening situation it may be smart to do what is best in the short run such as acting quickly to get away, rather than behaving reflectively (Gray, 1999, 2004). Strategies

that are typically considered ineffective, although they may work in the short run but are *not* effective in the long run include: avoidance, catastrophizing, venting, rumination, and suppression. Strategies that work in the long run include: cognitive reappraisal, redirection, expressive writing, and cognitive distancing. Antecedent-focused emotion regulation strategies occur immediately after an event and before emotion has elevated. Strategies that take place later in time are reactive and are considered response-focused emotion regulation strategies (Berkman & Lieberman, 2009).

Avoidance is a strategy that is not effective in the long run. Research indicates that individuals who are high emotional avoiders experience more distress and anxiety compared to those who do not regularly use avoidance (Barlow et al., 2004). There are several avoidance strategies including rituals, distraction, and suppression. These are used by individuals with emotional disabilities and are directed at avoiding intense emotions and uncomfortable somatic reactions. Avoidance is common among individuals with high anxiety. Worry behaviors can be a form of checking rituals and is found in perfectionistic students. Withdrawal is an effort to avoid people and situations that trigger negative affect. When students use avoidance to protect their self-worth, these strategies backfire (Sinha & Gupta, 2006). Unfortunately, use of avoidance can result in a sense of failure, with decreased expectations for success. Catastrophizing is associated with thinking about what would happen if a negative occurred. It is an antecedent misappraisal (Barlow et al., 2004). It is not a very effective strategy, although it may keep a person safe in a potentially dangerous situation. Venting, in spite of its popularity, may backfire as a strategy for decreasing the intensity of emotion in that expressing negative emotions tends to increase rather than decrease intensity. Increased intensity of emotion is more likely if the student later feels guilt or shame, or if the recipient of venting reacts critically (Spett, 2004).

Ruminating is not effective for emotion regulation most of the time. There are several types of rumination. For example, the literature includes angry rumination, intellectual rumination, and depressive rumination. Angry and intellectual rumination have been associated with trouble shifting. Students who utilize these strategies have a hard time switching to a new task (Whitmer & Banich, 2007). Adolescents with a chronic disease who use rumination as an emotion regulation strategy experience maladjustment (Garnefski, Koopman, Kraaij, & ten Cat, 2009). Students with internalizing disorders are more likely to use rumination and therapists must challenge this strategy (Garnefski, Kraaij, & van Etten, 2005). Rumination to decrease negative emotion leads to higher symptoms of depression and behavioral difficulties as well (Silk, Steinberg, & Morris, 2003). When a student ruminates excessively trying to decrease negative emotions, negative affect actually increases. The student then exhibits dysregulated behaviors in order to distract himself from the thoughts in his or her head (Selby, Anestis, & Joiner, 2008). Depressed students need to be taught the consequences of using rumination as an emotional regulation strategy (Ambady & Gray, 2002). Ruminative self-focus is maladaptive (Mor & Winquist, 2002).

Suppression is a strategy that is considered ineffective most of the time, although there are some dangerous situations when suppression might be useful. There has been a great deal of research on suppression. Older students use suppression less

often than younger students. Boys use suppression more than girls (Gullone, Hughes, King, & Tonge, 2009). A likely temperamental precursor for suppression may be low extraversion (Goldin, McRae, Ramel, & Gross, 2008; John & Gross, 2004). Practitioners must always keep cultural differences in mind, as expressive suppression is less negative for students of Asian cultures (Koole, 2009). Expressive suppression involves attempts to depress emotional behaviors after one is already upset. It is a response-focused strategy. Because suppression is activated late in the emotional cycle and works to change the behavioral aspect of emotional responses, it requires effort. This consumes energy. The student who uses this strategy may not show emotion behaviorally, but she/he still feels upset. Overuse of suppression can result in negative feelings about oneself around the fact that the emotion is still present. Suppression interferes with learning partly because it maintains high levels of anxiety (Salters-Pedneault et al., 2004). Suppression leads to memory impairments for social situations and interactions. The effort involved in using suppression makes it hard to also recall details and, in addition, the student may not respond sensitively in a social situation. Peers who interact with students who use suppression as an emotion regulation strategy may feel uncomfortable as the student using this strategy may appear avoidant, distant, or not true to his/her feelings. Suppressors are not likely to be clearly aware of their emotions. Studies show they are less aware of their moods. As a result, suppressors experience reduced social support, cope less well, and may experience increased symptoms of depression.

Expressive suppression is associated with anxiety disorders and depressive symptoms in students exposed to trauma. Expressive suppression plays an important role in stress, although a tendency to ruminate is also involved (Moore, Zoeliner, & Mollenholt, 2008). Expressive suppression necessitates continual monitoring, requiring energy and cognitive resources (Richards & Gross, 2000). Because suppression is a problematic emotion regulation strategy, we may wonder why a student would use it at all. The answer is that suppression reduces sadness and fear in the short run. However, as anxiety increases to moderate or high levels, suppression no longer works and in the long run it is ineffective (Dunn, Billotti, Murphy, & Dalgleish, 2009; Liverant, Brown, Barlow, & Roemer, 2008). Individuals who use this strategy report more stress (Moore et al., 2008).

Redirection strategies include response exaggeration and venting. Although venting is popular for controlling anger and aggression, unfortunately, venting increases emotions, strengthening the intensity of angry thoughts and action tendencies (Koole, 2009). Neither response exaggeration nor venting is effective goal-oriented strategies. Cognitive strategies work better.

Cognitive reappraisal, also called reattribution or restructuring, relates to changing a negative interpretation to a neutral or positive one. This process is also referred to as cognitive relabeling, cognitive reframing, or attitude adjustment in the literature. It is differentiated from rationalization, which can involve making excuses (Luke, 2009, p. 202). Cognitive restructuring or reappraisal is an attempt to widen one's perspective, which may be challenging for some students because stress tends to narrow our perspectives. This strategy is a core technique of CBT. The goal of this technique is to make negative emotions less stressful. Reappraisal of internal and

external threats before they occur, or before intensity gets to be too great, decreases later expression of negative emotion. Antecedent reappraisal is more effective than reactive efforts (Barlow et al., 2004). Those who are strong reappraisers experience less anger, experience fewer negative emotions, and have more positive emotions even in situations triggering anger (Mauss, Cook, Cheng, & Gross, 2007). Increased use of reappraisal predicts more positive well-being (Haga et al., 2009).

A number of studies have compared reappraisal with expressive suppression. When these strategies are compared, reappraisers enjoy more positive emotion and less negative emotion, while suppressors experience decreased functioning (Gross & John, 2003). Cognitive reappraisal is used early on when someone is exposed to a trigger, before emotion becomes intense (Goldin et al., 2008; Sheppes & Meiran, 2008). Reappraisal occurs earlier than suppression by 4 or 5 s or less, whereas suppression takes more than 10 s to activate (Berkman & Lieberman, 2009). Reappraisal is a more cognitive strategy and suppression is a more behavioral strategy. When reappraisal is used before emotion is intense, it does not deplete coping energy. When it is used later in the process, it has a cost in energy and in memory for the emotional event.

Today, we have fMRI studies to help us understand cognitive strategies. fMRI studies of cognitive reappraisal show that the prefrontal cortex is involved when a student generates reappraisal strategies (Ochsner, Bunge, Gross, & Gabrieli, 2002). In addition, studies show that the strength of the amygdala connections with the prefrontal cortex predicts the degree to which use of reappraisal will depress negative affect (Banks, Eddy, Angstadt, Pradeep, & Phan, 2007). Once reappraisal is successfully activated, negative emotion is decreased along with the activity of the amygdala, whereas prefrontal activity increases (Drabant, McRae, Manuck, Hariri, & Gross, 2009). Suppression has no effect on the amygdala activity (Berkman & Lieberman, 2009). Reappraisal has also been compared to distraction and neuroscientists report that reappraisal leads to greater reduction of negative affect and results in more activity prefrontally than distraction (McRae et al., 2010).

There are three key cognitive reappraisal strategies that students need to practice: reframing events and situations in another way, imagining whatever is upsetting you as if it were far away, and telling yourself that the situation isn't real. All of these have some support to indicate that they can diminish negative emotions (Caston & Mauss, in press).

Reframing is a reappraisal term that may be easiest for students and parents to understand. This is a concrete term that students can easily visualize and it can also be made concrete. Reframing replaces thoughts that are stressful with less rigid and more helpful, calming thoughts (Mills, Reiss, & Dombeck, 2008). Reframing prevents emotional avoidance. It helps students take actions that are more adaptive and does not trigger the action tendency of the emotion that students are experiencing (Barlow et al., 2004). A simple way to teach the technique is to describe it as "talking sense to yourself" (Beck, 1995), or as giving the thought a "positive spin."

However, reframing requires an ability to "think of alternatives." Some students are going to need to begin to think of alternative explanations by thinking of only one different explanation. Others may need to practice thinking of alternatives that

involve attractive or neutral content. For example: students familiar with the game “Twenty Questions” can use this game to practice thinking of alternatives. Present students with an attractively wrapped box, with a trinket located inside. The group must guess *What’s in the Box?* by asking questions. Questions that eliminate or identify categories work best. Record or count the number of questions asked by the group. Identify which questions were most helpful in narrowing the choices. The student who guesses the closest to what may be in the box gets to unwrap the box. Explain to students that whenever they “shifted” to ask about a new category, they were thinking of things in a different way. Ask students if they would like to share a situation that occurred to them or to someone they know. Explain that the group will help brainstorm possibilities for solving the problem. *Silver Lining* is an activity, which involves thinking of just “one good thing” about a situation that might otherwise be negative. It is a good starting activity for learning to think of alternatives. Situations to use to generate “one good thing” that would fit this activity include events such as: your school is closing, your best friend is moving, you didn’t get picked for the team you wanted to be on, or you have to stay after school.

Additional practice can be gained by generating possible explanations for a single event. An example of many possible explanations for a given event can be found in Table 6.13.

Some students will need a lot of practice feeling comfortable with the language of reframing. Training students to reframe or to use cognitive reappraisal can begin with viewing pictures in which more than explanation is possible. Ochsner (2006) offers the example of a woman crying in front of a church. This scene could be interpreted as upset around a funeral, or happy tears at a wedding. Students who can think of one explanation and are coached to come up with a second explanation are using reframing. This sends a different message to the amygdala and can change

Table 6.13 Generating possible explanations for events

Pose various situations with students and brainstorm possible explanations for the events. Generate as many different explanations as possible. It may also be useful to estimate the likelihood of each explanation. Ask students to suggest situations that they might know about which might have more than one explanation

1. Why would a boy or girl leave the field in the middle of a ballgame?
2. Why would the principle cancel outdoor recess?
3. Why might someone not be invited to a birthday party?
4. Why might a teacher be cross?

Possible explanations for #1:

1. The child was at bat and struck out
 2. The child slid into home plate and got hurt
 3. The inning was over
 4. Recess was over and the bell rang
 5. The child slid into second base and was tagged out
 6. It started to rain
 7. The child hit a home run, ran the bases, and is heading for the dugout
 8. The child slid into third base and ripped his pants
 9. The child is a slow runner and the coach has sent in someone to run for this player
-

the way we evaluate the situation as well as decrease our emotional response to it. After the practice of using pictures, students can practice thinking of common experiences in another way. *Good Things and Bad* is an activity in which students are presented with something that is familiar and typically has a positive or negative mood associated with it. Students must think of the situation in the opposite manner. Instead of thinking of all of the negative associations with a rainy day, ask students to think of all of the good things they can about a rainy day. Ask student to think of all of the bad things about a birthday party. Ask them to think of all of the good things about an empty box.

On the Other Hand is an activity that offers students practice in generating alternatives. Five examples of familiar situations include: the principal announces indoor recess on a nice day; the electricity suddenly goes off in the school; a birthday party is canceled; your parents cancel a trip that you were looking forward to, or a friend says he or she doesn't want to play. A next step would be to generate the type of negative thinking that students who are emotional might experience and try to change the way that they are thinking about it.

Acceptance is currently an emotion regulation strategy that is gaining increasing interest. Acceptance is a core component of Acceptance and Commitment therapy, Mindfulness-based Cognitive therapy, and other new approaches (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). In acceptance, the student learns to feel anxiety without trying to change it. A related strategy is "cognitive defusion." This is practiced by standing back from a thought, or considering it interesting rather than upsetting, or by repeating it over and over until it is no longer stressful. Students can understand that thoughts and the action students take are not connected by being asked to walk around the room saying "I can't walk" over and over (McMullena, Barnes-Holmes, Stewart, Liuciano, & Cochrane, 2008). This helps students look at their thoughts as hypotheses rather than facts. Biological support for acceptance has been identified. The amygdala is more activated when we accept negative emotion passively than when we hold on to negative emotion (Davidson, Fox, & Kalin, 2007). Marks and Woods (2005) compared acceptance and suppression. They found that suppression results in increased distress caused by intrusive thoughts, whereas acceptance results in decreased anxiety and depressive symptoms. Acceptance strategies result in less upset and stress even though the frequency of intrusive thoughts continues. A recent meta-analysis of acceptance indicates that it is a more effective treatment than control conditions and wait-list conditions, but it has not as yet been demonstrated to be more effective than more traditional interventions (Hayes et al., 2006; Powers, Vörding, & Emmelkamp, 2009).

Cognitive distancing involves changing a situation so that it is less upsetting. Another distancing strategy is to imagine the situation is being observed from a great distance. These strategies appear to be effective in reducing negative emotions (Caston & Mauss, in press). In cognitive distancing, students must alter their relationship with the event or situation. Expressive writing is an effective strategy for decreasing emotional distress. It improves both physical and psychological well-being (Koole, 2009). Thinking about the details of emotional memories reduces intensity. Writing about even traumatic events can decrease negative emotion as

thoughts become organized, and experiencing emotions is more controlled. Talking, writing, and thinking can help students to reprocess emotions (Spett, 2004).

Finally, a strategy designed by Linehan (2000) called *Opposite Action* may be helpful for some students. Because every emotion has an action tendency, the goal here is to fight that tendency by doing the exact opposite of what the emotion suggests. So if one is angry, the tendency to attack is replaced by speaking and acting softly. If one is sad and the tendency is to withdraw, the student would be encouraged to interact with peers. If the child is afraid and the tendency is to get away from the frightening situation, the child would be encouraged to approach the situation. The opposite action technique is practiced as follows: students are asked to identify emotions that they experience in a problematic situation; they specify the behavioral action tendency involved; they describe what the opposite action would be, and they “replay” the incident (Miller, Rathus, & Linehan, 2007, p. 236). Younger children can play *Oops*. Explain to students that you will be giving them a series of directions to follow. Their task is to do the opposite of what you ask them to do, saying “oops.” After playing this game, explain that different emotions lead to specific behaviors. One way to deal with this tendency is to do the opposite of what the emotion seems to be telling us to do. This also needs to be practiced using role-play or scenarios.

Chapter 7

Support for the Use of CBT in Schools

Research on the efficacy of CBT as it applies to work in schools is discussed. CBT has been demonstrated to benefit a wide variety of disorders including anxiety, depression, childhood trauma, and post-traumatic stress disorder, as well as a number of other disorders. CBT has been used in prevention as well as intervention work. Available data around the use of CBT is generally presented for treatment of a specific disorder, as is the more abundant research in providing CBT in clinics or university mental health centers. Recently it has been proposed that a more universal model would be useful so that mental health workers would need to master only one model for CBT. Certainly this approach would comprise a better and possibly stronger fit for the school setting where groups of students with varying needs tend to be serviced together. This chapter examines the commonalities of CBT protocols and aspects of CBT that best fit the school context. Specifically, the modular approach and incorporating emotion science into a CBT model are examined.

Meeting the needs of children at-risk for mental health problems and meeting the needs of children and adolescents already demonstrating need for intervention is a huge undertaking. It involves significant organizational change to move schools toward meeting student mental health needs in the face of enormous constraints in funding and in regard to high-stakes testing. Nevertheless, we need to move ahead and make every effort to meet these needs. In doing so, we need to think about both the efficiency and the efficacy of our interventions.

Efficacy of Cognitive-Behavioral Therapy

CBT has been considered to be an approach with an empirical base and is therefore an empirically supported treatment (Kendall, Suveg, & Kingery, 2006). There have been enough studies using randomized clinical trials to indicate that CBT approaches are probably efficacious. Silverman and Hinshaw (2008), however, did not feel that group-CBT met the criteria they set to be considered a well-established treatment. Still, CBT is the treatment of choice for both anxiety and depression in adolescents and also in children (Compton et al., 2004). Kendall (2000a) and Gresham (2005) report that meta-analyses of CBT studies

are consistent. They show that 65% of individuals improve and 35% do not. The evidence is strong enough to say that cognitive-behavioral interventions are indeed what we should be using in schools.

Different CBT interventions can be classified as targeting behavior, cognitive, or affect management skills primarily, with other areas in a secondary manner. CBT emphasizing behavioral interventions may include activity scheduling, problem solving, and social skills. CBT interventions that are primarily cognitive will emphasize identifying and changing automatic thoughts and beliefs that are thought to be causing problems. Affect management skills may be foremost when providing CBT for children or adolescents with impulsive behaviors. Relaxation skills would be emphasized along with emotion regulation and distraction techniques (Curry & Becker, 2008).

Cognitive training, a component of CBT, is used to correct thinking errors. Thinking errors include misinterpretation of other's intentions or misinterpretations of social interactions. In addition, cognitive training addresses biases which result from overfocusing attention on emotions and an inability to shift attention away from feelings or situations that are upsetting (Kendall et al., 2006). Long-term follow-up studies of adolescents who have participated in CBT determined that the students maintained the original gains, which they had made up to 6 years ago (Barrett, Duffy, Dadds, & Rapee, 2001). Although CBT appears to be a straightforward intervention, that which makes CBT complex is the student's interpersonal relationships. These relationships or systems include both family and schools. It is important to point out that school-based mental health workers have excellent knowledge of both families and schools. They have easy access to both systems and have competence in facilitating a child's interaction with these systems. CBT has been utilized with children and adolescents with a variety of diagnoses. It has been used with children determined to be at-risk for mental health disorders and has also been used as a universal prevention intervention. CBT, therefore, has been used at Tier 1, Tier 2, and Tier 3.

There have been numbers of studies reporting positive results when CBT has been used to treat children with a variety of disorders at Tiers 2 and 3. In particular, there has been considerable work done with children and adolescents with depression and anxiety. The British Medical Journal Group (2009) identified four large systematic reviews of literature and seven additional randomized controlled trials on CBT involving about 1,000 adults. They also identified important studies (three large and three later studies) involving children and adolescents, indicating that the evidence isn't quite as good for children as it is for adults because the children often evidenced more than one anxiety disorder. Cartwright-Hatton, Roberts, Chitsabesan, Fothergill, and Harrington (2004) conducted a systematic review and determined that the remission rate of anxiety for children and adolescents treated with CBT was 56.5% as compared to 34.8% for those participating in control groups. The group concluded that CBT is effective for treating anxiety in children over age six.

CBT for anxiety disorders is considered an efficacious treatment. Studies have been rigorous in using standardized assessment procedures in comparing treatment with control groups, in using meaningful outcome criteria, and in showing long-term gains. For the most part, studies show that many to most children receiving CBT for

anxiety disorders improve, although some continue to demonstrate anxiety symptomatology (Albano & Kendall, 2002). In spite of the fact that there is a high prevalence of emotional disorders among school-aged youth, few children and adolescents have been receiving evidence-based interventions. Anxiety is not typically addressed directly in schools even for students with emotional disorders (Schoenfeld & Janney, 2008). However, schools should be eager to address anxiety given its effect on school performance and academic achievement.

Treating depression in children also includes cognitive-behavioral interventions, although the research is not as strong as the efficacy of CBT for treating anxiety disorders. In addition, interpersonal therapy has also been demonstrated to be efficacious for depression. When researchers compared CBT with systemic behavior family therapy and a wait-list group, adolescents with depression who participated in CBT exhibited fewer symptoms (Brent et al., 1997). Comparing CBT to deal with adolescent depression in 14–18-year olds, with CBT plus parent training or a wait-list condition, one study determined that both CBT groups performed better (Lewinsohn, Clarke, Hops, & Andrews, 1990). In a second study, two thirds of those treated in either CBT condition no longer met the criteria for major depression (Clarke, Rohde, Lewinsohn, Hops, & Seeley, 1999). Only 25% of participants had a relapse 2 years later. More recently, Klein, Jacobs, and Reinecke (2007) reported that adolescents generally report more improvement than their parents report when outcomes of CBT for treating depression are examined. The effect sizes in more recent meta-analyses are smaller than earlier studies, although they are still significant. The more recent studies report a mean effect size of 0.53, which continues to support the effectiveness of cognitive-behavioral interventions to help adolescents who are depressed. Two different CBT interventions have been shown to have positive outcomes (Weersing, Rozenman, & Gonzalez, 2009).

The Treatment for Adolescents with Depression Study (TADS) was designed to begin to answer the question of effectiveness (Treatment for Adolescents with Depression Study (TADS) Team, 2005). The TADS study was a randomized controlled trial designed to determine the effectiveness of medication alone (fluoxetine), CBT alone, medication plus CBT, and a placebo control group. This study had fewer exclusion criteria than the previous studies as would be expected in an effectiveness study. The study was conducted in 13 centers in the United States using multiple therapists. The National Institute of Mental Health funded the study. The 439 adolescents involved were 12–17 years old, experiencing their first major depressive disorder. A small percentage of adolescents had comorbid disorders including generalized anxiety disorder, ADHD, oppositional defiant disorder, social phobia, and dysthymia. The adolescents were 73.8% white, 12.5% African American, and 8.9% Hispanic. The interventions were implemented for 6, 12, or 18 weeks.

The TADS intervention combined skills training from the *Adolescent Coping with Depression* course by Lewinsohn, Clarke, Rhode, Hops, and Seely (1996), with the cognitive structure from the Beck's (1995) model studied by Brent et al. (1997) at Pittsburgh. Fluoxetine with CBT resulted in the greatest improvement (March et al., 2004). The 327 adolescents receiving treatment were evaluated 1 year posttreatment. Longer treatment resulted in persistent benefits. Suicidal thinking

improved in all four groups and CBT appeared protective against acting on those thoughts. Even though the TADS study used the Pittsburgh manual as the source for CBT, the response rate for CBT with no medication support in the TADS study was 23% points lower than outcomes from the Pittsburgh study. To understand this difference, the TADS study had a lower number of required sessions dealing with the core CBT components, so the dosage effect was lower (Weersing et al., 2009). The Lewinsohn et al.'s (1990) *Coping with Depression* course gives participants broad exposure to a standard set of CBT skills. The Pittsburgh program, on the other hand, emphasizes cognitive restructuring and is flexible and nonscripted. CBT has greater effects on symptoms and cognitive processes than other outcomes, yet we still do not know if cognitive change is absolutely necessary for CBT to be successful.

The use of CBT for anger-related difficulties in school-aged children has been studied. Beck and Fernandez (1998) conducted a meta-analysis of 50 studies and found that CBT had an effect size of 0.70 in the treatment of anger. More recently, Sukhodolsky, Kassinove, and Gorman (2004) conducted a meta-analysis of the effects of 21 published and 19 unpublished studies involving CBT for anger in both children and in adolescents. They found a mean effect size of 0.67. The studies involved four types of CBT: skills development, affective education, problem solving, and eclectic interventions (p. 262). The studies using more behavioral skills and eclectic interventions were more effective than behavioral affective education interventions. The affective education studies involved relaxation, positive imagery, and emotional literacy. The problem-solving interventions included thinking about causes, consequences, and solutions when encountering anger-provoking events and situations. The sample of problem-solving interventions was small, but improvement in anger experience was twice as great for problem-solving treatments as compared to affect education. Teaching appropriate behaviors in anger interventions is important. These researchers also looked at specific process variables. They found that feedback, modeling, and homework were each significantly and positively associated with effect size. The more modeling and feedback included in the interventions, the more effective the interventions, although homework was also positively related to outcomes. They also determined that group treatment was as effective as individual work and is less expensive. Interestingly, the overall effect size was lower for younger students than older students. Students in the 15–17-year-old range benefitted more than younger students. Groups with both boys and girls were more effective than groups with boys only. Children and adolescents in the moderate range of severity of anger were more successful than those whose symptoms were mild or severe as long as the students did not have a history of violence.

Researchers reviewing published studies in which CBT was used to treat anxiety in individuals with autism spectrum disorders have found that CBT was indeed effective. Researchers have had success in treating individuals with Asperger syndrome, but noted that systematic prompting and differential reinforcement were also needed (Lang, Regester, Lauderdale, Ashbaugh, & Haring, 2010). Reaven, Hepburn, Nichols, Blakeley-Smith, and Dasari (2005) developed a CBT manual for anxious students with Asperger syndrome. This intervention, developed at the

University of Colorado, included modifications to more traditional CBT to include: helping children recognize their own anxiety symptoms, adding feeling dictionaries, playing emotional charades, using written schedules and drawings, using games, including rewards and consequences, and training parents. Pilot studies showed that participants demonstrated fewer anxiety symptoms after 12 weeks of treatment (Reaven, Dasari, Hepburn, & Nichols, 2004).

Smaller, less comprehensive studies, and literature reviews have been conducted looking at CBT for a variety of other diagnoses. A few examples may give an idea of the range of disorders for which CBT has been effective. Knoop, Stulemeijer, de Jong, Fiselier, and Bleijenberg (2008) evaluated the efficacy of CBT for treating chronic fatigue syndrome in teens, looking at outcomes over time. The mean follow-up time of 2.1 years determined that participants in the CBT group were less fatigued and less functionally impaired. In addition, school attendance was better. Saksa, Cohen, Srihari, and Woods (2009) investigated the effectiveness of CBT for young people experiencing early psychosis in a group treatment format, as compared to individual treatment. They felt that group-CBT was more effective possibly because of opportunities to interact with peers and identify with them. Doobay (2008) reviewed the literature on school refusal associated with separation anxiety disorder and reported that there is clear support for CBT as both effective and efficacious, and there is a lack of support for other treatments. Freeman et al. (2007) reviewed literature in order to look at the effectiveness of CBT with young children (ages 5–8 years) with obsessive–compulsive disorder, given that the effectiveness of CBT with older children and adolescents has been demonstrated. The group determined that CBT seemed to be a promising treatment for this population, but pointed out that many studies of CBT are contaminated because subjects are receiving medication along with CBT.

CBT Interventions in Schools

In spite of a limited volume of research studies utilizing CBT with children, there have been a variety of cognitive-behavioral prevention and intervention programs used in schools. A brief review of a variety of studies of cognitive-behavioral interventions used in schools demonstrates that treatments are effective. CBT interventions are delivered in school at Tiers 1, 2, and 3. They are delivered in offices and in counseling centers. They are delivered by a variety of school-based mental health practitioners including school psychologists, school social workers, school nurses, and school counselors.

Reynolds and Coats (1986) successfully implemented group-CBT with relaxation training at both the middle and high school levels. Significant reductions in depressive symptoms were reported in the treatment vs. wait-list groups. Lamb, Puskar, Sereika, and Corcoran (1998) demonstrated that a school nurse could successfully implement a group format CBT intervention for depression. Shirk, Kaplinski, and Gudmundsen (2009) examined the use of CBT in school-based health clinics and counseling centers. When a Tier 3 CBT intervention was delivered individually to adolescents,

the degree of symptom relief indicated that school-based CBT was successful. Importantly, the Tier 3 interventions were successful for adolescents of different ages, for both boys and girls, and for students of different ethnic backgrounds.

Ghafoori and Tracz (2001) conducted a meta-analysis to determine whether CBT interventions would have a positive effect on negative behavior in schools. The analysis was able to demonstrate that CBT was an effective intervention when used for this purpose. Researchers concluded that the setting itself was not relevant in that school-based interventions were as effective as clinic interventions. Interestingly, students from low socioeconomic backgrounds (SES) improved more than students from higher SES backgrounds. Students who had been diagnosed as having conduct disorders benefitted more than students with comorbid diagnoses. Finally, Caucasian students improved more than students with mixed ethnicity. This difference in effectiveness among students of different SES levels and differing ethnic backgrounds is important to keep in mind. Still, providing interventions in schools has the potential of getting around barriers to treatment and reducing the inequities that exist between the mental health of less and more disadvantaged children (Merry, McDowell, Wild, Bir, & Cunliffe, 2004).

When CBT for students 7–11 years old was compared to CBT with the addition of parent training and a control group receiving no treatment, both CBT interventions were reported to be more effective than the control group, with added benefits when parents were involved (Bernstein, Layne, Egan, & Tennison, 2005). The intervention group in this case was followed for 3, 6, and 12 months postintervention and effects were maintained (Bernstein, Bernat, Victor, & Layne, 2008). Nell and Christensen (2009) investigated 27 outcome studies involving 20 school-based prevention and early interventions programs for reducing anxiety in school, 78% of which used CBT. Researchers determined that most Tier 1, 2, and 3 prevention programs were effective in reducing symptoms. Fifty-nine percent of the programs were targeted toward adolescents. Effect sizes ranged from 0.11 to 1.37. Kavanagh et al. (2009) also concluded that CBT interventions could be delivered effectively in schools. A review of literature indicated effect sizes of 0.15–0.27, which is small but positive. Interventions delivered by school staff work better than interventions delivered by researchers or clinicians from outside the school for students aged 11–19 years.

Efficiency of CBT: Rationale for Group Treatment

Group interventions to meet mental health needs of children and adolescents are both efficient and effective (Stewart & Christner, 2007). Group interventions in schools provide services for students who might not otherwise receive services. CBT interventions teach decision-making, coping, and problem solving that can be programmed to generalize to academic areas. CBT originally designed for individuals is now more and more often provided in groups (Herkov, 2006). Meta-analytic studies have demonstrated that group treatment can be as effective as individual treatment while also being more efficient and servicing a larger number of individuals.

A study of group-CBT treatment for depression indicated that there was no difference in the effectiveness of group vs. individual services (McDermut, Miller, & Brown, 2001). Herkov (2006) suggests that group cohesion may be a precondition for therapeutic outcomes.

Group interventions have certain advantages over individualized treatment in regard to ability to serve more students, as well as providing additional feedback and modeling from peers (Herkov, 2006). A guide published by the Substance Abuse and Mental Health Services Administration (SAMHSA) indicated that group therapy modalities and techniques offer advantages for various mental health issues (<http://download.ncadi.samhsa.gov/prevline/pdfs/bkd507.pdf>). Although the SAMHSA publication was targeted for adults with substance abuse problems, many of the advantages would be present in any counseling group. These advantages include:

- Positive peer support to deal with issues.
- Reduction of feelings of being alone in regard to symptoms.
- Opportunities for sharing.
- Opportunities to see peers deal effectively with symptoms and behaviors.
- Peer modeling.
- Expanded opportunities for learning about possible triggers for symptoms and behaviors.
- Expanded opportunities to gain insight into thinking errors.
- Peer coaching.
- Peer reinforcement for progress.
- Therapeutic structure.
- Peers can be encouraged to provide support outside of the counseling session.

Skills for Academic Social Success (SASS) is a group-CBT intervention for adolescents (Fisher, Masia-Warner, & Klein, 2004). Social anxiety is the target and the intervention involves classroom exposures provided by teachers. Parent training is included. When SASS was compared to a nonspecific treatment, students exhibited reduced symptoms of avoidance and distress. Improvement was sustained for 6 months postintervention (Masia-Warner et al., 2005; Warner, Fisher, Shrout, Rathor, & Klein, 2007).

CBT and Prevention of Emotional Disorders in Schools

Prevention is quickly becoming an important part of the services provided by school psychologists. Prevention work typically takes place at Tier 1 and Tier 2. There have been several attempts to target anxiety in universal prevention programs. Lock and Barrett (2003) conducted a longitudinal study to determine the effects of universal prevention programs for children at grade 6 and also at grade 9. This intervention was aimed to reduce the risk of developing an anxiety disorder, particularly in students whom they had identified as at-risk. Outcomes indicated that

symptoms of anxiety and depression could be reduced immediately posttreatment, while coping skills could be increased. As is the case in many different types of universal programs, younger students benefitted most. Additionally, a follow-up study was completed 12 months later and students in both grades showed equal reductions in anxiety at the 1-year mark. Aune and Stiles (2009) described a universal prevention program, aimed specifically at reducing social anxiety. This program was directed toward students in middle childhood and young adolescents. Social anxiety was reduced in participants at the end of the intervention, and more importantly 1 year later, not as many students in the intervention group developed syndromal social anxiety. This indicates that a prevention effect occurred.

There is a special imperative to design and implement universal and targeted prevention programs for depression given the risk of suicide in depressed students. Universal programs can be expensive, yet in order to provide targeted interventions, students must be screened. Screening carries the risk of stigmatizing students (Andrews, Zabo, & Burns, 2002). Brief to extensive psychoeducation delivered by teachers in classrooms does not seem to have an effect, whereas CBT delivered by psychologists in classrooms has shown benefits. A Tier 2 study targeting high-risk ninth and tenth graders determined fewer students developing an affective disorder, 1-year post-CBT intervention (Clarke et al., 1995). This intervention used the *Coping with Stress Course* and involved high school-aged students who are at-risk, but not currently depressed. Spence, Sheffield, and Donovan (2005) used a different universal prevention program for at-risk adolescents. This intervention, *Problem Solving for Life*, resulted in a significantly larger decrease in symptoms in the treatment group than in the comparison control group, although the results were not maintained when participants were evaluated a year later or in subsequent years (Spence et al., 2005). Spence and Shortt (2007) argue that brief interventions which may improve skills but do not deal with environmental change do not have sufficient support to be implemented universally at this time.

Several meta-analytic reviews of programs emphasizing prevention of depression have been conducted. Horowitz and Garber (2006) reviewed 30 studies and found that Tier 2 prevention programs were more effective than Tier 1 programs in regard to symptoms of depression in youth. Both Tier 2 and 3 programs were more effective than Tier 1 programs when programs were initially completed, and also at 6 months postintervention. This was attributed to the fact that Tier 2 and 3 programs were aimed at students with a more marked degree of symptoms. Most programs showed small to moderate effect sizes. The authors felt that depression prevention is more effective and practical at the Tier 2 and Tier 3 levels, although interventions at Tier 1 may well be valuable if they prevent disorders for even a few students. In addition, effect sizes were higher when students were older and when there were more girls in the groups. Of the 30 studies evaluated, only four demonstrated a prevention effect, others appeared to be better characterized as treatment rather than prevention. These researchers recommended a longer follow-up period because of the dramatic increase in depression around 13–15 years of age. A more recent meta-analysis of depression programs investigated 32 programs and determined that the average effect sizes were small. However, thirteen programs resulted in significant

decreases in symptoms and four appeared to reduce risk for developing depression later on. What appeared to be working best were Tier 2 programs of short duration, with homework assignments, and a higher proportion of older girls.

Several additional issues need to be considered. Can depression prevention work for younger students? Do CBT approaches work better than other approaches? And, can effective protocols be developed for suicide prevention? *The Positive Thinking Program* is a depression prevention program for 8–9-year olds, based on cognitive and behavioral strategies (Rooney et al., 2006). This program resulted in reduced symptoms and improved attributions. Fewer children developed a disorder in the control group 9 months later. A brief intervention was studied using CBT with adolescents at high risk for depression and resulted in reduced risk for onset of depression later on (Stice, Rohde, Seeley, & Gau, 2008). This intervention was compared to two other interventions, a supportive-expressive intervention and bibliotherapy. CBT proved superior. CBT resulted in more rapid reduction in symptoms immediately postintervention. Kavanagh et al. (2009) conducted a meta-analysis of seventeen high-quality research studies. They found the same effects as other meta-analytic studies, i.e., more success for individuals already showing symptoms, or for those at high risk. However, six of the studies showed more success for students from middle to high socioeconomic status. Finally, researchers are exploring CBT for suicide prevention specifically (Stanley et al., 2009). An experimental model combines CBT, dialectical behavioral therapy, and relapse prevention, but the results have not been published at this time.

The Critical Components of CBT

We don't really know with any certainty what makes therapy work for children and adolescents. We have 50 years of research on CBT and yet this question has not been answered satisfactorily (Weersing et al., 2009). There have been efforts, however, to try to identify common elements in CBT treatment. Component analysis studies attempt to specify the active elements of CBT (Longmor & Worrell, 2007). Compton et al. (2004) summarize some general qualities of cognitive-behavioral treatments to include in interventions: choosing treatments based on evidence, a functional analysis of behaviors, psychoeducation, specific interventions depending on the presenting problems, and generalization training. These seem to be common elements to a variety of CBT interventions. It is clear that CBT is not a standard or unitary treatment.

Veltling, Setzer, and Albano (2004) identified six components of CBT for working with children who have anxiety disorders: psychoeducation, somatic management, cognitive restructuring, problem solving, exposure, and relapse prevention. Psychoeducation is important so that children and their parents can understand emotions and their functions, causes, and effects. Somatic management techniques are important including diaphragmatic breathing and other strategies for reducing tension. Cognitive restructuring involving learning to record thoughts, recognizing that particular thoughts aren't helping, and learning to change thoughts is critical.

Problem solving is valuable in order to select appropriate and helpful coping strategies. Exposure in the case of treatment for anxiety is considered necessary in order to gain control. Relapse prevention, which might involve booster sessions, is commonly included in CBT interventions. Victor and Bernstein (2008) reiterate the importance of these six essential modules because students with disabilities often experience poor relationships, they perform less well in school, their self-esteem is depressed, and symptoms do not dissipate without intervention. Gosch, Flannery-Schroeder, Mauro, and Compton (2006) pose yet a different list of essential components of CBT for anxiety disorders in youth in order to provide services that are not only effective, but also are child-focused. These include assessment, psychoeducation, affective education, self-instruction training, cognitive restructuring, problem solving, relaxation training, modeling, contingency management, and exposure. Kendall et al. (2006) listed the following as the foundation for CBT when it is implemented with young people: psychoeducation, homework, emotional learning, exposure, parental involvement, and relationship factors. The components of psychoeducation, homework, emotional learning, and parental involvement are aspects of CBT that school psychologists are most familiar with and with which they have had considerable experience. School-based mental health workers may be less comfortable with exposure exercises.

There have also been a number of studies published demonstrating the efficacy of CBT with adolescents exhibiting depression. Four key elements in CBT for depression involve: presenting a convincing argument to support treatment, skills training addressing thinking and/or behavior, facilitating practice beyond training, and making sure the individual understands that progress depends on using new skills and is in the hands of the participant (Zeiss, Lewinsohn, & Muñoz, 1979 cited in Muñoz, Ippen, Rao, Le, & Dwyer, 2000). The TADS-CBT researchers examined meta-analyses of studies to isolate the essential components of treatment. This work identified eight skills for CBT interventions, delivered in modules. These core concepts included: treatment rationale and goal setting, mood monitoring, goal setting, increasing pleasant activities problem solving, identifying automatic thoughts and cognitive distortions, developing realistic counter-thoughts, and taking stock (Rohde, Feeny, & Robins, 2005). Additionally, five optional skills were described which could be included in treatment depending on the needs of the individual adolescent: social interaction, assertion, communication and compromise, relaxation, and affect regulation. In 2007, *Guidelines for Adolescent Depression in Primary Care (GLAD-PC)* were published (Cheung et al., 2007). The essential elements of CBT as established by this group for depression included: increasing pleasurable activities, reducing negative thoughts, and improving assertiveness and problem solving. The guidelines clearly state that psychotherapy is recommended as the first-line intervention for adolescents with depression. In discussing the guidelines, the authors point out that mental health providers should establish connections with resources in the community in which the adolescent lives because shared care might be necessary. They point out that barriers include a shortage of resources in most communities. They argue for increased training in mental health interventions.

An interesting review of the literature on component analysis was not able to demonstrate the superiority of cognitive as compared to the behavioral component

of CBT (Longmor & Worrell, 2007). These components appear to be fairly equal. It could be that there have not been sufficient studies to sort this out, or that the whole CBT intervention is greater than its parts, or that producing change in either behavior (cognition or physiology) produces change in the other systems. Researchers found that changes in thinking led to changes in behavior, emotions, and bodily sensation. Changes in behavior (behavioral activation) appeared to produce changes in thinking and in physiological systems. It is these findings that have brought challenges from proponents of contemporary therapies (Longmor & Worrell, 2007). CBT has consequently placed more emphasis on attentional control and behavioral change in recent years. Still, it could be that what makes CBT effective is in the interaction of cognitive and behavioral techniques.

CBT is “actually a diverse collection of complex and subtle interventions that must each be mastered and understood...” (Compton et al., 2004, p. 931). There have been more than five hundred protocols developed to treat school-aged children and adolescents. Many of these protocols contain similar strategies. Choosing among them is more than a little challenging. In addition, the term evidence-based can be confusing and require considerable research on the part of practitioners (Chorpita, Becker, & Daleiden, 2007). We can ask ourselves how much evidence is necessary to warrant use of a protocol and what kind of evidence should we be looking for? Additionally, we must deal with the fact that we don’t as yet have evidence-based interventions for all of the disorders that children may exhibit, nor is it at all clear that we need to be trained in a different treatment protocol for each disorder that a student might exhibit. Unfortunately, if we look at the literature, we find that most treatment protocols are described very briefly in journal articles, so it is difficult not only to determine what it may be in the intervention that produces results, but also what was actually done.

Recently, efforts are being made to condense CBT intervention modes to their core components (Weersing, Gonzalez, Campo, & Lucas, 2008). A common protocol consisting of core components would enable clinicians and school-based practitioners to provide interventions for a broader population of students. This might provide a significant benefit for school psychologists and other mental health school-based workers who must often treat students in groups, which are seldom homogeneous. Although CBT protocols tend to be specific for each diagnostic category at present, an intervention approach, which would cover all internalizing disorders or all emotional disorders such as a “transdiagnostic approach,” could be learned more easily and used in a group format (Erickson, Janeck, & Tallman, 2009). If a core transdiagnostic CBT intervention were developed, pairing experienced practitioners with a novice school psychologist, thereby training the less experienced person, could easily disseminate it.

Investigating the Common Practice Elements of CBT

One approach to dealing with the plethora of CBT treatments is to identify common practice elements by examining as many evidence-based treatment manuals as possible that have been designed to serve children with mental health issues. Researchers, who have approached the issue in this way as well as others, have asked the question

“What works for whom under what conditions?” (Chorpita, Daleiden, & Weisz, 2005, p. 7). These researchers considered studying manuals and selecting treatments with adequate support to determine if generic interventions might be identified from the mix. This proved complicated in that in many cases single studies supported treatment, which is not a strong evidence, or replication of interventions for students with particular disorders at specific age levels did not exist.

Instead, Chorpita, Daleiden, and Weisz (2005), decided to look at practice elements, described as single strategies or techniques they found in treatment manuals. Practice elements might be used individually in a single session, used in multiple sessions, sequenced one after the other, or several could be taught at once. An example of a practice element might be teaching adolescents to schedule positive activities, important in the case of depressed teens. Breaking down manual protocols into practice elements is a lower-level, more specific approach, than organizing interventions by manuals. This eliminated the problem that many manuals used similar techniques, but were not equivalent overall. In addition, it was better than trying to organize interventions using theoretical categories such as CBT (Chorpita et al., 2007). Chorpita, Daleiden, and Weisz (2005) demonstrated that after examining 25 anxiety protocols, they could distill as few as six practice elements out of this group.

Chorpita, Daleiden, and Weisz (2005) looked at a number of evidence-based treatments which were supported by research using groups of school-aged children and adolescents who exhibited conduct disorders, oppositional defiant disorders, the several categories of ADHD, the several types and intensities of depressive disorders, and several categories of anxiety disorders, as well as children with elevated symptoms but who did not warrant full diagnoses. These studies used the “gold standard” for research designs (randomized clinical trials) and researchers were able to identify 26 practice elements, which represented the most common elements. Chorpita and Daleiden (2009) recently described some of their work in which they reviewed 615 different treatment protocols which included 322 randomized clinical trials. Their goal was to create a “map” of practices with positive outcomes to assist practitioners in identifying interventions for the students with whom they work. This remarkable study comprised the first broad summary of components of treatments for children that are known to work. As helpful as this analysis may be for practitioners, it does not tell us why a given practice might work, whether or not a given practice is sufficient to make a difference, whether or not a given practice fits the setting (in our case schools), or whether a given practice is the most important aspect of an interventions package.

Still, this work represents a new approach to treatment, which was described as a “modular” approach (Chorpita, Daleiden, & Weisz, 2005; Chorpita, Daleiden, & Weisz, 2005). This approach is prescriptive and is based on general principles that can be manipulated to match the characteristics of the students receiving treatment: characteristics such as students’ age, gender, ethnicity, and presenting problems. This recent trend breaks complex manuals into subcomponents or modules that can function independently.

Each module has been designed to be a meaningful functional unit (Chorpita, Daleiden, & Weisz, 2005). Each unit has a specific purpose. Each unit connects to

each other unit. Each unit does not necessarily have to be implemented sequentially, but if units do connect, there would be a reminder to check to see if work was assigned from a prior module that needed to be reviewed or mastered before starting a new unit. Information in each unit would be self-contained. In addition, modules would have therapeutic activities, exercises, and training instructions. Additional modules would be comprised of flow charts or outline algorithms. These would tell the therapist “whether or not” to use the content modules and “when” to use them. Modules are then put together by the therapist in the form of a protocol that is matched to fit the group that the practitioner intends to work with at a particular time. The completed protocol of modules is like a tool kit that balances practitioner’s needs for a flexible process that is structured and yet can be individualized.

This model is called by researchers a “Distillation and Matching Model” or DMM (Chorpita, Daleiden, & Weisz, 2005). It is designed to classify interventions by their content and match them to student characteristics. This approach is intended to facilitate decision-making and planning. It significantly reduces the need to learn, and master, a large number of different protocols. It is flexible not only in the manner in which it can meet the needs of different groups, but also in the fact that it will be easy to add new data to the model to fill in the holes that exist in regard to less typical student needs and students who exhibit less common disorders. Practitioners in the meantime are able to design a protocol that represents the best fit for a given child or adolescent at that moment in time. Modules help focus and organize interventions, and in some ways simplify them, in that a practitioner does not need to master an inordinate number of protocols.

Other Efforts to Identify Common Components

Most of the research is in agreement that CBT is effective for 60–70% of school-aged students. The remaining children and adolescents are not aided sufficiently and there is room for improvement in our work. Researchers are looking at poor emotion regulation as the likely reason for low effectiveness and are recommending adding psychoeducation, affect education, emotion regulation strategies, and problem solving to CBT programs (Hannesdottir & Ollendick, 2007). Moses and Barlow (2006) argue that emotion regulation is critical to keep individuals focused on tasks at hand and to maintain socially acceptable behavior. Strategies to regulate emotion must be adaptable. Maladaptive regulation is a component of the several different disorders. Emotion dysregulation plays a critical role in the development of emotional disorders such that findings from cognitive neuroscience, and emotion science specifically, indicate that emotion regulation must be incorporated into treatment protocols. In addition, emotion science makes it clear that psychoeducation must be a strong component of treatment. Common appraisal errors made by individuals with emotional disorders include: overestimating the likelihood of something happening that is negative, and exaggerating or overfocusing on negative events that do occur. Emotions are related to action tendencies. Individuals need to understand which emotions trigger which

behaviors and cognitions, and they need to learn new behaviors that are incompatible so that they can stop the reaction. Finally, emotional avoidance and cognitive avoidance are related, and strategies are needed to stop this cycle as well.

Barlow, Allen, and Choate (2004) agree that manuals are so numerous now, and so complex, that they have a tendency to negatively affect practice. It has become exceedingly difficult to train practitioners effectively and to get sufficient materials into the hands of service providers. Barlow et al. (2004) have identified components common to the treatment of emotional disorders generally. These include changing appraisals, blocking avoidance, and introducing strategies opposite to the action tendency associated with a given emotion. This synthesis makes it possible to design a “unified treatment” that differs from person to person only in the cues that trigger emotions and in the exercises that are used in treatment.

Moses and Barlow (2006) indicate that similar psychological vulnerabilities underlie the many emotional disorders. There are striking commonalities in etiology and structure among disorders, high rates of comorbidity, genetic similarity, common biological markers, similar response to antidepressants, and overlapping definitional criteria. There are sequential relationships among the internalizing disorders, in that anxiety precedes depression and may be a risk factor for depression. Having either anxiety or depression puts one at risk for developing a second disorder. Barlow et al. (2004) propose that there may be a negative affect syndrome or general neurotic syndrome. Differences in emotional expression of various disorders are simply varying aspects of the same syndrome (Ehrenreich, Goldstein, Wright, & Barlow, 2009). Such a syndrome would occur in vulnerable individuals who have particular temperaments, genetic vulnerability, and who would have experienced particular risk related to early life experiences. Early learning teaches vulnerable individuals to consider bodily sensations intrusive, and unwanted thoughts or social evaluation quite threatening. A temperamental style that involves a tendency to be careful, hesitant, and quiet in new situations and with new people seems to be common in a variety of anxiety and depressive disorders. The commonality of internalizing disorders has led Barlow and others to propose that negative affect plays the role of a risk factor for emotional disorders. Negative affect appears to drive the entire family of emotional disorders. A similar response to stress in both anxiety and depression is yet another commonality (Rosenbaum & Fredman, 2002). All of these similarities support the idea that a *unified treatment* would be successful.

Unified Protocol: Incorporating Emotion Science into CBT

Incorporating emotion research and science into interventions for mental health problems represents a new direction that is currently being addressed by various researchers (Ehrenreich, Fairholme, Buzzella, Ellard, & Barlow, 2007; Suveg, Kendall, Comer, & Robin, 2006). Early in treatment, it is important to determine how the individual responds to their own and others’ emotional experience and to

what extent the individual can regulate emotions according to context. It is important to determine what the individual thinks about his or her own emotions, i.e., the positive or negative value placed on emotions. How aware and reflective is the individual? While in work with children and adolescents, we want to know:

- How well can the student label and share emotional experiences?
- How well do peers tolerate the student's expressions of emotion?
- Does the student know and use display rules?
- How well does the student use positive emotions?
- How fluidly can the student use emotion regulation strategies?
- How are emotions modeled in the family?

Barlow et al. (2004) have designed an emotion-focused CBT model, which is known as the *Unified Protocol for the Treatment of Emotional Disorders* (UP) (Farchione, Boisseau, Ellard, Fairholme, & Barlow, 2009). In order to help individuals, action tendencies associated with a particular emotion must change. Common cognitive-behavioral principles such as changing antecedent cognitive reappraisals are used to help individuals confront experiences and respond adaptively to emotions. Emotional avoidance including suppression, withdrawal, worrying, checking rituals, and distraction is prevented and actions not associated with the emotion causing the problem are facilitated. Instead of talking about exposure, this group writes about provoking emotions as a condition that is necessary in order to implement treatment strategies. The function of exposure may be to prevent the action tendencies associated with anxiety and, instead, they recommend helping the individual to take different actions associated with different emotions. Strategies that encourage experiencing an emotion, without getting caught in its associated action tendencies, are basic. Cognitive interventions focus on the probability that a negative event will occur, which is known as "probability overestimation," and the consequences that the individual assumes will happen if the event happens to occur (Barlow et al., 2004; Farchione et al., 2009).

The UP intervention has seven modules. The modules can be used flexibly or not depending on needs. Training follows the seven-unit module. Module one deals with the function of emotions. Emotional awareness is addressed in module two. Module three introduces the cognitive triangle of CBT. Cognitive appraisal and reappraisal is the content of the fourth module. Learning to counter emotional avoidance is addressed in the fifth module. Module six focuses on exposure and module seven deals with relapse prevention. The entire protocol is completed in six sessions, although this can be extended (Barlow et al., 2004; Farchione et al., 2009).

Unified Treatment Protocol for Youth

There have been several important developments in regard to integrating CBT with emotion regulation and school-aged children. Ehrenreich et al. (2009) have adapted the *Unified Protocol for the Treatment of Emotional Disorders* for use with

adolescents. Modifications have been made in regard to language and in examples used to teach concepts. In addition, adolescents are taught skills to manage emotional experiences including emotion awareness, cognitive reappraisal, and behavioral activation.

Ehrenreich's protocol is the *UP-Y* (unified protocol for youth) and currently is about sixteen sessions in length (Ehrenreich et al., 2009). There are five required modules and three optional ones. The five required modules are implemented in order and consist of: psychoeducation to address the purpose of a wide range of emotions, emotion awareness, learning flexible cognitive interpretations, emotion exposure, and relapse prevention. The optional sessions address motivation, crisis management, and parent training (Trosper, Buzzella, Bennet, & Ehrenreich, 2009). The goal of this project is to identify and add emotion regulation skills to the existing unified protocol. This will address a variety of emotional disorders at once and will complement work that is ongoing with adults to help adolescents. The impetus for this work is the fact that not all children successfully respond to CBT and the fact that school-aged children with emotional disabilities show impairment beyond their specific diagnosis. This broader treatment is designed to help adolescents regulate emotions that cause them stress. The standard CBT interventions are not addressing emotion regulation.

The key principles of the UP-Y model involve teaching adolescents cognitive appraisal that is adaptive, helping them learn to stop avoiding emotional situations that result in negative emotions which work only in the short run, and learning to decrease behaviors that aren't helping them function well. Avoidant coping does not allow for learning to decrease negative emotions in stressful situations. Social withdrawal blocks opportunities to become involved in positive experiences. Adolescents need to learn to shift attention away from upsetting situations or events and to learn to think about situations in a different, more adaptable, and flexible way by changing the meanings that they use to explain emotionally charged input. Many adolescents with emotional disorders have not developed sufficient emotional knowledge, and they tend to need to lack emotion awareness and have difficulty learning to become more emotionally aware. They need practice in learning to be flexible in their thinking and learning to judge whether their thoughts or appraisals are realistic. Considerable practice is needed to cope with emotional situations without avoiding them and to learn to use a strategy that allows them to manage the upset. Adolescents need a plan to use and maintain coping strategies such as a memory book. Adolescents complete short assessments to monitor stress in the UP-Y model. Research using the UP-Y model is ongoing and may continue to be revised (Trosper et al., 2009). This work has the potential of being especially helpful to school-based mental health workers.

Chapter 8

Preparing Young and/or Disabled Children to Benefit from CBT in School-Based Settings

There has been concern expressed by clinicians and researchers in regard to the ability of young children to benefit from CBT. In addition, there have been several studies indicating that children with limited verbal ability and other handicapping conditions would not benefit from CBT. Surely, young children and handicapped students may be weak in meta-cognition as well as in other precursor skills that may be needed for traditional CBT. It is important to identify the difficulties that young and handicapped children may have when CBT is utilized such as difficulty becoming aware of their own thoughts, difficulty connecting their emotions with their thoughts, difficulty estimating, challenges in attending, immature problem-solving, and difficulty looking at situations and events in more than one way. Techniques and strategies for adapting CBT for use with these populations of students are discussed. Specific ways to make learning concrete enough to be understood by young and handicapped children as well as making concepts interesting enough to be both practiced and generalized are covered.

Concerns Around the Effectiveness of CBT for Young Children

School psychologists and other school-based mental health workers service children from kindergarten age through the teenage years. The age span of students in schools is quite broad. In addition, some school psychologists service children while they are still in preschool and some handicapped students may remain under the public school umbrella into their twenties, continuing to require mental health services. Given the broad age range, the concerns in the literature around the use of CBT for young and handicapped children must be addressed. This is particularly important given Friedberg and Dalenberg's (1991) warning that task demands can exceed the capacities of children. When this is the case, children may present as if they are resistant or avoidant when they are simply misunderstanding directions or the intentions of the therapist. Students may appear incompetent when the issues are developmental, or represent a deficit, or a delay.

Young children clearly have reduced language capabilities as compared to older students and adolescents. Language has an important role in mediating and controlling what a child may do. Young children's cognitive abilities and skills are less well developed than those of older students. These limitations raise some questions in regard to the degree to which children might benefit from CBT (Spence, 1994).

Researchers point out that in the field, cognitive therapy approaches used with adults have simply been applied to children without first developing a theoretical model that fits the developmental level of children. In addition, evaluations of CBT have been criticized because they involve interventions developed for the purpose of research rather than for the purpose of evaluating ongoing programs (Joughin, 2006). Developmental issues, the support and teaching that parents might contribute, the limited attentional capacity of some children, and the cognitive limitations of young children have not been sufficiently addressed in the field. In order to answer the questions around the efficacy of CBT for young children, these issues cannot be overlooked. All of these issues have raised the concern that CBT may well be less useful for young children (Cartwright-Hatton, McNally, & White, 2005; Joughin, 2006; Stallard, 2002a, b).

Researchers and theorists have argued that children between the ages of 5 and 8 years of age fall in the “prelogical” cognitive level according to Piaget’s theory. Given CBT requires rational thinking, the idea is that CBT would not be appropriate for children in this age range (Grave & Blissett, 2004; Kinney, 1991). Postpiagetain theorists have moved away from a stage model. Instead they describe movement within and between stages as gradual and as taking several years. In addition, it is now recognized that there is a difference between reasoning in the abstract and reasoning in familiar situations, where thinking is not as rigid and more than one response to a question or concern is possible. Everyday reasoning is seen earlier than formal and abstract reasoning. Even preschool children can reach a conclusion if they understand the question. On the other hand, preschool children have a hard time ignoring what they believe is true so, when working with preschoolers it is important to rephrase hypothetical questions. For example instead of asking “what if something different happened,” practitioners might ask “what if, next time, something does or does not happen.” Using this approach even 3 year olds can answer hypothetical questions (Grave & Blissett, 2004, pp. 402–403).

CBT is based on the idea that irrational attitudes and beliefs, thoughts and images, and processing directly influence what a child does. The child is taught to identify these irrational cognitions, to test them, and then to replace them with rational thinking. This process requires logical analysis (Grave & Blissett, 2004). CBT also requires that a child is aware of the relationship between thoughts, feelings, and behaviors, which requires higher order cognitive processes. Young children in general may not have this reasoning capacity due to limitations in language, memory, and self-regulatory skills (Gilman & Chard, 2007). However young children can engage in analogical reasoning when they are given more information, when what they are supposed to do is *very* clear, and when they are given concrete mediating constructs to help them think. Carefully controlled exercises, with no conflicting aspects, and containing practical knowledge with which the child is familiar, allows preschool children to think logically (Grave & Blissett, 2004).

There is some data to demonstrate the limiting factor of cognitive ability in regard to the potential benefits of CBT in young children. Doherr, Reynolds, Wetherly, and Evans (2005) asked children aged 5–7 to name emotions, to connect emotions with thoughts and feelings, and to think of why a particular event

generated particular thoughts and feelings as a result. Although most children could handle the tasks to some extent, performance was connected with cognitive ability and how well students were doing in school rather than age. Cognitive ability was a key determinant of how well children handled the tasks.

Durlak, Fuhrman, and Lampman (1991) found evidence to indicate that the cognitive level of children would affect the success of treatment with CBT. They found that the effect size for students aged 11–13 was almost twice that for students' ages 5–11 years. Graham (2004) pointed out that when children are younger than 12 years, and when CBT is compared to other interventions that are active, CBT does not look as effective. In addition, some of the CBT interventions that have been developed for young children are more behavioral than cognitive, they do not contain many cognitive challenges, and they severely limit the cognitive demand. Joughin (2006) also reviewed several metaanalyses of studies of CBT with children and reported that CBT appears to have a larger effect with older students and teens than with younger elementary aged students. Additionally, although some students learned skills and made progress, their problems did not necessarily fully disappear. Students with below average intelligence, those who may exhibit short attention spans, and those with comorbid disorders, present challenges that CBT alone may not answer according to some clinicians.

Specific concerns have been raised around the limited metacognitive capacities (awareness of their own thinking) of children. Metacognition involves several different abilities that appear to be involved in CBT. Students capable of metacognition can offer reasons for their own behavior, beliefs, and feelings, as well as for others' possible beliefs, behaviors, and feelings. They can understand that their personal explanations for their thoughts and behaviors will generate further thoughts, feelings, and behaviors, as well as internal judgments about their own ability to control those feelings, thoughts, and behaviors. Recent study of metacognition indicates that adolescents have greater awareness of their thoughts than children when experimental self-report measures are used. In addition, adolescent girls report greater metacognitive ability than the same age boys (Bacow, Pincus, Ehrenreich, & Brody, 2009). Clearly younger children prefer action to discussion when dealing with negative emotion and engage more easily in therapy that is concrete, active, and outward focused. Not only are active strategies helpful in teaching new skills and strategies but also they tend to make a child aware that they know something new, which facilitates metacognitive processing (Grave & Blissett, 2004). The development of metacognition depends on several things including the degree to which emotional states are talked about at home. This supports the argument for first teaching emotional literacy before beginning CBT.

Cognitive Capacities Needed for Cognitive Behavioral Therapy

Earlier studies arguing that CBT is ineffective for young children cite that the Piaget's stage theory suggests young children might not have the reasoning capacity to benefit from cognitive interventions (Kendall & Braswell, 1993; Ronen, 1992).

There is evidence however to suggest that preschoolers are more logical than Piaget thought. Rose and Blank (1974) felt that the way in which experimenters asked children questions affected their success on Piaget's experimental (conservation) tasks. In the typical Piagetian task, a child is asked if two rows of chips are equal in number. The experimenter moves the objects in one row, and then asks again if rows are equal. The second question may be signaling the young child to change his or her mind indicating that language interfered with the child's ability to respond correctly. Wheldall and Poborca (1980) assumed that language was interfering with performance on Piagetian conservation tasks and found that young children could conserve more easily using a nonverbal paradigm. An innovative experiment involving a puppet that supposedly "messed up the task" allowed researchers to consider context as a variable in children's success on conservation tasks. McGarrigle and Donaldson (1974) told children a "Naughty Teddy" changed the task and under this context children were able to conserve number earlier. Field (1981) utilized identity training to help 3 and 4 year olds learn to conserve. Identity training teaches that an object remains the same after it has been transformed. Five year olds can be trained to conserve, as can individuals with cognitive delay (Litrownik, Franzini, Livingston, & Harvey, 1978; Remmo & Riksen, 1973). Performance on conservation tasks depends on a child's experience, language, and whether or not the task is meaningful and interesting (Eysenck, 2000). Low SES children who accessed early educational opportunities were able to conserve earlier (Campbell & Ramey, 1990). Additionally, temperament, social and family experiences appear to be involved (Bolton, 2005). Recently, early executive functions have been implied in regard to success on conservation tasks. Success seems to relate to children's ability to resist interference rather than to their developing logical thinking. An inhibition process seems to be involved (Houdeé & Guichart, 2001).

McAlister and Ingerski (2006) suggest that in order to benefit from CBT, school-aged children need to have good ability to self reflect, they need the ability to consider the perspectives of others, they need to understand causality to be able to process new information, they need to have reasonable language and memory abilities, and must be able to reason. To this list we might add attentional capacity and metacognition. At the same time, these authors point out that small adjustments to procedures or questioning can make an enormous difference and allow children to be successful earlier than what might otherwise be expected. This is the case in regard to taking social perspectives, developing empathy, and understanding emotions. Grave and Blissett (2004) described the ideal candidates for CBT. The ideal candidates would be those children who exhibit internalizing disorders with few externalizing behaviors. Additionally, they feel that the children would need average intelligence, be at least 8 years old, and be capable of staying on task for the entire therapy session. Motivation is also important, as is a supportive family.

Overall, it is most likely that young children will not easily acquire or demonstrate mastery of the cognitive skills and strategies required in CBT even though they are more capable and more sophisticated than Piaget thought. However, it is also clear that translating and simplifying complex cognitive tasks makes a significant difference. Tasks must be familiar, engaging (play), active, concrete (picture and story-based), contain memory aides, use metaphors, involve real life demonstrations,

and involve changes in the phrasing of questions. Under these conditions, young children can benefit from CBT (Grave & Blissett, 2004). Some of the concepts in CBT may also need to be reconsidered for young children. It may be inappropriate to ask children to think of cognitive distortions for example. Instead, it makes more sense to appreciate that a child may not yet have learned certain cognitive mediating strategies. Older children, on the other hand, can be expected to learn to change mediating strategies, such as changing negative appraisals and negative thinking without extra teaching or without making concepts concrete. We can also keep in mind that we do not yet have strong evidence that cognitive change needs to precede behavioral change.

It is clear that modifications and adaptations will be required when utilizing CBT approaches with young children. At the same time, before addressing the many ways to both assess children's capability to participate in CBT, and/or the need to address possible limitations by making adaptations to treatment, it is important to look at how a handicapping condition might complicate CBT treatment. This is critical when planning cognitive behavioral therapies for children with special needs in schools.

Children with Special Needs

The range and variety of special needs, which mental health workers in schools must address, is wide. Some children may have average intellectual ability and others evidence below average ability. Some children have adequate attentional abilities and others do not. Age may not be the best determinant of needs for planning purposes given the interference of very specific cognitive limitations in areas such as discrete processing, isolated weaknesses in specific memory skills, and limited attention abilities; whereas, a given student may have other abilities that are typical for his or her age. Additionally, issues that may be encountered tend to be addressed by researchers and clinicians according to the specific behaviors or disorders, which a child may exhibit. For example, when planning CBT for children with specific learning disabilities, Manassis (2009) points out that the limitations in verbal working memory might constrain use of some CBT components, and ability to remain focused on step-by step problem solving may prove problematic for some children with specific learning disabilities. Students with nonverbal learning disabilities may have difficulty applying concepts to new situations. Durlak et al. (1991) adds to these concerns when they report that a student's ability to recognize emotions has been significantly associated with a child's receptive language or more specifically with receptive vocabulary ability. A child's ability to discriminate between thought, feelings, and behaviors is connected to vocabulary knowledge and scores on cognitive ability tests. Individuals with specific learning disabilities who are brighter and have better vocabularies are better able to recognize and label emotions and can make the needed discriminations between thoughts, feelings, and behaviors. Importantly, when cognitive ability is controlled, children considered to be at-risk for mental health problems in schools do significantly less well when cognitive

behavioral interventions are applied according to Reynolds, Girling, Coker and Eastwood (2006).

There is research on the use of CBT with handicapped children available to examine the extensive study of CBT with children who exhibit anxiety disorders. Anxiety disorders are actually quite common in children and drive students to avoid or get out of situations that stress them. Those who do not use these tactics to decrease their anxiety and instead try to tolerate it show decreases in concentration which effects school performance. The mean onset for generalized anxiety disorder in children is between 6 and 10 years. The mean onset for separation anxiety disorder is 4–8 years. The onset of social anxiety disorder ranges from almost 11–12.8 years. Certainly posttraumatic stress disorder, panic disorder, obsessive-compulsive disorder, specific phobias, and selective mutism are seen in young children in schools; whereas, social anxiety disorder tends to be first seen around ages 10–12. Controlled trials show treatment gains for some students with anxiety disorders up to 5 years (Silva, Gallagher & Minami, 2006).

CBT has been used extensively for individuals with anxiety disorders. In fact, it has been considered to be the best treatment for anxiety disorders in children and adolescents. A major concern in the field has been that there are too few mental health workers trained to use CBT to treat children and adolescents. The concern has not been that children with anxiety would not benefit from CBT. An important study involving children aged 7–17 years compared four conditions—a placebo medication, with medication only, CBT only, and CBT plus medication (Walkup et al., 2008). The conclusion of the study was that all three active interventions; combination therapy (both CBT and medication), CBT alone, and medication alone were effective short-term interventions for children with three different anxiety disorders (separation anxiety, generalized anxiety disorder and social phobia). The researchers concluded that with the addition of this new data, CBT for anxiety could be considered a *well-established* and *evidence-based* intervention.

Interestingly, more than three-quarters of the children in the study evidenced two or more anxiety disorders and more than half exhibited one or more secondary disorders. Children from various racial and ethnic groups were included in the study although the sample of 488 children was predominately White and middle to upper-middle class, and living with both parents. Of significance is the fact that the children had moderate-to-severe anxiety which was not the case in earlier studies where children had mild to moderate anxiety symptoms, and younger children predominated in the sample. Children with ADHD and autism spectrum disorders (ASDs) were not included. The children in this major study were taught anxiety-management strategies, and exposure was used to decrease symptoms. Combination therapy, using sertraline rather than an SSRI along with CBT worked best. Although school psychologists and other mental health workers have little to no control over medications for anxiety disorders; what is important about this study is the data around using CBT alone. Researchers found that 60% of the children who received 12 weeks of CBT alone were determined to be very much improved or much improved. The group using CBT alone also had fewer dropouts and treatment was tolerated better than in the other approaches. The results of CBT alone was sufficiently strong

to convince parents to approve this intervention when they are not interested in trying medication, or were concerned about the risk of an adverse effect from medication. Given the data generated in this study, CBT may well be considered as the first-line treatment for anxiety in children (Walkup et al., 2008). Again, authors of the study argue in favor of training more specialists to implement CBT.

Additional studies show similar results. Silverman and Hinshaw (2008) compared psychosocial treatments for children using other methodologies and suggest that there is considerable research support for the usefulness of CBT and similar treatments with children. Another study of children aged 8–12 years with anxiety disorders showed that students improved in regard to decreased anxiety and improved functioning (Manassis et al., 2002). Parents were also involved in this study. One aspect of this study that is important to note is that children with social anxiety did better in individual than in group treatment. In the case of posttraumatic stress disorder, Beck and Coffey (2005) point out that cognitive behavioral therapies are the first-line treatment and the group format also has support. A systematic review of interventions including group CBT for children and adolescents provided strong support for CBT's ability to reduce the effects of trauma; whereas studies of play therapy, art therapy, medication, psychodynamic therapy, and debriefing provided insufficient evidence for PTSD. Researchers have found that even preschoolers with posttraumatic stress disorders could cooperate in structured exercises, could master relaxation techniques, and that anxious parents were helpful rather than inhibiting progress (Scheeringa et al., 2007).

There have been some concerns about using CBT for young children with obsessive-compulsive disorder (OCD) (Freeman et al., 2007). As of 2007 there were no studies reported using CBT with children with OCD who were younger than 7 years old. At the same time, OCD-behaviors exhibited at the beginning of school entry may have a very significant effect on academic success and certainly may have an effect on peer relationships so treatment is critical.

Interest in CBT for children with autism has tended to focus on children with ASDs who also have high levels of anxiety. CBT seems to be a viable option in this case (Sze & Wood, 2008; Wood et al., 2009). A recent study, at the University of California, Los Angeles, of children with ASDs and aged 7–11 years showed improvement in symptoms as compared to children waiting for treatment. Seventy-one children aged 10–12 years of age participated in CBT for anxiety. These children were diagnosed with Asperger syndrome, an ASD. Children were placed in one of three groups; either the group was just for children, for children and parents, or involved a wait-list group. Both intervention groups improved. Parents reported decreased anxiety and children improved in ability to think of positive strategies to use in difficult situations. Parental involvement was helpful in this treatment (Sofronoff, Attwood, Hinton, & Levin, 2005). Another group of researchers developed a manual for cognitive behavioral group interventions and worked with 33 high-functioning students with ASDs and their parents in pairs. Parents reported a reduction in anxiety symptoms in their children (Reaven et al., 2009).

Anxiety is not the only issue for children with ASDs, anger can be a problem as well. A study using CBT with children with Asperger syndrome addressed anger

issues. Forty-five children and parents participated in the anger reduction intervention. Parents reported a significant decrease in anger incidents and parents became more confident in their ability to manage their children. Importantly, strategies even generalized to some degree (Sofronoff et al., 2005).

There seem to be fewer studies utilizing CBT with children who exhibit externalizing disorders with the exception of anger management. Anger management based on cognitive-behavioral approaches is thought to give students the opportunity to practice a range of strategies in response to stressful situations. Metaanalyses indicate that this approach leads to a moderate reduction in anger with an average effect size of 0.7 (Sukhodolsky, Kassinove, & Gorman, 2004). An intervention for aggressive boys aged 9–11 resulted in significant improvements in anger control on both teacher and self-reports (Sukhodolsky, Solomon, & Perine, 2000). Another metaanalysis of studies concluded that CBT was an effective form of treatment for students with disruptive behavior in school. Once CBT strategies were learned, they generalized to new settings (Ghafoori & Tracz, 2001). The finding that interventions in schools were equally effective as compared to interventions in other settings is important for school-based workers. But, we must keep in mind that Caucasian students improved more than those students with mixed ethnicity, and children with a single classification of conduct disorder did better than those with multiple disorders.

Researchers have also found that it is not necessary to have adult levels of reasoning in order to benefit from CBT (Taylor, Lindsay, & Willner, 2008). Kendall and Braswell (1993) pointed out that clinicians working with, cognitively borderline children, found that they needed to increase modeling and utilize games or sports that students already knew. With these modifications, the students mastered concepts albeit more slowly than peers. Durlak et al. (1991) recommended adding socialization skills and education in the CBT model for individuals with learning disabilities.

Adaptations to Increase the Effectiveness of CBT with Young Children

There is significant interest in the literature in utilizing cognitive behavioral interventions with young children in spite of the fact that evidence to demonstrate the efficacy of CBT interventions with young children is still somewhat limited (Bailey, 2007). O'Connor and Creswell (2005) point out that there seem to be few guidelines to tell us which modifications need to be made for young children or even which assessments might be available to determine the appropriateness of adaptations and modifications. Drews (2009) argues that rather than assuming that young children will not be appropriate for CBT interventions, it makes much more sense to develop ways to make treatment appropriate for young children. Taking a broad stroke, adaptations include decreasing the cognitive load of cognitive behavioral interventions, decreasing discussion and adding more action, adding reinforcement, adding emotion education, and involving parents.

A basic consideration has to do with structure. Structure in CBT from a clinical point of view might include a check-in at the beginning of the session to determine how a child is feeling, reviewing homework, explaining what will take place during the session, implementing the activity for the session, explaining new homework, and summarizing what has been covered (Friedberg & Gorman, 2007). Structuring the meeting or session is a way to model regulation for children, structure can promote self-regulation and increase a child's sense of safety (Friedberg & McClure, 2002). Sessions need to be carefully structured throughout the intervention. For example in schools children return to their classrooms and need to be calm as they do so. Ending a session with a relaxation activity is not only helpful but may also be strategic in maintaining good teacher relationships. Children can easily lose control when activities are exciting. A structural addition to sessions, particularly when the activity will be very active, is to practice getting back in control. *Click-it* is a good activity for this purpose. Use a "click-it" signal such as clapping, flicking the lights, making a noise of some kind as a signal to become quiet and give full attention. Ask children to talk loudly and then signal for attention. Ask children to wiggle all over and then signal for attention and quiet. Measure the quickness with which children can settle down using a stopwatch and add reinforcements if necessary. Tell children that you will surprise them now and then with a signal to quiet down and attend. Practice this often initially, and then occasionally. Chart improvement. Help children understand the differences in their heads and bodies when they are excited versus calm.

Decreasing the cognitive load is not a simple process although it is necessary when using CBT with preschoolers and young school-aged children. A bottom line is that the cognitive demand of the intervention must not be beyond the student's cognitive ability and adaptations must allow the interventions to be adjusted to the child's developmental level (Graham, 2004; Spence, 1994). Specific additional adaptations to decrease the cognitive demand include: using simple concrete examples with less complex language (Graham, 2004; Manassis, 2009; Prout & Brown, 2007; Ronen, 1992); use of metaphors (Friedberg & Kahn, n.d.; Graham, 2004; Wagner, 2002); using scenarios from students' everyday life, and changing the media (Graham, 2004). Art or play therapy techniques have been suggested (Campbell, 2007; Graham, 2004). Bibliotherapy, puppets, sand-play, and games as well as drawings have been suggested (Campbell, 2007). The pacing of CBT with young children must be slowed (Bailey 2001; Wagner, 2002). It may be important to use more behavioral than cognitive techniques (Bailey 2007). It is important to add much more frequent reviews and practice (Wagner, 2002). Visual aides such as pictures and other memory aides may be helpful although visual aides used alone without simplifying the model have not been helpful. Reducing the language and making concepts more concrete has been helpful (Durlak et al., 1991; Wagner, 2002). Quakley, Reynolds, and Coker (2003) involved 96 children aged 4–7 years in CBT and added simple cues to discrimination tasks to assist children in distinguishing between a thought, a feeling, and action. The older children in the sample performed better but so did the younger children who were given concrete cues. These cues improved young students' abilities to make the distinctions.

Involving parents in treatment is usually helpful. Spence, Donovan, and Brechman-Tousaint (2000) compared CBT with, and without, parent involvement in 50 cases of children ages 7–14 years of age. Both models showed large decreases in social and general anxiety and improvements in social skills as reported by parents. Improvements were retained after 12 months. A pilot study of a CBT-based parenting intervention for children younger than 9 years of age resulted in notable decreases in internalizing symptoms (Cartwright-Hatton et al., 2005). This intervention emphasized coping with symptoms and specific skills for managing anxiety. On the other hand, Victor and Bernstein (2008) indicate that research is not clear on the need for adding a parent component to CBT. They report that the results are mixed. Some studies show no added benefits when parents are involved, and others show positive results. However, when a number of studies are reviewed, parent training may indeed have positive effects. There is evidence to suggest that parents of anxious children tend to be more intrusive and are less inclined to encourage child autonomy. These parents may have to change parenting practices to maintain treatment effects. Clearly some work with parents may be important before involving them in their child's treatment. Parents may need help with their own anxiety and stress, and with the impact of having a child with high anxiety on the whole family (Victor & Bernstein, 2008).

If involving parents is helpful, what specifically do we need to teach or ask of parents? Some clinicians suggest that at a minimum, parents must be willing to practice the skills and strategies taught in treatment with their child. This needs to take place when the child and parent are not upset, anxious, or angry. The parent role is to supervise practice, encourage the child, monitor and reinforce effort and progress (VanScoyoc & Christophersen, 2005). Parents need to learn to offer choices when children cannot make up their minds. Rather than overprotecting anxious children, parents need to allow their child to make errors. Parents need to validate their child's emotional expressions. Parents may also be helpful in determining how motivated a child may be to engage in treatment (Friedberg & Gorman, 2007). Parents need to learn to be coaches when children are faced with situations and events that make them anxious (Stein, 2008). Finally, parent commitment is necessary to encourage and supervise practice or homework associated with CBT interventions (Prout, & Brown, 2007; Silva et al., 2006).

A key recommendation in the literature has to do with making CBT interventions *active* (Bailey, 2007; Prout & Brown, 2007; Wagner, 2002). Friedberg and McClure (2002) remind us that children learn by doing, and this is the rationale for connecting skills and strategies to concrete actions. Interactive games can provide practice for making connections between emotions and behavior. Izard (2002) believes that activities that children enjoy enhance learning. Activities can add an element of fun to sessions and this may improve the motivation needed to master content of sessions. Activities must also be relevant to students. Activities and play can serve as a medium of communication with young children, although if we use the activities to teach skills or concepts rather than to practice skills we would not want to use games that would require too much concentration (Freeman, Pretzer, Fleming, & Simon, 2004). We also need to be careful about using activities that

might increase anxiety or illicit anger too fast or too early in treatment. Decreasing discussion and adding more action-oriented activities is appropriate not only for young children but also for many children with special needs who may have less advanced language, lower attentional capacities, and lower controls (Joughin, 2006). Incorporating play into CBT models will help make the interventions more developmentally meaningful and appropriate (Knell, 2009).

Before beginning CBT with young children and for children with special needs, time spent on emotion or affect education may be very important (Grave & Blissett, 2004). Young and handicapped children need to learn to distinguish between various emotions, learn about emotion intensity, and learn to link emotions with events and thoughts according to Bailey (2007). Manassis (2009) recommends teaching feelings recognition before teaching coping strategies and Knell (2009) indicates that it may be necessary to improve a young child's emotion vocabulary.

There have been other recommendations that have been offered by various researchers and clinicians that can be considered when planning CBT interventions for young children. Manassis (2009) suggests breaking CBT into *modules* when including children with learning disabilities. Modularity has to do with simplifying complex activities into self-contained sections that connect with other components but can also stand-alone (Chorpita, Daleiden & Weisz, 2005b). Modular CBT matches scripted techniques to the needs of the individual child and ensures that CBT interventions are cost-effective, time-limited, flexible, individualized, and can possibly match the characteristics of various school settings as well (Chorpita, Taylor, Francis, Miffitt, & Austin, 2004; Manassis, 2009; Van Brunt, 2000). Stein (2008) suggested various components of CBT which could be constructed as modules: psychoeducation, affective education, relation training, cognitive restructuring, thought stopping, learning the concept of a (fear) hierarchy, gradual exposure, improving social skills, and problem solving.

It may also be important when planning groups to limit the number of children in the group with disruptive behaviors given the likelihood that groups in schools may have to be formed with children who are less homogeneous than ideal. Interventions that increase anxiety will need to be toned down (Freeman et al., 2004). Using more behavioral interventions with planned reinforcement may be helpful (Bailey, 2007; Stein, 2008; Wagner, 2002). Positive reinforcement that is contingent on improved behaviors or mastery of skills and strategies can help increase motivation (Connolly et al., 2007; Stein, 2008).

Wagner (2002) when writing about work in clinics suggests that it is important for the therapist to be available between sessions. School-based practitioners certainly have an advantage in this regard given their availability on a daily basis. Adding social skills training and/or interpersonal problem-solving may be important for children with deficits in these areas such as children with conduct disorders, children with ADHD, children with empathy disorders, and those with depression or anxiety when peer relationships are compromised (Bailey, 2007). Sze and Wood (2008) who have developed a manual based CBT treatment for children with ASDs, recommend that efforts be made with this population to modify the core features of autism beyond issues of anxiety, before beginning CBT interventions.

Cognitive play therapy is a new addition to the literature as there are several books integrating play therapy and CBT. Campbell (2007) suggests that in spite of several metaanalytic studies demonstrating positive effects of play therapy compared to no treatment (LeBlanc & Ritchie, 1999; Ray, Bratton, Rhine, & Jones, 2001), the evidence is not sufficient to incorporate CBT into play therapy. Rather, bringing play therapy techniques into evidence-based CBT would make more sense at this time. Suggested adaptations for young and/or handicapped children are summarized in Table 8.1.

Table 8.1 Summary of possible adaptations of CBT for young or handicapped children

Decreasing the cognitive load of cognitive behavioral interventions
Simple concrete examples with less complex language
Use of metaphor from students' everyday life
Changing the media-art or play
Pacing must be slowed
Add much more frequent reviews and practice
Add visual aides such as pictures and other memory
Increase modeling
Decreasing discussion and adding more actions
Utilize games or sports that students already knew to teach self instruction.
Activities to add fun & improve the motivation
Medium of communication
Action-oriented activities is appropriate not only for young children but also for many children with special needs
Adding emotion education
Learn about emotion intensity
Learn to link emotions with events and thoughts
Teaching–feeling recognition
Improve a young child's emotion vocabulary
Learn to distinguish emotions
Adding reinforcement and other changes
Breaking cognitive behavior therapy into modules
Limit the number of children in the group with disruptive behaviors
More behavioral interventions with planned reinforcement
Positive reinforcement that is contingent on improved behaviors or mastery of skills and strategies
Therapist to be available between sessions
Social skills training and/or interpersonal problem-solving
Modify the core features of autism beyond issues of anxiety
Involving parents
Parents must be willing to practice the skills and strategies when the child and parent are not upset, anxious, or angry
Supervise practice
Encourage the child
Monitor and reinforce effort and progress
Help with their own anxiety and stress
Help with impact of having a child with high anxiety on the whole family
Offer choices when children cannot make up their minds
Allow their child to make errors
Validate the child's emotional expression
Helpful in determining how motivated a child may be to engage in treatment
Learn to be coaches when children are faced with situations and events that make them anxious
Supervise homework and monitor progress

CBT Studies Involving Preschoolers and Early Elementary Level Students

Hirshfeld-Becker and Biederman (2002) argue for preventive interventions for preschool-age children, particularly for those with anxiety disorders. They describe anxiety disorders as among the most prevalent issues for preschoolers. There have been a few studies published implementing CBT for preschoolers and for children aged 4–7 years of age. McNamara (2006) designed a cognitive-behavioral intervention for anxious children aged 4–7 and concluded that CBT is indeed suitable for this age group. Young children were compliant with homework and were able to talk about their thoughts. Another study provided evidence of successful CBT with two preschool children who exhibited PTSD (Scheeringa et al., 2007).

Perhaps the most interest has been around preschool children who have been abused physically or sexually. There have been a number of studies to address these issues and several cognitive behavioral interventions designed specifically to address these concerns. Trauma-focused cognitive behavioral therapy (TF-CBT) has been developed to help children who have developed PTSD symptoms after sexual abuse. This is an evidence-based intervention considered a “best practice” for this population of children, as is abuse-focused CBT (Wiggins, Fenichel, & Mann, 2007). There are strong efforts to disseminate information about these interventions among mental health service providers (Cohen & Mannarino, 2008). The components of TF-CBT include psychoeducation, modulation skills, stress-management, the cognitive triad, gradual exposure, cognitive processing, safety skills and education, as well as parent components (Cohen, Deblinger, & Mannarino, 2004a)

What Changes When Children Are Successfully Helped with CBT?

It is clear that CBT is an evidence-based intervention that works, but before addressing the details of CBT with young children it may be important to ask the question “What changes when children are treated with CBT?” If we had answers to this question we could determine which aspects of CBT are most critical and which aspects we may not have to be so concerned about. Silva et al. (2006) along with others lament that we do not yet understand which aspects of CBT are most responsible for the changes that occur as a result of CBT in all ages of children and adolescents.

Although there is little available information to explain why CBT might work, there have been speculations in regard to what is most important. Researchers have wondered if a “process” variable might be associated with improvements in anxiety symptoms when children were treated using CBT. The process variables that were most likely to be important were negative thoughts that occur automatically when a child feels threatened, and whether or not a child feels that he or she can control

the resultant anxiety. Nine- to twelve-year-old high anxious children were treated in a group using the *Coping Koala CBT program*. The children demonstrated significantly decreased symptoms and in particular, showed decreased negative automatic thoughts along with increased feelings of control over their anxiety. Each of the variables acted independently. Negative automatic thinking seemed to play a more important role in the case of separation anxiety; whereas, low control over symptoms appears to be more important in social phobia. Both variables appear to be involved in the case of generalized anxiety disorder. This study determined that changes in the two variables accounted for 30% of the variance in regard to results of CBT, although other factors are operating as well (Muris, Mayer, Adel, Roos, & Wamelen, 2009). For example, Bailey (2007) reported that in the case of obsessive-compulsive disorder the issue does not seem to be automatic thoughts but rather the student's interpretation of, or appraisal of, the thought. Bailey calls this "metacognitive appraisal."

Students need to learn to ignore interfering thoughts. Bolton (2005) supports this concept in that appraisals or the meaning assigned to what is experienced is related to the regulation of emotions and behavior. In CBT, the effort is to identify the content of negative thought, the triggers, the underlying beliefs, and resultant behaviors. Change occurs by generating "alternative" appraisals, looking at what evidence may support appraisals and then testing to determine if appraisals are correct or incorrect. Since children from 6 or 7 years of age can understand that thoughts can be labeled and emotions can be controlled, the question is not so much whether or not a child has metacognitive capacity but rather whether metacognition is involved in the problem that the child is trying to deal with at the time. According to Bolton, the bottom line is finding out what appraisals are driving emotion and behavior and there are a variety of ways to do this. For example, asking parents what their child has said about certain events or situations may help. Using multiple-choice formats to help the child remember and identify appraisals may help, as may role-play, or storytelling (Bolton, 2005).

Assessment of Children's Readiness to Engage in CBT

When planning to work with young or special needs children with various strengths and limitations, it is important to determine each child's readiness to engage in CBT. It may well be necessary to first teach a child specific concepts and skills. Children differ in language development, memory skills, and self-regulatory skills even when they are in the same age group (Prout & Brown, 2007). Assessment is necessary in order to determine which prerequisite skills are needed and which aspects of the interventions will need to be adapted. For Tier 3 interventions, we might evaluate a student's language and communication skills, a student's vocabulary (especially emotions vocabulary), a student's ability to identify emotions, and the student's ability to understand the basic CBT concepts. In the case of students with cognitive delay, researchers have found that success was higher for students who were taught to link situations to

emotions and importantly, that this was more critical than linking situations to thoughts. Kinney (1991) adds that social perspective-taking abilities should be carefully considered. Still others suggest that assessment of the mother's level of anxiety should be assessed when dealing with anxiety disorders because children whose mothers also evidenced an anxiety disorder do not respond well to treatment, particularly if the mother has social phobia (Cooper, Gallop, Willetts, & Creswell, 2008).

Reynolds et al. (2006) points out the complexity of a basic CBT concept that describes the interconnectiveness between thoughts, feelings, and behaviors. These authors recommend assessing students' metacognitive development and if children have difficulty, they will need training to improve skills. Savage (1994) suggested several ways to gain insight into children's metacognition. These included asking probing questions, eliminating time limits for tasks, providing additional cues, or changing the modality involved in the tasks. Children who had previously participated in an integrated thinking skills program were better able to manage basic CBT concepts (Doherr et al., 2005). Still, training in metacognitive skills may be needed. Children receiving training in thinking skills may do better when CBT is the primary intervention.

There are two aspects of metacognition that are relevant to the concerns about the ability of young children to benefit from CBT, metacognitive knowledge and metacognitive control (Pintrich, 2002). Metacognitive knowledge has to do with a child's awareness of his or her own thinking. It also involves knowledge of strategies to master various tasks, knowledge of when strategies might be important and should be used (contextual and conditional knowledge), knowledge of which strategies are more useful or effective, as well as knowing that one either has the ability to use the strategy or one does not. Clearly these aspects of metacognitive knowledge are relevant to ability to use cognitive behavioral interventions. Keep in mind that metacognitive knowledge does not involve actual use of techniques and strategies to effect change in behavior or emotions. Metacognitive control has to do with self-regulation which is needed to control thinking and behavior.

Self-reports have been used to try to measure children's metacognition. Sperling, Howard, Miller, and Murphy (2002) developed a self-reporting tool to assess metacognition in students in grades 3–9. The tool, the Jr. MAI, correlated with some existing metacognitive problem-solving inventories, and with some other self-report tools, but correlations between the Jr. MAI and teacher reports were low. Bacow et al. (2009) developed two self-report measures of metacognition for children and adolescents, ages 7–17 years. The questionnaire for children involves several different processes; beliefs about worry that are positive, and beliefs about worry that are negative. In addition, the tool covers superstition, punishment, responsibility thoughts/ideas, and a child's ability to monitor his or her own thoughts. In experimental trials, the authors determined that self-reports of negative metaworry were significantly tied to a child's reports of excessive worry and depression. Older students were more aware of their thoughts than younger students. Teenage girls scored higher than boys on the adolescent scale.

There is most likely a difference between what children report and what they actually do which supports the concept of using an observational tool rather than

a self-report tool. There is evidence that there is indeed a significant difference between self-report and procedural behavior. Shamir, Mevarech, and Gida (2009) asked children individually to remember a series of nine pictures, to tell how they tried to remember the pictures, and finally to help another child in remembering the pictures. Procedural behaviors best predicted cognitive performance. Other attempts to assess children's metacognition have been attempted. In the United Kingdom, researchers have worked with observational approaches to assess metacognition in children ages 3–5 years (Whitebread et al., 2009). These researchers developed a tool consisting of videotaped contexts and a coding system, which they intend the teachers to use to identify metacognition and self-regulation in young children.

Bailey (2007) suggested a different assessment approach. This approach involves a functional cognitive assessment. This type of assessment would identify antecedents (triggers), consequences of behavior (action), identification of bodily sensations (signs of arousal), feelings (emotional responses), and, thoughts that relate to the situation (context). Students can participate in the gathering of information by rating the intensity of emotions they experience. This data would be used later to teach regulation strategies such as relaxation, generating positive imagery, collecting evidence to judge the accuracy of negative thoughts, and positive self-talk. Additional data that may be collected could include identifying situations that trigger negative emotions, determining the frequency and success with which a student copes with negative emotions, and the specific skills or strategies a student has learned and can use. With younger students, parent may need to be involved in assessment, collecting data for school psychologists.

Reynolds et al. (2006) designed a research protocol that would serve nicely as a way to determine if children needed additional metacognitive training. They created seven short stories along with seven sets of cards to fit each story that represented different types of sentences. Each story had a “thinking” sentence, a “feeling” sentence and a “doing” sentence. Additionally, they took three boxes and labeled them. One box was labeled “thinking sentences.” This box had a picture of a girl and a boy with thinking bubbles. Thinking bubbles are similar to the speech bubbles used by comic strip artists although they are typically drawn as an oval or cloud with an increasingly smaller chain of smaller circles leading to the character. The second box had pictures of a girl and a boy involved in an activity and this box was marked “doing sentences.” The third box was marked “feeling sentences” and had pictures of a girl and a boy with facial expressions that depicted either a happy or sad expression (Reynolds et al., 2006, p. 601). Researchers used a puppet to explain that either the boy or the girl was having great difficulty remembering what he/she had been doing, thinking, and feeling. The child is given the sentences (or they are read to the child). The child was asked to place each sentence in turn in its respective box. This was done for each story. Even the at-risk 6 and 7 year olds in the study could make these distinctions. The researchers indicated that mental health issues were less relevant than basic cognitive ability in demonstrating metacognitive skills. The at-risk children for this study were recruited from schools versus clinics, which is encouraging for school-based practitioners. Although this

is a research study, the approach used is practical and can easily be adapted to screen children to determine the ease with which students can make these discriminations, basic to CBT. Children who have difficulty will need more training before implementing CBT.

Preparing Young Children for CBT

When anticipating implementing CBT interventions for preschool or for young elementary school children, it is important to make sure that at least some work has been accomplished in regard to affect education. Schools with strong Tier 1 interventions will have programs in place so students will have had exposure to basic “emotions” education and will have developed a degree of emotional literacy. Additionally, students will have been exposed to and will have developed appropriate emotional vocabulary. Students in schools with strong Tier 2 interventions will also have been provided with some initial emotion regulation training. If schools are not providing these interventions, it will be important when working with either young or handicapped children to spend a number of initial sessions on emotional literacy, developing emotion vocabulary, and teaching some basic emotion regulation strategies before introducing CBT concepts.

If Tier 1 and 2 interventions are in place and children have not gained sufficiently from the Tier 1 and 2 interventions, again, additional practice will be needed. Ability to identify emotions needs to be either retaught or practiced. Pictures from books and magazines can be used to practice identifying emotions in others. Begin with simple expressions and proceed to more subtle expressions and more complex emotions. Once children have had some practice identifying emotions from pictures, it is important to practice expressing different emotions. Model a basic emotional expression and ask children to imitate it. Again, after practice, place children in pairs. Ask one pair to work at a time while others watch. In an activity called *My Face-Your Face*, one child in the pair will demonstrate an expression and the other child will guess which emotion has been portrayed. Then the task reverses and the child who was guessing will be the actor. When children improve in their ability to guess, ask several pairs of children to work at once to provide more practice. Tasks involving identifying emotions and expressing emotions require practice over a number of sessions.

An expanded “emotion” vocabulary is critical for learning about hierarchies later on. It is important for young children to learn about five words to fit each of the basic emotions. Initially intensity is not involved, the goal is simply to increase the number of words children have and can use to express a few basic emotions. However, it is important to begin to use the emotion words frequently in situations so that children will appreciate the different intensities that the words communicate. Table 8.2 contains a sample of emotion vocabulary.

Using a game called *How Do You Feel Now*, practice using the words by describing common situations and asking children how they might feel. Then ask students to use a “different word” to tell how they might feel. Common situations in which young

Table 8.2 Emotion vocabulary words

Students need more than a few words to express emotions. Help students practice using a greater variety of words to express emotions. This work is especially important for English language learners.

Distressed	Inadequate	Satisfied	Grouchy
Dejected	Remorseful	Passionate	Insecure
Panicky	Unsure	Appreciative	Weary
Devastated	Tense	Peaceful	Hassled
Enraged	Worried	Joyful	Pessimistic
Furious	Dismayed	Awkward	Content
Humiliated	Agitated	Enthused	Curious
Discouraged	Irked	Excited	Furious
Miserable	Embarrassed	Energetic	Exhausted
Threatened	Reluctant	Optimistic	Criticized

children experience a basic emotion might include: someone takes your toy, you can't find your coat and your mother is calling you to come outside, you are going to the park this afternoon and there are dogs you don't like in the park, someone calls you a name that upsets you, you can't get your shoes tied and a kid laughs at you, you lose your turn in a game, you get a nice surprise, you get bumped and drop everything you are carrying, etc. After working to develop some competency in regard to emotion awareness, knowledge, and regulation, it is important to determine whether or not each student has developed sufficient metacognitive skills to be able to distinguish between thoughts, feelings, and behaviors. Use Reynolds et al. (2006) three boxes to determine whether or not children are able to easily able to sort statements describing actions (events/situations/triggers), feelings, and thoughts. If this is easy for the group, children can proceed to work with the CBT interventions. If not, more preliminary work needs to be accomplished. For students who have difficulty identifying emotions, it is important to help children practice identifying feelings. Children can make drawings of children expressing emotions as in Fig. 8.1.

Using scenarios or descriptions of situations, which might generate an emotion, helps young children make the connection between events or situations and emotions. *Spilt Milk* is a metaphor for events and situations that can be upsetting. Explain that when we spill milk, it can damage a tablecloth. This might upset parents. When we spill milk we feel bad because we know we should have been more careful. When we spill milk in class it makes a mess, the teacher may get upset, and the custodian might have to come to help clean it up. Sometimes when we spill milk we get it on our clothes and this makes them smell bad. Spilling milk gets others upset and makes us upset as well. So, spilled milk refers to anything happening to make us feel sad, or angry, or upset, or even worried that someone will be angry with us. Spilt milk is a "metaphor" for a problem. Ask children to share some events or situations that upset them. Using drawings or sketches of a glass tipped over with milk spilling, draw a second picture of an upsetting event or write a word or short sentence to tell what happened beside the spilt milk. After practicing this in the group session, a worksheet consisting of glasses with spilled milk can be sent home for homework. Explain that students are to write or draw an event that has caused an upset before

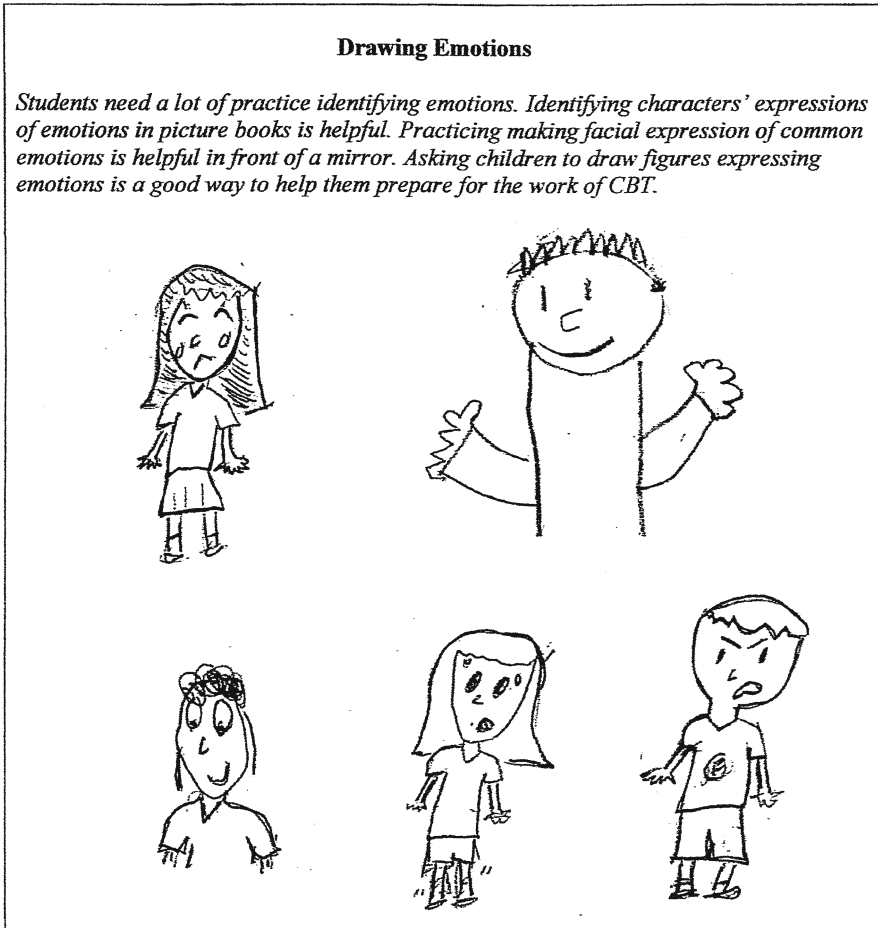


Fig. 8.1 Drawing emotions

the next meeting. This introduces the concept of “homework” as well as gathers child-specific data about events and situations that upsets a given child in the group. The task has been already done in the group session, so the homework is not difficult. It will be helpful to offer a reward for bringing the list back. It may be necessary to send a reminder to parents and to classroom teachers as well the day before the next session when homework is to be returned. Figure 8.2 shows the worksheet.

Using the class work and homework with upsetting events or situations already drawn, add another column for “feelings.” Ask students how would someone feel who had experienced each event. Insert a word, a drawing of a face expressing the emotion or an emoticon next to the drawings. Additional practice can be incorporated into sessions using stories in books asking students to explain how the characters might feel given the events, or students can act out some of the events using role-play and display the feelings that the situations might generate. Be sure to accept any feelings that children suggest or act out, even if the feelings do not seem to fit the situations.

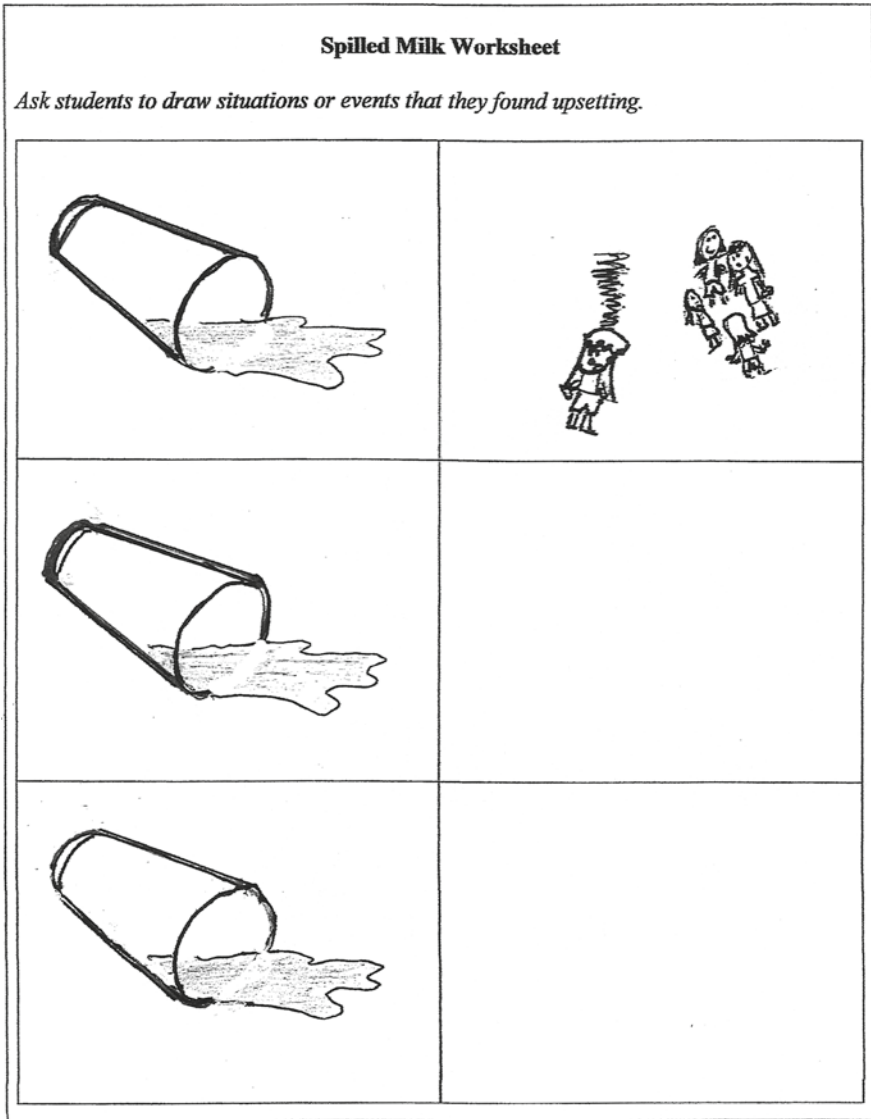


Fig. 8.2 Spilled milk worksheet

The most difficult part of the cognitive triad to teach concretely to young children is the fact that thinking is connected to events and feelings. The symbol of thinking is the thought bubble. Collect cartoons in which the thought bubble is used or find them in books with collections of cartoons. Explain to children that the thought bubble is the way that cartoonists show a person thinking. Generating thoughts to place in the bubbles can be difficult. Using the cartoons that have been collected, cut out the words so the thought bubbles are empty. At first, use only one square

with a picture of an incident and a child with a thought bubble that needs to be filled with what the child may be thinking. Practice filling thought bubbles in group sessions by writing the thought in the empty thought bubble and do the same thing with upsetting incidents that children have drawn and brought to the session. Figure 8.3 is a practice worksheet.

Becoming aware of one's own thoughts can be challenging. Some students may need to spend more time guessing another child's thoughts before trying to identify

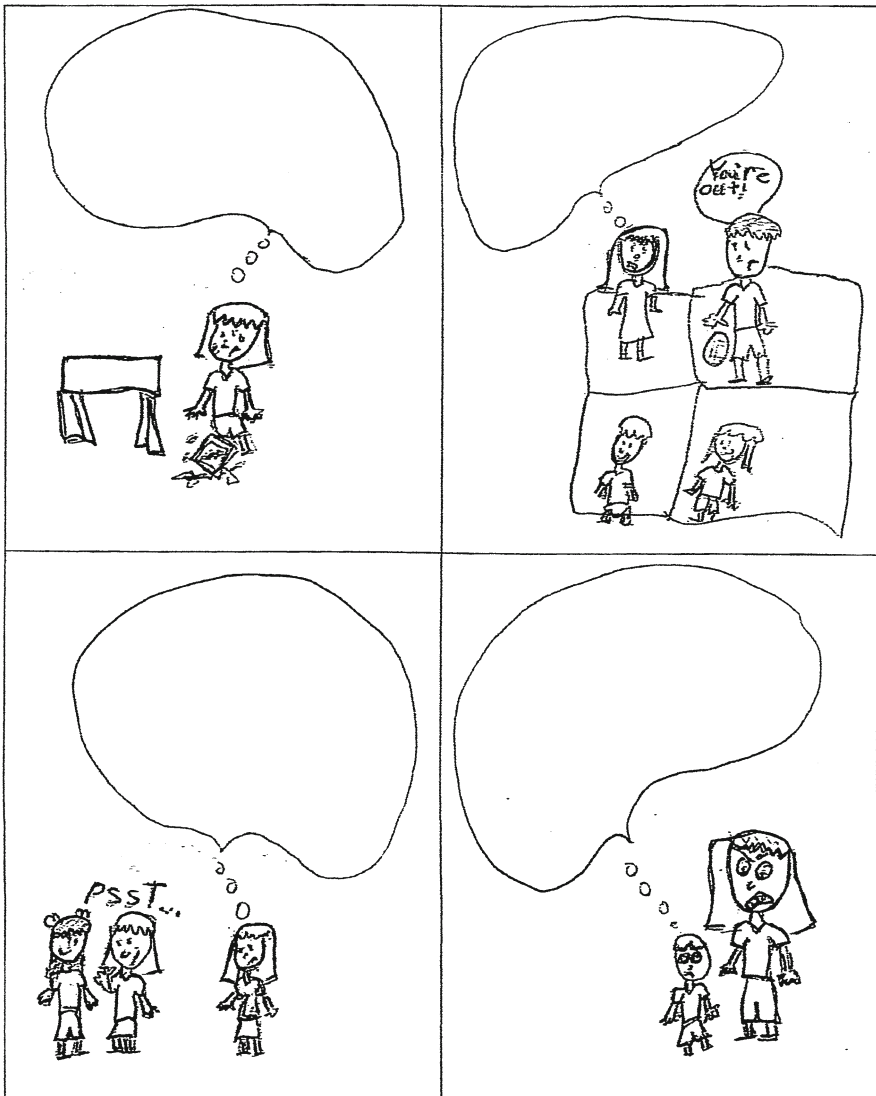


Fig. 8.3 What are these children thinking?

their own thoughts. Once children can identify others' thoughts, use situations that the students share to generate their own thoughts. Some researchers suggest that thought distortions could be simplified by talking with young children about "thinking about bad things" or "telling the future" (Sofronoff et al., 2005). Rather than labeling thoughts "bad," it might be more productive to talk about *Thoughts that Don't Help Us*. This activity could lead to a discussion about more complex emotions such as jealousy, envy, embarrassment, or shame which children become better able to talk about around age 6 or 7 years. Since it may be very difficult for children to suggest situations that might fit these emotions, practitioners can use stories in which the main character experiences these complex emotions. After reading stories involving more complex emotions, young children may be able to act out the story as the group leader tells it. Each emotion needs to be connected with a thought that fits the emotion. It may be important to talk in depth about emotions that don't help us as in jealousy that could lead to saying something mean or doing something that would get us in trouble or cost us a friendship.

To help the most concrete children understand "thought," a cue card might be necessary. Children can make their own *Thought Cue Cards* by drawing themselves with a thought bubble. For the most concrete children, take a digital picture of the child pretending to be thinking. Create cue cards with the picture of the child and the thought bubble. Again using the events and situations that children have shared, or that have been collected through homework, or using situations that are common for children of the same age practice generating what children might be thinking if the events or situations occurred. Make cards with a picture of spilled milk. Make cards with emoticon faces. Connect the spilled milk cards, with the feelings charts, and the thoughts charts. After a good deal of practice in group sessions, send home the cards asking parents to help children practice with them.

Introduce students to connecting an event with a thought and a feeling. They will need a lot of practice to be able to put all three together. This is an introduction to the task. Figure 8.4 *Putting Situations, Thoughts and Emotions Together* is an introductory tool to use to introduce this concept.

The concept of "hierarchy" is abstract and must be introduced in a very concrete manner. There are a few basic understandings that are necessary and it is important to begin to teach the concepts at a very basic level with only a few degrees of intensity. Young children can learn the difference between "some," "more," and "most." The *Some-More-Most* activity involves words that can be connected to four basic emotions: happy, angry, sad, and fearful. For example, model "some" feelings of anger, then "more" feelings of anger, and finally "most" feeling of anger. Ask children to imitate your expressions (young children can use hand-held mirrors to see their own facial expressions). In like manner, using both the face and the full body, model "some" feelings of sadness, "more" feelings of sadness and "most" feelings of sadness. Ask children to imitate the expressions of sadness. Practice these three degrees of expression for happy, angry, sad, and fearful. When these are mastered, model more complex emotions. Because it involves play-acting, young children may enjoy exaggerating the expressions as intensity escalates.

The Elevator's Going Up is an activity designed to teach "hierarchy." Present a chart in a vertical position that can be made into a thermometer. A Velcro strip down

Talk with students about connecting events to thoughts and feelings. First work with almost completed sequences and then practice with sequences that require both thoughts and feelings.

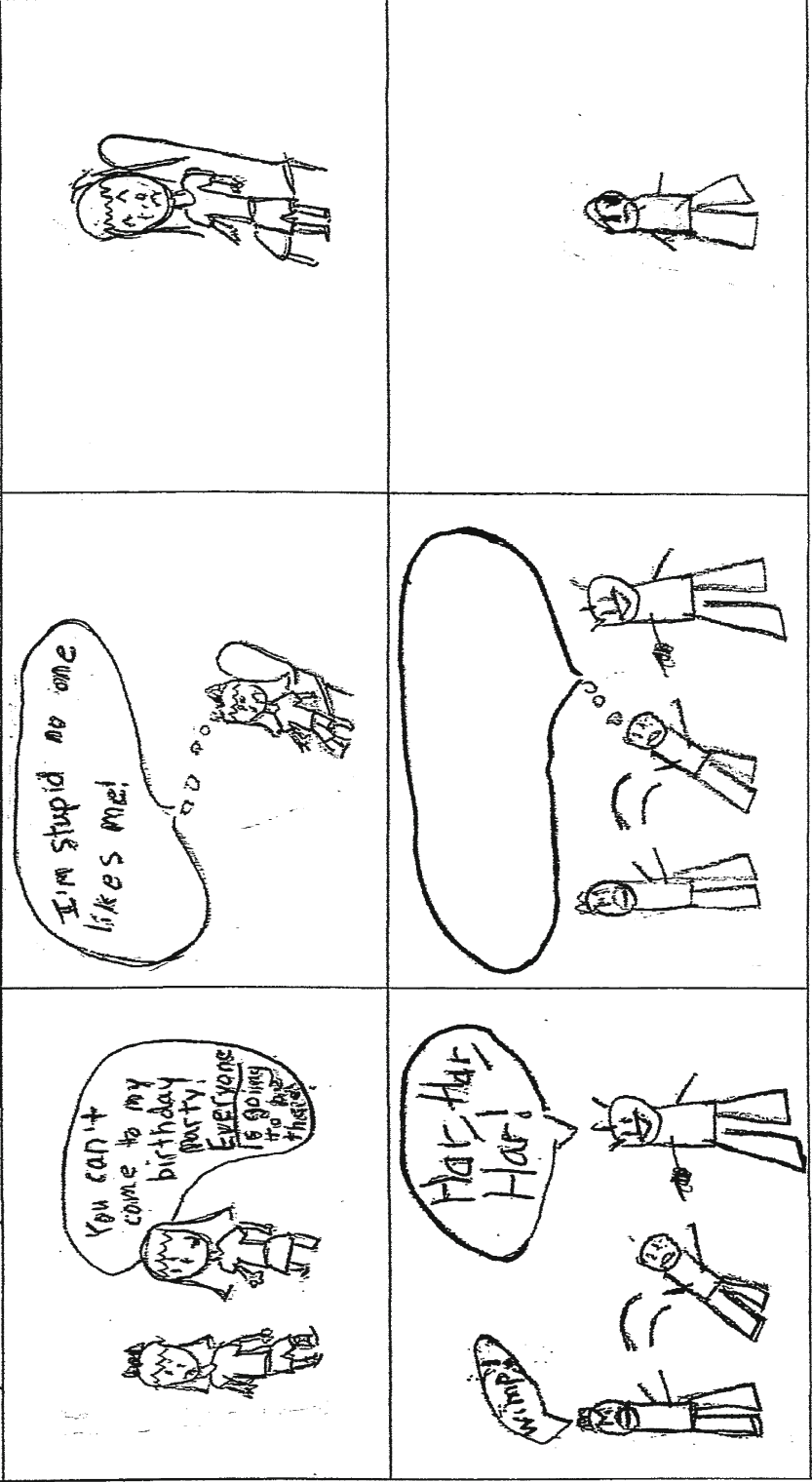


Fig. 8.4 Putting situations, thoughts, and emotions together

the middle of a vertical rectangle is helpful along with small Velcro markers (a triangle or circle). Place the marker at the bottom of the vertical rectangular strip and give a volunteer student a paperback book. Hand the child a second book and move the marker up the chart. Hand a third book and move the marker up once more. As you continue to hand the child books to hold, continue to move to the marker up the chart. Announce now and then that the “elevator’s going up.” Allow all of the children in the group to have a turn. Explain that as the elevator goes up, the books get heavier because there are more of them. The first book is light, as more books are added the books get heavier and are more likely to be dropped causing trouble. Explain that this (metaphor) is very much like emotions. As angry feelings or sad feelings build (the elevator goes up), they get heavier and harder to manage.

More practice will be needed, so in the same way ask children to stack blocks and move the marker up as the stack of blocks gets higher. Explain again that as the stack or “elevator” gets higher and higher, the risk of trouble increases should everything crash. Provide students with newspaper and giving each child a sheet of newspaper, show students how to crumple the sheets into balls. As each ball is completed, move the marker up the chart. This time explain that as the elevator goes up our hands get tired. The higher the marker, the more tired we get. The *Elevator’s Going Up* activity associates heaviness, risk of trouble, and tiredness with higher levels on the thermometer-type chart. Again, explain that this is like anger. The more angry we get, the greater the risk of doing something we would feel sorry about later, and the heavier or more filled up with emotion we feel, and the more tired we are going to get. Explain that fearfulness is like this as well. The more fearful we become, the stronger the feeling of fear, the more tired we will be, and the greater the risk that we will not be able to manage. Add additional practice if needed such as asking students to hold their breath or stand on one foot, moving the marker up the chart as seconds are counted. In each case make the connection to an emotion, tiredness, and risk.

Next, it is important to help children understand that we can change angry words, or sad words, or fearful words to show that feelings are getting stronger. Give children a worksheet with a vertical series of boxes. Each box has a number and an emotion word. Also give children a coin, die, or marker of some sort and ask children to place their markers in the box that represents the intensity of emotion using the marker. This activity can be described as *Steps to Trouble* in that emotion can become too intense and get us into trouble. A worksheet for children to practice identifying emotion intensity is found in Table 8.3.

Looking at the worksheet, ask children how angry they would feel if someone pushed them on purpose. Place the marker in the box that tells how angry they would feel. If some children are not yet readers, the increasing numbers will help them identify the degree of anger (sadness, fearfulness, jealousy, shame, or happiness). Pictures can be drawn or provided to depict the events or situations that are causing the feelings. Ask children to describe different events or situations that would fit the different levels of anger or other emotion. If they find this difficult, suggest situations, and see if they can match the events and situations to the appropriate levels of emotion. Events that might be described include: a friend gives you some of his

Table 8.3 Worksheet for identifying intensity of emotion

This worksheet can be used for various purposes and by individual students, or by a group of students. Students can be asked to collect or suggest a variety of experiences during which they felt various degrees of emotion. They can write about or draw the situations during which these emotions occurred.

	Emotion	Experiences
5	Terrified	
4	Very frightened	
3	Scared	
2	Tense	
1	Calm	

snack, the kid who is near you won't sit still and keeps bumping you, someone is humming and you can't hear what is going on, someone takes your pencil, someone teases you, the teacher scolds you but it isn't your fault, someone trips you on purpose, someone tells the teacher on you, the kids tell you to "get lost," recess is canceled, you win a prize, it is raining and you can't play ball after school, etc.

Making predictions can be difficult for young and handicapped children. This concept can be introduced by asking children to make very simple predictions. *Guess what will happen?* is a simple activity in which children are asked to predict what will happen when certain events take place. At the most concrete level, ask children to predict what will happen if an egg is dropped onto a pillow. Give one child an opportunity to try this (you do not want the egg to break so make sure the distance is not great enough for the egg to break). Next ask what will happen if the egg is dropped on a pile of newspaper from a short distance. Ask someone to try it. Then ask if the egg will break if dropped into a plastic container and try this as well. Talk about whether the predictions were correct or not. Ask children to predict how tall they can make a Lego tower and then determine how good their predictions were. Ask children to predict how long they can hold their breath, or how many pieces of cereal (or raisins or coins) they can fit in one hand. Continue to make predictions about concrete actions until children are comfortable.

How upset would you feel? is an activity to help children make predictions about how intensely students might experience emotions if certain events occurred. This is a step away from the concrete. Ask children to predict what might happen if they missed the bus, if they lost their lunch money, if they broke someone's toy, if they jammed a finger in their locker, if someone took their hat, if someone pushed them, and if their teacher scolded them. Practice making predictions about intensity by giving children a paper thermometer and a marker, and ask them to predict how upset they would be by placing the marker on the thermometer at the number (level) which would tell how upset (angry, fearful) they might be if certain events occurred. Additional events might include: being faced with a big angry barking dog, being late for school, the fire alarm rings loudly, a bully says he is going to "get you," the big kids won't let you play ball, the teacher yells at one of your classmates, your drink spilled all over your lunch, your

mother forgot to give you a snack, you failed an important test, you got sent to the principal's office etc. Using pictures as in Fig. 8.5, give students practice in talking about how each person in a particular situation might feel. It takes considerable practice for young children to see things from others' point of view.

Understanding that they have the ability to change how they feel is a critical concept for CBT interventions. An activity called *I Have the Power* may help students understand this important concept. Present common situations to students such as: someone bumps you and you drop your lunch, someone tells the teacher you did something wrong, someone takes your sweatshirt from your locker and you are afraid that your mother will be angry, the teacher says that the swings on the playground are broken, etc. Ask students in each case how they might feel and what they might think. Then ask children who respond, "How can you make yourself feel better?" Generate a list of things children suggest that they could do that would make them feel better when they are upset. When the list has been generated, go over each action and ask how much better that children think they would feel if they tried that idea. Explain that the word "strategies" will be used for actions that children can take to feel better. Using strategies gives us the feeling of power over our feelings.

Share a list of "strategies" that children can use to make them feel better when things go wrong for an activity involving *Choosing My Strategies*. Actions associated with "active distraction" might include imaginary play, exploring toys, playing on the computer, talking with adults or friends, singing, dancing, or exercising. Actions that are "constructive" would include: asking for what you need, or trying to fix a problem yourself. Additional strategies include thinking about good things, complementing others, or finding something good about the situation or event. You may want to include some strategies that are not helpful so that these can be discussed such as blaming others, saying something mean, complaining to friends or your family, telling someone to "get lost," making up a mean story about the person and telling your friend, or hurting someone (Eisenberg, Sadovsky, & Spinrad, 2005; Suldo, Shaunessy, & Hardesty, 2008). Ask children to raise their hands if they ever used each of the strategies on the list. Hand out paper thermometers. Ask students to show on the thermometers how well each of the strategies might work for them. Explain that everyone is different and although one person in the group may feel that a strategy would work well for her, another child might disagree and choose some other strategy. A list of strategies can be found in Table 8.4.

Asking children to complete tasks between sessions and involving their teachers and parents in this effort is part of the preparation for CBT training. Show children a checklist, which they will be using to record whether or not they used a strategy to feel better. Explain to children that they can be *Change Masters*. They can control many of their feelings with a little bit of effort. Ask them to fill out the chart before the next session to show which strategies they used. It is important to individualize the chart for children to include the strategies they thought of themselves or said that they used successfully. Ask them to simply make a check if they made an effort to use one or more of the strategies before the next meeting. Again, it will be critical to involve parents and teachers given that the length of time between

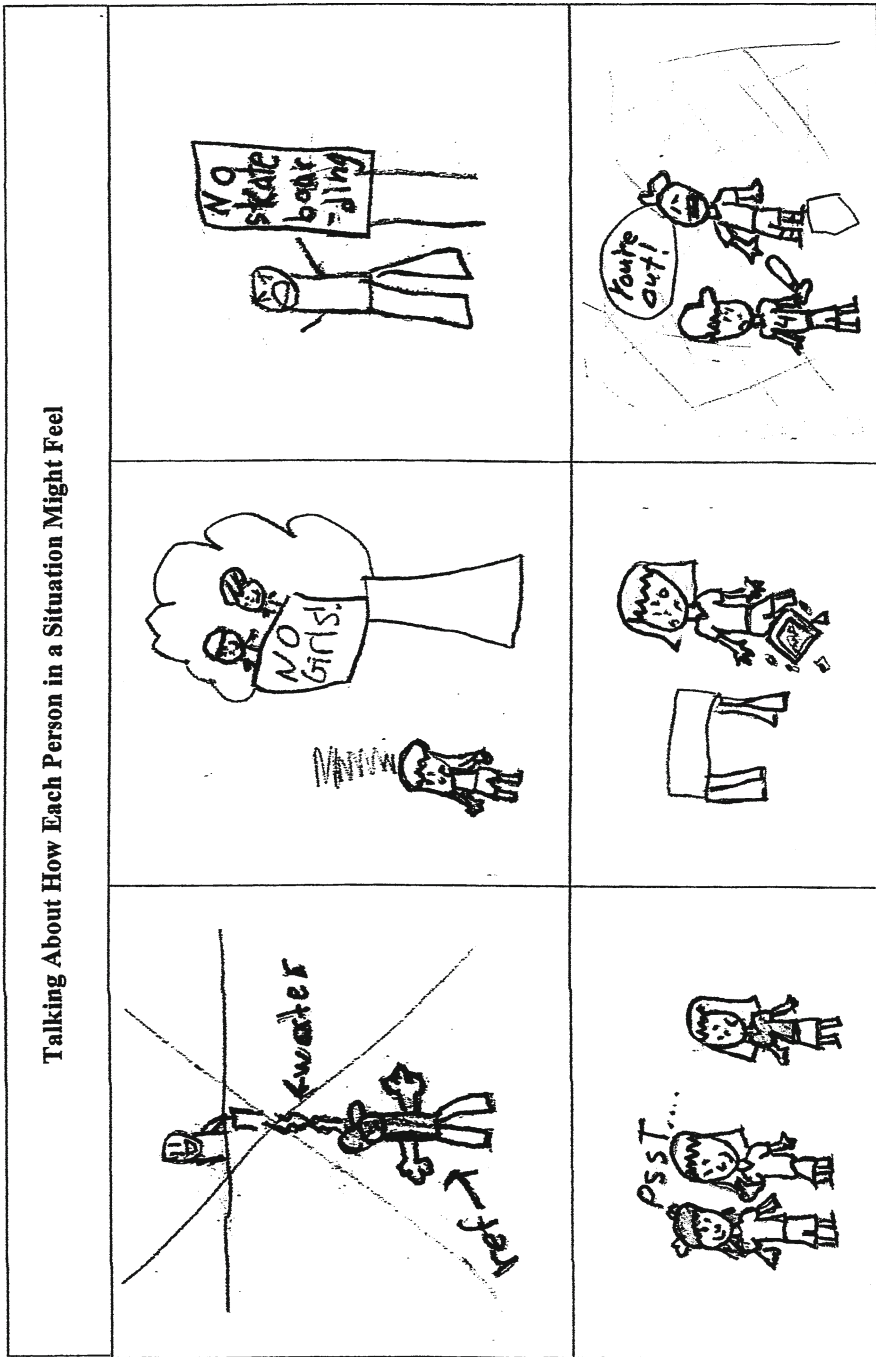


Fig. 8.5 Talking about how each person in a situation might feel

Table 8.4 Selecting strategies for feeling better

Strategy	Make a check if you have tried this?	How well might this work for you?
Write about the upset		
Draw a picture of what is upsetting and tear it up		
Find someone to talk to about the upset		
Think about something else for a while		
Say to yourself, "I don't care"		
Think about the upset in a different way		
Ask questions to figure out why this happened		
Play with your pet for a while		
Find something else to do		
Laugh or tell a joke about it		
Think about it all day		

Table 8.5 Change master: a self-monitoring tool

It may take time to identify which strategies work best for a particular child. Students can try out various strategies and keep a record of how many times they tried the strategy and how well it worked. Once three strategies that work have been identified, students can use a shortened list and continue to record use of the selected strategies.

The strategy I used	Number of times I used the strategy	How well this strategy worked for me
Found an adult and talked		
Went for a walk		
Rode my bike		
Played with my favorite toy		
Thought about something else		
Tried to solve the problem		
Made a play date or called a friend		
Thought about the problem in another way		

sessions may be as long as a week. Reminders will also be necessary and perhaps a reward for completing the task. This task can be given for a number of sessions in a row as long as it is individualized for each student in the group. A master chart can be kept for the whole group to show that students are becoming "Change Masters." Table 8.5 is a sample self-monitoring tool for an individual student.

A game that is quite a bit of fun is *Transformers*. Remind children that they have seen and probably played with "transformers" (a line of toys produced by Hasbro and created by the Japanese company Takara). Ask children to remember that with a little bit of work, the "transformers" can be shifted into a different toy. Explain

that everyone will walk around the room (or walk in place if the area is small) but will listen closely. You will call out a feeling and they must act out the feeling with their faces and bodies quietly. They will need to listen because you will be calling out feelings and emotions and just like “transformers,” they will need to “change” to acting out another feeling. Model exaggerating the emotions and having fun.

In preparation for learning to think about situations in another way, which is required in reframing, begin with trying to think of one additional reason to explain events. Introduce the *Two is More Than One* activity. Say that you will tell students about something that happened, and their job is to think of more than one reason that something happened or more than one way to explain what happened. Start with more open-ended action sentences before moving to situations or events that students might have experienced. For example, ask students to think about why their teacher might be upset one morning (she can’t find something, she forgot her car keys, the class is noisy, she has a stomach ache, etc.). Add to the ideas that children suggest. Tell students that for every situation for which they can think of “more than one,” you will give the group a token. If they can earn ten tokens, they can earn a surprise. Additional situations include: you can’t find your hat, there is no art class today, you can’t remember something in math, a visitor will not be coming to class today, someone got ahead of you in line, the teacher looks out the window and seems to be worried, the teacher calls the custodian to the room, your friend did not come to school today, you ripped your textbook, your girl friend is mad at you, etc.

Each universal emotion gives rise to action tendencies or behaviors; for example, moving toward something when angry, or moving away from something when anxious. The initial strategies to teach young children to regulate emotion and especially to decrease emotional intensity must involve action. Young students cannot use “stop and think” strategies in everyday interactions when they are upset. Instead, they need to dissipate emotion through benign action until the emotion is at a level which allows them to begin to get in control (Izard, 2002). *Pull the Plug* is an activity to teach children how to deal with the most intense emotions. Explain to students that emotion can be like water flowing at “full steam ahead” in a sink. Just as the sink fills with water, the strength of emotion gets higher. If the water gets too high in the sink, it will spill over the top and damage the floor. We need to “pull the plug” before the water flows over the top. Ask students to think of something they can do that would be similar to pulling the plug and preventing the water from overflowing. Suggest that the types of things that students can do involve action or behavior. Examples might be going for a walk, scribbling on scrap paper, scrunching newspaper into balls and throwing them in a wastebasket, offering to erase the boards in the classroom, washing windows or dishes at home, running around the track, writing about the upset in a journal etc. Practice this concept by selecting a few actions that appeal to students. Be sure to select activities that are short, active, and can be stopped easily. Also keep in mind that constructive activities are better than activities with no purpose when trying to downregulate emotion.

General Considerations When Working with Young and Special Needs Children

Work with young children and older special needs children who are more concrete thinkers will take time and require more sessions than might be anticipated. In addition, more practice and review of concepts already taught will be needed. Children will need to be comfortable while learning, and a playful approach will keep them engaged. Action or activity is definitely important and needed. At the early levels, not only will concepts need to be made very concrete (and practiced repeatedly) but also some of the process activities need to be introduced such as completing homework and self-recording. Finally, involving parents and teachers is critical because young children and children with special needs will not complete homework or practice skills between sessions even if they are motivated to do so without encouragement, support, and reminders.

Chapter 9

CBT in Schools

The practice of CBT in the school setting is covered in this chapter. Discussion includes adapting CBT to fit into the school context, making certain that emotion education and emotion regulation are incorporated into the protocol, and directions for specific activities are given so that they can be used by practitioners. Process variables are examined in detail including length of treatment, selecting participants, consideration of therapeutic relationships, questioning techniques, contingency management, and others. Behavioral skills training to include skills such as relaxation techniques, reducing avoidance, and exposure are included. Cognitive skills training such as thought recording, reducing negative thinking, attention training, self-monitoring, reframing, problem solving, and others are described. Schools often serve students through 504 plans or Individualized Educational Plans (IEPs) at Tier 2 and especially at Tier 3. This allows for long term planning for students with more intense needs and the ability to teach skills in a circular and repeated manner increasing the likelihood of retention and opportunities to teach more complex skills as students grow.

As early as 1984, the ideal school psychologist was described as a “scientist practitioner” (Barlow, Hayes, & Nelson, 1984). The importance of science applied to practice has become part of the thinking of practitioners and it has become a critical component of the role of school psychologists outlined in the description of competencies found in *School Psychology: A Blueprint for Training and Practice III* in the following domains: Data-Based Decision Making and Accountability, and Enhancing the Development of Cognitive and Academic Skills (Tilly, 2008). Today, under the added impetus of No Child Left Behind 2001 (NCLB) and the Individuals with Disabilities Education Improvement Act of 2004 (IDEA), there is a strong push to implement academic, behavioral, and social–emotional interventions that are supported by quality research. The National Dissemination Center for Children with Disabilities has posted “Ten Parent & Educator-Friendly Educational Research Sites to Inform Evidence-Based Practice” (<http://www.nichcy.org/blog/Lists/Categories/Category.aspx?Name=evidence-based%20practice>). This site along with others assists practitioners in locating evidence-based interventions and programs.

Rationale for the Use of CBT by School Psychologists

School psychologists have considerable experience in working with students to change behaviors, which can in turn influence thoughts and feelings. Cognitive therapists reverse this and work to change thoughts and thereby change feelings and behavior. CBT is a combination of these two approaches. CBT fits easily into the practice of mental health workers, and it specifically fits well into the practice of school psychologists. School psychologists are more experienced today in seeking out and using evidence-based practices. CBT fits into the spectrum of empirically supported, problem-focused interventions (Compton et al., 2004). CBT also fits nicely into the competencies and complex roles of school psychologists. CBT is based on the scientist–practitioner model in that interventions that are used are based on evidence and are used as part of a case-evaluation process with measurement of both progress and outcomes to determine efficacy and effectiveness. CBT is based on a functional analysis of problem behaviors and on environmental and other variables that maintain behaviors (symptoms). Functional assessment and functional analysis are some of the many competencies of school psychologists. CBT emphasizes psychoeducation, strongly within the practice of school psychologists. CBT involves problem-specific interventions, most certainly part of the extensive training of school psychologists. CBT involves generalization training, which may not have had the emphasis it needs in school practice, but with the current emphasis on progress monitoring and measurement of outcomes, it is of exceeding importance.

Structure of CBT Sessions

The process of CBT is active and collaborative in that the leader acts as a coach or guide. Some of the associated tasks include: developing a therapeutic relationship; determining length of treatment; asking Socratic questions; adapting the process for students of different ages, cultures, and ethnic groups; use of modeling and role play; dealing with homework; setting objectives and goals collaboratively; designing exposure tasks; and contingency management. CBT is highly structured including a rationale for treatment. It constitutes a structure that guides problem solving, teaches specific skills, emphasizes use of skills through homework in order to generalize learning, and teaches the participant to take personal credit for improvement. A session might involve (Kinsella & Garland, 2008):

- A check-in regarding how things are going and students' current mood
- Setting the agenda including review of prior learning and homework
- Reviewing the homework in detail (or dealing with why it was not completed)
- Teaching a specific skill
- Summarizing
- Asking for feedback
- Negotiating new homework

The session structure is an important template for treatment. It provides the direction for the intervention, organizes time and content, promotes self-regulation, helps the students to feel safe because they can predict what will happen, and facilitates the development of trust and rapport (Friedberg & McClure, 2002). It may be useful to take a closer look at some of the process variables first, and then look at the specific skills that may be most useful for students serviced in group sessions in schools. An important component of each session is psychoeducation and this has already been addressed.

Process Variables for School Practitioners

The “length of the complete intervention” in the school setting is relevant to address because CBT is well known as a brief intervention. To be able to provide an evidence-based intervention in a short amount of time is undoubtedly one of the reasons that CBT appeals to clinicians. There has not been extensive discussion in regard to the ideal number of sessions for CBT in the literature, although various studies report the number of sessions involved in the particular treatment program. For example, the *Coping Cat* intervention for treating anxiety in children is typically 16 weeks. The *Coping Cat CD-ROM* involves 12 sessions. *Trauma focused Cognitive Behavioral Therapy* is delivered in 12 sessions. *Coping with Depression for Adolescents* has 16 sessions, delivered in 8 weeks (<http://www.cachildwelfareclearinghouse.org/program/125/detailed>). In the UK a recent meta-analysis completed for the *Cochrane Database of Systematic Reviews*, which looked at the treatment of generalized anxiety disorder in 1,305 adults through 25 randomized controlled trials, determined that when the number of sessions was more than eight, those who participated in CBT experienced reduced worry, depression, and fear compared to other supportive interventions (Hunot, Churchill, Teixeira, & Silva de Lima, 2007). Lochman (1985) also addressed length of treatment in an early study and, importantly, this work was accomplished with children. The length of treatment in this study had a significant effect. A longer 18-session intervention produced better outcomes than a 12-session treatment using CBT for aggressive boys. On the other hand, some researchers have found that number of sessions, session length, and sessions per week were not related to treatment efficacy (Bennett & Gibbons, 2000).

The length of treatment in a school setting may be less controllable than in a clinic setting, although clinics also have restraints (e.g., insurance). Some Tier 2 and many Tier 3 interventions may be controlled by special education regulations and IEPs, or by 504 regulations. 504 Regulations refer to the Americans with Disabilities Act (ADA) Amendments Act of 2008 (Amendments Act), which amended the ADA of 1990, and Section 504 of the Rehabilitation Act of 1973. Under Section 504, Free and Appropriate Education (FAPE) consists of the provision of aids and services designed to meet the disabled student’s individual educational needs as adequately as the needs of nondisabled students are met (<http://www.ed.gov/about/offices/list/ocr/504faq.html#interrelationship>), including mental

health interventions. For students eligible under both or either of these federal regulations, a plan is involved with specific goals, objectives, modifications, or accommodations that also address the length of the intervention. If a student is receiving a mental health intervention such as CBT under both of these umbrellas, long-term goals and objectives will have been set by the school Team, including parents, and these would not be negotiable for students in a CBT group intervention. Of course, some short-term goals and objects may be negotiable and certainly older students need to be involved in creating their own individual plans.

“Selecting participants” is often a topic of counseling courses. In schools and in other real-life settings, heterogeneous groups are far more common than homogeneous groups (Friedberg & McClure, 2002). Still, when implementing a highly structured intervention, it may be better to reduce the number of highly active or openly oppositional students in a group and, instead, service these students individually. The number of students for school intervention groups will depend on the skills of the group leader and whether or not there is a coleader. Eight students would be a preferred number. Groups with less than five students focus too much on individuals (Sonstegard, Bitter, & Pelonis, 2004). Although longer sessions may be preferred as well, school-based mental health workers must advocate hard to convince teachers and administrators that sessions that do not conform to teacher’s instructional blocks of time are indeed necessary. A single class period may not be sufficient at the secondary level, whereas a shorter session may be productive at the elementary level. An hour is long enough to warm up and cool down without sending students back to class whose emotions may still be elevated. However, compromises may need to be made because teacher and administrator support is crucial. When school psychologists are frequently in children’s classes and are continually seen by students around the building, it may be possible for sessions to be shorter. When sessions are shorter and are held twice a week, less warm-up time would be needed.

The “therapeutic relationship” has garnered interest in regard to CBT in the last decade, whereas in the past it was not of central interest due to the structure of sessions (Leahy, 2008). As in all group counseling or psychotherapy models, the practitioner’s personality and skills make a difference and can have a huge impact on group members. School-based mental health workers who are warm and supportive and who are both interested in individual students and can communicate that interest will have a positive impact (Shechtman, 2007). Enthusiasm about the student and the group, confidence in ability to deal with testing the limits, and knowledge of how to provide enough structure so that students remain on task and also feel safe are critical. Leaders must be both flexible and creative. Adolescents can be challenging particularly because they may not want to participate in treatment. Group leaders must be empathetic and genuine in order to engage adolescents rather than trying to act as if they were adolescents themselves (Oetzel & Scherer, 2003). McGivern, Ray-Subramanian, and Auster (2008) remind less experienced mental health workers not to try to act “cool” around adolescents and to avoid implying that the leader knows exactly how the student feels. It is also important to be careful about self-disclosure, providing false hope, or taking charge too early

when working with secondary level students. Activities and choices in sessions are helpful in maintaining interest and motivation with adolescents as well as with younger students.

It is important to consider the value of “co-therapists.” Most often two therapists are recommended for CBT interventions (Bieling, McCabe, & Antony, 2006). One adult leads the discussion and makes decisions about agenda and process, while the other leader takes clinical notes and monitors individual student progress. In a school, two adults working with a group of students are particularly valuable because of scheduling changes due to unscheduled parent/teacher/administrator meetings, crisis meetings, and special education eligibility meetings, all of which may have to be scheduled at the convenience of parents. Schools tend to place different values on the meetings of adults versus scheduled counseling sessions, or the schedules of mental health workers. With two adults running groups, there is less likelihood of having to cancel a group session. School psychologists can pair with school counselors, school nurses, school social workers, or special needs staff to make sure that two adults are involved with groups. This also reduces paperwork for each service provider and makes gathering students for sessions from different classrooms or school wings more efficient.

“Questioning techniques” are important in CBT. Practitioners need to ask children direct questions to ascertain what they mean when they say they feel a certain way. Ask students how particular emotions feel to them. Ask how the feelings they have at the moment compare to how they have felt before, at their worst or at their best (Freeman, Pretzer, Fleming, & Simon, 2004). There are two types of questions used in treatment, Socratic and guided discovery questions. Socratic questioning may involve asking a student for evidence to support what he or she is saying, or how a particular thought affects how the student may be feeling at the moment. These questions help a student engage in questioning his or her own thinking (Maerov, 2006). Socratic questions have to do with guiding students to become more actively involved in problem solving. Guided discovery questions also help the student explore his or her thinking and learning to change that thinking. Guided discovery questions would be helpful in helping students examine the evidence to support or refute their interpretation of events, for example Wright (2006).

Group interventions need group “rules.” Rules work best when there are a few clear rules that deal with a directive for active participation, speaking one at a time, treating other members with respect, and confidentiality (Gladding, 1994). Interpret these rules as being honest, making a contribution, supporting others, and being willing to accept other points of view (Berg, Landreth, & Fall, 2006). When talking about rules, it may facilitate collaboration to ask students to give examples (Bieling et al., 2006). Rigid rules can cause difficulty. Rules are guidelines, although it helps to remind students of expectations. For CBT in particular, completing homework is a requirement, but even here some flexibility is needed. “Cues” such as visual schedules, cue cards, puppets, video, stories, etc. may be needed for either young or delayed students (Quakley et al., 2004).

“Contingency management” needs to be planned when needed. Reinforcement may be particularly important for adolescents with drug, alcohol, or nicotine-dependence

issues. Although the majority of the research has been conducted with substance abusing adults, there is a considerable research base for the use of incentive and contingency management. In a study that directly compared contingency management and CBT with adults, researchers found that contingency management was more effective than CBT during treatment in helping participants stop using drugs, in keeping individuals in treatment, and in engaging them in treatment (Rawson et al., 2006). CBT alone was, however, equally effective at follow-up. Because CBT focuses on using effective skills for identifying, avoiding, and dealing with situations that increase risk of drug abuse, it is particularly helpful for students with dependence on alcohol or drugs. Importantly, its effects appear to be stronger after interventions terminate. When working with drug-involved adolescents, effects may be increased if contingency management is paired with CBT to augment retention and to support homework completion (Rounsaville, 2004). Researchers have combined contingency management with CBT and found CBT more acceptable to adolescents working on smoking cessation when it was combined with contingency management (Cavallo et al., 2007). Another study involved teenagers with problematic marijuana use who were treated with individualized *Motivational Enhancement* and *Cognitive Behavioral Therapy* (MET/CBT) (Miller, 1995). The experimental group received a complex contingency management in addition to CBT, and greater abstinence during treatment was the result (Stanger, Budney, Kamon, & Thostensen, 2009).

Contingency training may also be important for resistant children, for children with ADHD, and for younger students. In fact, most CBT programs for children use some sort of reward to help shape behavior. Contingency management increases structure in a group, adds motivation, and prevents outbursts or upsets. Unfortunately, practitioners do not always take the time to systematically evaluate the value of reinforcers (Damon, Riley-Tillman, & Fiorello, 2008). In selecting reinforcers, a forced-choice format has been shown to be more consistently effective than asking a child's teacher to suggest what might appeal to a given student. Contingency management is especially helpful when parents and teachers understand that in order for CBT to be effective, children must practice the skills and strategies.

"Asking students for feedback" on how well the meeting or session helped them is common in CBT. This may help students feel that they are part of the work. Soliciting feedback from students brings out any dissatisfaction that may be present and it may uncover misunderstandings or issues that need attention. When feedback is written down, it may be more honest and helpful. Friedberg, Miller, Perymon, Bottoms, and Aatre (2004) developed a form in their work with 8–11-year-old children. It has been used in the *Preventing Anxiety and Depression in Youth (PANDY) Program* (Friedberg et al., 2003), which is a CBT program for this age group in a clinical setting. The form asks how helpful the children thought the session went using a Likert-scale, and completing a sentence stem. A verbal set of questions follows to garner more information, leading to a review of new learning; that is, "What new things/tools/skills did we talk about?" A similar tool can be used with older students, although it can gather more detailed information. Feedback can be used to monitor progress, check new learning, correct misunderstandings, find

out if the session was engaging enough to keep students motivated, and to make sure that every child is benefitting from the group intervention. Younger children may need help giving negative feedback, reading forms, and giving independent ratings uninfluenced by peers.

Review and Setting the Agenda

In each session of CBT, the initial part of the group meeting involves a “check-in” to see how things are going and this may involve taking a measure of some kind. Various tools could be used such as a thermometer or other analog measure, a checklist to review how things have gone from the prior session, or if information has been obtained from parents and teachers about the week, this data might be examined as well. Next, the *agenda* for the meeting is discussed. The agenda for a group session in schools will most often be set by the curricula used by the group leaders. However, one of the basic principles of CBT is collaborating with the individuals participating in CBT, so it is important to look at the agenda and ask students if they agree with the plan, if they would like to add something to it, or if they would like to negotiate some aspect of it. Adding a choice of some kind may be enough to engage students in the plan. Friedberg and Crosby (2001) suggest using a forced choice for children who may be depressed.

A “review of work” already covered or completed is important. If students have been recording work in a journal of some kind, it is easy to review their accomplishments. Review of handouts may be another way to review concepts already taught. A few written or oral questions could serve as a review and would provide a record of concepts learned. Collecting data is very important in schools, so written records are particularly important to include in school counseling sessions. Reviewing homework in some detail is important in motivating students to complete it, in determining if concepts have been understood, and in adding practice. If homework has not been completed, this also needs to be investigated and a plan set to reduce avoidance of work completion.

Content of the Session: Behavioral Skills Training

The “meat” of the CBT session is cognitive and behavioral skills training. Skills are chosen based on the needs and abilities of group members and are planned according to time available, although some skills are particularly crucial such as those that address changing thinking and behavior. The skills development of CBT can be varied. Content of sessions can consist of a few of the most important or useful skills or can be very detailed and deal with a large number of skills. The skills are categorized as cognitive or behavioral. Making this distinction may not always be simple, but it may be possible to list the range of skills utilized by different CBT models as in Table 9.1.

Table 9.1 Cognitive and behavioral skills in CBT

Cognitive skills in CBT	Behavioral skills in CBT
Thought postponing	Relaxation training
Thought stopping	Self-recording/self-monitoring
Thought challenging	Self-reinforcement/group reinforcement
Cognitive restructuring/reframing	Graduated exposure tasks
Dealing with negative cognitions/negative slants	Testing the evidence/thought questioning/investigating
Reattribution/generating alternatives/alternative ways of looking at situations/developing counter thoughts	Taking the opposite action/acting inconsistently
Changing self-talk	Problem solving
Identifying and connecting thoughts, feelings, and behaviors	Dealing with avoidance tendencies
Attention control training/attention control	Pleasant activity scheduling/engaging in pleasant activities
Changing appraisals and biased processing/identifying cognitive distortions/increasing flexible thinking	Social skills training/interpersonal responses training
Anxiety prediction	Responding to stress
Pleasure prediction	Assertiveness training
Developing an anxiety hierarchy	Goal setting
Mood monitoring	Improving communication
Increasing positive thinking	Somatic management
Giving and accepting feedback	Motivational enhancements (MET)
Relapse prevention	Changing avoidance behavior

Behavioral skills involved in CBT are not particularly new to school psychologists who have had training in behavioral psychology. School psychologists and other mental health workers in schools are also familiar with “relaxation training” including diaphragmatic breathing, progressive muscle relaxation, imaginal relaxation, and coping statements. Listening to music, meditation, counting, imagery, and constructive exercise (shooting baskets or going for a walk) have all been used by school psychologists. There is some support for exercise such as Tai Chi as a technique for improving mood, although it is not yet clear whether the effects are related to relaxation and mediation, or to participation in an enjoyable exercise (Sandlund & Norlander, 2000). Quick physical and engaging strategies are important for some children because emotion is experienced physically. School psychologists are familiar with training students to self-record, self-monitor, and self-reward. Group reinforcement is also a skill well within the repertoire of school psychologists, as are social skills training and assertiveness training, although practitioners could do a better job with generalization. School psychologists have had experience helping students to set goals, improve communication, and respond to stress. The tasks in which school psychologists may have had less experience include taking the opposite action (Linehan, 2000), testing the evidence, dealing with and changing avoidance behavior, and graduated exposure.

Research indicates that students with anxiety disorders evidence biases in information processing and also evidence more ruminative thinking than their peers without anxiety disorders (Muris, Mayer, Adel, Roos, & Wamelen, 2009). CBT teaches cognitive strategies to deal with automatic negative appraisals. One behavioral strategy to help decrease the intensity of negative thoughts has to do with logically evaluating the validity of those negative thoughts. This strategy has been described as gathering or “testing evidence” to support or refute the negative thoughts. Knell and Dasari (2006) describe a process called “Thought Detective” in which the child collects evidence to determine whether or not a negative thought may be true. Friedberg, Friedberg, and Friedberg (2001) describe a similar activity they call *Thought Digger*. This activity involves creating a diary with already structured questions to help children see if their thought fits or not.

“Avoidant behavior” is another variable that maintains anxiety disorders (Salters-Pedneault, Tull, & Roemer, 2004). Anxious individuals avoid whatever makes them anxious as well as distressing thoughts and feelings. The thoughts and feelings, in turn, become cues or triggers for the avoidant behavior. Avoidance, which is a type of emotion regulation because it results in decreasing anxiety, negatively reinforces the avoidant behavior unfortunately. Avoidance works in the sense that anxiety is decreased but no new learning occurs. It may also have an unwanted effect of increasing anxiety because suppression of a thought has the effect of increasing focus on the thoughts that the individual is trying to suppress (Wegner, 1994). Additional negative effects of suppression include greater distress, negative effects on both memory and performance when working on cognitive tasks, and quick disengagement from frustrating tasks affecting learning. Suppression makes students’ behaviors less adaptive. Students are more likely to take less effective actions. The feelings experienced by the student may eventually offer inaccurate feedback when suppression is used, and mildly threatening events and situations can be experienced more intensely and also be more anxiety provoking (Salters-Pedneault et al., 2004).

Treatments to reduce learned avoidant behaviors involve graduated exposure and acceptance therapy. Acceptance therapy teaches students to allow strong and stressful emotions to occur, but to experience them as if the student was observing them from afar, rather than being the object of the distress. Once a student is able to take a detached, “mindful” stance and stop internal negative talk, she or he can deal with strong feelings. If the goal of feeling better is to experience no anxiety at all, anxiety becomes the problem and may in fact become exacerbated (Forsyth, Barrios, & Acheson, 2007).

Generally “graduated exposure” involves approaching increasingly fearful situations developed as a hierarchy so that less anxiety-provoking situations are approached first. As the student gains control over his or her emotions, increasingly stressful situations are approached. The literature on exposure therapy is broad and a number of different mechanisms or ways to use exposure are described:

- In vivo or real-life exposure to threatening situations (for suggestions of how to implement this type of exposure see Hintze, 2002)

- Imaginal exposure in which the individual imagines a threatening situation while using relaxation
- Graduated exposure where the individual is exposed to increasingly threatening situations or the threatening situation is broken down into parts and little by little the individual copes with the components while given social reinforcement (see Hintze, 2002)
- Prolonged exposure which would not be used in schools and flooding or all-at-once exposure which would not be used in schools
- Narrative exposure (for an excellent description see Onyut et al., 2005)
- Written exposure (useful in schools see Goldman, Dugas, Sexton, & Gervais, 2007)
- Virtual reality exposure

Exposure increases anxiety temporarily and care should be taken if a student is experiencing extreme anger, emotional numbing, or if anxiety is overwhelming (Jaycox & Foa, 1996). Exposure is introduced as a “behavior experiment” in CBT (Marks & Dar, 2000). Exposure is an opportunity to practice new skills (Barlow, Allen, & Choate, 2004).

Marks and Dar (2000) discuss exposure in some detail. They point out that in randomized controlled trials exposure appears to be necessary to reduce fear. To date, there have been few studies comparing CBT plus exposure therapy with exposure therapy alone when children or teenagers are involved (Nakamura, Pestle, & Chorpita, 2009). If mental health practitioners want to include exposure in school-based treatments, precautions are necessary. When obtaining informed consent from parents and students themselves, counselors should discuss the possibility of temporary distress, give a clear rationale for use of exposure, explain that exposures are tests of probabilities and costs, and emphasize that the student can opt out at any time. Informed consent needs to be an ongoing process. Also, given that exposure can take many forms, exposure techniques used in schools might involve role-play simulations with which counselors or school psychologists may be more comfortable (Velting, Setzer, & Albano, 2004). Exposure can also take place in the form of games, exercises, or competitions that are somewhat emotionally charged, and in this way, students may develop mastery (Friedberg & McClure, 2002). Children need to practice using skills and strategies while at least somewhat stressed; that is, when feeling somewhat anxious, angry, or sad (Friedberg & Crosby, 2001). Suggestions have been made that graduated exposure for anxiety reduction may be too narrow a process in the first place, and a wider range of emotions may have to be addressed (Marks, 1999; Marks & Dar, 2000).

Interestingly, many clinicians do not use exposure therapy in spite of the support that it has for treating adult anxiety disorders (Olatunji, Deacon, & Abramowitz, 2009). There may be a number of reasons for this. Apparently, many clinicians have ethical concerns about the use of exposure. They have questioned whether or not use of exposure might result in high dropout rates (it does not), if it might escalate symptoms of anxiety (it does not, over and above the symptom intensity that is already present), and if it might interfere with the therapeutic relationship (this is

unlikely) (Kendall, Comer, et al., 2009; Olatunji et al., 2009). There has also been some research to suggest that many individuals do not respond as well as anticipated to exposure tasks, in that they experience some decrease in anxiety but still do not function as well as hoped. Importantly, cognitive therapy without systematic exposure has been shown to reduce fears. Based on researching the literature, Marks and Dar (2000) conclude that exposure alone, or CBT alone, is sufficient to reduce fear. On the other hand, neither appears to be absolutely necessary to reduce anxiety. Marks and Dar indicate that four interventions are effective for reducing anxiety: exposure, CBT, muscle tensing, and problem solving.

An alternative is *Mindfulness Meditation* in which individuals are taught that thoughts are not facts. Students are taught to shift attention from the threat to breathing or relaxing. Acceptance-based behavior techniques promote acceptance of internal events and this may be useful before attempting exposure. This also may be useful for those who do not respond sufficiently to exposure. We do not yet have the evidence base for acceptance-based strategies that we have for other CBT strategies. Exposure, CBT, and “mindful meditation” each involves learning to tolerate thoughts and feelings so that the person does not act without thinking. These techniques train and improve emotional control. Again, we need to keep in mind that it is important to address emotions such as anger, embarrassment, shame, and positive emotions as well as anxiety.

Content of the Session: Cognitive Skills Training

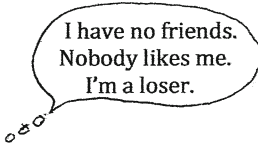
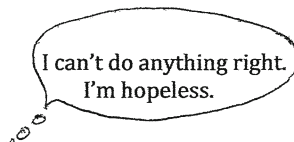
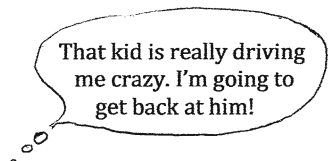
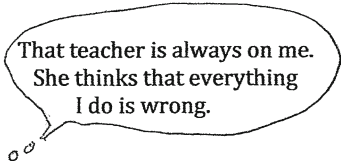
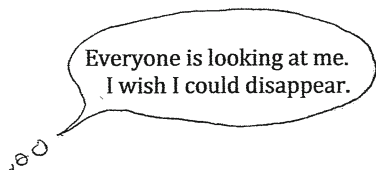
The cognitive skills that could be addressed in sessions include teaching that thoughts, feelings, and behaviors are all causally interrelated. This concept can be complex, as students need to first “become aware” of thoughts and feelings and then learn to connect thoughts, feelings, and behaviors. Students will maximally benefit from CBT if they have experienced affect education through Tier 1 interventions, or have been taught a good deal about emotions at home by parents so that they can identify and label emotions reasonably well. They need an adequate emotion vocabulary. Students need to be able to identify what they are thinking and then to connect what they are feeling with their thoughts. They need to be able to think of alternatives and to monitor their behavior. Of course all of these skills can be taught to children before beginning CBT. Early concepts to teach are the connections between thoughts and feelings. Cutting out expressive cartoon faces and making bubble thoughts for children to fill in is one way to help children become aware of their thinking. Table 9.2 is a sample exercise to help children learn about *Thought Bubbles* and the feelings that they may generate.

For concrete children, asking children to make happy, mad, scared, and sad facial expressions or taking digital pictures and running these off on a school copier will make the task personal. Children can be asked to draw their own faces with different expressions to demonstrate different emotions. These facial expressions

Table 9.2 Thoughts bubbles and feelings

Thought Bubbles and Feelings

Use this worksheet to practice connecting thoughts to feelings. Ask students to write in the feelings that they might have when they are thinking negatively. To follow up this activity, ask students to collect their own thoughts and connect the feelings that the thoughts generate as homework.

Thoughts	Feelings
 <p style="margin: 0;">I have no friends. Nobody likes me. I'm a loser.</p>	
 <p style="margin: 0;">I can't do anything right. I'm hopeless.</p>	
 <p style="margin: 0;">That kid is really driving me crazy. I'm going to get back at him!</p>	
 <p style="margin: 0;">That teacher is always on me. She thinks that everything I do is wrong.</p>	
 <p style="margin: 0;">Everyone is looking at me. I wish I could disappear.</p>	

can be connected to an event and then to a connecting thought. Children also need to learn that their thoughts, especially the negative thoughts, are not facts. Optical illusions and magic tricks can be used to demonstrate that our eyes and thoughts can be incorrect or confused. Saying one thing and doing something else has the

same effect. Older children can be taught to ask themselves questions such as “Is this a fact or is it just a guess?”

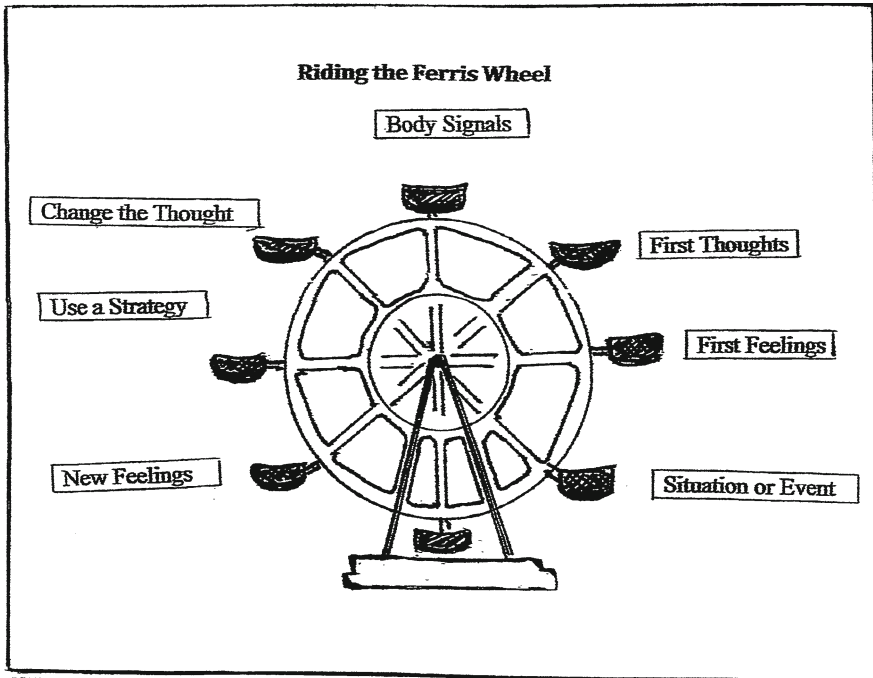
Older students can use the traditional *Dysfunctional Thought Record* proposed by Beck, Rush, Shaw, and Emery (1979). Templates are widely available online and consist of a series of columns. Generally, they involve describing the situation, event, and the repeated thoughts that are troublesome including details such as: who was involved, what happened, when did it happen, and where? Some charts require students to record what physical sensations might be associated with the event. Students need to record what was going through their minds immediately before the negative feelings were experienced. Some charts require students to add to what degree the student believes the thoughts. Next, evidences that support the thoughts or refute the thoughts are listed. A more rational thought is generated for the next column and finally moods or emotions are rerated on some sort of scale. An example can be found in Beck (1995, pp. 125–126). Older students and highly motivated students can learn to use the complex charts with practice over a few sessions. Once the process is mastered, the charts become homework. Simplified charts or easier ways of generating this data may be necessary for group work with younger or handicapped students.

Another way to teach these concepts is through games. Friedberg and McClure (2002, pp. 226–230) have developed an exercise called *Tracks of My Fears*, which uses a train stopping at many stations. Each station asks a question so that by following the tracks the child goes through the thinking processes described above. A baseball game could provide a similar activity. *Riding the Ferris Wheel* is yet another way to practice the process of dealing with negative thoughts (see Table 9.3).

For this activity, each student in turn gets to ride the Ferris wheel. Ferris wheels turn slowly. As each bucket reaches the bottom of the wheel, a new person can get on the wheel because it stops for a few moments. The ride proceeds through a series of stops as new people get on and the Ferris wheel goes around. Prepared stories or scenarios can be used for this activity initially. Material that students bring in through their homework, or incidents obtained from parents or from teachers, can be used as well. Once on the Ferris wheel, the first time the car stops, a student needs to describe an upsetting event or situation with as much detail as possible. At the next stop, the first emotions that are experienced in response to the situation are labeled. At the next stop, the first or initial negative thoughts are shared. At the next stop, any body signals that might be present are described. At the next stop, “reframing” of the negative thought is necessary. The next stop would involve a strategy to calm down. The last stop before getting off involves a new feeling. Finally it is time to get off.

Metaphors are a helpful form of communication in describing cognitive tasks to children. Therapeutic metaphors offer new choices and new ways to understand the world: teaching but also entertaining, suggesting without confronting, and enhancing rapport. Indirect communication through metaphor may be helpful when direct expression of ideas might be upsetting or might damage the relationship with the therapist. Stories, anecdotes, actions, questions, and objects can have

Table 9.3 Riding the Ferris wheel



Situation or Event	Change the Thought
First Feelings	Use a Strategy
First Thoughts	New Feelings
Body Signals	

metaphorical potential. The metaphor is based on some sort of reframing of problem behaviors. Although there is little empirical evidence of their effectiveness, they are widely used.

It is helpful to offer the same message in a series of metaphors (Barker, 1985). Metaphors enhance memory and learning (Rigby & Waite, 2007). Stallard (2002b) used the metaphor of an audiotape playing in one's head to describe automatic thoughts, and a "Thought Tracker" to help children look at the way they think (p. 27). Rosengren and Rosengren (2007) describe CBT in terms of the Harry Potter series and write about switching automatic negative thoughts to more positive thoughts as "Changing the Spell" (p. 271). Friedberg and Crosby (2001) describe self-questioning in the form of a "Thought Digger" (p. 120). Leahy (1988, cited in Grave & Blissett, 2004) helps participants visualize a "Zen Warrior" who helps illogical and logical thoughts fight each other.

Another set of cognitive skills addresses dealing with negative thoughts such as: thought postponing, thought stopping, thought challenging, changing self-talk, increasing positive thinking, changing appraisals, and biased processing. Negative thinking is a risk factor for dysfunction and so CBT offers many strategies for dealing with negative thoughts. Postponing worrisome thoughts until later in the same day has been shown to reduce rumination in children aged 9–13 years, as well as reduce somatic complaints in seventh grade students. Jellesma, Verkull, and Brosschot (2009) investigated the concept of postponing thoughts. In their study, they instructed children to postpone thoughts to a limited period of time in the evening. Children of 9–13 years were able to reduce the frequency of worrisome thoughts when they received these instructions. In addition, for children in seventh grade, somatic complaints were reduced as well, and the strategy was particularly effective with girls. The study provided initial validation for a "postponement technique." Postponing worrying until a specified 20 or 30-min period later in the day also works well for high school students (Brosschot & van der Doe, 2006). High school students can record their worries in a journal to be taken out later and reviewed. Postponing emotions can be a very effective strategy especially for improving functioning in school.

One of the ways to use this technique in school is the *Box It* activity. Children who are worrying can be told that they can think about the emotion later on, but right now they need to do their schoolwork. Children who are upset can be taught to think about the emotion they are experiencing for only a moment, and then tell the emotion that it has to "wait." Students for whom this is difficult can be instructed to write down their worrisome thought and place it in a box or envelope in their desk so that it will not interfere with school performance. For young children, the box can be created in a small group session and appropriately decorated with a worry symbol. Once the emotion is safely waiting, students need to "act the opposite" and pretend that everything is okay. Students must not forget about the emotion, but rather keep it safely contained until there is a good time to take it out later in the day. The later period can be called "Mad Minutes" or "Weighty-Worry Time." Wells (2004) suggests that students can be told when the worry period arrives that they are in control and can worry or not as they see fit. They are in control of their worrying. The goal is not to suppress worrying, but

rather to interrupt it and get in control. With home–school collaboration, parents can be instructed to assist in reminding children to revisit the worrisome thought and deal with it within an agreed upon time, or if this is not feasible for some families, the school psychologist can work with the student at the end of the school day (refer to Table 3.3).

Bakker (2009) looked at the often suggested thought stopping technique and described it as a particular form of thought suppression. In order to use this in school, children would need a cue card with the word STOP placed in or on their desk. Children would be instructed to look at the card whenever intrusive thoughts occur. Although there is evidence to indicate that suppression can be problematic, Bakker argues that it can be highly effective in certain cases and can enhance coping capabilities, although others do not feel that it is very effective. The *Box It* technique has more support.

Many of the CBT strategies involve changing what one is thinking or “thinking of alternatives.” Thinking of alternatives takes practice. *Air Traffic Controller* is a board game that will give students practice in thinking of alternatives. Students can make small planes by a small square of paper into a paper plane. A paper die is needed with instructions to move forward, move backward, or move to the side. In addition, cards are prepared with questions asking for two or three possible actions so that students have practice generating alternatives. Since the goal is for everyone to get to the airport, helping one another can be encouraged. Importantly, this is not a competitive game. The board for this game is easy to make with a large sheet of poster board or brown wrapping paper (see Table 9.4 for the game board, which can be enlarged, and refer to Table 9.5 for directions for the game).

Changing negative “self-talk” to positive self-statements is a basic skill used in many interventions for children and adolescents. Burnett (1994) examined the relationship between negative self-talk and depressive symptoms in children in grades 4–7. Negative self-talk was related to irrational beliefs and depression. Negative self-talk is common in anxious children. Depressive and anxious self-statements are associated with symptoms of severe anxiety disorders in children (Muris, Merckelbach, Mayer, & Snieder, 1998). In one study, children were instructed to think aloud while working on math problems or to list thoughts they had when first told about having to solve problems. They were also instructed to list thoughts they had while working on problems, and again, when they realized time was running out. All three situations increased anxiety, which researchers associated with higher rates of self-talk (Lodge, Harte, & Tripp, 1998).

There is empirical evidence to support the idea that self-statements can be an indicator of a child’s well-being, particularly if they are not positive (Muris et al., 1998). A study of 8–13-year olds who exhibited anxiety disorders showed that negative self-statements were related to anxiety disorders. Negative self-statements predicted anxiety after treatment as well. Changes in self-statements directly influenced gains from CBT and were important indicators of treatment outcomes (Treadwell & Kendall, 1996). Interestingly, anxious children make both anxious and depressive self-statements. This fact attests to the comorbidity of these two disorders. The authors noted that the CBT treatment addressed anxious self-talk

Table 9.4 Air traffic controller board

Enlarge the game board on a sheet of brown wrapping paper or poster board. The game is designed for eight players. If the group size consists of six players, start each player in a corner. Because the game is noncompetitive any number can play as long as the players feel the starting places are fairly even. The squares with the question marks indicate where the questions are to be placed (refer to Table 9.4).

	X									X	
X		?						?			X
	?								?		
			?				?				
					?						
					?	?					
			?		?	?		?			
					?						
	?								?		
		?						?			
X											X
	X									X	

which decreased, but depressive self-talk did not decrease. This suggests that interventions must address all types of self-talk. Research that has explored the valence or content of self-talk has produced some support for the effect of positive self-talk (Hardy, 2006). Burnett (1994) found that positive self-talk is positively related to self-esteem in typically developing students.

Students can be asked to draw situations that they find stressful or upsetting. They need practice in identifying the thoughts that may be connected with these events or situations and also practice in changing their thinking so that it is more conducive to problem solving. Table 9.6 includes drawings of situations, which some students may find stressful. An activity called *Catching Thoughts* gives students practice in externalizing self-talk. Work with students to externalize the thoughts that the characters might feel, and then practice changing those thoughts so that they will be helpful in problem solving or in feeling less stressed.

Table 9.5 Air traffic controller game

The goal of the game is to get all of planes to the airport. Each person moves their plane in turn, but can only move one space at a time. Help students make small paper airplanes to use as markers. Create the grid for the game. Make a paper die that indicates “move forward,” “move backward,” or “move to the side.” It is also possible to use a “real” die and make a chart to indicate which faces on the die indicate moves forward, sideways, or backwards

Say to the group: *The goal of this game is to get to the airport. Each participant in turn tosses the die to see which way and how far he or she will move. You can only move one space at a time. You cannot land on a space occupied by another plane. If your plane lands on a space with a question, you must answer the question. If you answer the question, you can move according to the die. If you cannot answer all three parts of the question, the person whose plane is furthest from the airport will have the opportunity to answer the question. If correct, this person gets to move one square closer to the goal. Remember that the game can be won only when every plane gets to the airport*


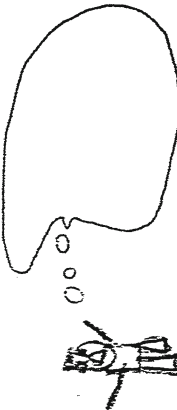
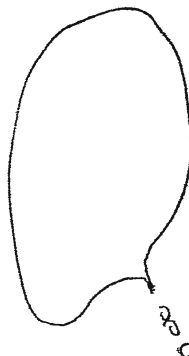

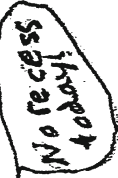
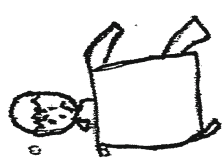
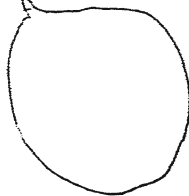
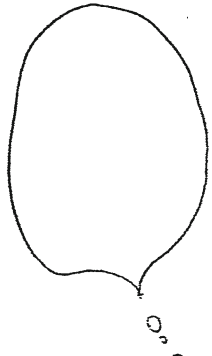
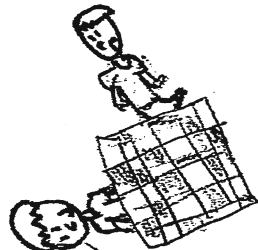

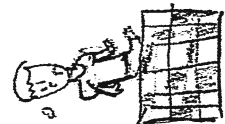
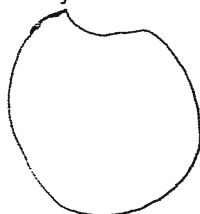
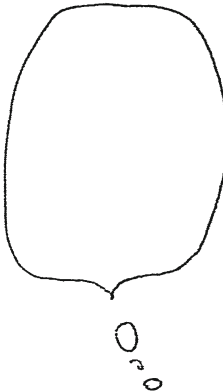
Questions

1. Why might a student get a low score on a test? State three possibilities
2. Why might a student be chosen last when sides are chosen for a spelling contest. State three possibilities
3. Why might a teacher send a student out of the classroom? State three possibilities
4. Why might the principal cancel field day? State three possibilities
5. Why might a student be teased? State three possibilities
6. What could a student do to feel better when he/she is upset? State three possibilities
7. What could a student do to calm down when angry? State three possibilities
8. What could a student do when he/she suddenly thinks that the test is too hard? State three possibilities
9. What could a student do to change how she/he feels when given a gift he/she doesn't like or is different than what was expected? State three possibilities
10. What could a student do to change how he/she feels when his/her team has lost the game? State three possibilities
11. Why would kids say you can't play with them? State three possibilities
12. Why do kids call other kids bad names? State three possibilities
13. How would you stay calm if you had to make a speech? State three possibilities
14. What could you do if you were worried all the time? State three possibilities

Self-focused attention in highly anxious individuals increases negative thinking, keeps the person from gathering external information that might negate the thoughts, and can interfere with performance (Spurr & Stopa, 2002). “Anticipatory processing” is a form of self-talk that involves internal planning for being placed in a stressful situation. It is common phenomenon before an anticipated anxiety-producing social situation such as giving a presentation in class, or attending a party when you hardly know anyone (Vassilopoulos, 2004). Although planning and preparatory thinking is helpful to some extent, for individuals with social anxiety the planning can be overly elaborate and ruminative. Intense internal focusing, becoming hyperaware of bodily sensations, worrying about how they will be judged, worrying about concealing anxiety, or avoiding the stress repeatedly are not helpful. These negative self-evaluative thoughts need to be directly targeted in high social anxious students. It is the kind of self-talk, and dwelling repeatedly on stressful problems, that increases anxiety (Vassilopoulos, 2008).

Table 9.6 Externalizing self-talk

Ask students to draw situations that have triggered an upset. Assist students in identifying the thoughts that they have experienced associated with those situations. Help students practice changing the self-talk to alternative and more constructive thoughts that might prevent acting inappropriately and would help solve the problem(s).

Selective information-processing biases are connected with vulnerability for emotional disorders. Vulnerability is increased when a student feels unable to control automatic thoughts, or when the student focuses on the possible harm that worry or rumination may be doing. Both anxiety and depression involve making associations or making interpretations when input is ambiguous, when intrusive thoughts occur, and when having difficulty controlling processing (Mathews & MacLeod, 2005). Clinicians have examined attentional biases as well as biases in encoding, storage, retrieval, and interpretation of input (Dozois & Collins, 2009). For example, children with anxiety disorders exhibit thoughts that are dysfunctional when they are presented with situations that are not clear (Bögels & Zigterman, 2000). Emotion appraisal is a process that individuals use to evaluate events that lead to experiencing an emotion or that trigger an emotion. Appraisals determine how stressed we will become, how threatening we will interpret a situation; and additionally, they determine our moods, and our responses (Mills, Reiss, & Dombek, 2008). Cognitive attributions can predict behavior and can be used to exact positive changes by teaching strategies that result in more adaptive cognitions and emotions (Hintze, 2002).

Appraisals elicit emotions. The appraisal system seems to proceed quickly and use minimal information to make a determination. It is the appraisal of the situation that one finds oneself in, rather than the situation itself, that determines our emotional response. Siemer, Mauss, and Gross (2007) have published a study to demonstrate that appraisals are both sufficient and necessary causes of different emotional reactions. If appraisals are necessary for triggering emotion, changing them may be necessary to change emotions also. There are data to indicate that this is the case in regard to intensity of emotion at least. The most common automatic thoughts in a group using CBT for social anxiety disorder were thoughts related to inadequate social performance, negative labels given by those with whom they might interact, and anticipation of poor outcomes in anxiety-producing situations (Hope, Burns, Hayes, Herbert, & Warner, 2007). Muris et al. (2009) found evidence to support the idea that changes in negative automatic thoughts accounted for about 30% of variance in improvement in anxiety scores of children after a CBT intervention. There may also be “appraisal-styles,” i.e., a pessimistic style, an anger-prone style, or a guilt-prone appraisal style (Roseman, 2001). Cognitive therapy teaches that different emotional states have distinct cognitions associated with them. However, despite differences, they have much in common. The basic processes that underlie automatic and intrusive thoughts are similar across emotional disorders. These basic processes may depend on the difficulty in disengaging or inhibiting thoughts and images with negative emotional meanings.

Diminution training, previously described, can be used in teaching restructuring and dealing with unrealistic thinking. It is also taught so that in a real situation, the student who has learned some CBT techniques but is too stressed to recall them is able to reduce the intensity of the threat and consequently use the strategies that have been taught. In diminution training, self-talk is used to ask “so what?” questions. Then using imagery, the threat is shrunk as if looking through the large end of a pair of binoculars. Another way to shrink the threat is to ask children to draw their worries or draw an anger image on very large paper showing the size of the

worry or anger. Give students scissors and instruct them in relevant and appropriate self-talk. Coach them to gradually cut the size of the problem down until it feels manageable. At this point, students will feel more in control and reframing is likely to be more successful.

Self-monitoring involves data collection made by the student outside of the treatment session. Self-monitoring serves an assessment function as in assessment of progress and is used as a component of treatment at times. It is used as a component of treatment because behaviors being monitored tend to decrease in frequency (Korotitsch & Nelson-Gray, 1999). Self-monitoring procedures are part of most empirically supported interventions. A self-monitoring diary format allows for collection of detailed data. The advantages of self-monitoring include the ability of the technique to:

- Collect data that are covert (worries, ruminative thinking, etc.)
- Provide immediate and ongoing feedback
- Collect more data than an observation would yield
- Provide data for a functional analysis of behavior
- Determine effectiveness of an intervention
- Provide continuous measures of progress
- Help monitor both compliance and generalization

Regular assessment of each student's mood is a good way to monitor progress, especially for students who may be depressed. McKenzie and Marks (1999) considered it important for treatment, but emphasized that the measurement process should be short and quick. A *Mood Diary* can be kept which helps monitor changes and reactions to stressful events (Hakeberg, Berggren, Carlsson, & Gustafsson, 1997). There are many mood scales that can be found online for students to use as self-recording tools. In keeping with technological progress, there are even iPhone apps for self-assessment of sadness, depression, and stress (<http://itunes.apple.com/us/app/stat-depression-screener/id348793894?mt=8>). Monitoring pleasant events along with mood can be helpful as well (Dobson & Joffe, 1986). Positive emotions are just as much part of the stress process as are negative emotions. Generating positive emotions is important. Several techniques for generating positive emotions appropriate for older students include: finding benefits in situations, reminding oneself of past successes, setting adaptive goals, reordering priorities, and infusing everyday situations with positive meaning (Folkman, 2008).

A set of skills that involve anxiety prediction and/or pleasure prediction are often taught in CBT. Leahy (2003) describes a process of turning worries into predictions. These predictions can then be tested. *Making Predictions* is a set of activities that are helpful in determining if thoughts (worries) are accurate or justified. Making predictions can be likened to the work that weathermen and women do. Those who want to predict the weather must look at the data and decide what might happen next. When there is a lot of data, they must determine their best estimate of what will happen. Wells (2000) suggests asking students to make predictions or estimations which must involve very specific and observable behaviors that can be checked out to determine if the predictions are true or not. This process

Table 9.7 Making estimations

Say to students: *There was a big test in class. Your job is to estimate the likelihood that Karen (Jack) will do well on the test depending on each situation. For example, if Karen's (Jack's) family went away on vacation during the time that the material was presented in class, she/he might have no or "0" chances out of 10 to pass the test*

Materials: *Hand out the estimation sheet*

Situation	How many out of 10?
Karen listened to the teacher talk in class, but did not read the chapter in the textbook	
Karen is <i>very</i> worried that the material will be impossible to remember	
Karen was sick the night before the test and still doesn't feel very good	
Karen had a fight with her mother before school	
Karen studied the wrong chapter	
Karen hates this subject and doesn't care about doing well	
Karen likes the class, but she is worried about a bully whom she thinks is waiting for her after school	

allows the individual to test appraisals. Students can be asked to predict or estimate how anxious they would be if: they talked in class, presented a report, told a secret they were supposed to keep, or engaged in other behavior that might make them uncomfortable. In like manner, depressed students are asked to make pleasure predictions. Asking students to predict how much fun they expect when engaging in various activities and then determining if they were correct by asking them again after they participated in an activity in group helps change thinking over time. Making predictions is also a skill that not all children find easy. Practice is needed to understand the concept of making estimations. An activity for this purpose is described in Table 9.7.

Given the fact that some students are not free of all symptoms after being treated with CBT, and given the reoccurrence of internalizing disorders, it is important that students understand that symptoms may return. Talk with students about the ongoing need to use strategies that are being learned. This can be explained using a Möbius Strip. The activity is called *Blue Shift*. Students make a never ending circle using a strip of paper which has a yellow side representing good times and a blue side representing challenging days when one is worrying or sad. On the blue strip are printed strategies to use to combat negative thoughts and feelings. The blue strip can become yellow when the strategies are used (which students can see as they follow the path of the twisted circle made by the strip). However, sometimes negative thoughts and feelings return, which is easily seen using the Möbius circle. In this case, the strategies must be used again. It is important to teach the concept of ongoing use of strategies. Directions for making the *Blue Shift* can be found in Table 9.8. Students may want to keep the Möbius Strip in their desks to cue themselves to use a strategy.

A more sophisticated strategy involves cognitive restructuring or cognitive reframing. When using this technique, a student changes the emotional impact of a situation by reinterpreting it (Caston & Mauss, in press). This strategy is considered to be very

Table 9.8 Blue shift

Directions: Take two colored strips of paper, one yellow and one blue. Print the strategies on the blue strip. Glue the strips together so that the blue side with the strategies is on one side and the yellow strip is on the other side. Holding the left side of the strip in your hand, give the strip a slight turn and connect the ends. You now have a Möbius Strip. The Möbius Strip has only one side and one edge! The blue strip has five different strategies for students to use. The yellow strip can be completed by students: older students can write in situations that typically trigger negative thinking; younger students can draw pictures of situations that trigger negative feelings; students can draw pictures of happy faces, or suns, or other images that make them feel good; or the yellow strip can remain undecorated

Blue strip

See things another way from someone else’s point of view, from a distance, or as if you were superman
Help someone or do something nice for someone else
Imagine a place you love, your favorite treat, a warm bath, or your favorite music
Find an activity, do something, go for a walk, make something, play, or read
Talk to a friend, a parent, a teacher a counselor, or the school psychologist

Yellow strip

important in CBT. The Board on Population Health and Public Health Practice (BPH) in Washington, D.C. focuses on areas and issues affecting the public’s health. This body examined the efficacy of cognitive restructuring in the treatment of posttraumatic stress disorder. The committee concluded that the evidence as of 2008 was inadequate. They found only three studies of sufficient quality and moderate size, but all three had limitations. Of the three, two were well conducted, but their results differed. A literature review located both positive and negative studies. One study determined that cognitive restructuring was effective in reducing social phobia, in reducing negative social cognitions, in increasing positive thoughts, and in supporting the effects of exposure (Taylor et al., 1997). In this study the participants were required to think about and talk about feared social events. Bistline, Jaremko, and Sobleman (1980) compared covert modeling with cognitive restructuring to determine which was more effective in reducing anxiety. Researchers found that the covert modeling group improved more. In the covert modeling condition, participants imagined the feared situations, imagined themselves handling it well, and imagined feeling good about their efforts. In the cognitive restructuring group, participants imagined the frightening situation, made a negative self-statement, and then reframed it positively. This finding led the researchers to postulate that cognitive restructuring might be working through covert rehearsal with positive reinforcement.

Teaching cognitive restructuring takes time for many students. It is important to begin simply, spending a lot of time learning to reframe or change negative thoughts to positive thoughts. *Reframe Your Thought* is an activity that is easy to set up for a group of students. For this activity, an empty frame is used or a frame

is made of cardboard. Cards with a number of scenarios are placed in a dish and each student in turn draws a card. The card is read such as “I failed the math test and feel discouraged, I think...,” or “I’m hopeless at math, I’ll never learn. I feel...” The student reads the card filling in the feeling, passes it through the frame, and restates a positive variation of the statement with a new feeling, i.e., “I think perhaps I should go see the teacher after school and get some help,” or “I bet I could do better if I got a little help.” Feelings are associated with both positive and negative thoughts in this exercise because one objective is to help students make a tighter connection between thought and feelings. Another objective is to help students appreciate the concept that changing thoughts also changes feelings. Scenarios for this activity are found in Table 9.9.

Table 9.9 Scenarios for reframing exercise

You failed the math test and feel discouraged. You think, “I’m hopeless at math, I’ll never learn.” I feel...	The whole day has been awful. Now you’ve missed the bus. You think, “Nothing will ever go right for me.” I feel...	You answer a question in class and all the kids laughed. You think, “Everyone is always making fun of me, I’m a loser.” I feel...
You’ve lost your homework and you’re upset. You think, “I’ll never be a success.” I feel...	You have a writing assignment, but you can’t get started. You think, “This is just too hard, I can’t do it, I’ll fail English.” I feel...	Your friend has invited a new kid in the class for a play date. You think, “My friend doesn’t care about me anymore.” I feel...
You bumped into someone at lunch and your lunch went all over the floor. You think everyone is staring at you and you tell yourself “I wish I could disappear.” I feel...	Every time you play foursquare the kids get you out right away. You think, “The kids really hate me.” I feel...	Your parents are angry you have another detention. You think, “I always keep messing up, I’m hopeless.” I feel...
You get a pretty good report card, but you know very well that your brother will get a better one. You think, “I’m the stupid kid in the family.” I feel...	You are playing baseball in left field. A ball is hit right at you. It hits your glove but you drop it. You think, “I’m a total failure, they will kick me off the team.” I feel...	A kid bumps into you and you think that this kid did it on purpose. You think “I’ll get even with that kid.” I feel...
You have tried for the tenth time to talk to kids at the lunch table, but it’s impossible. You think, “I’ll never be comfortable around other kids.” I feel...	You’ve been watching the clock all afternoon and checking the news. You think, “Something bad is sure to happen.” I feel...	You asked three kids if they want to be your partner for a science project, but they all said “no.” You think, “There must be something really wrong with me.” I feel...

Finally, attention control training has been addressed in the literature because attention is intimately involved with thinking and emotions. Researchers have examined interrelationships between thoughts, beliefs, and symptoms. Using multivariate analyses, researchers have found that thoughts of loss or failure are strongly related to depressive symptoms. Threat is related to anxiety and predicts anxiety symptoms. Thoughts of revenge or hostility predict aggressive behavior (Schniering & Rapee, 2004). The relationship between automatic thoughts and negative emotions is a strong precursor of disorders in children and adolescents. Attentional bias to threatening cues or to negative social cues maintains anxiety symptoms. One strategy that is used to regulate emotion is attentional deployment in that attention is “deployed away” from negative input and redirected toward something positive (Johnson, 2009). Those who have high anxiety tend to direct their attention toward threatening input and they try to avoid attention to emotional imagery by increasing worrying. It has been hypothesized that anxious students may have a general attentional control deficit involved with set shifting and inhibition. Ability to shift attention toward and away from emotional material is the foundation of emotional regulation. Attentional flexibility is the key in that the ideal is to be able to “flexibly” engage and disengage attention from emotional input.

A few studies have explored the intersection of attention and emotional brain circuitry in adolescents. Young adolescents who were highly emotionally reactive appear to have less rational control in threatening situations. Difficulty modulating reactive attention biases exacerbates anxiety and places young teens at risk for developing anxiety disorders. It may be that helping anxious adolescents improve their attention control may reduce risk (White, Helfinstein, Reeb-Sutherland, Degnan, & Fox, 2009).

Attention training has been attempted to determine if it might be possible to help individuals with anxiety learn to disengage from negative cues. Researchers have had some success training attention in adults. Watson and Purdon (2008) taught thought replacement techniques, as part of their attention training program, but this was *not* more successful than distraction or no intervention at all. However, Schmidt, Richey, Buckner, and Timpano (2009) found that 72% of those who received attention training versus 11% of controls no longer met the criteria for social anxiety disorder. This improvement was still present 4 months later. Amir, Beard, Burns, and Bomyea (2009) implemented computerized attention training and were successful with 50% of individuals exhibiting generalized social phobia in the experimental group. There have not been many studies with children, although at least one study with children had some success (Legerstee et al., 2009). When implementing CBT for children with anxiety disorders, researchers found that those who responded to treatment reduced their tendencies to direct their attention away from, or toward, extremely threatening pictures. Selective attention was not changed in those children who did not respond to treatment. Importantly, attention control, or altering an individual’s relationship with a particular situation, is considered an effective cognitive strategy along with cognitive reappraisal (Caston & Mauss, in press). When using attention control, a student would be taught to selectively disengage, but only from aspects of the situation that are not relevant or are negative.

Problem Solving

In a recent meta-analytic review, researchers looked at the relationship between six widely studied emotion regulation strategies and the psychopathology of anxiety, depression, eating disorders, and substance abuse (Aldao, Nolen-Hoeksema, & Schweizer, 2010). Ruination, avoidance, and suppression were strategies that were connected with more psychopathology. The effect size for rumination in anxiety and depression was large, and the effect size for avoidance and suppression was medium to large. Internalizing disorders were more closely related to problems in emotion regulation than were externalizing disorders. Using maladaptive emotion regulation strategies was more deleterious than lacking a helpful strategy, except for problem solving. Small relationships were found between psychopathology and acceptance, and reappraisal. Large effects were found for problem solving. Not having a strong problem-solving orientation appears to have considerable negative effects. Researchers interpreted this to suggest that their data showed only low support for acceptance strategies with more support for CBT, in that CBT emphasizes both reappraisal and problem solving. The problem-solving aspect of CBT was the strongest variable.

Problem solving can be practiced using games. Games provide generalization, increase motivation, promote self-awareness, provide opportunities to practice new skills or coping strategies, and constitute safe exposure. Problem solving is an important skill to teach. Good problem-solving skills help students deal with frustration. Students may bring their own problems to group to be resolved or practice can take place using concerns and issues common among students in a particular age group. Stories can be used for problem solving. Strategy games are useful. School-aged students respond well when given a creative activity involving problem solving. Middle school students and some secondary students also respond well to game-like challenges. *Map to NEWFAST* is a group challenge that involves creating a board game. It also involves review and practice of concepts, enhances generalization, and provides practice. Explain to students that “NEWFAST” stand for “New Emotional Ways to Feelings, Actions, & Substituting Thoughts.” The activity is described in Table 9.10.

Logic problems are useful activities in that they require both problem solving and cooperation among students. Logic problems can be created to fit particular circumstances, to rehearse and review CBT concepts, or to help students practice emotional control. They can involve considerable frustration, which needs to be controlled. They can be used to help students understand the difference between useful strategies versus not so useful strategies. Logic problems present a situation or story and clues for solving the problem. Because logic problems are difficult in the way some relationships are inferred, there are several strategies that students can learn to use that will not only foster logical thinking, but also help solve the problems.

Logic problems are presented in several different ways. The most complex way to present a logic problem is to give each student several clues and tell students that they can state the clues out loud, but they cannot compile all of the clues together on the table so that the clues can be seen all at once. A somewhat easier presentation

Table 9.10 Map to NEWFAST (New Emotional Ways to Feelings, Actions, & Substituting Thoughts)

Materials needed: Paper cars or toy cars and a large piece of blank paper are needed along with obstacle cards. Students will also need pencils, pens, and markers

Tell the group: Together you will draw a map to NEWFAST. You can add roadblocks such as stop signals, one-way signs, road construction, or accidents. You can add setbacks such as closed bridges, dangerous mountain roads, washed out streets, floods, or trees across a road. Set up a total of six obstacle squares. Be sure that there is another way to reach NEWFAST. Make the road into a game board by drawing lines to make squares. Use this map with paper cars to move around the game board. Place a card for each obstacle. Each obstacle presents an opportunity to practice a strategy

Obstacle cards

The first strategy you try to deal with your feelings doesn't work. What strategy will you try next?	You need to redirect your attention. Explain how you will do this	Positive self-talk will help when things don't go well. What could you say to yourself to feel better?
Give an example of a relevant negative thought and reframe it positively	You need to decrease the intensity of how you feel. What strategy will you use to calm down?	Share a concern that you have. Explain how you have been thinking about it and give an example of another way to think about it
Once you become upset you have difficulty thinking about schoolwork. What can you do to change this situation?	You have been feeling as if nothing is going right. You don't think things will ever get better. What thoughts might be going through your head and how can you change them?	One kid in the class really gets to you. Every time you have to interact with him, you get so angry you can't think straight. What can you do to change things?

is to eliminate the direction involving not placing all of the clues together on the table. Still easier and important should students become frustrated is to give students the several strategies that can be used to solve logic problems. For example, a chart or cross hatch grid summarizing known relationships helps students solve problems. After entering the known information, they can identify the missing information by elimination or inclusion. It helps to remind students to reread all of the clues each time they solve a clue, as inferences may be possible. It is very important to relate the strategies used in solving logic problems to solving real-life problems; i.e., remaining calm, taking breaks, using strategies, if one approach fails-try another, and being patient. A logic problem called *Middle School Challenge* that meets the criteria discussed can be found in Table 9.11.

Homework in Cognitive Therapy Interventions

Beck (1995) considered homework a crucial component of treatment. Including homework in an intervention is hardly a problem for school-based mental health workers as it fits naturally into school culture. In addition, school-based practitioners

Table 9.11 Logic problem to solve

Four middle school students in a counseling group selected colors to associate with specific feelings. In addition, they selected strategies to cope with specific feelings. Your job is to figure out which students used which colors and strategies to deal with specific feelings. Use the clues on the cards

Clues

1. Angry feelings are never purple or orange
2. Kate learned to use self-talk in the group and she frequently needed to use this strategy because she was having so much difficulty dealing with the other girls in her class, all of whom she felt had advantages that she did not have
3. White feelings can be handled by shifting your attention away from the problem that is bothering you so much
4. Maria seldom felt angry or jealous. She had her own problems
5. Using a strategy to help yourself to calm down or relax works very well for brown feelings
6. When something unexpected happens, Jack does not feel worried or sad or jealous as many of his peers might feel. He reacts quite differently
7. Andres has to deal with white feelings every day. This causes him quite a bit of stress
8. Some students have difficulty remembering to use the strategy that works best. They need some sort of reminder from either their teacher or a “cue” card
9. It is very important to practice strategies to deal with feelings. Otherwise, you can’t use them when you need them
10. Neither Jack, Maria, or Andres experienced purple feelings very often at all
11. It is best to use a strategy to calm down quickly when you feel angry, otherwise you might behave inappropriately
12. When you experience orange feelings, this is the signal that tells you that you need to change your thinking
13. Strategies seldom work if they are not practiced regularly
14. Although everyone feels worried sometimes, Maria most often felt sad
15. When feeling worried, you know that this feeling is not a purple or orange feeling
16. It is very important to learn to “name” your feelings

This is a very challenging problem, so after struggling a while, students may need a strategy

<i>Name</i>	<i>Color</i>	<i>Feeling</i>	<i>Strategy</i>
Kate	White, brown, purple, orange	Worried, sad, angry, jealous	Self-talk, calm down, change thinking, shift attention
Maria	White, brown, purple, orange	Worried, sad, angry, jealous	Self-talk, calm down, change thinking, shift attention
Jack	White, brown, purple, orange	Worried, sad, angry, jealous	Self-talk, calm down, change thinking, shift attention
Andres	White, brown, purple, orange	Worried, sad, angry, jealous	Self-talk, calm down, change thinking, shift attention

Answer

<i>Name</i>	<i>Color</i>	<i>Feeling</i>	<i>Strategy</i>
Kate	Purple	Jealous	Self-talk
Maria	Orange	Sad	Change thinking
Jack	Brown	Angry	Calm down
Andres	White	Worried	Shift attention


have realistic and practical views about homework. They realize that it can be misused, that students may have an emotional reaction to it, and that in some cases it may be difficult to get compliance especially when sessions occur only once per week. Although it is considered essential, there has not been a lot of attention to homework in the research literature (Burns & Spangler, 2000; Rees, McEvoy, & Nathan, 2005). Many psychologists, particularly those who use CBT, tend to use homework assignments, yet only 25% of all psychologists in one study have reported using systematic procedures for homework (Kazantzis, Busch, Ronan, & Merrick, 2007; Kazantzis, Deane, Ronan, & L'Abate, 2005).

Researchers have looked at homework compliance and determined that non-compliance is inevitable to some extent (Kazantzis et al., 2005). A meta-analysis of 27 studies showed a positive relationship between homework assignments and homework compliance with intervention success (Kazantzis, Deane, & Ronan, 2000). Although a great deal about homework in therapy remains unstudied, there is some data that suggest that more varied types of homework worked better (Gaynor, Lawrence, & Nelson-Gray, 2006; Kazantzis et al., 2000). Yovel and Safren (2007) looked at homework utility, which they described as the extent to which complying with homework assignments might be related to improvement of symptoms over time. They studied the use of CBT with adults who exhibited ADHD and found homework utility was significantly associated with success of treatment. Rees et al. (2005) found that both quantity and quality of homework made a difference, but amount completed had an even stronger relationship with decreases in symptoms of depression and anxiety. This was the case immediately posttreatment and 1 month later. More research is needed around the relationship between homework completion and outcomes of treatment with children.

Given there is some evidence that assigning homework results in better effects and that individuals who complete assignments obtain better outcomes (Burns & Spangler, 2000; Kinsella & Garland, 2008), it is important to consider the advice of researchers and clinicians around implementation of homework. To avoid resistance around completing homework when working with children, clinicians have used language other than the word homework. Kendall, Chansky, Kane, and Kim (1992) used STIC (*Show That I Can*) for homework assignments; Burns (1990) called homework self-help assignments. Friedberg and McClure (2002) referred to homework as building your toolkit. Kinsella and Garland (2008) suggest describing homework as an experiment. Homework provides practice and rehearsal, builds a sense of mastery, and gives group leaders an opportunity to see if concepts have been learned (Hudson & Kendall, 2002). It is important to use a routine for homework following the structure of a traditional CBT session, to explain the tasks assigned thoroughly and to try out components with the group to be sure the work is understood rather than dealing with homework as an add-on at the end of the session. Obstacles to completing homework need to be addressed, such as emphasizing the importance of the work. Homework must be reviewed seriously and learning summarized in order for it to have a positive effect.

Table 9.12 Practicing new skills

Practice combining several skills such as identifying feelings and thoughts, connecting them to events, and in addition, changing the thoughts so that the feelings will change as well. After practicing these skills in a group session, challenge students to identify several events before the next session and complete homework similar to that shown below.

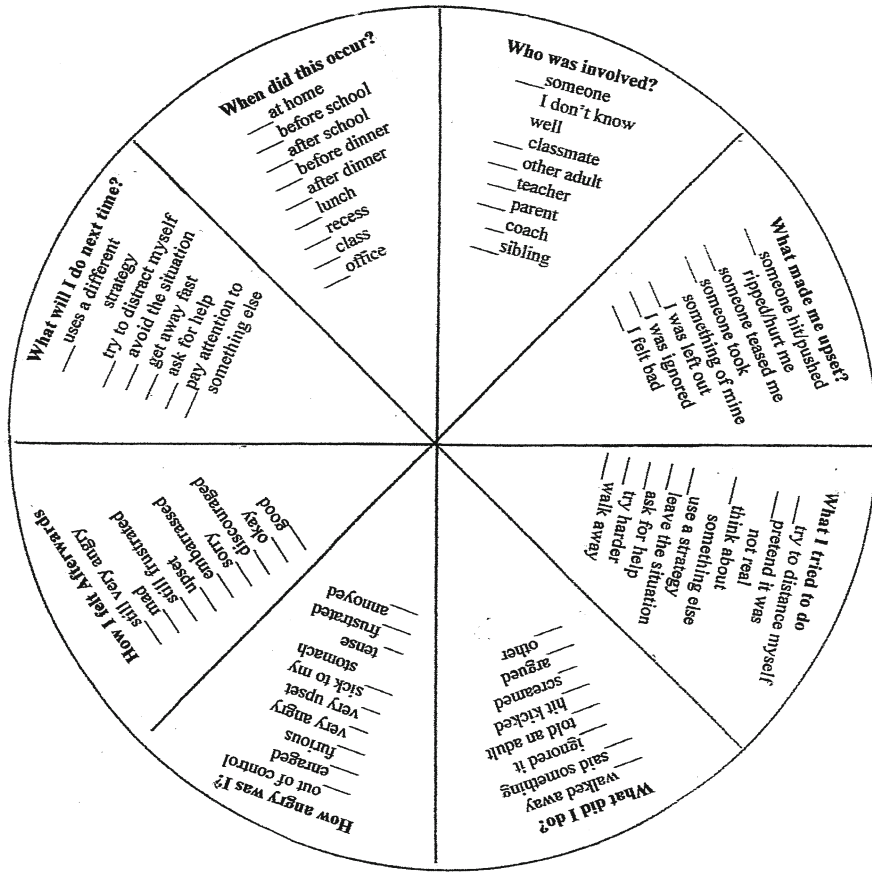
Draw the event that caused the upset.	Draw or write how you felt.	What were you thinking?	Change your thought.	Describe the new feeling.
				

Homework assignments can consist of any or all of the exercises presented in this text. It can be used to review important concepts and to practice new skills (see Table 9.12).

Full Moon is a homework assignment that looks complex, but is actually a time saver for students. It is also a rich source of information and teaching opportunities. Although all homework assignments need to be introduced and tried out during group sessions before they are assigned for homework, it is even more important in this case, given the complex appearance of the task. The “Full Moon” is a circle with many sections asking questions. What made me upset? When did this occur? Who was involved? What did I do? How angry was I? How I felt afterwards? Did I try to control my anger? What will I do next time? The circle can be copied on cover-stock paper and cut out, making it easy to handle and less like a worksheet. Each section represents a step in the CBT process. Instruct students to complete the Full Moon activity thoughtfully, reflecting on one incident that occurred during the week (see Table 9.13).

Table 9.13 Full moon homework assignment

Completing the “Full Moon” is first practiced in a group session and is later assigned as homework. Students are asked to record how they handled an incident during the week by making checks in each section of the circle or “full moon.” Remind students to select a significant event to record. It is important to go over this information in detail when students bring it back to the next group session



When students bring the Full Moon to group, there is ample opportunity to review strategies, successes, and concepts.

Given that variety is important, clinicians have suggested various homework projects to increase awareness such as (Tompkins, 2004; Young & Beck, 1980):

- Self-recording the frequency of worrying, or the frequency of experiencing sadness or anger
- Scheduling positive activities
- Practicing and recording the use of relaxation strategies
- Gathering data to test assumptions (e.g., I will never be successful at anything)

Table 9.14 Additional resources for school-based practitioners

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- Christner, R. W., Stewart, J., & Freeman, A. (Eds.). (2007). *Handbook of cognitive-behavior therapy with children and adolescents: Specific settings and presenting problems*. New York: Routledge.
- Friedberg, R. D., & Crosby, L. E. (2001). *Therapeutic exercises for children: Guided discovery through cognitive behavioral techniques*. Sarasota, FL: Professional Resource Press.
- Friedberg, R. D., & McClure, J. M. (2002). *Clinical practice of cognitive therapy with children and adolescents: The nuts and bolts*. New York: Guilford.
- Kendall, P. C., & Hedtke, K. A. (2000a). *Cognitive-behavioral therapy for anxious children: Therapist manual* (2nd ed.). Ardmore, PA: Workbook Publishing. Retrieved from <http://www.workbookpublishing.com/proforma.html>
- Macklem, G. (2008). *Practitioner's guide to emotion regulation in school-aged children*. New York: Springer.
-

- Making a list of thoughts that are not helpful
- Reviewing concepts taught in sessions
- Reading an article
- Counting automatic thoughts
- Completing a questionnaire
- Graphing daily moods
- Practicing coping strategies

Huppert, Ledley, and Foa (2006) suggest giving handouts to be read, asking students to create summaries of what they have learned, and again keeping records of thoughts and behaviors. When talking about the homework that has been completed, it is important to indicate that errors are normal, and additionally, it is important to reward what has been completed. To expand their repertoire of activities, there are several additional resources that school psychologists may want to have in their libraries (see Table 9.14).

Chapter 10

Sustainability, Current Programs, and a Look to the Future

It is important to review a few key concepts, address the school context, explore the sustainability of new mental health programming, and look at how families and schools can work together. In addition, a look to the future is considered by briefly exploring the so-called third wave of CBT to include therapies such as dialectical behavior therapy and mindfulness cognitive therapy, although these interventions may need more school-based research support before they would be chosen over other evidence-based interventions already available. The influence of technology in school-based mental health intervention is briefly discussed, as this trend will surely continue. The infusion of emotion science into CBT is advocated along with several examples of curricula already under development.

Masia-Warner, Nagle, and Hansen (2006) estimate that 21% of school-age students have a diagnosable psychiatric disorder and there are many additional children who experience social and emotional difficulties causing distress and functional impairment. In 2002, President George W. Bush established the President's New Freedom Commission on Mental Health, which highlighted the fragmentation and gaps in mental health care for children and adolescents. Improving and expanding mental health services in schools were identified as a critical component in the process of fixing the problem. Several specific recommendations included integrating mental health awareness into the general curricula, asking schools to play a critical role in suicide prevention, and screening and treating comorbid mental and substance abuse disorders.

Unfortunately, transporting treatments from research into the school setting has been taking place without strong evidence on "best practices" for doing so (McHugh & Barlow, 2010). Beyond this, the effectiveness of the majority of school efforts to address mental health issues of students is unknown (Masia-Warner et al., 2006). Schools, for their part, point out that students' mental health needs are increasing while funding is decreasing. Schools need to promote the fact that grades, discipline referrals, student promotions, dropouts, and school connectedness are influenced by mental health promotion and intervention (Stephan, Weist, Kataoka, Adelsheim, & Mills, 2007). Making this well known would surely contribute to a school's ability not only to be able to put programming in place, but also to sustain programming.

The School Context and Sustainability of Programs

Social–emotional development is intimately related to academic achievement. These dynamic, interrelated areas determine whether or not a child will be successful in school and in other contexts. Children who do not develop adequate social–emotional skills are at-risk in the school environment and also are at-risk of developing emotional problems in addition to academic and other problems (Aviles, Anderson, & Davila, 2006). Emotion regulation is important in cognitive processing (Siperstein & Richards, 2004). Emotion regulation is associated with teachers' reports of students' academic success and productivity in the classroom, as well as early literacy and math achievement scores (Calkins, 2004; Graziano, Reavis, Keane, & Calkins, 2007).

Schools need to provide consistent and comprehensive mental health programming and must integrate lessons from emotion science into the general curriculum. Even among those schools already providing services, there is a gap between services provided at the elementary level and the high school level in spite of the fact that early adolescence is a critical period for prevention of mental illness. In particular, adolescent girls are at increased risk for depression and their needs must be addressed (Horowitz & Garber, 2006). Teachers play a significant role in students' social–emotional development as well as in their academic performance (Atkins, Graczyk, Frazier, & Abdul-Adil, 2003). Teachers' management strategies, instructional approaches, and engagement are extremely important. Academic success can be protective for students at-risk for mental health disorders. Yet, the academic difficulties of students with mental health problems are often overlooked.

The school context makes a huge difference in whether or not change can occur and, if it does, whether or not it can be sustained. Change efforts can be extraordinarily fragile in some school contexts (Harris, 2006). Sparks (2001) points out that change can't be imposed on schools. It has to be nurtured because schools are politicized and formal structures making collaboration challenging. Complications of the school context include: scheduling patterns, the size of the school, school safety, working conditions, and the time and resources that are available (Boyd, 1982). It takes time for teams to learn to work together, teachers have limited contact with new ideas, and school personnel worry that the public will not accept change. School cultures affect the behavior of students at all levels of schooling. Change affects the school culture, which helps us understand why change is so slow and threatening to the people who work in schools. Teachers' and probably administrator's attitudes toward change depend on how change affects them personally. However, when school personnel understand the rationale behind a new practice, the chances of implementation and sustainability improve.

Sustainability involves long-term implementation of a program or intervention, at a high level of fidelity producing positive outcomes (Stormont, Reinke, & Herman, 2010). For new programs and practices to be sustained, they must be perceived and accepted as efficient (McIntosh, Filter, Bennett, Ryan, & Sugai, 2010). Efforts to decrease the time, effort, and money involved in universal programming

may need to be taken not because the work isn't important, but rather to gain the attention of school decision makers, to engage staff commitment in challenging times, and to make sure that programs will stay in place once implemented. Sustainability means that the change must continue whether or not there are new teachers each year and change must continue in spite of influx of new students, student loss, and community shifts. In order for this to occur, ongoing local collection of data and publication of that data are critical (Stormont et al., 2010). Clearly, school climate and school context make a difference and need to be understood if changes are to be sustained. Adelman and Taylor (2003) argue that change must fit the vision, mission, and priorities of the school system. Change agents must show how new programs can be integrated into the curriculum or into current school practices, and also how resources can be deployed or rearranged. Interest, consensus, and support must be mobilized. In particular, a critical mass of supportive stakeholders must be energized and committed to the new program. Champions who are influential with school staff and who will remain committed must be identified and mobilized. The process of change must be clearly articulated. Barriers need to be anticipated and addressed. Follow-through procedures need to be established along with long-term agreements, publicizing successes and occasionally renewing interest and commitment.

Families and Schools Working Together

As of 2004, there were no data-based guidelines to let practitioners know the relationship between parents and their children's treatment, although most clinicians have recommended that parents be involved in children's treatment. Generally, if the chief concern is anxiety or a disorder occurring with anxiety, practitioners would advocate for parent involvement. If students are young in age, or have cognitive delay, parent involvement would be considered important. If parent management style or parent behavior supports symptoms, parents need to be involved. If a parent also has a disability, it would be important to involve that parent in the child's treatment (Velting, Setzer, & Albano, 2004). At the very least, since informed consent is necessary for service in schools, parents need to understand their child's disability, what treatments are considered, and the evidence to support each choice. Barrett (2000) has pointed out the importance of parental involvement in CBT interventions. Cole, Teti, and Zahn-Waxler (2003) raise concerns about mutual anger in mother-preschooler relationships. In their study, maternal emotion predicted conduct problems later on for boys, and if this was not ameliorated, boys' conduct issues persisted.

Many, but not all, parents of anxious children in particular need to be involved in their child's treatment because they tend to encourage avoidance behaviors. They also tend to model anxious behavior and avoid talking about negative emotions. In addition, parents of anxious children tend to protect them from situations that are emotionally arousing, so their children do not develop the adaptive skills needed to

regulate their emotions (Hannesdottir & Ollendick, 2007). Modeling for parents is important in treating anxious children (Kendall et al., 2005). This group of parents needs to be taught to listen reflectively, discuss emotions and emotional experiences with their children, coach emotion, and allow their children to express emotions rather than dismissing them. Gar and Hudson (2009) explored whether maternal criticism and emotional overinvolvement might change if their children were treated for anxiety. In fact, maternal behaviors decreased as their children's symptoms decreased. In spite of the consistent opinions around involving parents in treatment, not all programs report parent components and few evaluate parent components when they do include them (Walter, 2007).

It is important for mental health workers in schools to run parent groups in spite of the extra time involved, as the pay-off is great when change can be made in parent understanding and in parenting practices. One important consideration when running parent groups is to keep in mind that there is no correct way to parent. Parents need to be given tools to decide what fits their own culture and context in regard to parenting practices. Children of different cultures react differently to the same parenting behaviors (McIntosh, Jason, Robinson, & Brzezinski, 2004). When running groups with students, it is important to keep all parents apprised of the skills that are being worked on and how parents can help. There are data to suggest that involving parents increases generalization of effects beyond the school context. After each intervention session, parents of students in the group and those children's teachers can be sent messages to inform them of the skills being taught, how to cue students to use the skills, to request that adults observe and keep a running record of the child's use of skills, and to give information on how to reinforce new behaviors. If email is used for this communication, it is critical to send blind copies to all participants and to never mention a specific child by name, or identify unique behavior, or individual needs. Sending information or handouts to the whole group is a time saver and encourages practitioners to send more information than would ordinarily be possible due to time and other commitments. Communication about an individual child can be made over the telephone or face-to-face.

Evidence-Based Practice

A three-tier approach is advocated to build comprehensive mental health programs in schools. This involves using a universal mental health program as well as selective and targeted interventions. Best practices suggest that at the universal level, an evidence-based social-emotional learning (SEL) program be found to match the particular needs of a school. Teacher training is important at this level, not only in program delivery, but also for assistance in identifying children who are not making progress. The role of the school is to reduce risk and increase protective factors (Herman, Merrell, Reinke, & Tucker, 2004). Avoidance of students with internalizing disorders not only by peers but also by teachers, bullying and/or victimization, and school failure are issues to address along with improving the general school climate

at Tier 1. At the selective and targeted levels, a manualized evidence-based intervention would be appropriate. Parent training can also be considered. At Tier 3, intensive evidence-based techniques should be utilized.

School staff need to be aware that often selective and indicated prevention programs appear to be significantly more effective than universal programs due to the difference in level of symptoms in the three groups. Universal programs deliver services to a large group of students with small needs. The number of participants required to show a significant statistical effect is extremely large, preventing strong evidence of effectiveness. Yet, universal interventions may be cost-effective if they prevent even a small number of cases of mental difficulties or illness (Horowitz & Garber, 2006). Additionally, prevention programs may not show initial postintervention effects, as only after time do some programs show that they have been effective. The bottom line is that universal interventions are needed in addition to interventions at Tiers 2 and 3.

Of course, programming at all three tiers must be carefully planned to reflect the school and community in which programs are to be implemented. When schools and communities are quite diverse, it makes sense to select programming that is somewhat flexible or to select programming in which there has been some research to indicate which components are critical, and which can be adapted to some degree. An example of a prevention program that has been investigated with different ethnic groups is the *Penn Prevention Program* for depression. However, even in this case, the program has been shown to be effective with Latino and Chinese students, but not with African American students (Horowitz & Garber, 2006). Planning teams must do their homework.

A strong emphasis on evidence-based practice has been made in federal regulations, in the extant literature, and in this text. CBT has been demonstrated to be highly effective for the treatment of anxiety and depression. There is substantial evidence of its effectiveness to treat bulimia nervosa and binge eating, as well as schizophrenia, and to reduce risk of relapse in bipolar disorder. It is useful in helping children and adolescents cope with pain and disability (Wright, 2006). It has been found to have a modest effect in decreasing antisocial behavior (Joughin, 2006). Current texts apply CBT to treatment of most of the disabilities that school psychologists would encounter in schools. To support this work, there are workbooks and computer programs available (Wright, 2006). Mental health workers in schools who utilize CBT may well consider a universal protocol rather than trying to learn and implement both specific and select CBT interventions for each disability or disorder.

One of the possible complications for schools adopting and using CBT has been the warning in the literature that younger students would not benefit from CBT practices given their cognitive complexity. Actually, young children are able to reach a conclusion from information when everyday reasoning uses familiar context that allows for more possible answer and when questions are properly phrased (Grave & Blissett, 2004, p. 403). Young children require concrete constructs to make sense of causal reasoning. They need simple, clear, and logical exercises about situations that are familiar. Under these conditions, both young and handicapped

students can demonstrate logical thinking. Students in elementary and middle school are also likely to prefer active, concrete exercises designed to teach concepts rather than verbal and abstract discussions. Active strategies are a good approach for teaching new skills and help make children aware that they are learning something new. The bottom line is less discussion and more action (Joughin, 2006).

Most assuredly using CBT in schools, as in other settings, requires collecting baseline data, monitoring the positive and negative experiences of students, and watching for risk of stigmatization (Joughin, 2006). Practitioners may also want to collect feedback from the students who participate in treatment (Friedberg, Miller, Perymon, Bottoms, & Aatre, 2004; Herman et al., 2004). Outcome data is critical and should include not only changes in thinking, changes in somatic/physiological symptoms, and changes in behavioral symptoms, but also data around school absences, tardiness, visits to the school nurse, homework completion, participation in class, peer interactions, and achievement (Atkins et al., 2003). Outcome measures might include teacher referrals for internalizing disorders, which would indicate how well training around identification by teachers was progressing. Parents and teachers must be able to see the connection between mental health and school achievement, and teachers must see a pay-off that directly affects them, if they are going to be willing to implement universal interventions with fidelity or to accommodate students leaving their classroom for Tier 2 and 3 interventions.

Third Wave CBT

The most recent innovations in CBT have been the development of so-called “third wave” CBT interventions (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). Several of these have generated considerable interest: acceptance and commitment therapy (ACT: Hayes, Strosahl, & Wilson, 1999), dialectical behavior therapy (DBT: Linehan, 1993a), and mindfulness-based cognitive therapy (MBCT-C: Segal, Williams, & Teasdale, 2002). These interventions have in common the idea that the goal is to change one’s relationship to events through strategies such as mindfulness, acceptance, and/or cognitive defusion (a technique such as rapidly repeating a thought out loud until it loses all meaning). Compare this to trying to change thoughts or feelings so behavior will change. The third wave concept is to change the context that links these domains. *Acceptance and commitment therapies* have been studied primarily with adults using short and limited interventions. There does not seem to be enough data to consider this approach with children or in schools as yet. In fact, little is known about the efficacy of acceptance-based treatments (Arehart-Treichel, 2009).

DBT was developed for individuals with borderline personality disorder in clinical settings. More recently, it has been empirically validated for treating other disorders (Goldstein, Axelson, Birmaher, & Brent, 2007). Of particular interest is that DBT has several major components, one of which is emotion regulation. Specific skills are taught in the emotion regulation module including: identifying and labeling

emotions, identifying obstacles to changing emotions, reducing problem-solving passivity, increasing positive experiences, decreasing judgments, taking opposite action, and improving ability to tolerate distress (Linehan, 1993b). DBT has been adapted for use with suicidal adolescents (Rathus & Miller, 2002; Robins & Chapman, 2004) and for adolescents with oppositional defiant disorders (Nelson-Gray et al. 2006). Studies with adolescents have been small, mostly without control groups, and conducted in settings other than schools. There does not appear to be sufficient data available as yet to use DBT in schools with adolescents, although there is interest in doing so. Certainly, the emotion regulation modules may be helpful for school mental health staff to review, and the “opposite action” strategy has attracted particular interest among practitioners. School-based practitioners may want to remain aware of continuing research around DBT.

Mindfulness-based cognitive therapy teaches that thinking is actually behavior. People generate thoughts in language that affects their perception of experiences. Therapists using mindfulness techniques teach that thoughts aren’t harmful, instead they can be examined rather than treating them as if they were true facts (Ciarrochi & Blackledge, 2006). The idea is not to want to get rid of our thoughts, but rather to accept them as they occur without necessarily believing them. Mindfulness appears to have benefits in the treatment of depression, although some studies also include reappraisal techniques, which may be compromising study conclusions (Arehart-Treichel, 2009). A key goal of mindfulness training is the promotion of adaptive emotion regulation. We can compare and contrast CBT and Mindfulness-CT. Whereas CBT teaches individuals to change the content of thinking and interpretation of emotional events, mindfulness teaches acceptance versus acting on those thoughts (Chambers, Gullone, & Allen, 2009). CBT techniques alter the content of thoughts, but mindfulness changes the individual’s relationship to emotional situations. CBT teaches that thoughts are appraisals that can be changed to make them less distressing, whereas mindfulness teaches that thoughts and feelings do not need to be acted upon. Thoughts give us useful energy. In mindfulness training, individuals are taught to pay attention to thoughts without judging them. When individuals do this successfully, their prefrontal cortex is activated and this could improve mood (Lieberman et al., 2007).

An interesting study compared suppression, reappraisal, and acceptance (Arehart-Treichel, 2009). Students were told that they would be giving a speech that would be filmed. In addition, the speech would be impromptu. One group was told to suppress their anxiety, another was told to use reappraisal techniques, and the third was instructed to accept their anxiety without trying to change it. Reappraisal was especially effective and acceptance was also helpful, but suppression was not helpful. Carter (2009) described a study that used functional magnetic resonance imaging to focus on the use of cognitive strategies for affect regulation (Kross, Davidson, Weber, & Ochsner, 2009). One group focused and ruminated on feelings associated with upsetting memories (feel condition), a second group accepted the memories as passing mental events (accept condition), and the third group analyzed the causes and reasons for their feelings (analyze condition). The group who ruminated experienced the highest negative emotion. The lowest

negative emotions were reported for those who accepted emotions, with intermediate levels in the analyze condition. Mindfulness was demonstrated to be an effective strategy in this particular situation with highly cooperative adults who had had extensive training in (mindful) acceptance. The results might not be the same in anxious or depressed individuals, or in children for that matter.

Mindfulness-based CBT (MBCT-C) has been explored with children in small studies. One study involved nonreferred children aged 9–12 years and provided evidence to suggest that MBCT-C may be helpful in decreasing internalizing and externalizing symptoms in this age group (Lee, Semple, Rosa, & Miller, 2008). Semple (2005) describes MBCT-C as a 12-session group intervention. Semple implemented a MBCT-C program with middle-school children, 84% of whom were ethnic minorities, using a manual. Participants exhibited fewer attention problems and reduced symptoms of anxiety, demonstrating that MBCT-C is feasible and acceptable to children. However, these are preliminary studies. Thompson and Gauntlett-Gilbert (2008) describe the MBCT-C research as in *initial* stages. Again, school-based practitioners need to be aware of the support for treatments they may consider using.

CBT and Technology

Technology has changed many aspects of our lives. In like manner, it is changing mental health services. Technology has the potential of facilitating delivery of services in areas where there are few service providers. Technology also has the potential of helping school-based practitioners with issues of student resistance and motivation, and to supplement aspects of training such as providing practice opportunities for students learning new skills. Technology can be used to entice students to practice skills, to help students attend to and master basic concepts, and to review and reinforce learning. Given many children who need treatment do not receive treatment, computer-based CBT may be another way to expand services to children. When CBT manuals are reformatted so that they can be used with a computer, we refer to this as computer-based CBT. Benefits of computer-based CBT for school-based practitioners are to improve treatment integrity or to help teach concepts and skills. Computer-based CBT has the advantage of being able to provide: still and/or video pictures; simulated exposure; and delivery of standardized materials such as homework tasks, checks, and reward protocols. It can provide games for practice while collecting and recording data that can be easily monitored. It can deliver content that varies depending on client responses (Khanna & Kendall, 2008). CBT computer programs have been developed to use with minimum help from a mental health professional, although most of the time a therapist is involved to varying degrees (SBU Alert Report, 2007, 2007-03). Evidence is still limited in regard to children, but what is available suggests that computer-based CBT has positive short-term effects for treating panic disorder, social phobia, and depression in adults.

At present as noted, there is limited data available around the effectiveness of the use of computer-based interventions for young people. However, as technical development continues at a rapid pace, already there are a variety of computer-based CBT interventions available for use with students. A few examples include: *BRAVE for Children*, *BRAVE for Teens*, *CAVE*, *Cool Teens*, *Camp Cope-A-Lot: The Coping Cat CD*, *MoodGYM*, *Reach Out! Central*, and *Stressbusters* (Cunningham, 2008). Many of these have been implemented as pilot programs and a good deal of research is underway to determine efficacy, comparing this mode of delivery with other more traditional service delivery models. Certainly, we can look forward to additional efforts to improve programs and to development of new programs in the near future. A few examples of the ongoing work follow.

Spence, Holmes, March, and Lipp (2006) looked at the efficacy of a computer-assisted intervention for anxiety in children. They compared students who received a CBT treatment for six sessions followed by six group sessions in a clinic, with a clinic only group and a wait-list group. Both intervention groups were more likely to be diagnosis-free immediately postintervention and also at 12-months follow-up. There was minimal drop out of treatment. March, Hons, Spence, and Donovan (2009) delivered a CBT program via the Internet with therapist contact only by telephone and email messages. Internet-CBT *BRAVE for Children-ONLINE* was compared with a wait-list control group. Students were from 7 to 12 years old from middle to high-income families. All participants in the study evidenced at-risk to clinical anxiety. *BRAVE for Children-ONLINE* had ten 60-min child sessions and six 60-min parent sessions plus two booster sessions, one of which was three months later. Content included recognition of physiological symptoms, relaxation techniques, cognitive strategies, exposure, problem solving, and self-reinforcement. Each session started with a recap of content and a quiz. All sessions were highly structured. At posttreatment, 30% of participating children no longer met the criteria for their primary anxiety disorder; whereas 10.3% of the wait-list children no longer exhibited their primary disorder. However, a number of parents and children did not complete all sessions. Nevertheless, the group receiving Internet-CBT demonstrated small yet significant improvement. By the sixth month posttreatment, 75% of participants were free of their primary anxiety diagnosis. Improvements posttreatment compared to clinic samples at 6-months posttreatment were similar (March et al., 2009).

Stressbusters is an interactive software intervention. It targets adolescents with mild to moderate depression (Abeles et al., 2009). This computer program has eight 45-min sessions. Whereas 95% of adolescents met the criteria for a depressive disorder preintervention, only 22% met the criteria postintervention with improvements maintained for three months. Improvements were seen in self-reported anxiety as well as in depressive thoughts, attributions, and in behavior.

The *Cool-Teens* CD-ROM has eight modules and can be used over 12 weeks. A pilot study with a very small number of participants (5) showed promise. 40% no longer could meet the criteria for an anxiety disorder immediately postintervention and also at three months follow-up. Two additional participants continued to demonstrate a disorder, but had a reduction in symptoms (Cunningham et al., 2009). *Camp Cope-a-Lot: The Coping Cat CD-ROM* (CCCD) for students with

anxiety between the ages of 7–13 is a computer-assisted CBT intervention (Khanna & Kendall, 2008). A similar CD-Rom is in development for adolescents of ages 14–18 years. The CCCD uses flash technology as well as photographs, videos, text, and a cartoon character. Whereas the *Cool Teens* CD-ROM does not require very much interaction from the therapist, the CCCD requires a professional who interacts as a coach for half of the sessions. The coach monitors symptoms, makes sure that exposure tasks are used successfully, and offers both reinforcement and help. Of interest to school psychologists who are less experienced in CBT, it is not necessary to be fully trained and experienced in CBT to fill the coaching role. There are 12 sessions, with two additional parent sessions. Students become involved in an interactive learning environment, develop knowledge, learn skills, and engage in “Totem Pole Challenges.” Homework becomes a contest, with games as the rewards. Pilot studies have been completed.

The MoodGYM program, which is a depression and anxiety intervention for adolescents, was used in a school classroom for 5 weeks and data from this interventions were compared with online participation in the program (Neil, Batterham, Christensen, Bennett, & Griffiths, 2009). This study involved a large sample of students: 1,000 students in the school setting and 7,207 students online. In the online sample, there were more girls and more students with higher preintervention depression. Over both samples, the teenagers in the school setting and students in rural areas completed more exercises as compared to the online sample in general, suggesting that adherence was improved when teachers monitored use.

Emotion Regulation in CBT

CBT has been criticized because it insufficiently addresses emotion (Leahy, 2007). In studies with self-harming adults, researchers felt that what would help most would be specific emotion-regulation strategies (Slee, Spinhoven, Garnefski, & Arensman, 2008). Suveg, Southam-Gerow, Goodman, and Kendall (2007) advocate for direct consideration of emotion when developing prevention and treatment programs for children. Slee et al. (2008) conducted a study of teenagers and adults who engaged in deliberate self-harm. The CBT intervention significantly decreased participants’ symptoms of anxiety, depression, and suicidal ideation. Changes were partially mediated by improvements in emotion regulation. Targeting specific emotional regulation deficits was strongly recommended.

Hannesdottir and Ollendick (2007) point out that interventions for children with anxiety disorders already contain education about emotion, but the emphasis is on anxiety and fear and not on other emotions. When emotion is addressed in treatment programs, emotion education needs to be more extensive. Students need to learn about the impact of a variety of emotions and, in particular, need to learn that negative thinking fosters negative emotions. Students need to learn to label emotions and to connect certain situations with specific emotions so that when they encounter those situations, they will be prepared. Correctly identifying

emotions gives children some degree of control, but students also need strategies about how to change emotions and how to pull themselves out of negative moods. Students need to learn to generate positive emotions to repair negative and difficult emotions. Using emotion regulation skills in a role-play situation in a safe group is not the same as using strategies in a stressful situation. Students need to practice strategies in real life, to shift emotions and to redirect attention outward and away from what upsets them or how they feel physiologically. They need to learn that some strategies work better than others in particular situations. For example, disengaging from signs of distress is a strategy that may work better at times than trying to initiate relaxation or taking a deep breath in a threatening situation.

Importantly, there are a number of studies that have found that students make gains in regulating the specific emotion, which they have been trained to deal with in treatment, but other emotions are not affected (Suveg, Sood, Comer, & Kendall, 2009). School-aged children with anxiety disorders do not only have to deal with anxiety, but also to manage other emotions. Students have been found to experience difficulty with anger and sadness, which they experience more intensely than others in addition to worry (Southam-Gerow & Kendall, 2002; Suveg & Zeman, 2004). In fact, unless many specific emotions are addressed in treatment, students will not improve in their ability to regulate those emotions. Gains made in regulating the specific emotion addressed did not seem to generalize to other emotions. It is necessary to target all emotions (Suveg, Sood et al., 2009). In order to learn to change one's reactions to emotional situations, emotion understanding must be intact. Students must also believe that they can manage their emotions (Landon, Ehrenreich, & Pincus, 2007; Suveg & Zeman, 2004). Because about one third of students who are treated for anxiety continue to experience anxiety after intervention, and because they have difficulty with a variety of negative emotions, it is critical to expand emotion training in the interventions that we provide in the school setting. Reddy, Thomas, Newman, and Chun (2009) argue that school-based outcomes may be compromised when only one symptom dimension is addressed. This argues for a unified treatment protocol in which practitioners address many emotion-related variables. A unified treatment protocol makes sense given the commonalities between anxiety and depression, the role that anxiety and depressive thinking play in many disorders, and the fact that we work with students exhibiting either comorbid disorders or several different disorders in school groups (Suveg, Sood et al., 2009).

Emotion Regulation in Therapies for Children and Adolescents

Researchers have looked at changes in emotion regulation as outcomes of CBT. Several important efforts have been made to either feature emotion science or to fold emotion regulation into therapies for school-aged children, particularly for those with anxiety and depressive disorders, but also in universal prevention. It is

important to point out that the following programs are under development rather than empirically supported at this time. However, for those who appreciate the exciting progress being made in both emotion science and prevention science, it is important to know about these efforts and follow their development. In addition, there are circumstances in which a mental health practitioner may determine that a less well-supported program is the treatment of choice, after careful study of all aspects of a given situation including the child, the family, school, and the supportive data for the specific program.

An emotion-based prevention program for young children, currently described as the *Emotions Course or EC*, is under development (Thomas, 2001). The purpose of the program is to develop emotion knowledge and emotion regulation. Researchers have found that preschoolers' emotion knowledge predicts social adjustment and academic competence in third grade. In EC, preschool children are taught to identify emotion signals in others' behavior and also in vignettes. The protocol uses puppets, stories, and interactive games. Children are taught to use both positive and negative emotions constructively. Studies have compared the effects of the EC program in both urban and rural Head Start Programs (Izard, Trentacosta, King, & Mostow, 2004; Izard et al., 2008). One study compared users of the program with Head Start as usual. Another study compared use of the new program with the *I Can Problem Solve* program (Shure & Spivack, 1982), in an urban area, with positive results. Effect sizes for this program used at the preschool level are in the medium to large range and this compares favorably with other programs currently used.

The EC program with accompanying manuals is being developed both for preschools and for children in grades 1 and 2 with a high percentage of at-risk children. The preschool version of the program has 20 lessons comprising sixty-eight modules. Two or three modules are used with students each week for about 5 months. The curriculum is described in detail in several articles (Izard, Fine, Mostow, Trentacosta, & Campbell, 2002; Izard et al., 2008). The program emphasizes the adaptive functions of all basic emotions and teaches that emotion regulation is the way to use the motivation associated with discrete emotions.

Kovacs et al. (2006) developed an emotion-focused intervention for depression in children of 7–12 years of age. Their model is called *Contextual Emotion Regulation Therapy or CERT*. It is targeted for clinically depressed children. CERT focuses on teaching self-regulation of feelings of stress and dysphoria. Researchers have developed a manual for the intervention which deals with: effective use of language, selecting symptoms to target, intervention techniques, and the strategy of reframing incidents in terms of emotion regulation because children with depression have difficulty downregulating stress. Parental involvement is required. In the CERT program children are taught to identify situations triggering negative thoughts. They learn to use strategies to regulate their negative affect and to improve adaptive coping, because depressed children have fewer and less effective emotion regulation skills than their peers. This program addresses the limitation in traditional CBT in which emotion regulation is not emphasized. It also addresses

the issue that parents are not strategically engaged as emotion regulatory coaches in some programs. CERT has already been expanded to include sensory modalities. The CERT intervention is considerably longer than a traditional CBT intervention and it may be a better fit at this time for a clinic than a school, given parents are involved in every session. Research is ongoing.

An effort to incorporate emotion regulation into interventions for children with anxiety disorders has been made by Suveg, Kendall, Comer, & Robin (2006). Structural equation modeling was used to identify which aspects of internalizing disorders might be most similar. Researchers were able to pull out: weak emotional awareness, dysregulation of emotions, use of ineffective strategies to try to manage emotions, and experiencing negative emotions frequently (Suveg, Sood et al., 2009). The model developed is called *Emotion-focused Cognitive-Behavioral Therapy (ECBT)* and is designed for students of 7–13 years of age (Suveg et al., 2006). Researchers worked with children with a variety of anxiety disorders rather than a single type of anxiety disorder.

Components of ECBT include psychoeducation, cognitive restructuring, relaxation, and exposure, as in typical CBT interventions. However, ECBT adds emotion education to the model. Emotion awareness becomes part of all sessions and emotion regulation strategies are taught throughout as well (Trospier, Buzzella, Bennet, & Ehrenreich, 2009). Students learn to identify different emotions in themselves and others and learn management strategies. There are many chances to talk about emotional situations and to experience exposure to difficult emotions in this intervention. The ECBT model infuses emotion understanding into every lesson, dealing not only with anxiety but also with a variety of emotions. Vignettes are used for discussion. Students talk about how the characters are feeling, why they may feel that way, how to identify the feelings, and importantly, how they can feel better (Suveg et al., 2006). Children are taught skills in labeling emotions and understanding emotions. Outcomes for children participating in ECBT have been positive. Most children experience a reduction in symptoms, improved emotion understanding, and generally function better after treatment (Suveg et al., 2006). The model has initial support.

Erickson, Janeck, and Tallman (2009) designed a successful transdiagnostic approach. Experience with this approach taught researchers the following, which may be applicable to other interventions:

- It is important to reduce the content that fits only one disorder.
- It is important to limit the techniques taught to a reasonable number.
- Practitioners need to focus on each technique or strategy in several sessions, rather than trying to teach a technique in a single session.
- Monitoring is more critical in heterogeneous groups than in homogeneous groups.

All of these are important for school-based mental health practitioners to keep in mind as they would apply these to many of the prevention and intervention efforts used with students.

Final Thoughts

Planning group interventions in schools using best practices, and yet taking into consideration the most current research in emotion science, can be challenging. It is important to look at current directions of the field of mental health and of school psychology in particular. It is important to keep up with the most current emotion science and the recent advances in CBT. It is expected that the Blueprint for Training and Practice III, which is part of the National Association of School Psychologists standards, will provide some of the impetus for systems-based service delivery due to strong needs for preventive mental health services. It is time to expand roles of school psychologists and other mental health workers in schools so that the significant mental health needs of students can be addressed. There is a great deal of work to do.

Continued research to determine common practice components in evidence-based interventions, already developed, would be of enormous assistance to school-based mental health practitioners. It continues to be important to be able to efficiently implement services in schools. Increased numbers of CBT-trained school psychologists and counselors are needed in schools. Issues around funding for mental health prevention are critical and getting worse. Considerable creativity is needed to reorganize the resources that schools do have, in order to redistribute resources and to increase the efficiency with which student needs are met.

If schools would implement strong evidence-based academic interventions, and service students using a three-tier model reducing the “test-and place” traditional role of school psychologists, these efforts would reduce student stress and increase the availability of school psychologists to provide needed mental health prevention and intervention services. Finally, the infusion of emotion science into treatment protocols is of considerable importance. This would increase effectiveness at both the prevention and intervention levels and at all three tiers. In this effort, it is clear that practitioners need to address the key aspects of emotion literacy and emotion regulation that emotion science has provided. There is no question that we can improve what we are currently doing to help children and adolescents with mental health needs, and it is imperative that we advocate strongly for comprehensive mental health services for all students.

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