Promoting Mental Health

Theme 3

Introduction

Establishing mental health and emotional well-being is arguably the core task for the developing child and those who care for the child. Because cultures may differ in their conceptions of mental health, it is important for the health care professional to learn about the family members' perceptions of a mentally healthy individual and their goals for raising their children. In their shared work to raise a child, parents, family, community, and professionals commit to fostering the development of that child's sense of connectedness, self-worth and joyfulness, intellectual growth, and the many brain functions that define mental health. Shonkoff et al[1] describe that marvelous process of the child's development of mental health in their book *From Neurons to Neighborhoods*. Because of its overwhelming importance to overall health and because mental health risks and problems are all too common, promoting mental health has been identified as 1 of 2 themes with special significance.

Each Bright Futures visit addresses the physical and mental health of the child or adolescent. Although consideration of physical abnormalities or nutritional needs may come easily to the practitioner, proper and effective techniques to consider and assess a child's and family's mental health are not integral to the current standard of care.

This edition of the *Bright Futures Guidelines*, therefore, highlights opportunities for promoting mental health in every child, beginning in this section and continuing to include specific suggestions in each of the visits.

Mental health can be compromised at many critical times in development. The health care professional, therefore, is challenged to promote mental health in activities that are aimed at prevention, risk assessment, and diagnosis and to offer an array of appropriate interventions. Common risk factors for child behavioral and mental health problems include[2]:

- Genetic risk factors (eg, congenital developmental disability)
- Chronic medical illness

- Social risk factors
  - Poverty or homelessness
  - Exposure to domestic violence
- Family risk factors
  - Maternal depression and social isolation
  - Separation or divorce
  - Chronic physical or mental illness in family members
  - Substance abuse by a family member
- Skills deficiencies
  - Lack of parenting knowledge or performance deficits
  - Child social skills deficits
  - Masked school failure and learning disability

Common challenges to child, adolescent, and family mental health are further described in this theme by age of highest prevalence.

Half of all the lifetime cases of mental illness begin by the age of 14 years, which means that mental disorders are chronic diseases of the young.

Bright Futures in Practice: Mental Health[3] expertly and extensively addresses child and family mental health. Diagnostic criteria, treatment options, diagnostic coding, and selected assessment tools are included. The mental health book also describes, in greater detail, the mental health disorders discussed in this edition of the *Bright Futures Guidelines*, along with many other disorders not mentioned here. Issues discussed here were chosen to provide facts and contextual information that are essential to the work of the health care professional in the primary care setting.

The American Academy of Pediatrics (AAP) *The Classification of Child and Adolescent Mental Diagnosis in Primary Care (DSM-PC)*[4] can aid health care professionals in diagnosing and treating common mental disorders by helping them determine the degree of severity of a behavioral or mental problem and when to refer to a mental health specialist or an early intervention program.

Prevalence and Trends in Mental Health Problems Among Children and Adolescents

Half of all the lifetime cases of mental illness begin by the age of 14 years, which means that mental disorders are chronic diseases of the young.[5] An estimated 21% of US children and adolescents aged 9 to 17 years have a diagnosable mental health disorder that causes at least some impairment,[6] and the underdetection of mental health problems in pediatric practice has been well documented and recognized.[7,8] In any given year, fewer than 1 in 5 of these youth receive needed treatment.[7] For many youth, mental health problems may lead to the juvenile justice system. A high rate of psychiatric disorders (66% of boys and 75% of girls) exists among youth in juvenile justice facilities; about half were addicted to, or had abused, substances.[9]

Screening and Referral

Primary care practitioners are ideally situated to begin the process of identifying children with problem behaviors that might indicate mental disorders. They meet with children and families at regular intervals, so this frequent access to a primary care medical home is more available than access to specific mental health services. Building a solid collaboration among the health care professional and other service providers (eg, psychiatrists, psychologists, social workers, and therapists) and agencies (eg, schools, mental health agencies, state departments of health, agencies serving children and youth with special health care needs, and child protection services) improves the effectiveness of support for children and, ultimately, the possibilities of positive outcomes for the children. (For more information on this topic, see the Promoting Community Relationships and Resources theme.) This need is illustrated by the fact that although psychosocial problems identified in pediatric offices increased from 6.8% to 18.7% in the 17-year period of 1979-1996,[10] health care

professionals often have limited access to professionals with appropriate training and skills to assist them with behavior screening, treatment, and referral issues.[11]

Pediatric behavioral, developmental, and mental health issues are more common than childhood cancers, cardiac problems, and renal problems combined. However, research has repeatedly shown that primary care physicians recognize less than 30% of children with substantial dysfunction.[12] This lack of recognition is due to the necessary brevity of pediatric appointments and stigma associated with mental health concerns, which results in hesitancy to bring up subject areas where no "quick fix" exists. However, in some cases, the primary care practitioner can assess the child's problem and provide appropriate and successful intervention. In other instances, when a problem is identified outside of the realm of her expertise, the practitioner must be able to refer the family to experts who can provide a complete evaluation and treatment plan. The health care professional should try to determine whether the nature of the problem falls within her areas of interest and expertise before offering interventions.

Existing screening tools can help the health care professional recognize possible mental health concerns. For example, periodic screening for maternal depression has been recommended and found to be feasible during an infant health supervision visit.[13,14] It is important to consider autism spectrum disorders (ASDs) for 15-month-old children in routine developmental surveillance; in addition, specific screening tools are available and appropriate for the 18 and 24 Month Visits.[15] One of the most efficient ways for health care professionals to improve the recognition and treatment of psychosocial problems in children and adolescents is by using a mental health screening test, such as the 35-item Pediatric Symptom Checklist (PSC)[3] or the more brief PSC-17,[16] which can be completed in the waiting room by a parent. A positive score on the PSC suggests the need for further evaluation.

Screening does not provide a diagnosis for a mental health disorder, however. Screening indicates the severity of symptoms, assesses the severity within a given time period, and provides a way to begin a conversation about mental health issues. Health care professionals must be adept at identifying mental health concerns and determining whether they are leading to impaired functioning at home, school, with peers, or in the community. Providing education to the patient and parent about mental health disorders, symptoms, causes, and treatments is an important first step to help the family take charge of its management if a disorder does exist, avoid placing blame, and allow for reasonable expectations to be set.

Health care professionals also can improve access to high-quality care for mental health disorders,[17] although, before seeing the child or adolescent or the parent, they should decide whether to provide in-office treatment or refer the patient. Training and past experience will guide this decision, but time constraints to provide ongoing management also are a consideration.[18] The presence of a trusting relationship between the child, adolescent, or parent and the health care professional often predicts a successful treatment or referral process. Child health care professionals in primary care should assess their ability to manage mild, moderate, and severe emotional problems with or without consultation. The level of health care professional competence, clinical need, and availability of mental health referral should help dictate the conditions for referral. Referral may be appropriate in the following situations:

- Emotional dysfunction is evident in more than one of the 3 critical areas of the child's or adolescent's life—home, school, and peers.
- The patient is acutely suicidal or has signs of psychosis.

The presence of a trusting relationship between the child, adolescent, or parent and the health care professional often predicts a successful treatment or referral process.

- Diagnostic uncertainty exists.
- The patient has not responded to treatment.
- The parent requests referral.
- The adolescent's behavior creates discomfort for the health care professional, potentially precluding an objective evaluation (eg, adolescents with acting-out or seductive behaviors).
- The patient, or her family, has a social relationship with the treating health care professional.

When the possibility of referral has been brought up early in the process, acceptance of mental health treatment may be better. The health care professional should discuss with the family members their views on referral to a mental health professional and acknowledge that stigma often is associated with such referral. Understanding how the family's culture can affect the view of treatment for mental health issues, and knowing resources that will support those views, can greatly enhance the success of the referral process. The health care professional should learn how the family's culture views emotional and behavioral problems and should connect the family with culturally appropriate services.

Many syndromes that are primarily neurologic, genetic, or developmental in nature will include mental health symptoms or conditions.

Children and Youth With Special Health Care Needs

Children and adolescents with chronic health conditions require special consideration concerning their mental health needs. Many syndromes that are primarily neurologic, genetic, or developmental in nature will include mental health symptoms or conditions. Other chronic health conditions share comorbidity with mental health diagnoses. Attention to these components of the child's or adolescent's special health care need is a basic and essential part of her care.

In addition, any chronic health condition brings stressors to both child and family. These diagnoses, while secondary to the medical problem, are essential components of the child's health. Health care professionals who care for children and youth with special health care needs must be alert to complications of anxiety, depression, or problems of adjustment. These components of care can be found in the medical home model of care.[19]

Promoting Mental Health and Emotional Well-Being: Infancy—Birth to 11 Months

Infant mental health is the flourishing of a baby's capacity for warm connection with his parents. The interaction between parent and infant is central to the infant's physical, cognitive, social, and emotional development, as well as to his self-regulation abilities. The infant brings his strengths to this interaction, in terms of temperamental style, physical attractiveness, health, and vigor. The ability of the parents to respond well is determined by their life stresses, their past experiences with children, their knowledge, and their own experiences of being nurtured in childhood. Their perceptions of the infant also can color the interaction. These perceptions derive from their own expectations, needs, and desires, as well as from the projection of other people's characteristics onto the child.

The infant's emotions may be affected by the emotional and physical health of the caregiver.[20] Depression is common in many

mothers of infants and can seriously impair the baby's emotional and even physical well-being because of neglect of the infant's needs and lack of reinforcement to the infant's engagement cues. Parental substance abuse can have similar effects. Health supervision for the child must, therefore, include monitoring the emotional health of the parents or primary caregivers.

Patterns of Attachment

Attachment describes the process of interrelation between a child and her parent, and is central to healthy mental and emotional development. Attachment is influenced by parental, child-related, and environmental factors. Health care professionals can teach parents the importance of the quality of their interaction with their infant and the impact of attachment on the development of the child's sense of self-worth, comfort, and trust.

Health care professionals should observe the attachment style and pattern during clinical encounters with infants and parents. They should give anticipatory guidance to assist families in enhancing secure development.

Three patterns of attachment have been described in infants and young children—*secure attachment, insecure and avoidant attachment,* and *insecure attachment characterized by ambivalence and resistance* (Box 1).

Challenges to the Development of Mental Health

INFANT WELL-BEING

Signs of possible problems in emotional well-being in infants include the following:

- Poor eye contact
- Lack of brightening on seeing parent
- Lack of smiling with parent or other engaging adult
- Lack of vocalizations
- Not quieting with parent's voice
- Not turning to sound of parent's voice
- Extremely low activity level or tone
- Lack of mouthing to explore objects
- Excessive irritability with difficulty in calming
- Sad or somber facial expression (evident by 3 months of age)
- Wariness (evident by 4 months of age; precursor to fear, which is evident by 9 months of age)
- Dysregulation in sleep
- Physical dysregulation (eg, vomiting or diarrhea)
- Poor weight gain

BOX 1
Attachment Patterns

Secure attachment
Parent: Is sensitive, responsive, and available
Child: Feels valued and worthwhile; has a secure base; feels effective; feels able to explore and master, knowing that parent is available; and becomes autonomous

Insecure and avoidant attachment
Parent: Is insensitive to child's cues, avoids contact, and rejects
Child: Feels no one is there for him; cannot rely on adults to get needs met; feels he will be rejected if needs for attachment and closeness are shown and, therefore, asks for little to maintain some connection; and learns not to recognize his own need for closeness and connectedness

Insecure attachment characterized by ambivalence and resistance
Parent: Shows inconsistent patterns of care; is unpredictable; may be excessively close or intrusive and then push away; and seen frequently with depressed caregiver
Child: Feels he should keep adult engaged because he never knows when he will get attention back; anxious; dependent; and clingy

Health care professionals can teach parents the importance of the quality of their interaction with their infant and the impact of attachment on the development of the child's sense of self-worth, comfort, and trust.

If the infant appears to have problems with emotional development, the health care professional should determine the degree to which the parents may be experiencing depression, post-traumatic stress disorder (PTSD), substance abuse, or domestic violence. A mental health professional or a child health care professional who is skilled in developmental behavior should then evaluate the parent-child interaction.

CHILD MALTREATMENT AND NEGLECT

Child maltreatment or abuse can occur in any family. Without identification and intervention, unchecked acute and chronic stressors in a household can lead to child neglect or abuse.

Many factors are associated with child maltreatment, including the following:

- A child who is perceived by parents to be demanding or difficult to satisfy
- An infant who is diagnosed with a chronic illness or disability
- A family who is socially isolated, without community support
- Mental health issues with one or both parents that have not been diagnosed and treated
- A parent with career difficulties, who may see the newborn as an impediment or burden

If abuse is suspected, the health care professional should ask direct questions in a respectful way to determine whether any kind of abuse might be occurring.

Infants and toddlers are at higher risk for abuse and neglect than older children. Children who are younger than 3 years account for more than one third of all maltreated children. Forty-one percent of fatally abused children are younger than 1 year.[21] A disproportionate number of these children are in families that live in poverty and experience familial disruption. Their families live in high-risk environments and frequently confront substance abuse, mental or physical illness, family violence, or inadequate living conditions. More than half of reports to child protective services are for child neglect, yet this often can go undetected because the physical and emotional findings can be subtle.

Health care professionals should learn to recognize infants who are being abused or are at risk for abuse by the mother, father, or other member of the household. If abuse is suspected, the health care professional should ask direct questions in a respectful way to determine whether any kind of abuse might be occurring. Any unexplained bruises or other signs of abuse should be thoroughly investigated.

Abuse and neglect at this early stage have long-term effects on brain development and increase the likelihood of behavioral disorders in the child. The earlier in life the child is subjected to neglect or physical or emotional abuse, and the longer the abuse continues, the greater the risk to her emotional and behavioral development. Recognizing the risk of maltreatment or abuse to the child's healthy physical and mental development is as vital as recognizing a nutritional deficiency or toxin exposure. Physical and mental abuse during the first few years of a child's life can cause her to develop hypervigilance and fear. An infant who is under chronic stress can respond with apathy, poor feeding, withdrawal, and failure to thrive. When the infant is under acute threat, the typical "fight" response to stress can change from crying to temper tantrums, aggressive behaviors, or inattention and withdrawal. The child can become psychologically disengaged, leading to detachment and apathy. This response, in turn, has an impact on the child's ability to form healthy trusting relationships with adults and peers. Studies show that, as children get older, those who have been abused or neglected are more likely to perform poorly in school, to commit crimes, and to experience emotional problems, sexual problems, and alcohol or substance abuse.[22]

SHAKEN BABY SYNDROME

Shaken baby syndrome (SBS), also referred to as "shaken impact syndrome," is the nonaccidental traumatic injury that results from violent shaking of an infant or child. Head injury from SBS is the leading cause of death and long-term disability in children who are physically abused.[23,24] Victims typically are infants younger than 1 year, most often younger than 6 months. Infants who cry excessively, have difficult temperaments or are "colicky," or who are perceived by their caregivers to require excessive attention are at increased risk. Male infants, infants with very low birth weight, premature babies, and children with disabilities are at highest risk for SBS or physical violence.

SBS often has its roots in unrealistic expectations and parents' lack of understanding of infant development, which contribute to frustration, stress, limited tolerance, and resentment toward the infant. Parents of hospitalized or chronically ill children experience increased levels of stress, anxiety, exhaustion, depression, perceived loss of control, anger, grief, chronic sorrow, and poor adjustment. Normal behaviors for an infant, such as crying, can be frustrating, especially for parents who are sleep deprived, depressed, or experiencing other stresses. At times, most parents feel frustrated and confused if their infant exhibits any of the following:

- Cries and can be consoled only with constant holding or rocking
- Cries and is not consoled with holding, rocking, or other parent efforts
- Will not go to sleep easily, or awakens at the slightest sound and then will not return to sleep
- Stays awake for extended periods or is perceived to need constant attention
- Has feeding difficulties, such as
  - Spitting up after almost every feeding or vomiting frequently
  - Poor oromotor skills, poor sucking, or feed refusal, or takes more than 30 to 40 minutes for a feeding
- Is hungry all the time or eats a large amount and then spits up
- Takes only short naps during the day and then is fussy in the early evening

The stressed parent or caregiver may be unaware of the infant's vulnerability. Injury can occur when the parent is frustrated by the child's normal, but irritating, behavior. Health care professionals should listen to how the family is coping with their new infant, lack of sleep, their infant's crying, and other concerns. Asking how the parent reacts to these situations can reveal that the baby has been shaken or slapped or is at risk of being shaken. In this case, health care professionals should firmly educate the parents on the dangers of SBS and give them alternative strategies for helping the infant to stop crying, go to sleep, or feed as expected.

Community resources, such as home visiting programs,[25] early intervention services, and educational programs, should be offered to support the parents. It also is important to know about local and state reporting requirements regarding suspected child mistreatment. Health care professionals are mandated reporters and should err on the side of bringing concerns to authorities who will then investigate the issues. It is best practice to share concerns with the family and to explain to the family the legal obligation to report. In general, reporting without the family's knowledge is counterproductive because it can lead the family to further distrust the health care system.

Head injury from Shaken Baby Syndrome is the leading cause of death and long-term disability in children who are physically abused.

CARING FOR THE FAMILY FACING INFANT ILLNESS OR DEATH

Caring for the parents and family of a sick or disabled child challenges the support and crisis intervention skills of the health care professional. Advances in medical science mean that an increased number of families are experiencing preterm birth or prenatal diagnosis of a significant health condition in the infant.

Hope, empowerment, and parent-professional partnerships are important factors in the adaptation and healing after a high-risk birth or the birth of a child with a disability.

The premature birth or an infant's illness at delivery may mean separating the infant from the mother and family, thereby impeding the attachment process. The health care professional should recognize and validate the range of responses and the strengths and needs of parents as individuals. The extended family of grandparents and relatives, as well as individual and community beliefs, values, and expectations, affect a parent's ability to adapt to having a low birth weight or sick infant.

Hope, empowerment, and parent-professional partnerships are important factors in the adaptation and healing after a high-risk birth or the birth of a child with a disability. Parents benefit from guidance and practical tools for their day-to-day living. Referrals to support groups and culturally appropriate community networks of support, combined with practical information, provide important support for families.

When parents have an infant with a disability or serious health problem, health care professionals must recognize that they will go through a process of grieving and mourning for the anticipated and idealized child. Parents need support to understand that this is a normal and necessary process if they are to be able to form a close attachment to their infant. If their infant is critically ill, parents must learn to deal with life and death decisions and uncertainty, and understand the realities of medical decision making. Parents' responses can involve chronic or recurrent sorrow and sadness, regardless of the infant's clinical condition or level of health care need. The health care professional should be aware of specific red flags, such as symptoms of acute depression, agitation, or inability to carry out normal daily responsibilities, which should prompt referral for immediate medical or mental health care. The health care professional also should assess the parent-infant relationship for signs of inappropriate attachment, excessive perceived child vulnerability, parental guilt, and infant abuse or neglect involving the infant or other children. The health care professional also should seek to understand parents' personal strengths and the strengths they may access that are related to their cultural and religious beliefs.

Some parents tend to be permissive toward a child with a medical illness and are reluctant to set disciplinary boundaries. This reaction can happen because a parent feels sad for the child, but it also can lead to behavioral difficulties. These children sometimes are in the greatest need of a predictable structure regarding rules because other aspects of their life are not predictable.

Promoting Mental Health and Emotional Well-Being: Early Childhood—1 to 4 Years

Mental health in early childhood is tightly bound to healthy development in the child, healthy relationships within the family, and strong support for both child and family in the community. Between the ages of 1 and 4 years, the child makes remarkable advances in his abilities to rely on himself, direct his energies, and interact with others. Building from a

secure base of trust in his family, his growing autonomy leads to new explorations and a beginning identity as a distinct and capable person. Within the context of a positive and supportive parent-child relationship, this new growth toward autonomy and self-determined initiative forms the basis for self-esteem, curiosity about the world, and self-confidence. Steady gains are made, as well, in the capacity for self-control and more effective regulation of strong emotions, including anger, sadness, and frustration. Maturation in emotional development, along with new communicative skills, sets the stage for dramatic growth in social understanding and behavior. Child care programs become the arenas for practice in social interaction and in learning to share with others and to express needs and feelings. From home and child care experiences, the child develops important early realizations regarding morality and fair play.

The increasingly self-aware young child grapples with complex issues, such as gender roles, peer or sibling competition, cooperation, and the difference between right and wrong. The temperamental differences that were manifested in the feeding, sleeping, and self-regulatory behaviors of the infant are transformed into the varied styles of coping and adaptation that are demonstrated by the young child. Some young children appear to think before they act; others are impetuous. Some children are slow to warm up, whereas others are friendly and outgoing. Some accept limits and rules more easily than others. The range of "normal" behavior is broad and highly dependent on the match between the child's and the caregiver's styles. Aggression, acting out, excessive risk taking, and antisocial behaviors can appear at this time. Caregivers need to respond with a variety of interventions that set constructive limits and help children achieve self-discipline. Ultimately, healthy social and emotional development depend on how children view themselves and the extent to which they feel valued by others.

Mental health and behavioral concerns can coalesce around a particular behavioral symptom in the child. The health care professional will want to consider underlying child-based factors, which are described in more detail in later sections. In addition, physical, psychological, and social issues of a parent can affect the child's emerging sense of self in relation to others, and must be considered in attempting to understand the origin of a child's behavior. Important parental issues include the parents' state of physical and mental health, their temperament, their past and present stressors, and their experiences as a child with their own parents.

Patterns of Attachment

Patterns of attachment between child and parent can be observed in early childhood and are useful in predicting healthy development as well as predicting behavioral problems and disorders in the child.[26] As independence and autonomy take center stage for the child, issues of caring, connectedness, and trust become increasingly important for a family. Health care professionals should seek to understand the family's perceptions of these issues from their personal and cultural perspectives to effectively assess strengths and concerns for the child's development.

As the child's world expands during this developmental stage, she will begin to interact regularly with other adults beyond her parents, including aunts and uncles, grandparents, day care providers, and preschool teachers. She will develop patterns of attachment with these adults as well. Secure and loving attachment in these relationships can help ensure her healthy development.

The range of "normal" behavior is broad and highly dependent on the match between the child's and the caregiver's styles.

Challenges to the Development of Mental Health

BEHAVIORAL PATTERNS

When a child's behavioral patterns and responses seem chronically off track from those expected for his age, the health care professional should assess the following:

- Developmental capacities of the child, especially those connected with the challenges that provoke the concerning behavior
- Physical health conditions that might influence the child emotionally and behaviorally
- Temperament and sensory-processing abilities of the child
- The relationship between the child and the conditions and demands of the child's caregiving environment
- The quality of the parent-child relationship and security of the attachment
- Family understanding of the child's behavior, specifically regarding the child's underlying feelings and motivations, and the family's responses to the behavior
- Broader contextual circumstances, including family stress, family change, cultural expectations and influences, and child care or preschool experiences
- Depression in the child

The parents' explanations for *why* the child is behaving in a certain way are key to understanding their reactions to the child's difficulties.

The health care professional can gain a detailed understanding of the child's behavior in a particular situation in an ABC (Antecedents, Behavior, Consequences) approach,[27] which consists of asking the parents or other caregiver who saw what happened to explain in detail:

- The *antecedents*, or the conditions and circumstances in which the behavior occurs (eg, biting mainly occurs at preschool when the child is asked to stop playing)
- The *behavior* itself
- The *consequences* of the behavior for the child, and for others affected, both immediate and long-term

The parents' explanations for *why* the child is behaving in a certain way are key to understanding their reactions to the child's difficulties. Personal and cultural norms, views on how development proceeds, and theories of motivation will affect how the parent evaluates the child's behavior. This *ABC* approach avoids misleading generalizations about a particular behavior and focuses on the unique elements of the child, his relationships with family, peers, or caregivers who are important to him, and the contexts for the behavior.

When concerns about behavior are noted, the health care professional might ask the parent, "Who cares for your child during the day?" Young children may "act out," exhibit aggressive behaviors, or hurt other children because they are not supervised directly or are not disciplined in an appropriate and positive manner. They may be exhibiting negative behaviors because they spend time with someone else who acts poorly. This can occur even when the child is in a quality child care environment if the program or caregiver isn't a "good fit" for the child's temperament or personality. Asking about the child's environment or asking for the parent's permission to speak to the caregiver directly can lead to enlightening discussions that may enable the health care professional to offer effective guidance.

Table 1 shows ways that certain domains of influence can contribute, individually or in combination, to the development of behavioral problems and disorders in early childhood. By exploring these 4 domains of influence with the parent, the health care professional can better understand the behavioral problem, recognize the strengths that are inherent in the child, and assist the parent and other caregivers in making adjustments when needed. Parents have expressed

eagerness for their child's health care professionals to spend more time with them on behavioral concerns.[28] This approach to identifying strengths, anticipating developmental challenges, and solving behavioral problems will be extremely helpful in supporting and counseling families. This evaluation is best done at the primary care level. Health care professionals can then assess the efforts that parents make in response to guidance and the effect of those efforts on the child to determine the need for further mental health referral. The time and attention the primary care provider gives to these concerns facilitate the parents' acceptance of a mental health referral when indicated.

Families from different cultures have differing developmental and behavioral expectations for their children. Begin any discussion of these issues with a dialogue about what parents expect and why. Understanding these expectations will help the health care professional provide effective and appropriate support to the parents.

TABLE 1

Domains of Influence

Examples of Behavioral Concerns	Developmental/ Health Status	Temperament and Sensory Processing[29]	Family-Child Interactions	Other Environmental Influences
Bedtime struggles: •Trouble getting the child to sleep •Difficulties with night waking	Does the child's capacity to calm herself and transition into a sleep state seem unusually delayed for that child's age? Are specific health conditions involved? Was there a recent illness?	What is the influence of the child's temperament, especially: •Biologic regularity? •Adaptability? •Reactivity to sensory input?	Has the family provided a predictable and developmentally appropriate ritual for helping the child settle into sleep? Does the family allow her to fall asleep on her own? Is the child feeling insecure because of lack of adequate time with the parent? What are the family's expectations regarding where the child sleeps? Does the child have a transitional object?	Is there a quiet room for sleeping that is free of television and sibling activities? (For families living in small spaces, this may be unattainable.) Are there any changes or tensions in the family that are likely to be felt by the child, such as the mother returning to work, a change in child care, or a new sibling?
Resistance to toilet training	Is the child developmentally ready, including showing interest? Is there any suspicion of painful defecation or constipation?	What is the influence of the child's temperament, especially: •Biologic regularity? •Reactivity to sensory input? •Distractibility?	Is the parent's approach in sync with the child's developmental status and temperament? Are there culturally based expectations that are forming the parents' expectations? Is there undue pressure or are there negative reactions from parents and others? Are there any signs of fearfulness by the child?	Is toilet training being attempted during a period of major change or high stress? What are the toileting routines at child care/ preschool? Are they compatible with home routines?

TABLE 1 *(continued)*

Examples of Behavioral Concerns	Developmental/ Health Status	Temperament and Sensory Processing[29]	Family-Child Interactions	Other Environmental Influences
Excessive temper tantrums	What other means does the child have for expressing frustration and anger? Can she do so through speech? Are there developmental delays in self-care or other skills that routinely cause frustration? Are there physical causes of chronic discomfort or pain, such as eczema or chronic rhinitis? Is the child getting sufficient sleep?	What is the influence of the child's temperament, especially: •High intensity? •Negative mood? •Reactivity to sensory input? •High persistence?	What is the child trying to communicate through the tantrum? Are there specific events or interactions in the family that trigger the tantrums? How do the parents respond? Do their responses help calm the child or escalate the tantrum? Are the parents able to give support without giving in to unacceptable demands?	Are the tantrums linked to family change or stress? Are other family members also experiencing high levels of frustration? How is anger generally expressed in the family? Are the tantrums linked to a change in the child care setting or child care provider?
Chronic aggression	Are there developmental delays that contribute to chronic frustration, including deficits in expressive language and fine-motor abilities?	What is the influence of the child's temperament, especially: •Negative mood? •Highly impulsive? •Difficulty in adapting to changes in routine? •High intensity? •Unusually sensitive to sensory input? •Has she learned to attack before she is threatened?	Is the child needy or angry because emotional needs are unmet? What is the quality of the parent-child attachment? Is the child seeking attention? Is there overt or covert encouragement of aggression in the family, such as an indication that parents are proud of child being "feisty," or showing acceptance of aggression by ignoring it? Is there a parental perception that being aggressive is a survival tactic in the neighborhood or community?	Has the child witnessed violence and aggression, especially within her family? Has the child witnessed, or been exposed to, violence or aggression in the community or neighborhood? Has she experienced physical abuse herself, at home or in child care? Have there been significant disruptions in the life of the family that affects daily routines? Has there been unsupervised viewing of violent or mature TV or video games?
Difficulty in forming friendships	Are there developmental delays, especially in expressive language and fine-motor skills? (Social-skill deficits are a central feature of pervasive developmental disorders and autism.)	What is the influence of the child's temperament, especially: •Shy, inhibited, or slow to warm up? •Sensory processing abnormalities with hypersensitivities or hyposensitivities?	How does the child's social behavior differ within the family compared to that of peers? Does the child have a secure emotional base with the parent?	Does the child have opportunities to meet and play with other children? Are the conditions for those interactions optimal for the child? For example, many children who are shy do better with short play dates with one other child than with extended time with large groups.

TABLE 1 *(continued)*

Examples of Behavioral Concerns	Developmental/ Health Status	Temperament and Sensory Processing[29]	Family-Child Interactions	Other Environmental Influences
Excessive anxiety; can be expressed by excessive fearfulness, clingy behaviors, frequent crying, tantrums or frequent nightmares, and other sleep problems. *Separation anxiety* is developmentally normal during the first 3 years of life; thereafter, it should steadily lessen.	Are there developmental delays or disabilities that reduce the child's capacity for expression and control? Are there chronic health conditions that affect sense of comfort and security? Are there perceived risks to health by the family ("the vulnerable child syndrome")? Are there any acute health problems requiring separation from a parent?	What is the influence of the child's temperament, especially: •Shy, inhibited, slow to warm up? •Avoidance of new situations? •Difficulty in adapting to changes in routine? •Sensory processing abnormalities, with hypersensitivities?	Is there a pattern of overprotectiveness or underprotectiveness from the parent? Does the parent accurately read the child's cues and show appropriate empathy? Or, is the parent's sensitivity to cues heightened, awkward, and tense? Does the parent demonstrate the capacity to soothe the child? Is there a family history of an anxiety disorder?	Exposure to significant traumatic events (eg, witnessing domestic violence), may result in chronic anxiety, such as PTSD. Major changes in the family or ongoing family stress situations may contribute to an anxious condition.
Excessive activity and impulsivity	Are there problems with sensory input or expressive and motor output? (Regulatory disorder of motor output and sensory input can lead to impulsive motor behaviors and craving of sensory stimulation. Behavior is disorganized, unfocused, and diffuse. It can be accompanied by weaknesses in auditory or visual-spatial processing.[30])	What is the influence of the child's temperament, especially: •High activity? •High distractibility? •Low persistence and attention span?	Is the parent clearly and comfortably in charge? Does the child receive positive feedback as well as clear expectations and appropriate limits from the parent? What is the quality of the parent-child attachment? Is there affection between the parent and child or do irritation and frustration seem to predominate?	Anxiety or depression may manifest as hyperactive, impulsive behavior in the young child. Family stress and change, past traumatic experiences, and family health and mental health conditions should be explored.

EARLY IDENTIFICATION OF AUTISTIC SPECTRUM DISORDERS

With an incidence as high as 1 in 166 children, ASDs have become a major concern for all health care professionals.[31] Autism and its milder variants are a group of neurobiologic disorders that are characterized by fundamental deficits in social interaction and communication skills. A range of other developmental delays and differences exist; approximately 70% of children with ASD also have mental retardation.[32] Common behavioral features of ASD include hand flapping, rocking, or twirling; hypersensitivity to a wide range of sensory experiences such as sound and touch; and extreme difficulties in adjusting to transitions and change. The prognosis can be greatly improved with early and intensive treatment. Therefore, early identification is critical.

Health care professionals should consider the possibility of ASD as early as the child's first year of life. Infants with ASD can show little interest in being held and may not be comforted by physical closeness with their parents. They have significant limitations in social smiling, eye contact, vocalization, and social play.[3]

During the first half of the child's second year, more specific deficits are often seen. Red flags include:

- The child fails to orient to his name.
- The child shows impairment in joint attention skills (ie, the child's capacity to follow a caregiver's gaze or follow the caregiver's pointing, or the child's own lack of showing and pointing).
- The child does not seem to notice when parents and siblings enter or leave the room.
- The child makes little or no eye contact and seems to be in his own world.
- Parents complain that the child has a "hearing problem" (ie, he does not respond to speech directed at him).
- The child's speech fails to develop as expected.

Because these signs of ASD are often difficult to elicit in the context of the pediatric well visit, health care professionals must listen carefully to the observations of parents and they must have a high index of suspicion regarding ASD. The 15 and 18 Month Visits are important times to consider ASD within routine developmental surveillance. For children who exhibit any of the red flags listed earlier, the health care professional can use one of the ASD screening tests developed for primary care providers.[15]

Because these signs of autism spectrum disorder are often difficult to elicit in the context of the pediatric well visit, health care professionals must listen carefully to the observations of parents and they must have a high index of suspicion regarding autism spectrum disorder.

Promoting Mental Health and Emotional Well-Being: Middle Childhood—5 to 10 Years

A well-accepted belief of current pediatric practice is that a child's overall health is significantly influenced by psychosocial factors. Middle childhood is a time of major cognitive development and mastery of cognitive, physical, and social skills. Children in this age group continue to progress from dependence on their parents and other caregivers to increasing independence and a growing interest in the development of friendships and the world around them. Children frequently compare themselves to others. During this time, children may begin to notice the cultural differences between their family and others as they begin to develop a cultural, racial, ethnic, or religious identity. Although they are initially egocentric, they become increasingly aware of other people's feelings. Concrete thinking predominates; they are concerned primarily with the present and have limited ability for abstract or future-oriented thinking. This process evolves during the middle childhood years. As children approach adolescence, their capacity for abstract thought grows, they have the ability to think and act beyond their own immediate needs, and they are better able to see the perspectives of other people.

Middle childhood also is an important time for continued development of self-esteem and in the ongoing process of attachment. All children want to feel competent and enjoy recognition for their achievements. Success at school and home is influenced by previous experience, by their ability to get along with others, and by expectations that fit their capabilities. Success also is influenced by the quality of the schools in their community and by the expectations of educators for children of their racial, ethnic, socioeconomic background, for children who are not native English speakers, or for children with special health care needs. In addition, some children experience bullying and violence at school or

at home. These experiences can limit the child's ability to continue development of self-esteem. The health care professional should be aware of these developments and can support children and their families as they face the emerging challenges of greater independence and the awareness of others' needs, feelings, thoughts, and desires.

Children whose families are immigrants, and particularly those who live in linguistically isolated households (defined by the US Census, Bureau of the Census as a household in which no one over the age of 14 speaks English very well[33]), may be taking on responsibilities far beyond those typical for this age. For example, children may serve as interpreters for the parents in situations such as interacting with social service agencies or keeping the electric company from turning off the power. Health care professionals should assess children in these circumstances to determine whether they may be experiencing excessive stress and, if so, work with families to identify community resources to assume the roles that the school-aged children are filling.

Children with special health care needs are no different with respect to their need to belong, anxiety about self-esteem, risk-taking behavior, and coming to terms with their entrance into the expanding world outside of their family. However, their special health care needs can present limitations or challenges to a full participation in activities with their peers. Health care professionals should be aware of these issues and the risk for mental health problems and should be prepared to respond when signs of distress emerge.

Patterns of Attachment and Connection

The concept of "attachment" in infancy and early childhood is more appropriately described as "connectedness" as the child moves through middle childhood and adolescence. Defined as a strong positive connection to parents or guardians, connectedness is key to emotional well-being. The Search Institute has identified family support ("high levels of love and support") and positive family communication as important components of their 40 developmental assets. (For more information on this topic, see the Promoting Family Support theme.)

The National Longitudinal Study of Adolescent Health (AdHealth) has reported that parent-family connectedness and perceived school connectedness are protective factors against every health risk behavior, except pregnancy.[34] The physical presence of a parent at critical times, as well as time availability, is associated with reduced risk behaviors. Even more important are feelings of warmth, love, and caring from parents.

Defined as a strong positive connection to parents or guardians, connectedness is key to emotional well-being.

Challenges to the Development of Mental Health

Middle childhood is often the time when mental health problems first present and it is an essential time for parents to be doing all they can to promote positive social skills and reinforce desired behavior. The rate of identification of psychosocial problems and mental health disorders within a primary care setting is relatively low. Costello and Shugart[35] reported that pediatricians identify only 15% of their school-aged patients with significant behavioral or emotional disorders. Lavigne et al[36] found a lower detection rate of emotional and behavior problems in preschoolers by pediatricians as compared to problems identified by the Child Behavior Checklist and confirmed by a child psychologist.

In some situations, the health care professional can be a screener and do a thorough assessment to determine whether the child really has a problem and to refer for a more in-depth diagnostic evaluation if the screening indicates a problem. (For more information on this topic, see *Bright Futures in Practice: Mental Health Toolkit*.[3]) However,

the reality is that only one half of families identified as needing mental health assistance will actually follow up to receive treatment. The techniques that a health care professional uses when making a referral can help break down the stigma of a mental health referral. A minimal delay between the onset of illness and treatment likely leads to the best outcome.

Attending to these issues may be especially important for those living in poverty, but most studies have not addressed the influence of culture, race, and systemic issues on outcomes. Few evidence-based treatments have taken into account the child's social context.

PROTECTIVE FACTORS

Research studies have revealed consistently strong relationships between the number of protective factors, or assets, present in young people's lives and the extent to which their mental and emotional development will be positive and successful. Children who report more assets are less likely to engage in risky health behaviors.[37] The fewer the number of assets present, the greater the possibility that children will engage in risky behaviors. Key adults in the child's life should promote a strength-based model that focuses on building these assets. Although health care professionals need to recognize deficits, they also should be helping the family develop the strengths that can contribute to a positive environment for the child.[38]

Children who report more assets are less likely to engage in risky health behaviors.

Protective factors include[39]:

- A warm and supportive relationship between parents and children
- Positive self-esteem
- Good coping skills
- Positive peer relationships
- Interest in, and success at, school
- Healthy engagement with adults outside the home
- An ability to articulate feelings
- Parents who are employed and are functioning well at home, at work, and in social relationships

Increasing a child's protective factors will help him develop resiliency in the face of adversity. Resilient children understand that they are not responsible for their parents' difficulties and are able to move forward in the face of life's challenges. The resilient child is one who is socially competent, with problem-solving skills and a sense of autonomy, purpose, and future.[40]

In a child's early years of elementary school, adults need to do what they can to bolster his self-confidence because this is protective against depressive symptoms. Self-esteem is instrumental in helping children avoid behaviors that risk health and safety. In many cases, the development of self-esteem is dependent on the development of social skills. However, schools do not typically teach the development of social skills and appropriate behavior in the school setting.

Health care professionals can help parents teach their children that failure and mistakes are an inevitable but, ultimately, useful part of life. Problems with anxiety and depression commonly develop in middle childhood, but their prevalence increases remarkably in early adolescence. Early warning signs sometimes can be identified in the elementary school years so that full-blown psychiatric disorders are prevented.

LEARNING DISABILITIES AND ATTENTION-DEFICIT/HYPERACTIVITY DISORDER

The early years of elementary school are frequently the time when learning problems and learning disabilities (LDs) or attention-deficit/hyperactivity disorder (ADHD) first present. A learning disability is defined as a discrepancy between the actual academic achievement of a student and that student's intellectual potential. However, an official diagnosis of an LD usually cannot be made before the age of 7 years. Often, initial

behavioral signs can mask the underlying neurodevelopmental disturbance. The health care professional should evaluate for any signs or symptoms of inattention, impulsivity, lack of focus, or poor academic performance that are not consistent with the child's potential cognitive abilities and should be prepared to counsel and to make referrals for evaluations. Early identification and intervention can have long-term positive effects for children with learning disabilities.

ADHD is one of the most commonly diagnosed mental disorders in children, affecting up to 3% to 6% of school-aged children.[3] When a child demonstrates overactivity, impulsivity, and inattention that interfere with his ability to learn, have fun, or have relationships, he should be evaluated for ADHD. Family and school skills should emphasize learning impulse control, building self-esteem, acquiring coping skills, and building social skills.

ANXIETY DISORDERS

Anxiety in childhood can be a normal feeling, but it also can lead to the appearance of symptoms that are similar to ADHD and depression. If usual coping strategies do not work or if an anxiety disorder is causing impairment in school or in relationships, these issues need to be assessed. Girls who are shy tend to be at increased risk for developing anxiety disorders,[41] and children who have experienced a recent trauma may meet criteria for PTSD.

MOOD DISORDERS

A mood disorder, such as dysthymia or depression, can lead to dysfunction in multiple areas of a child's emotional, social, and cognitive development. Mood disorders are characterized by disturbances in mood, symptoms of irritability and emptiness, and loss of interest in usual activities. They can be accompanied by reckless and destructive behavior, somatic complaints, and poor social and academic functioning.[11] A portion of prepubertal children with mood disorders have child-onset bipolar disorder. Among prepubertal children and adolescents with bipolar disorder, a second mental health diagnosis is common, including ADHD (90% of children and 30% of adolescents), anxiety disorders (33% of children and 12% of adolescents), and conduct disorder (22% of children and 18% of adolescents). Substance use also is highly prevalent in this population.[42,43]

Frequently, a primary care provider is the main source of care for children with mild and moderate depression. All children and families need to be asked about feelings of sadness, sleep problems, and loss of interest in activities. Depression can go undetected. A simple question, such as, "When is the last time you had a really good time?", is nonthreatening but gives much information to the interviewer. Empathetic responses from the person who is conducting the interview are important. Depression screening tools and standardized instruments for behavior problems can be useful.[3]

Bipolar disorder can present in middle childhood, although it is more common in adolescence or young adulthood. Children are more likely to present in a persistently irritable mood than in a euphoric mood. Associated signs include aggressive and uncontrollable outbursts and agitated behavior that can resemble ADHD. Mood lability may be evident on the same day or over the course of days or weeks. Reckless behaviors, dangerous play, and inappropriate sexual behaviors may be present.

Further discussion of mood disorders can be found in *Bright Futures in Practice: Mental Health*[3] and in the Adolescence section of this theme.

BULLYING

Surveys indicate that as many as one half of all children are bullied at some time during their school years, and at least 10% are bullied on a regular basis.[44] Bullies come in all shapes and sizes and ages. Children usually become bullies because they are unhappy for

Attention-deficit/hyperactivity disorder is one of the most commonly diagnosed mental disorders in children, affecting up to 3% to 6% of school-aged children.

some reason or do not know how to get along with other children. Often, children who bully grow up to become adult bullies.

Types of bullying include:

- *Verbal:* Name-calling (the most common form of bullying)
- *Physical:* Punching or pushing
- *Relational:* Purposely leaving someone out of a game or group
- *Extortion:* Stealing someone's money or toys
- *Cyber-bullying:* Using computers, the Internet, or mobile phones to bully others

Bullying hurts everyone. Victims can be physically or emotionally hurt. Witnesses also can become sad or scared by what they have seen. A child who becomes withdrawn or depressed because of bullying should receive professional help. Children who are bullied experience real suffering that can interfere with their social and emotional development, as well as their school performance. Some victims of bullying have even attempted suicide rather than continue to endure such harassment and punishment.

Most of the time, bullying does not occur in private; other children are watching 85% of the time. A health care professional who suspects that a child is the victim of bullying or that she is witnessing bullying should ask the child to talk about what is happening. Responding in a positive and accepting manner and providing opportunities to talk can foster open and honest discussion about the reasons why the bullying is occurring and about possible solutions.

Responding in a positive and accepting manner and providing opportunities to talk can foster open and honest discussion about the reasons why the bullying is occurring and about possible solutions.

The following are suggestions for parents and health care professionals in situations of bullying[45]:

- Seek help from the child's teacher or the school guidance counselor. Most bullying occurs on playgrounds, in lunchrooms, in bathrooms, on school buses, or in unsupervised halls.
- Ask school administrators to find out about programs that other schools and communities have used to help combat bullying, such as peer mediation, conflict resolution, anger management training, and increased adult supervision.
- Ask what the child thinks should be done. What has already been tried? What worked and what did not? Health care professionals can help the child assertively practice what to say to the bully so she will be prepared the next time. The simple act of insisting that the bully leave her alone may have a surprising effect. Explain to the child that the bully's true goal is to get a response.
- Encourage a popular peer to help enforce a school's no-bullying policy.

The following are actions that adults can teach the child to do[46]:

- Always tell an adult. It is an adult's job to help keep children safe. Teachers or parents rarely see a bully being mean to someone else, but they want to know about it so they can help stop the bullying.
- Stay in a group when traveling back and forth from school, during shopping trips, on the school playground, or on other outings. Children who bully often pick on children who are by themselves because it is easier and they are more likely to get away with their bad behavior.

- If it feels safe, try to stand up to the bully. This does not mean the child should fight back or bully back. Instead, she can tell the bully that she does not like it and that the bully should stop. Often, children who bully like to see that they can make their target upset. Otherwise, the child should try walking away to avoid the bully and seek help from a teacher, coach, or other adult.
- A child who is being bullied online should not reply. Responding actually may make the bullying worse. Instead, she should tell a family member or another trusted adult.

EARLY SUBSTANCE USE

Almost all children eventually will find themselves in a situation in which they must decide whether they will experiment with smoking, drugs, or alcohol. Health care professionals should discuss these issues with children before they reach adolescence. Although the majority of children who experiment with substances do not develop a substance-use disorder, even occasional use can have serious consequences, such as an increased risk of health concerns, mistakes made due to impaired judgment, and motor vehicle crashes. Education about the implications of substance use must begin in middle childhood. Delaying initiation of substance use may help future substance-related problems.

Parents who smoke place their children at higher risk of smoking. Parents should think about which behaviors they would like to model for their children. Positive role modeling can be established by parents by not smoking cigarettes, banning smoking at home, limiting alcohol, and active participation and monitoring of the attitudes and behaviors of their children. Positive and honest communication between a parent and child is one of the best ways to prevent substance use. Promotion of self-esteem and avoidance of overly critical feedback can help the child learn to resist the pressure for experimentation. If talking within the family becomes a problem, a health care professional may be able to encourage the communication.

CONDUCT DISTURBANCES

Conduct disturbances are characterized by negative or antisocial behaviors that range in severity from normal developmental variations to significant mental health disorders.[47] Symptomatic behaviors of oppositional defiant disorder can include persistent temper tantrums, arguing with adults, refusing to comply with reasonable adult requests, and annoying others.[48] Conduct disorders usually involve more serious patterns of aggression toward others, destruction of property, deceitfulness or theft, and serious violations of rules.[49]

Promoting Mental Health and Emotional Well-Being: Adolescence—11 to 21 Years

During adolescence, mental health is characterized by progression toward optimal current and future capacity and motivation to cope with stress and to be involved in personally meaningful activities and interpersonal relationships.[50] The adolescent's progression toward optimal functioning varies greatly depending on individual personality. Thus, health care professionals must identify normal ranges of development, rather than a specified outcome or end point.

The development of emotional well-being centers on the adolescent's ability to effectively cope with multiple stressors. This trait also is called psychological resilience. Effective coping includes using problem-solving strategies for emotional management, being able to match strategies to specific situations, and drawing on others as resources for social support.[50] Data supporting the strong effects of resilience on reducing risk in general, and preventing violence in particular, come from a variety of sources.[51-53] Cross-sectional data

Positive and honest communication between a parent and child is one of the best ways to prevent substance use.

from Vermont show a striking negative correlation between the presence of protective factors and a variety of risk behaviors.[38] National longitudinal data from the AdHealth study demonstrate a similar, powerful effect of protective factors on subsequent violence.[51] Finally, a school-based program that focused on teaching adolescents positive social development was demonstrably more effective than a more standard risk-reduction curriculum.[52] The development of resilience is a primary goal of successful adolescent development[53] and can be encouraged by a variety of counseling suggestions. Young people should be encouraged to engage in prosocial paid or volunteer community activities to develop mastery of a particular skill or activity, thus becoming more independent in responsible ways. The adolescent should experience these activities as autonomous and self-initiated. In fact, Maton[54] found that adolescents' life satisfaction and self-esteem were predicted by their level of meaningful activities independent of the social support they received from parents and peers.

Most adolescents have at least one visit per year with their health care professional, and most behavioral, developmental, and mental health problems are first discussed in that setting.

Most adolescents have at least one visit per year with their health care professional, and most behavioral, developmental, and mental health problems are first discussed in that setting. Primary care can be an access point for developmental and behavioral health care, although it can be a challenge because the primary care culture focuses on acute care, whereas mental health and developmental disorders in children and adolescents tend to be chronic and relapsing. Health care professionals should know the symptoms of common mental health disorders in this population, as well as risk factors for suicide, and should ask about these symptoms during an office visit whenever appropriate.[55,56]

Compas[50] suggests a framework to assess the mental health of adolescents (Table 2). When using this framework, the health care professional should get the perspectives of the adolescent himself, as well as his parents, teachers, and mental health professionals. Sociocultural differences are a significant factor in evaluating an adolescent's emotional well-being. Appropriate social norms within a majority culture may not be shared by youth outside that culture. Youth from culturally diverse families also may experience conflicts between values and expectations at home and those that arise from the mainstream culture and peers from other backgrounds.

Patterns of Attachment and Connection

Connectedness with parents, legal guardians, and family remains a critical component of the healthy development of adolescents. Most school-aged children and youth continue to spend time with their parents and maintain strong bonds with their parents. The risk of psychological problems and delinquency are higher in youth who are disconnected from their parents.[57] Studies document reduced risk-taking behavior among youth who report a close relationship with their parents.[51] Adolescents and their parents have to prioritize conversations and communication that balance this sense of belonging with opportunities for the youth to grow in decision-making skills and sense of autonomy. Peers and siblings also can contribute positively to the youth's sense of belonging.[57] The literature describes a positive bond with school (described as students who feel that teachers treat students fairly, are close to people at school, and feel part of their school) as a protective factor.[58]

Challenges to the Development of Mental Health

Adolescents who have major difficulties in one area of functioning often demonstrate symptoms and difficulties in other areas of daily functioning. For example, if they are having school difficulties secondary to ADHD, symptoms such as motoric activity or impulsivity will be evident at home and may

interfere with other activities. Even less overt disorders, such as LDs or difficulties in peer relationships, often will manifest as a depressed mood at home, tension with siblings, or low self-esteem. Health care professionals should know the symptoms of common mental health disorders in this population, as well as risk factors for suicide, and should ask about these symptoms during an office visit whenever appropriate.[55,56]

Some prevention programs in mental health care can strengthen protective factors, such as social skills, problem-solving skills, and social support, and reduce the consequence of risk factors, psychiatric symptoms, and substance use. Unfortunately, few studies are examining the impact of prevention programs on the incidence of new mental health cases, in part because of the large number of subjects that are needed to ensure scientifically reliable findings.[59]

TABLE 2

Framework for Evaluating Adolescent Emotional Well-Being

Domain	Factors to Assess
Coping with stress and adversity	• Skills and motivation to manage acute, major life stressors and recurring daily stressors • Skills to solve problems and control emotions • Flexibility and the ability to meet the demands of varying types of stressors
Involvement in personally meaningful activities	• Skills and motivation to engage in activities • Behaviors and activities are experienced as autonomous • Self-directed involvement
Perspective of interested parties	• Perspectives of the adolescent, parents, teachers, and, if needed, the mental health care provider • Adolescent's subjective sense of well-being • Adolescent's behavioral stability, predictability, and conformity to social rules
Developmental factors	• Prior developmental milestones and issues • Variations in adolescent's cognitive, affective, social, and biologic development • Cohort differences in events and social context that affect positive mental health
Sociocultural factors	• Differences in values affect optimal development and functioning • Differences in perceived threats to positive mental health and the risk of maladjustment • Cultural protective factors, such as religion and values

Adapted from Compas BE. Promoting positive mental health during adolescence. In: Millstein SG, Peterson AC, Nightingale EO, eds. *Promoting the Health of Adolescents: New Directions for the Twenty-First Century*. New York, NY: Oxford University Press; 1993:159-179.

Mental Health Concerns

The most common mental health problems of adolescents are mood disorders, including depression and anxiety; deficits in attention, cognition, and learning; and conduct disturbances.[47,49,60] Substance use and abuse and suicidal behavior also are significant problems during this developmental stage.

DEPRESSION AND ANXIETY

Mood disorders are characterized by repeated, intense internal or emotional distress over a period of months or years. Unreasonable fear and anxiety, lasting depression, low self-esteem, and worthlessness are associated with these conditions. The wide mood changes in adolescents challenge providers to distinguish between a mental health disorder and troubling, but essentially normal, behavior.

Depression and anxiety, with potentially different manifestations across cultural groups, are common and significant problems during this developmental period.

Depression and anxiety, with potentially different manifestations across cultural groups, are common and significant problems during this developmental period.[61] Depression is present in about 5% of adolescents at any given time. Having a parent with a history of depression doubles to quadruples a child's risk of a depressive episode. Depression also is more common among children with chronic illness and after stressful life events, such as the loss of a friend, parent, or sibling. Depression in adolescents is not always characterized by sadness, but can be seen as irritability, anger, boredom, an inability to experience pleasure, or difficulty with family relationships, school, and work.[61,62] Academic failure, substance abuse and dependency, high-risk sexual behaviors, and violence all have been linked to depression in adolescents.

When treating the depressed adolescent, the health care professional should determine past suicidal behavior or thoughts and family history of suicide. Parents should be advised to remove firearms[63] and any potentially lethal medications from the home. Access to the Internet should be monitored for suicide content in communications and Web sites. (For more information on this topic, see the Suicide section of this theme.)

Like other mental health problems, symptoms of anxiety range in intensity. For some adolescents, symptoms such as excessive worry, fear, stress, or physical symptoms can cause significant distress but not impair functioning enough to warrant the diagnosis of an anxiety disorder. The problem is classified as a disorder when symptoms significantly affect an adolescent's functioning.[3] The prevalence of any anxiety disorder among children and adolescents in the United States is about 13% in any 6-month period.[7] Studies have demonstrated a relationship between anxiety disorders and alcohol misuse in adolescents and young adults.[64] Thus, the health care professional must review the individual's risk and protective factors to better understand the adolescent's problem and make a referral.

One strategy for improving the detection of mental health problems is to screen for anxiety and depressive disorders during routine health evaluations.[65] However, screening for these disorders is controversial.

The US Preventive Services Task Force (USPSTF)[66] recommends screening adults for depression in clinical practices that have systems in place to ensure accurate diagnosis, effective treatment, and follow-up (B-level evidence). The USPSTF found limited evidence on the accuracy and reliability of screening tests in children and adolescents and limited evidence on the effectiveness of therapy in children and adolescents identified in primary care settings. Therefore, the USPSTF concluded that evidence is insufficient to recommend for or against routine screening of children or adolescents for depression, although it recommends "that clinicians maintain a high index of suspicion for mental health problems in this population."

A variety of measures can be used in the primary care setting for children and

adolescents.[67] The health care professional should determine whether the measure was standardized on a population similar to that in his practice.

DEFICITS IN ATTENTION, COGNITION, AND LEARNING

Adolescents with deficits in attention, cognition, and learning are likely to present with an array of complaints that involve academic, psychosocial, and behavioral functioning. Placement in LD programs in the United States has tripled over the last few decades to 6% of all children who are enrolled in public schools today.[68]

Many children who have been diagnosed with ADHD continue to have difficulties throughout their adolescence and adulthood.[69] Adolescents with ADHD often have comorbid oppositional defiant disorder and conduct disorder in addition to having developmental and social problems.

CONDUCT DISTURBANCES

Conduct disturbances and disorders are manifested through the same behaviors in adolescence as they are in middle childhood. These behaviors include persistent fits of temper, arguing with adults, refusing to comply with reasonable adult requests, and annoying others,[48] aggression toward others, destruction of property, deceitfulness or theft, and serious violations of rules.[49] Substance use, interpersonal aggression, and other problem behaviors also tend to occur in adolescents with these disorders.[70]

SUICIDE

Suicide is the third leading cause of death for adolescents. More than 4,000 adolescents and young adults aged 10 to 24 years committed suicide in 2001.[71] A far greater number of youth *attempt* suicide each year. Data collected in 2003 by the Centers for Disease Control and Prevention (CDC) Youth Risk Behavior Surveillance System (YRBSS) show that 16.9% of high-school students reported that they had seriously considered attempting suicide, 16.5% had made a plan, and 8.5% had made a suicide attempt.[72] Although the proportion of students who reported that they have seriously considered suicide has decreased from 29% in 1991, the proportion for reported attempted suicide has remained stable across the last decade. Suicide among adolescents has increased dramatically compared to that of the general population over the past 4 decades. Between 1960 and 2000, the suicide rate among adolescents increased 128%, compared to 2% for the general population.[71]

Health care professionals who treat suicidal adolescents should not rely solely on an adolescent's promise to not harm herself, and should involve parents and other caretakers in monitoring suicidal thoughts and gestures. Parents should be advised to remove firearms and ammunition from the home.[73] Of importance, suicide risk seems highest at the beginning of a depressive episode, so expeditious treatment or referral is crucial.[56] Although no evidence-based data indicate that psychiatric hospitalization prevents immediate or eventual suicide, the clinical consensus is that immediate hospitalization is a critical component in preventing adult and adolescent patients who are suicidal from committing suicide.[55]

Health care professionals who treat suicidal adolescents should not rely solely on an adolescent's promise to not harm herself, and should involve parents and other caretakers in monitoring suicidal thoughts and gestures. Parents should be advised to remove firearms and ammunition from the home.

SUBSTANCE USE AND ABUSE

Use or misuse of alcohol, tobacco, and other drugs is a significant health concern during adolescence.[74,75] Children of parents who abuse substances are particularly vulnerable to health or social problems.[76] Significant changes in drug awareness take place

between the ages of 12 and 13 years, and substance use most often begins between grades 7 and 10.[77] By late adolescence, access to substances and independence from parents contribute to the risk for substance abuse or dependence.[78] A survey by the National Center on Addiction and Substance Abuse at Columbia University[79] also has revealed a troubling connection between adolescents who smoke cigarettes and marijuana use. Adolescents who smoked cigarettes were 14 times more likely to try marijuana and 18 times more likely to report that most of their friends smoke marijuana.

Drug misuse and dependence are major factors in adolescent deaths because they contribute to motor vehicle crashes, homicides, and suicides. Adolescents are at increased risk for unprotected sexual activity and interpersonal violence while under the influence of alcohol or other drugs. Other substances, such as smokeless tobacco or

BOX 2

Youth Risk Behavior Surveillance System

Since 1991, the CDC has conducted a biannual national survey of 9th- to 12th-grade high-school students. Adolescents who are in school complete the YRBSS. The actual prevalence of substance use among the general adolescent population, which includes high-school dropouts, is probably higher than that reflected in the YRBSS. Findings from the 2005 YRBSS[72] are listed below.

Alcohol

- 25.6% of students first drank alcohol (other than a few sips) before the age of 13 years.
- 74.3% of students had 1 or more drinks of alcohol in their lifetime.
- 25.5% reported episodic heavy drinking (ie, 5 or more drinks of alcohol on 1 or more occasions during the previous 30 days).
- 28.5% of these high-school students had ridden with a driver who had been drinking.

Tobacco use

- More than 50% of high-school students (54.3%) had ever tried cigarette smoking.
- 16% of students had first smoked a whole cigarette before the age of 13 years.
- 23% of students reported current cigarette use (ie, use cigarettes on 1 or more of the preceding 30 days).
- During the 30 days preceding the survey, 8% of students had used smokeless tobacco and 14% had smoked cigars.

Marijuana

- 38.4% of the high-school students reported having used marijuana, with 9.9% having tried the drug before the age of 13 years.

Cocaine

- 7.6% of students had ever used cocaine (eg, powder, "crack," or "freebase").
- 3.4% of students had used cocaine on 1 or more of the preceding 30 days.

Inhalants, heroin, methamphetamines, and nonprescription steroids

- Reported lifetime use was 12.4% for inhalants (eg, sniffing glue, breathing the contents of aerosol cans, or inhaling paints or sprays to get high, referred to as "huffing").
- 2.4% of students reported using heroin.
- 6.3% of students reported using Ecstasy.
- 6.2% of students reported using methamphetamines.
- 4.0% of students reported using steroids.

anabolic steroids, also can lead to acute or chronic health problems.

Adolescents decide to use a specific drug based on its perceived risk versus benefit and its perceived social approval versus disapproval, as well as its availability in the community. One study found that since the illicit drug epidemic originally blossomed in the 1960s, many new substances have come onto the national scene, while only a few have receded from it.[80] Because the health care professional may not be fully aware of all the illicit drugs available[81], she should talk with adolescents about the drugs of choice in their region. Data from the YRBSS also may provide valuable insights into the substance-using behaviors of adolescents (Box 2).

Screening and Intervention

Major transitions, such as puberty, moving, parental divorce, and school changes (eg, entering middle school), are associated with increased risk for adolescent substance use.[82] Adolescents, particularly those aged 12 and 13 years, should be asked whether they or their friends have ever tried, or are using, tobacco, alcohol, or other drugs. The health care professional should give anticipatory guidance as part of routine health maintenance.[83-85]

The USPSTF[66] recommends that all adolescents be screened for tobacco, alcohol, and other drug use and that "anti-tobacco messages . . . be included in health promotion counseling for children, adolescents, and young adults based on the proven efficacy of risk reduction from avoiding tobacco use." The CRAFFT is one brief screening tool that is appropriate for use in the adolescent primary care setting.[86] This screening is essential for all adolescents, including those with special health care needs. Although there may be a tendency to skip screening for children with special health care needs because of their chronic illness or developmental difference, doing so is inconsistent with the approach of the medical home.

The health care professional's screening, in combination with community prevention efforts, are important despite barriers that include limited time, low self-efficacy, and lack of reimbursement, as well as the lack of evidence that screening makes a difference.[87-92]

Success in treating a substance abuse problem is more likely if treatment is begun early. Early substance use has been correlated with an increased risk of abuse and dependence in adulthood.[93] The onset of early drinking has been associated with increased risk of alcohol-related health and social problems in adults, including dependence later in life, frequent heavy drinking, unintentional injuries while under the influence, and motor vehicle

Major transitions, such as puberty, moving, parental divorce, and school changes (eg, entering middle school), are associated with increased risk for adolescent substance use.

crashes.[94] Table 3 and Figure 1 illustrate 2 models for a continuum of drug use through stages.

Addiction could be viewed as a synonym for alcohol or drug dependence[95] as defined by the *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition*.[96] Alcohol or drug *dependence* is also a less stigmatizing term for adolescents.

Prevention and Protective Factors

Prevention programs have been designed for diverse target audiences in different settings. The content of prevention programs varies from didactic information about alcohol, tobacco, and other drugs to skills development for drug resistance or refusal. The prevention message needs to be consistent and from multiple sources (ie, in the home, at school, in the community, and from the medical home).[82,97] School-based smoking prevention programs with multiple components that teach resistance skills and engage youth in positive activities have been successful.[98] Involving families and communities and reinforcing school lessons with a clear, consistent social message that adolescent alcohol, tobacco, and other drug use is harmful, unacceptable, and illegal strengthens prevention efforts.[99]

The National Institute on Drug Abuse[82] has highlighted evidence-based examples of effective prevention that targeted risk and protective factors of drug abuse for the individual, family, and community. Based on its review of the research literature, it identified the following family protective factors:

- A strong bond between children and their families
- Parental involvement in a child's life
- Supportive parenting
- Clear limits and consistent enforcement of discipline

TABLE 3

Drug Use Severity Continuum[95]

Stage	Characteristics
Abstinence	No use.
Experimental use	Minimal use, typically associated with recreational activities, and often limited to alcohol use. Adolescents will use if the substance is available, but will not actively seek out substances.
Early abuse	More established use, often involving more than one drug, and greater frequency; adverse consequences begin to emerge. Behaviors to gain access to the substance now become evident, and persons who can supply drugs are sought out.
Abuse	Regular and frequent use over an extended period; several adverse consequences emerge.
Dependence	Continued regular use despite repeated severe consequences, signs of tolerance, and adjustment of activities to accommodate drug-seeking and drug use.
Recovery	Return to abstinence. Some youth can relapse and go through the cycle of stages again.

Adapted from Winters' hypothetical drug use problem with a severity continuum.[95]

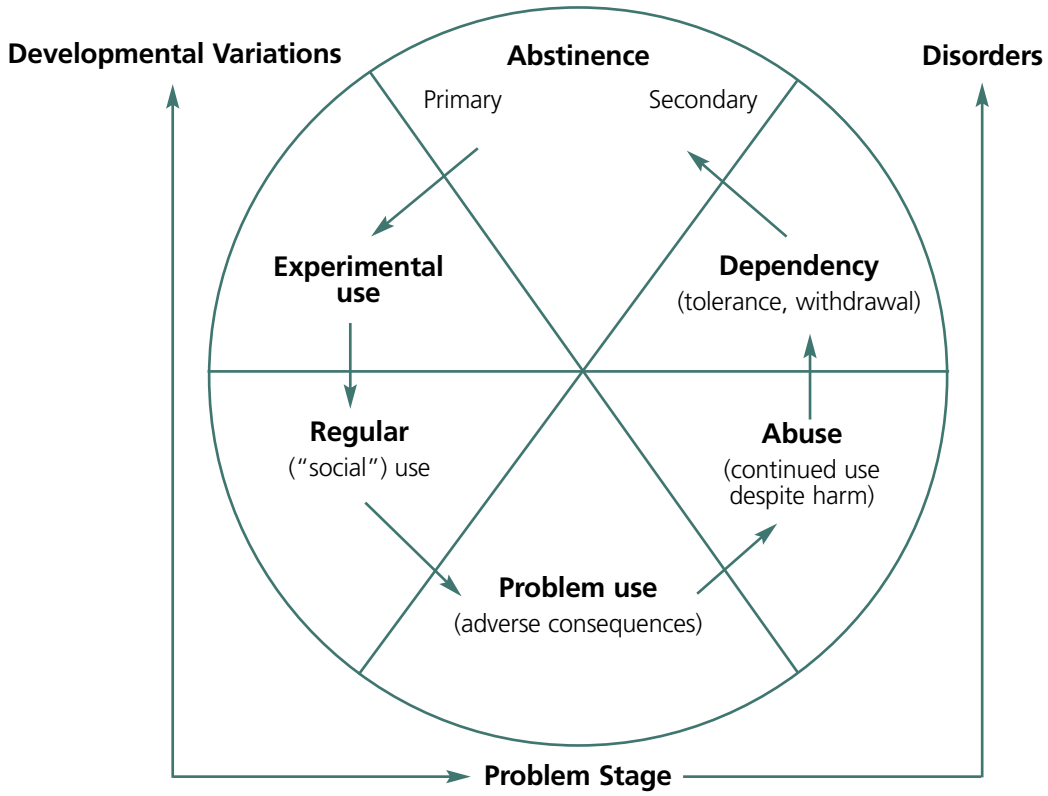
Outside the family setting, the most salient protective factors were identified as follows:

- Age-appropriate parental monitoring (eg, curfews, adult supervision, knowing the child's friends, and enforcing household rules)
- Success in academics and involvement in extracurricular activities
- Strong bonds with prosocial institutions, such as school and religious institutions, and acceptance of conventional norms against drug abuse[82]

In 1997, Simantov et al[100] conducted a cross-sectional, school-based survey of students in grades 5 through 12. Adolescents who reported "connectedness" to their parents were least likely to engage in high-risk behaviors. Another protective factor was participation in extracurricular activities, such as exercise or after-school sports clubs. However, the positive impact of extracurricular activity was on lowering smoking, not on the risk of drinking.

FIGURE 1

Stages of Use Model[101]



Source: Knight JR. Substance use, abuse, and dependence. In: Levine MD, Carey WB, Crocker AC, eds. *Developmental-Behavioral Pediatrics*. 3rd ed. Philadelphia, PA: WB Saunders; 1999.[101]

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