Promoting Mental Health

Establishing mental health and emotional well-being is arguably a core task for developing children and adolescents and those who care for them. Mental health is not merely the absence of mental disorder but is composed of social, emotional, and behavioral health and wellness and should be considered in the same context as physical health. Because cultures may differ in their conceptions of mental health, it is important for the health care professional to learn about family members' perceptions of a mentally healthy individual and their goals for raising 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 mental health. Shonkoff and Phillips[1] describe that marvelous process of the child's development of mental health in their book *From Neurons to Neighborhoods.* Each Bright Futures Health Supervision Visit addresses the physical and mental health of the child or adolescent. This theme highlights opportunities for promoting mental health in every child, including specific suggestions for each age and stage of development.

Mental health can be compromised at many critical times in development, beginning prenatally with the mental health of the mother, through infancy with the importance of attachments, through early childhood, and beyond. The health care professional, therefore, is challenged to promote mental health through 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[2-4]

- Prenatal risk factors
    - Developmental trauma
    - Alcohol exposure
    - Drug exposure
    - Lead exposure
    - Environmental toxins
- Genetic risk factors (eg, congenital developmental disability)
- Chronic medical illness or developmental disability
- Social and environmental risk factors
    - Poverty or homelessness
    - Exposure to intimate partner violence (IPV) or child maltreatment
    - Foster care placement
    - Disasters or other life trauma
- Family risk factors
    - Parental depression and social isolation
    - Bereavement
    - Separation or divorce
    - Chronic physical illness or mental disorder or death involving family members
    - Substance misuse by a family member
    - Incarceration of a family member
    - Military service of a family member
- Skills deficiencies
    - Lack of parenting knowledge or performance deficits
    - Child social skills deficits
    - School failure and learning problem or disability

Common challenges to child, adolescent, and family mental health are further described in this theme by age of highest prevalence. *(For additional discussions on these issues, see the Promoting Lifelong Health for Families and Communities theme.)*

In 2004, the American Academy of Pediatrics (AAP) convened a Task Force on Mental Health to help health care professionals enhance the mental health care they provide.[5] The goals of this task force were to build health care professional skills and enhance services through systems change in clinical practice and in the family's community of care. The task force developed a report for health care professionals, which includes 2 algorithms for care, and a companion toolkit.[6] The algorithms are (1) "Promoting Social-Emotional Health, Identifying Mental Health and Substance Use Concerns, Engaging the Family, and Providing Early Intervention in Primary Care" and (2) "Assessment and Care of Children With Identified Social-Emotional, Mental Health, or Substance Abuse Concerns, Ages 0 to 21 Years." The AAP has compiled a collection of mental health competencies and encourages health care professionals to integrate mental health into primary care and specialty care practice.[7]

Prevalence and Trends in Mental Health Problems Among Children and Adolescents

One-half of all the lifetime cases of mental disorder begin by age 14 years, and three-quarters are apparent by age 24.[8] Therefore, most mental health problems are chronic, with roots of origin during youth. For example, the median age of onset for anxiety and impulse control disorders is about age 11.[8] One in 5 teens experiences significant symptoms of emotional distress, and nearly 1 in 10 is emotionally impaired, with the most common disorders including depression, anxiety disorders, attention-deficit/hyperactivity disorder (ADHD),

and substance use disorders.[9] Among vulnerable populations of youth, such as those involved in the juvenile justice system, high rates of psychiatric disorders (66% of boys and 74% of girls) exist.[10] Unfortunately, under-detection of mental health problems in pediatric practice has been well-documented and recognized,[11,12] and even among youth who have been identified, many do not seek, find, or receive treatment services.[13,14]

Screening and Referral

Primary care professionals meet with children and families at regular intervals, and this frequent access to a primary care medical home is more available than access to specific mental health services. Primary care professionals are therefore ideally situated to begin the process of identifying children with problem behaviors that might indicate mental disorders, as well as identifying parents and caregivers struggling with mental health concerns that may affect the child. Consistent with the US Preventive Services Task Force (USPSTF) recommendation, screening for depression among adolescents in primary care is now included in the *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents* Adolescence Visits.[15] Building a solid collaboration among the health care professional and other service providers (eg, psychiatrists, psychologists, social workers, and other therapists) and agencies (eg, schools, mental health agencies, state departments of health, mentoring groups, agencies serving children and youth with special health care needs, and child protective 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 Lifelong Health for Families and Communities theme.)* This need is illustrated by a study showing that although psychosocial problems identified in pediatric offices increased from 6.8% to 18.7% in the 17-year period of 1979–1996,[16] the National Institute for Health

Care Management estimates that 75% of children diagnosed as having mental disorders are treated by primary care professionals.[17] These professionals often have limited access to mental health professionals with appropriate training and skills to assist them with behavior screening, treatment, and referral issues.[18] Collaborative or integrated mental health care in pediatric practice offers improved access to mental health care and improved outcomes.[19]

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 professionals recognize less than 30% of children with substantial dysfunction.[20] This lack of recognition is caused by the necessary brevity of pediatric appointments and stigma associated with mental health concerns, which result in hesitancy to bring up subject areas for which no quick fix exists. However, in some cases, the primary care professional can assess the child's problem and provide appropriate and successful intervention. 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. In other instances, when a problem is identified outside the realm of her expertise, the health care professional must be able to refer the family to experts who can provide a complete evaluation and treatment plan.

Existing screening tools can help the health care professional recognize possible mental health concerns. Screening for postpartum depression has been recommended by the USPSTF and the AAP. Universal screening for postpartum depression is now recommended at the 1 Month through 6 Month Visits. [21,22]

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*)[23] or the more brief *PSC-17*,[24] which can be completed in the waiting room by a parent. A positive score on the *PSC* suggests the need for further evaluation. *The Survey of Well-being of Young Children* (known as *SWYC*) screens child development from birth to age 5 by assessing 3 domains of psychosocial health: the developmental domain, the social and emotional domain, and the family context.[25] *The Patient Health Questionnaire-2* (*PHQ-2*) has been successfully used to screen for adolescent depression in clinical settings with adequate sensitivity and specificity.[26] All of these tools are available in the public domain. All tools should be administered in the family's primary language.

Screening does not provide a diagnosis for a mental 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, at school, with peers, or in the community. Providing education to the patient and parent about mental disorders, symptoms, causes, and treatments is an important first step in helping the family take charge of its management if a disorder exists. It also helps the family avoid placing blame and allows for reasonable expectations to be set.

Pediatric health care professionals can provide high-quality care for mental disorders[27] by providing in-office treatment, comanaging care with a mental health professional, or referring the patient. Training and past experience will guide the decision to treat or refer, but time constraints to provide ongoing management also are a consideration.[28] 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. Pediatric 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 following critical areas of the child's or adolescent's life: home, school, peers, activities, and mood.
- The patient is acutely suicidal or has signs of psychosis.
- Diagnostic uncertainty exists.
- The patient has not responded to treatment.
- The parent requests referral.
- An 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 his family, has a social relationship with the treating health care professional; in some instances, the nature of the mental or behavioral health problem indicates or demands referral.

When the possibility of referral is 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 mental wellness and emotional and behavioral problems and should connect the family with culturally appropriate services. Even after a patient

is referred to a mental health professional, ongoing involvement by and surveillance of symptoms by the primary health care professional are of value.

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 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 care.

In addition, any chronic health condition brings stressors to both the child and family. These stressors, 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. The medical home model of care brings attention to and offers treatments for these comorbidities.[29] *(For more information on this topic, see the Promoting Health for Children and Youth With Special Health Care Needs theme.)*

Promoting Mental Health and Emotional Well-being: Infancy—Birth Through 11 Months

Infant mental health is the flourishing of a baby's capacity for warm connection with his parents and caregivers. 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 of temperamental style, the ability to engage, health, and vigor to this interaction.

The ability of the parents to respond well is determined by their own temperament, expectations, and "goodness of fit" with their child's temperament. Life stresses, past experiences with children, and their own experiences of being nurtured in childhood also influence parenting skills. 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.[21] Depression and anxiety are common in many mothers and fathers 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 responsiveness to the infant's engagement cues. Parental substance use 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 his 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 effect 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, although providers may not be able to observe the different attachment styles in short clinical encounters, as some children will be fearful. They should give anticipatory guidance to assist families in enhancing secure development.

Three patterns of attachment have been described by Bowlby[30] and many others in infants and young children—secure attachment, insecure and avoidant attachment, and insecure attachment characterized by ambivalence and resistance (Box 1). Increasing

Box 1
Attachment Patterns[31]

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. During visit, engages with health care professional and seeks and receives reassurance and comfort from parent.

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. During visit, may act fearful but also angry with the parent, may seek contact but then arch away and struggle, and also may act extremely helpless or sad but not seek comfort and protection.

Insecure Attachment Characterized by Ambivalence and Resistance
Parent: Shows inconsistent patterns of care, is unpredictable, may be excessively close or intrusive but then push away. This pattern is seen frequently with depressed caregiver.
Child: Feels he should keep adult engaged because he never knows when he will get attention back and is anxious, dependent, and clingy.

evidence points to the permanent positive effect of secure attachment and the persisting negative effects of insecure patterns of attachment on development.

Challenges to the Development of Mental Health

Infant Well-being

Infant well-being and early brain development are discussed in the *Promoting Lifelong Health for Families and Communities theme.* Signs of possible problems in emotional well-being in infants include

- 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

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, grief, anxiety, post-traumatic stress disorder (PTSD), other significant stress, substance use, or IPV. A mental health professional or a pediatric 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

- A child who is perceived by parents to be demanding or difficult to satisfy
- An infant who is diagnosed as having a chronic illness or disability
- A family who is socially isolated, without community support
- Mental health needs in one or both parents that have not been diagnosed and treated
- Parental alcohol and substance misuse
- A parent with career difficulties, who may see the newborn as an impediment or burden
- Family economic hardship or poverty in combination with other factors

Infants and toddlers are at higher risk for abuse and neglect than are older children. Infants and children who are younger than 3 years account for more than a quarter of all maltreated children. Nearly three-quarters of child abuse fatalities occur before age 3, and maltreated infants younger than 1 year are 3 times more likely to die than those who pass their first birthday.[32] 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 use, mental or physical illness, family violence, or inadequate living conditions. More than three-quarters 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.[32]

Health care professionals should learn to recognize infants who are being abused or are at risk for abuse by a parent or other member of the household. If abuse is suspected, the health care professional

should ask direct questions in a respectful way to attempt to determine whether any kind of abuse might be occurring. Any unexplained bruises or other signs of abuse should be thoroughly investigated. *Suspected* cases of child abuse or neglect *must* be reported to the appropriate child welfare agency by law in all states and US territories. Health care professionals are mandated reporters and should err on the side of bringing concerns to authorities who will 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. However, concerns of imminent harm to the child, the potential for flight, or genuine fears for personal safety may require involving law enforcement and social service without informing the family and other caregivers.

Abuse and neglect 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 his emotional and behavioral development. Recognizing the risk of maltreatment 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 the development of 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 tantrums, aggressive behaviors, or inattention and withdrawal. The child can become psychologically disengaged, leading to detachment and apathy. This response, in turn, has an effect 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, commit crimes, and experience emotional problems, sexual problems, alcohol or substance use, and impaired physical health.[33-35]

Health care professionals can play an important role in preventing child maltreatment. They can help strengthen families and promote safe, stable, nurturing relationships. Health care professionals also can advocate for positive behavioral interventions and supports in schools.[36] Referring parents to home visiting programs, early care and education programs, or parent support groups can serve as an important prevention strategy because these programs are designed to help parents learn to cope with challenging situations and also learn strategies and skills to assist their child and learn about child development. Many of these programs have requirements for serving children with special needs, screen for developmental and mental health concerns, and provide additional and wraparound services, such as mental health consultants and behavioral specialists.[37,38]

Abusive Head Trauma

Abusive head trauma (AHT), previously referred to as shaken baby syndrome or shaken impact syndrome, is the nonaccidental traumatic injury that results from violent shaking of an infant or child. Head injury from AHT is the leading cause of death and long-term disability in children who are physically abused.[39,40] Patients typically are infants younger than 1 year, most often younger than 6 months. Infants who cry excessively, have difficult temperaments or colic, 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 AHT or physical violence.

PROMOTING MENTAL HEALTH

Abusive head trauma 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. Normal behaviors for an infant, such as crying, can be frustrating, especially for parents who are sleep-deprived, depressed, or experiencing other stresses. Hospitalized or chronically ill children are at increased risk, as their parents experience increased levels of stress, anxiety, exhaustion, depression, perceived loss of control, anger, grief, chronic sorrow, and poor adjustment. At times, most parents feel frustrated and confused if their infant exhibits any of the following behaviors:

- 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 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 spits up
- Takes only short naps during the day and 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 newborn, 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 AHT 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,[36] early intervention services, and educational programs, should be offered to support the parents.

Caring for the Family Facing Infant Illness

Caring for the parents and family of a sick infant or child with disabilities 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. *(For more information on this topic, see the Promoting Health for Children and Youth With Special Health Care Needs theme.)*

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 the parents 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.[41] 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 Through 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 her abilities to rely on herself, direct her energies, and interact with others. Building from a secure base of trust in her family, her 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. Early care and education 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 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 depends 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 depends 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.[42] 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, early care and education 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 child's emotions are affected by the emotional health of the parents and caregivers. Understanding both the child's and caregiver's temperament and the goodness of fit is important.

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 her age, the health care professional should assess

- 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 early care and education experiences
- Depression in the child or a history of trauma

The health care professional can gain a detailed understanding of the child's behavior in any particular situation by using an ABC (antecedents, behavior, and consequences) approach,[43,44] 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, which mainly occurs at preschool when the child is asked to stop playing)
- The behavior itself
- The consequences of the behavior for the child, as well as 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; her relationships with family, peers, or caregivers who are important to her; 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 exhibit 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 and the program's accreditation[45] 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.

Early care and education encompasses an array of programming available for children before school entry. Child care is one option in that array of settings that includes family child care homes, center-based child care, and in-home relative care, as well as home visiting programs. Regardless of the child care arrangement, it should always be of high quality. Many states have quality rating improvement systems, which offer parents the opportunity to seek quality early care and education programs based on criteria established by such systems. Additionally, each state has licensing rules for early childhood programs, monitored by state or local agencies. Knowledge of such rules also can help parents decide where they choose to enroll their child. Parents should ask whether their child care centers adhere to national standards and are accredited by organizations such as the National Association for the Education of Young Children,[46] the American Montessori Society,[47] the Council on Accreditation,[48] or the National Accreditation Commission of the Association for Early Learning Leaders.[49]

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.[50] 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 professional 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. Discussions of these issues can begin 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**[51]	**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 • Biological 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 TV and sibling activities? (For families living in small spaces, this may be unattainable.) Are any changes or tensions in the family 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 interest? Is there any suspicion of painful defecation or constipation?	What is the influence of the child's temperament, especially • Biological regularity? • Reactivity to sensory input? • Distractibility?	Is the parent's approach in sync with the child's developmental status and temperament? Are culturally based expectations 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 or preschool? Are they compatible with home routines?

continued

Table 1 *(continued)*

Examples of Behavioral Concerns	Developmental/ Health Status	Temperament and Sensory Processing[51]	Family-Child Interactions	Other Environmental Influences
Excessive tantrums	What other means does the child have for expressing frustration and anger? Can she do so through speech? Do developmental delays in self-care or other skills 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? Do specific events or interactions in the family 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	Do developmental delays 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 neighbor-hood 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 affect daily routines? Has there been unsupervised viewing of violent or mature TV or video games?

Table 1 *(continued)*

Examples of Behavioral Concerns	Developmental/ Health Status	Temperament and Sensory Processing[51]	Family-Child Interactions	Other Environmental Influences
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 ASD.)	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 with 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.
Excessive anxiety, which 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.)	Do developmental delays or disabilities reduce the child's capacity for expression and control? Do chronic health conditions affect sense of comfort and security? Are there perceived risks to health by the family ("the vulnerable child syndrome")?[41] Are there any acute health problems requiring separation from a parent?	What is the influence of the child's temperament, especially • Shy, inhibited, or 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 under-protectiveness 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 IPV) may result in chronic anxiety, such as PTSD. Major changes in the family or ongoing family stress situations may contribute to an anxious condition.

continued

Table 1 *(continued)*

Examples of Behavioral Concerns	Developmental/ Health Status	Temperament and Sensory Processing[51]	Family-Child Interactions	Other Environmental Influences
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 diffused. It can be accompanied by weaknesses in auditory or visual-spatial processing.)	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.

Abbreviations: ASD, autism spectrum disorder; IPV, intimate partner violence; PTSD, post-traumatic stress disorder; TV, television.

Child Sexual Abuse

Health care professionals can play an important role in preventing and identifying child sexual abuse, and it is important that they are able to talk with parents about concerns and ensure that parents are aware of problem signs. Discussions with parents can include ways they can help reduce their child's vulnerability to sexual abuse. Statistics indicate that most children are sexually abused by people they know well. It is safest for parents to know where and with whom their child is spending time, including in care and education settings. Parents' use of proper names for body parts and functions can also help reduce children's vulnerability to sexual abuse. Children who are comfortable talking about their bodies are more likely to be able to disclose when something worrisome or uncomfortable is happening to them.[52]

Parents should give their child permission to tell them about any uncomfortable or threatening experiences, reassuring the child that he will be believed and will not be in trouble for telling. Health care professionals are reminded that child abuse reporting laws require them to report concerns for child sexual abuse.

Early Identification of Autism Spectrum Disorder

Autism spectrum disorder (ASD) is a neurobiologic disorder characterized by fundamental deficits in social interaction and communication skills. A range of other developmental delays and differences exist; approximately 55% of children with ASD also have intellectual disabilities.[53] 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.

PROMOTING MENTAL HEALTH

With an incidence as high as 1 in 68 children,[54] ASD has become a major concern for all health care professionals, and new diagnostic categories have been adopted.[55] According to the Centers for Disease Control and Prevention (CDC), the estimated prevalence of ASD in 2010 has increased roughly 23% since 2008 and 78% since 2002.[54,56] 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.

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 her 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 her own world.
- Parents report that the child has a "hearing problem" (ie, she does not respond to speech directed at her).
- The child's speech does not develop as expected.

Because these signs of ASD are often difficult to elicit in the context of the pediatric health supervision visit, health care professionals must listen carefully to the observations of parents and they must have a high index of suspicion regarding ASD. It is important to consider ASD for children aged 12 or 15 months when communication concerns are identified in routine developmental surveillance.

Screening tests for ASD are available for use in primary care.[57] In addition, universal screening for ASD is recommended at the 18 Month and 2 Year Visits.[58]

Promoting Mental Health and Emotional Well-being: Middle Childhood—5 Through 10 Years

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 with 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. Children of depressed parents or parents with an authoritarian parenting style are at risk of not receiving this important developmental support.

Praise is important, but realistic praise is essential. Competencies are to be celebrated but in the context of their importance. Attempted mastery should be

noted and valued, as children do not learn without trying. Failures are to be acknowledged and transgressions must be noted if both are to be learning experiences.

It may be necessary to discuss developing self-esteem with certain parents to help them become comfortable with not just praise but also constructive criticism and, when appropriate, discipline. Parents can be reassured that their child's distress about the difficulty of a task often can be a motivator, and it is important to be tolerant of certain levels of their child's distress. It is an important parenting task to prepare children for adversity. For a child to achieve genuine self-esteem, he must learn the importance of trying and realize that some skills are hard and that the degree of difficulty of the skill affects his sense of accomplishment. Parents cannot change the environment; rather, they must help their children learn to adapt to it. Parents can be important supports, but children must do the work to gain from the accomplishment, both at this stage of development and later, as their increasing competencies bring increased independence.

Success at school and home is influenced by previous experience, by the child's ability to get along with others, and by expectations that fit his capabilities. Success also is influenced by the quality of the schools in the community and by the expectations of educators for children of their racial, ethnic, or 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 continued 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. *(For more information on this topic, see the Promoting Lifelong Health for Families and Communities theme.)*

Some children at this age may take on responsibilities far beyond those typical for their age. For example, children in immigrant families, particularly those who live in linguistically isolated households (defined by the US Census Bureau as a household in which no one >14 years speaks English very well[59]), may serve as interpreters for their parents in situations such as interacting with social service agencies or keeping the electric company from turning off the power. Children with a parent who has a serious physical or mental health condition, such as children of wounded veterans returned from Iraq or Afghanistan, may be helping their parent carry out even simple tasks such as taking medicines. Health care professionals should assess children in these circumstances to determine whether they may be experiencing excessive stress and social isolation. If so, the health care professional can work with families to identify community resources that can provide support and assistance.

Children with special health care needs are no different in 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 other caregivers, 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

PROMOTING MENTAL HEALTH

of their 40 developmental assets.[60] *(For more information on this topic, see the Promoting Family Support theme.)*

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 disorders within a primary care setting is relatively low.

In some situations, the health care professional will not only screen for mental health concerns but also perform 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 and assessment indicate a problem. *(For more information on this topic, see the AAP Task Force on Mental Health report and toolkit.[6])* However, the reality is that few families identified as needing mental health assistance will actually 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 children'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.[61] 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 strengths-based model that focuses on building these assets. Although health care professionals need to recognize risks, they also should be helping the family develop the strengths that can contribute to a positive environment for the child.[62] *(For more information on this topic, see the Promoting Lifelong Health for Families and Communities theme.)*

Protective factors include[63]

- 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 assets 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.

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 depends on the development of social skills. Health care professionals can help parents teach their children that failure and mistakes are an inevitable but, ultimately, a useful part of life. Problems with anxiety and depression commonly develop in

middle childhood or earlier, but their prevalence increases remarkably in early adolescence.[64] Early warning signs sometimes can be identified in the elementary school years so that later mental 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 or 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. An official diagnosis of a learning disability 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 expected 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.

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 or other conditions that impair attention. Neurobehavioral disorder associated with prenatal alcohol exposure (ND-PAE) may include ADHD symptoms. The CDC estimates that approximately 11% of children and adolescents aged 4 to 17 (6.4 million) have been diagnosed as having ADHD as of 2011, an increase of 7.8% since 2003.[65] Family and school skills should emphasize learning impulse control, building self-esteem, acquiring coping skills, and building social skills.

Mood Disorders

A mood disorder, such as dysthymic disorder or depression, can lead to dysfunction in multiple areas of a child's emotional, social, and cognitive development. Depressive 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 concerns, including eating and sleep disturbances; and poor social and academic functioning.[66] Among prepubertal children and adolescents with mood disorders, a second mental health diagnosis, such as ADHD, anxiety, or conduct disorders, is common. A small proportion of prepubertal children with mood disorders have child-onset bipolar disorder, although it is more common in adolescence or young adulthood. 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.

Disruptive mood dysregulation disorder (DMDD) occurs in children, adolescents, and adults aged 5 to 18 and is marked by frequent (>3 times per week), significant temper and rage outbursts, inconsistent with developmental level, and irritable, angry mood between outbursts, most of the day and most of the time.[67] In the *Diagnostic and Statistical Manual of Mental Disorders,* Fifth Edition (DSM-5), DMDD is a new diagnosis and describes a distinct pattern of behaviors in children who had often been considered to have bipolar disorder. Unlike children with bipolar disorder, who are likely to develop adult bipolar disorder, children with DMDD are at risk of developing depression.

Frequently, health care professionals in primary care are 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 behavioral problems are available. Depression screening, using a standardized instrument, is recommended at each visit beginning at the 12 Year Visit.

Further discussion of mood disorders can be found in the AAP mental health toolkit and in the *Adolescence section of this theme.*[6,68]

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, differential diagnosis is to be considered.

Anxiety disorders include a heterogeneous group of internalizing disorders characterized by excessive fear or worry. Anxiety disorders frequently occur alongside depression and can have significant effect on school, social, and family activities. Child anxiety may be a precursor to depression.[69,70]

In 2009, the incidence of anxiety disorders in youth was estimated to be 8%.[71] Separation anxiety, selective mutism, and social phobia are equally common in boys and girls, with specific phobia more common among girls.[66] Children who have experienced a trauma may meet criteria for PTSD.

Conduct Disturbances

Conduct disturbances are characterized by negative or antisocial behaviors that range in severity from normal developmental variations to significant mental disorders.[72] Symptomatic behaviors of oppositional defiant disorder can include persistent tantrums, arguing with adults, refusing to adhere to reasonable adult requests, and annoying others.

Conduct disorders usually involve serious patterns of aggression toward others, destruction of property, deceitfulness or theft, and serious violations of rules.[66] Behaviors suggestive of conduct disorder require assessment, home and school interventions, and referral for mental health services.

Bullying

It is difficult to estimate the prevalence of bullying because of differences in measurement and definitions of bullying.[73] Rates as low as 13% and as high as 75% have been reported, indicating that many children are bullied some time during their school years.

Children who bully are likely to have emotional, developmental, or behavioral problems. Children usually become bullies because they are unhappy or do not know how to get along with other children. Perpetrators may have been bullied themselves or have their own mental health or self-esteem issues. Bullying is associated with poor school adjustment and academic achievement. In addition, perpetrators have increased alcohol use and smoking and enhanced risk of adult criminality.[74]

If parents, teachers, or health care professionals have a reason to believe a child is a bully, he may need assessment and support. Assessing parental mental health and promoting positive parenting behaviors are important to the care of the bullying perpetrator. *(For more information on bullying, see the Promoting Safety and Injury Prevention theme.)*

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.
- **Cyberbullying:** Using the Internet, social media, or text messages or other digital technology to bully others. *(For more information on this topic, see the Promoting the Healthy and Safe Use of Social Media theme.)*

Bullying hurts everyone. People who are bullied 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 children 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.[75,76] A health care professional who suspects that a child is being bullied or 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. **StopBullying.gov** is a useful resource for bullying and cyberbullying.[77,78]

The following suggestions are for parents and health care professionals in situations of bullying[77]:

- Learn what a child's school and community use to help combat bullying, such as peer mediation, conflict resolution, anger management training, and increased adult supervision.
- Identify the school's bullying policy; it is often published on the school's Web site.
- 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 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 he will be prepared the next time. The simple act of insisting that the bully leaves him 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.

Adults can teach the child to take the following actions[79]:

- 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. Often, children who bully like to see that they can make their target upset. Instead, he can calmly tell the bully that he does not like it and the bully should stop. 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 immediately reply. Instead, he should tell a family member or another trusted adult as soon as possible. The decision about whether to respond to cyberbullying is a complex one. On one hand, an appropriate response is standing up to the bully. On the other hand, responding could make the bullying worse by establishing a cyber-dialogue before an undetermined and potentially large audience.

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. In their 2011 policy statement, the AAP Committee on Substance Abuse (now Committee on Substance Use and Prevention) warned: "Although it is common for adolescents and young adults to try mood-altering

chemicals, including nicotine, it is important that this experimentation not be condoned, facilitated, or trivialized by adults, including parents, teachers, and health care providers."[80] Health care professionals should discuss these issues with children, and their parents, before they reach adolescence. Although most 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 and mistakes made because of impaired judgment. 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 or electronic cigarettes, banning smoking at home, limiting alcohol, avoiding drug use, and actively monitoring 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.

Child Sexual Abuse

As discussed in the *Early Childhood section,* parents can help reduce their child's vulnerability to sexual abuse. Most often, children are abused by people they know well. Parents should give their child permission to tell them about any uncomfortable or threatening experiences they may have, reassuring the child that he will be believed and will not be in trouble for telling. Health care professionals are reminded that child abuse reporting laws require them to report concerns for child sexual abuse.

Promoting Mental Health and Emotional Well-being: Adolescence—11 Through 21 Years

The adolescent's progression toward optimal functional capacity and involvement in meaningful interpersonal relationships and personal activities varies 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. The development of resilience is a primary goal of successful adolescent development. Resilient 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. *(For more information on this topic, see the Promoting Lifelong Health for Families and Communities theme.)* Cross-sectional data from Vermont show a striking negative correlation between the presence of protective factors and a variety of risk behaviors.[62] National longitudinal data from the National Longitudinal Study of Adolescent to Adult Health (Add Health) study demonstrate a similar, powerful effect of protective factors on subsequent violence.[81] School-based programs focused on teaching adolescents positive social development have been shown to be effective tools for risk reduction.[82] Young people should be encouraged to engage in pro-social 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. Meaningful activities enhance satisfaction and self-esteem even in the context of poor support from parents and families. Support from after-school activity group leaders can be protective against poor relationships with primary caregivers.[83]

Mental health and developmental disabilities are often chronic conditions requiring continuing care in a medical home. Affected youth may be cared for similarly to children and youth with other special health care needs, for which collaboration with the family, school, and mental health professionals typically will be required.

Adolescents are recommended to have at least one visit per year with their health care professional, and mental health problems can be first discussed in that setting. Health care professionals should know the symptoms of common mental disorders in this population, as well as risk factors for suicide, and should ask about these symptoms during an office visit whenever appropriate.[84,85] Inquiry about school, peers, and mental health may be appropriate at illness encounters as well as health supervision visits.

Compas[86] suggests a framework to assess the mental health of adolescents (Table 2). When using this framework, the health care professional should elicit the perspectives of the adolescent herself, as well as her parents, teachers, and, if needed, 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.

Table 2

Framework for Evaluating Adolescent Emotional Well-being[86]	
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 meaningful activities	• Skills and motivation to engage in meaningful activities • Behaviors and activities that are experienced as autonomous • Self-directed involvement
Perspective of interested parties	• Perspectives of the adolescent, parents, teachers, and, if needed, the mental health professional • Adolescent's subjective sense of well-being • Adolescent's behavioral stability, predictability, and adherence to social rules
Developmental factors	• Prior developmental milestones and issues • Variations in adolescent's cognitive, affective, social, and biological development • Cohort differences in events and social context that affect positive mental health
Sociocultural factors	• Differences in values affecting 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 with permission from Compas BE. Promoting positive mental health during adolescence. In: Millstein SG, Petersen 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.

Patterns of Attachment and Connection

Connectedness with parents, family, and caregivers 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.[87] Studies document reduced risk-taking behavior among youth who report a close relationship with their parents.[62] 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. Data from Add Health have shown that parent-family connectedness and perceived school connectedness are protective factors against health risk behaviors.[81,88]

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. 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.[89]

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 learning disabilities 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 disorders in this population, especially depression, as well as risk factors for suicide, and should ask about these symptoms during any office visit, whenever appropriate, in addition to the depression screening recommended for each adolescent health supervision visit.[15,85]

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 have examined the effect of prevention programs on the incidence of new mental health cases, in part because of the large number of study participants that would be needed to ensure scientifically reliable findings.[90]

Mental Health Concerns

The most common mental health problems of adolescents are anxiety disorders; behavior disorders, including ADHD, oppositional defiant disorder, and conduct disorder; mood disorders; and learning problems. The prevalence of all mood disorders increases uniformly with age.[91] Substance use and misuse 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 sadness, low self-esteem, and worthlessness are associated with these conditions. The wide mood changes in adolescents challenge health care professionals to distinguish between a mental 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.[91] Depression is present in about 5% of adolescents at any given time. Having a parent with a

history of depression doubles to quadruples an adolescent's risk of a depressive episode.[92] Depression also is more common among adolescents with chronic illness and after stressful life events, such as the loss of a friend, parent, or sibling. It is more common as well after exposure to community disasters or other significant traumas. Depression in adolescents is not always characterized by sadness but can be seen as irritability, anger, boredom, an inability to experience pleasure, withdrawal from social interactions or problems with peers or friends, or difficulty with family relationships, school, and work. Academic failure and risk behaviors such as substance use and dependency,[93] high-risk sexual behaviors, and violence all have been linked to depression in adolescents.

When treating an adolescent with depression, the health care professional should determine past suicidal behavior or thoughts and family history of suicide. *Parents should be advised to remove firearms and ammunition*[85] and any potentially lethal medications from the home, including such common over-the-counter drugs as acetaminophen and aspirin. 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. Mental health problems are classified as disorders when symptoms significantly affect an adolescent's functioning. The lifetime prevalence of any anxiety disorder among adolescents in the United States is about 32%, with rates for specific disorders ranging from 2.2% for generalized anxiety disorder to 19.3% for a specific phobia.[91] Studies have demonstrated a relationship between anxiety disorders and alcohol misuse in adolescents and young adults.[94] Thus, to make

appropriate diagnoses, treatment plans, and referrals, the health care professional must review the individual's risk and protective factors to better understand the adolescent's symptoms and the context within which they occur.

One strategy for improving the detection of mental health problems is to screen for anxiety and depressive disorders during routine health evaluations. The USPSTF[15] now recommends screening adolescents for depression in clinical practices that have systems in place to ensure accurate diagnosis, effective treatment, and follow-up.

A variety of measures to screen for mood disorders can be used in the primary care setting for children and adolescents.[95] The *PHQ-2* contains 2 items and is a commonly used measure in the adult population. Recent data in an adolescent population found that scores of 3 or more had a sensitivity of 74% and specificity of 75% for detecting youth who met *Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition* (*DSM-IV*), criteria for major depressive disorder.[26] However, the health care professional may choose to use other screening measures for adolescents that can concurrently screen for anxiety, eating disorders, and depression.

Deficits in Attention, Cognition, and Learning

Adolescents with deficits in attention, cognition, and learning are likely to present with an array of concerns that involve academic, psychosocial, and behavioral functioning.

Many children who have been diagnosed as having ADHD continue to have difficulties throughout their adolescence and adulthood.[96] Adolescents with ADHD often have comorbid oppositional defiant disorder and conduct disorder. Symptoms of ADHD also may indicate ND-PAE. In addition to having developmental and social problems, affected adolescents may have significant problems with organizational skills, work completion, and self-esteem.

PROMOTING MENTAL HEALTH

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 adhere to reasonable adult requests, annoying others, aggression toward others, destruction of property, deceitfulness or theft, and serious violations of rules. Substance use, interpersonal aggression, and other problem behaviors also tend to occur in adolescents with these disorders.

Sexual Abuse

Health care professionals should counsel adolescents about healthy relationships and at the same time screen for, as well as counsel against, coercive and abusive relationships with intimate partners. Sexual abuse remains a risk for adolescents. Children and youth with disabilities are 2.2 times more likely to be sexually abused than are typically developing children, as they often depend on others for intimate care and have increased exposure to a large number of caregivers and settings. They also may have inappropriate social skills, poor judgment, and an inability to seek help or report abuse, and they often lack strategies to defend themselves against abuse.

Child sex trafficking, including commercial and sexual exploitation of children and youth, is associated with a plethora of serious physical and emotional health problems. Children and youth who are trafficked seldom self-identify, but health care professionals can remain alert to "indicators associated with the patient's presentation at the visit, history of living situation and physical findings."[97,98]

Suicide

Suicide is the third leading cause of death for adolescents. In 2013, 4,878 suicides occurred among those aged 15 to 24, including 2,210 deaths by firearm.[99] Data collected in 2013 by the CDC Youth Risk Behavior Surveillance System (YRBSS) show that 17.0% of high school students reported they had seriously considered attempting suicide, 13.6% had made a plan, and 8.0% had made a suicide attempt.[100] Although the proportion of students who reported that they have seriously considered suicide has decreased from 29% in 1991, the number of adolescents who reported attempting suicide has remained relatively stable across the last decade.[101] Completed suicides by adolescent and adult males aged 15 to 19 are 6 times greater than those by their female counterparts. However, suicide attempts are almost twice as high among girls when compared to boys.[85] In 2014, the USPSTF found insufficient evidence to recommend for or against suicide risk screening in adolescence or other age groups, even though depression screening is recommended.[102]

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 caregivers in monitoring suicidal thoughts and gestures. *Parents should be advised to remove firearms and ammunition from the home.*[85,103] Attention also should be directed to other sources of risk, such as knives and medications, including common over-the-counter drugs, such as acetaminophen and aspirin. Of importance, suicide risk seems highest at the beginning of a depressive episode, so expeditious treatment or referral is crucial. 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 dying by suicide.

Substance Use and Misuse

Use or misuse of alcohol, tobacco, and other drugs is a significant health concern during adolescence. For adolescents, smoking, drinking, and illicit drug use are leading causes of injury and death. Although the USPSTF emphasized the importance of this problem and called for continued study,[104] it was unable to find sufficient evidence for or against the universal screening of adolescents for substance use.[105] The USPSTF did find sufficient evidence to recommend screening for alcohol misuse in adults aged 18 and older.[106] The primary care setting is an opportunity for primary care professionals to assume greater responsibility for managing substance abuse treatment for their patients.[107,108] Therefore, prevention, screening, and early intervention are vitally important.

Significant changes in drug awareness take place in early adolescence, and substance use most often begins between grades 7 and 10.[109] By late adolescence 78.2% have consumed alcohol, with 15.1% meeting alcohol misuse criteria, and 42.5% use drugs with a 16.4% rate of misuse.[110]

Misuse of prescription drugs is highest among adults aged 18 to 25, with 2.2% of youth aged 12 to 17 reporting nonmedical use of prescription drugs.[111,112] Prescription and over-the-counter drugs are most commonly misused by adolescents, after alcohol and marijuana. As with alcohol, most youth who misuse medications obtain the medication from family and friends.

Addictive behavior begins in adolescence and has both biological and environmental causes. Adolescents of parents who misuse substances are particularly vulnerable to health or social problems.[113] Prevention efforts can start in the home.[111] Families should be advised to lock medications in their home and in relatives' homes.

As adolescents become older, increased access to substances and independence from parents contribute to the risk for substance use or dependence.

Substance use can interfere with judgment and decision-making, which, in turn, can increase risk-taking and contribute to motor vehicle crashes, homicides, and suicides. In addition, adolescents are at increased risk for unprotected sexual activity and interpersonal violence while under the influence of alcohol or other drugs.

The YRBSS provides valuable data on the substance-using behaviors of adolescents (Box 2). Perceived risk versus benefit, perceived social approval versus disapproval, and drug availability in the community are all influencing factors in adolescent substance use. Health care professionals may not be fully aware of all the illicit drugs available and thus should talk with adolescents about the drugs of choice in their region.

Screening and Intervention

Major transitions, such as puberty, moving, parental divorce, and school changes (eg, entering high school), are associated with increased risk of adolescent substance use.[114] Adolescents 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.[115]

Pediatric health care professionals also should be active in their efforts to prevent smoking cigarettes, electronic cigarettes, and chewing tobacco among their adolescent patients. Smoking prevention actions are an evidence-based intervention recommended by the USPSTF.[116] In addition, an AAP policy statement states, "Because 80% to 90% of adult smokers began during adolescence, and two thirds became regular, daily smokers before they reached 19 years of age, tobacco use may be viewed as a pediatric disease. Every year in the United States, approximately 1.4 million children and adolescents younger than 18 years start smoking, and many of them will die prematurely from a smoking-related disease. Moreover, recent evidence indicates that adolescents report symptoms of

PROMOTING MENTAL HEALTH

Box 2

Youth Risk Behavior Surveillance System

Since 1991, the CDC has conducted a biannual national survey of ninth- 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 2013 YRBSS are listed below.[100]

Alcohol
- 18.6% of students first drank alcohol (other than a few sips) before the age of 13 years.
- 66.2% of students had ever drank alcohol, and 34.9% had at least one drink of alcohol on at least one day in the past 30 days.
- 20.8% reported episodic heavy drinking (ie, ≥5 drinks of alcohol on ≥1 occasions) during the previous 30 days.
- 21.9% of these high school students had ridden with a driver who had been drinking.

Tobacco Use
- 41.1% of high school students had ever tried cigarette smoking, and 8.8% had ever smoked at least one cigarette every day for 30 days (ie, ever smoked cigarettes daily).
- 9.3% of students had first smoked a whole cigarette before the age of 13 years.
- 15.7% of students reported current cigarette use (ie, used cigarettes on ≥1 of the preceding 30 days).
- During the 30 days preceding the survey, 8.8% of students had used smokeless tobacco and 12.6% had smoked cigars.

Marijuana
- 40.7% of the high school students reported having used marijuana, with 8.6% having tried the drug before the age of 13 years.

Cocaine
- 5.5% of students had ever used cocaine (eg, powder, crack, or freebase).

Inhalants, Heroin, Methamphetamines, Hallucinogens, and Nonprescription Steroids or Other Drugs
- 8.9% of students had ever used inhalants (eg, sniffing glue, breathing the contents of aerosol cans, or inhaling paints or sprays to get high, referred to as huffing).
- 6.6% of students had ever used Ecstasy (also called MDMA).
- 2.2% of students had ever used heroin (also called smack, "junk," or China white).
- 3.2% of students had ever used methamphetamines (also called speed, crystal, crank, or ice).
- 7.1% of students had ever used hallucinogenic drugs (eg, LSD, acid, PCP, angel dust, mescaline, or mushrooms).
- 3.2% of students had ever taken steroids without a physician's prescription.
- 17.8% of students had ever taken prescription drugs, other than steroids, without a physician's prescription.

Abbreviations: CDC, Centers for Disease Control and Prevention; LSD, lysergic acid diethylamide; PCP, phencyclidine hydrochloride; YRBSS, Youth Risk Behavior Surveillance System.

tobacco dependence early in the smoking process, even before becoming daily smokers."[117]

Smoking among college students is a major concern. Because smoking initiation peaks between ages 18 and 25, progression from occasional to daily smoking almost always occurs by age 26, and curbing tobacco influence on campuses could prevent a new cohort of lifetime smokers. In fact, as many of 25% of full-time college students are current smokers.[118] Health care professionals should advise their college-aged patients about the hazards of smoking, offering to aid in cessation if they are smoking, and suggest that they consider requesting a smoke-free residence hall if they have asthma or other health problems that are exacerbated by tobacco smoke.[118]

The CDC Community Guide found that Smoke-Free policies reduced the initiation of smoking among young people.[119] In 2013, the USPSTF recommended that all adolescents and young adults be screened for tobacco use and that antitobacco messages be included in health promotion counseling for children, adolescents, and young adults on the basis of the proven reduction in risk resulting from avoiding tobacco use.[120] In 2015, the USPSTF recommended behavioral counseling for adults 18 and older, including pregnant women, and Food and Drug Administration approved pharmacotherapy for adults who are not pregnant.[121]

The USPSTF continues to find that evidence is insufficient to assess the balance of benefits and harms of screening adolescents, adults, and pregnant females for illicit drug use.[122] As noted in the Substance Abuse and Mental Health Services Administration white paper,[123] although substantial research has been conducted on the effectiveness of Screening, Brief Intervention, and Referral to Treatment (SBIRT) in reducing risky alcohol consumption, evidence for the effectiveness of SBIRT in reducing risky drug use is still accumulating. In 2011, the AAP Committee on Substance Abuse recommended that pediatric health care professionals

become knowledgeable about SBIRT and the spectrum of substance use in their practice area and "to screen all adolescent patients for tobacco, alcohol, and other drug use with a formal, validated screening tool, such as the CRAFFT screen, at every health supervision visit and appropriate acute care visits, and respond to screening results with the appropriate brief intervention."[80] A comprehensive follow-up recommendation from this group was released in 2016 and includes recommendations for screening tools.[107] The Screening to Brief Intervention (known as S2BI) tool, the CRAFFT (car, relax, alone, forget, friends, and trouble) brief screening tool,[124] and others that are appropriate for use in the adolescent primary care setting are reviewed.[107] Screening for substance use is included in the Adolesent Visits of this edition.

Screening is essential for all adolescents, including those with special health care needs. Although health care professionals may tend to skip screening for adolescents with special health care needs because of the adolescent's chronic illness or developmental difference, doing so is inconsistent with the approach of the medical home and would be a missed opportunity for prevention or early intervention.

The health care professional's screening, in combination with community prevention efforts,[125] is important despite barriers that include limited time, lack of training, perceived low self-efficacy, and lack of treatment resources and reimbursement.[123,126,127] Brief primary care and school-based prevention interventions have demonstrated efficacy. Success in treating a substance use problem is more likely if treatment is begun early.[128-130] Early substance use has been correlated with an increased risk of use disorder in adulthood.[131,132] 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 crashes.[133]

Unlike the DSM-IV, the DSM-5 no longer categorizes substance abuse and substance dependence separately but instead considers substance use disorder as a measured continuum, from mild to severe.[66] The DSM-5 diagnoses describe each specific substance as specific entities (eg, alcohol use disorder, stimulant use disorder), with the same overarching criteria from mild to severe. Although *alcohol* or *drug dependence* has in the past been considered a less stigmatizing term for adolescents, it is no longer an accurate diagnostic category.

Prevention and Protective Factors

Substance use 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 child care, in the community, and from the medical home).[114] School-based smoking prevention programs with multiple components that teach resistance skills and engage youth in substance-free activities have been successful.[134] 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.[114,135]

Preventing tobacco use among adolescents and young adults remains an important activity for the pediatric health care professional. As of January 2013, more than 1,100 college or university campuses in the United States had adopted 100% smoke-free campus policies that eliminate smoking in indoor and outdoor areas across the entire campus, including residence halls. This figure was about double from a year earlier and almost triple from 2 years earlier.[118] The CDC Community Guide has found strong evidence that (1) increasing the price of

tobacco products is effective in reducing tobacco use among adolescents and adults, reducing population consumption of tobacco products, and increasing tobacco use cessation and (2) mass media campaigns are effective in reducing tobacco use among adolescents when implemented in combination with tobacco price increases, school-based education, and other community education programs.[121] These recommendations provide direction for health care professionals who choose to advocate for tobacco prevention within their community or state or their health organizations.

The National Institute on Drug Abuse (NIDA) has highlighted evidence-based examples of effective prevention that targeted risk and protective factors of drug use for the individual, family, and community. On the basis of its review of the research literature, NIDA identified the following family protective factors[114]:

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

Outside the family setting, the most salient protective factors were

- 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 pro-social institutions, such as school and religious institutions, and acceptance of conventional norms against drug use

In 1997, Simantov et al[136] 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, although extracurricular activities decreased smoking with statistical significance, the decreased alcohol consumption was less.

Effective health supervision addresses all components of health, including physical growth and development as well as emotional development and mental health. As considered in the *Promoting Lifelong Health for Families and Communities theme,* physical brain growth and emotional development are influenced by multiple factors from the prenatal period through young adulthood. Preventable risks to healthy brain development and enhanceable protective factors to foster mental health exist. Successful health promotion demands attention to the emotional development and the mental health through each of the ages and stages of growth and development.

PROMOTING MENTAL HEALTH

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