I

INTRODUCTION

1

Behavioral and Emotional Problems in Adolescents

Overview and Issues

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Behavioral and emotional problems in adolescents affect a significant number of young people, with considerable personal and societal costs. Estimates of mental health treatment expenditures for adolescents in the United States are substantial, and considerably more than for younger children (Ringel & Sturm, 2001). Because these estimates do not include costs associated with the educational, child welfare, and juvenile justice systems, or indirect costs of adolescent mental illness such as future lost wages due to lower educational attainment, they likely underestimate the overall costs associated with behavioral and emotional problems in adolescents.

Recent research into such adolescent disorders as conduct disorder, substance abuse, mood disorders, suicide, eating disorders, anxiety disorders, relational violence, attention-deficit/hyperactivity disorder (ADHD), and other problems indicates that adolescence presents unique challenges as compared with other developmental periods (American Psychological Association, 2002; Cicchetti & Rogosch, 2002). The epidemiology, expression, gender differences, comorbidities, developmental pathways, contexts, and causes of these disorders in adolescents are different than for other ages. These differences derive in part from the fact that adolescence is a transitional period of rapid developmental change, characterized by multiple interacting influences (United Nations, 2002). These changes and influences include physical maturation, emerging sexuality, need for autonomy, growing peer influence, new sources of stress associated with physical appearance and relationships, and exposure to a variety of stressors that may place adolescents at risk for concurrent and later problems (Kazdin, 2000). Paradoxically, adolescents show improvements in strength, speed, reaction time, mental reasoning abilities, immune function, among others; yet, their overall morbidity and mortality rates *increase* 200–300% from childhood to late adolescence (Burt, 2002).

Disorders that occur during the period from the onset of puberty (at about age 11 or 12)

and ending with independence and entry into early adulthood (around 18–24 years) have not received the attention given to disorders of childhood or adulthood (Irwin, Burg, & Cart, 2002). However, this situation is changing as developmental psychopathologists and clinical practitioners from a wide range of disciplines are increasingly recognizing the special aspects of development, behavior, and adjustment needed to understand, assess, and treat adolescents with behavioral and emotional disorders (Cicchetti & Rogosch, 2002; Holmbeck & Kendall, 2002).

An integrative conceptual framework for understanding the different forms of behavioral and emotional problems in adolescents has been lacking, and knowledge is new and has not been presented in a single source (Holmbeck & Kendall, 2002). Students, researchers, and practitioners who are interested in adolescent psychopathology and its assessment and treatment must currently sift through numerous articles and texts on developmental psychopathology, looking for, and trying to separate, specific mention of adolescent problems from broader discussions that focus on both child and adolescent disorders combined (e.g., Mash & Barkley, 2003, in press).

The current volume compiles the best and most up-to-date theory and research on understanding, assessing, and treating adolescents with behavioral and emotional problems, with a special sensitivity to the changes in physical, intellectual, psychosocial, and emotional development that occur during adolescence. The presentation focuses on the malleability of adolescents as a function of peer, family, school, community, and other influences while recognizing that it is during this period that distinct developmental pathways may also become well established (Davis, Banks, Fisher, & Grudzinskas, 2004; Steinberg & Morris, 2001). Although the focus of this volume is on disorders in adolescents, we recognize that it is necessary to link these problems with previous and future time periods as contexts for understanding, assessing, and treating these disorders.

WHY A SPECIAL FOCUS ON ADOLESCENT DISORDERS?

Adolescence represents an important developmental link between childhood or environmental circumstances and adult outcomes, in which previous adaptational patterns or difficulties may decrease, continue, intensify, or change (Steinberg, 2004). It involves rapid changes in emotional, social, physical, and intellectual development, resulting in an extremely diverse group of young people. At the early stages of adolescence an individual is beginning to form an identity separate from parents and family members, while turning to peers as one's source of personal support and social information. A mere 7–10 years later they are expected to be capable of self-sufficiency and independence. Not surprisingly, there are also significant changes in the types and frequency of mental disorders and problem behaviors that accompany these rapid changes in adolescent (Holmbeck & Kendall, 2002). Eccles and colleagues (1993) emphasize that problems in adolescence have an early beginning involving issues of autonomy and control with family members, particularly concerning family decisionmaking processes. Self-esteem plays a role in how well each adolescent negotiates these developmental tasks, and he or she needs to be a part of the solution to problems related to family decision making. In general, positive family relationships, including being able to discuss problems with parent(s), have been found to have a protective association for engaging in high-risk behaviors during adolescence (Resnick, Ireland, & Borowsky, 2004).

"Adolescence" is typically defined by chronological age (11–18 years), although physical, social, and cognitive development is often taken into account as well (American Psychological Association, 2002). Based on this age range, adolescents represent the fastest growing age group in the United States, particularly in urban areas (Annie E. Casey Foundation, 2002). Proportionately, the number of children ages 13–17 in the United States has increased by 12% over the past 8 years, compared to only a 4% increase among children under age 18 (Annie E. Casey Foundation, 2002). In addition, the population of adolescents in the United States is becoming increasingly racially and ethnically diverse. Nearly 40% of youngsters ages 10–19 identify as Hispanic or nonwhite, and ethnic and racial diversity among adolescents is projected to increase even further in the coming years (U.S. Census Bureau, 2005). From a global perspective, adolescents comprise 20% of the world's population and 85% reside in developing countries (Blum & Nelson-Mmari, 2004). It has been estimated by

the World Health Organization (WHO, 1997) that over the 50-year period from 1970 to 2025 the number of urban youth will increase worldwide by 600%.

Researchers in adolescent development have long maintained that more meaningful distinctions within this broad developmental category are necessary for genuine insights into these rapid changes. These distinctions break down into three age ranges, although the exact boundaries are somewhat arbitrary: early (ages 11–13), mid (ages 14–16), and late adolescence (ages 17–20). Of course, there are no established rules for being an adolescent. Some preteens appear to enter this stage well in advance of their biological age, while others have difficulty leaving childhood behind. There is a similar discrepancy in maturity at the older end of adolescence, affecting the rate at which individuals emerge into adult responsibility and personal autonomy.

Historically, society has been largely concerned about the negative aspects of adolescent development, such as behavior problems and risk behaviors, with little attention paid to factors promoting healthy youth development (Burt, Resnick, & Novick, 1998). Consequently, with the exception of education, services for youth have traditionally existed to address or prevent youth problems, with little corresponding attention given to promoting youth development (Catalano, Hawkins, Berglund, Pollard, & Arthur, 2002). This emphasis has resulted in an assortment of youth services focused on "fixing" adolescents with emotional or behavioral problems, including those who engage in experimental risk behaviors. Similarly, many interventions are restricted to single issues such as substance use or early pregnancy, with inadequate consideration given to the shared underlying causes of such visible concerns (Burt, 2002). Other factors influencing youth's decisions and choices, such as their families, their environments, and the developmental context in which emotional and behavioral problems occur, have similarly received insufficient attention and integration (Biglan, Brennan, Foster, & Holder, 2004).

Today's shift in thinking about adolescent emotional and behavioral problems is leading to major advances in accepting and supporting adolescents as valuable members of society, gradually rejecting the negative viewpoint based on fear and poor understanding. Although adolescence is a period of greater risk than any other in terms of academic failure, violence, and health-compromising behaviors (Wolfe, Jaffe, & Crooks, 2006), it is recognized more and more as a period of tremendous opportunity for establishing the skills and values needed for adult life. This period of development has always been challenging and fraught with ups and downs, as teens seek independence from their families and establish their own identities. Yet, the last two decades have seen considerable effort expended to understand adolescent development and psychopathology, and efforts are underway to address some of the large gaps in education and services. Most important, studies examining adolescent behavior in its ecological context and in light of its special vulnerabilities and opportunities have led to greater awareness of normal and abnormal adolescent behavior (Cicchetti & Rogosch, 2002).

As a result of this increased focus, major transformations have begun in how adolescent behaviors are understood and how healthy and adaptive behaviors can be promoted. These transformations began, in large part, with concerted efforts by governmental and nongovernmental agencies to target the high rates of health-compromising behaviors among adolescents (U.S. Department of Health and Human Services [USDHHS], 2000). These efforts have been matched with increased funding for research on various aspects of adolescent development and disorders, along with ways to assist youth facing the difficult challenges of this period. What is emerging is a more youth-friendly and inclusive approach to emotional and behavior disorders of adolescence and problems associated with health-compromising behaviors (e.g., substance use and precocious or unsafe sexual behavior). This shift has also brought positive and innovative strategies to promote healthy, safe choices and lifestyles during this critical period of development (Irwin, 2003).

THE SIGNIFICANCE OF ADOLESCENT MENTAL HEALTH PROBLEMS

Adolescents with emotional and behavioral disorders, or some lesser degree of impairment, must also navigate the many challenges of this tumultuous period, and they may face greater obstacles in adapting to these rapid changes and demands. Consequently, there has also

been increasing attention to adolescent mental health problems over the past decade, which derives from a number of sources. First, many young people experience significant mental health problems that interfere with normal development and functioning, with as many as 1 in 5 children and adolescents experiencing significant difficulties (Costello et al., 1996; Roberts, Attkisson, & Rosenblatt, 1998), and 1 in 10 having a diagnosable disorder that causes some level of impairment (Burns et al., 1995; Roberts et al., 1998; Shaffer et al., 1996). In one community sample of adolescents ages 14–17 years, it was found that 15.5% of females and 8.5% of males reported a diagnosable mental disorder (Romano, Tremblay, Vitaro, Zoccolillo, & Pagnani, 2001). Females had significantly higher rates of internalizing, anxiety, and depressive disorders than males, whereas externalizing disorders were significantly higher among males. These figures likely underestimate the magnitude of the problem for several reasons. Notably, community surveys do not include a substantial number of youth who do not meet diagnostic criteria for a mental disorder but who may manifest subclinical or undiagnosed disturbances that place them at high risk for the later development of more severe clinical problems (McDermott & Weiss, 1995). In fact, specific mental health symptoms and impairments in functioning at school and home may be stronger predictors of adolescents' later academic and social adjustment than a mental health diagnosis per se (Vander Stoep, Weiss, McKnight, Beresford, & Cohen, 2002). In addition, cultural and contextual factors may influence how adolescents express their symptoms or seek help, from problem identification to choice of treatment providers (Cauce et al., 2002).

Demographic Factors

Whereas sex differences in problem behaviors are negligible in children under the age of 3 (Gadow, Sprafkin, & Nolan, 2001), they become increasingly evident with age. Boys show higher rates of early-onset disorders that involve some form of neurodevelopmental impairment, and girls show more emotional disorders with a peak age of onset in adolescence (Rutter, Caspi, & Moffitt, 2003). For example, boys generally have higher rates of reading disorders, autism spectrum disorders, attention-deficit disorder, and early-onset persistent conduct problems, whereas girls have higher rates of depression and eating disorders (Rutter et al., 2003).

The normal developmental trajectories for girls and boys across the two major dimensions of Internalizing and Externalizing behaviors were examined by Dutch researchers to determine how these major problem areas change from childhood to adolescence (Bongers, Koot, van der Ende, & Verhulst, 2004). Boys' externalizing problems start out higher than girls in preschool and early elementary years; however, these problems decrease gradually for both boys and girls until they almost converge by age 18. The opposite pattern emerges for internalizing problems. Parents report similar rates of internalizing problems for boys and girls in early childhood, but girls outpace boys in these problems during the transition to adolescence (Bongers et al., 2003).

There is also some evidence and concern that the frequency of certain adolescent disorders such as conduct and oppositional disorders and some types of depression are showing an earlier age of onset and increasing in prevalence as a result of societal changes and conditions that create growing risks for young people (Kovacs, 1997). Researchers in the United Kingdom, for example, examined conduct, hyperactive, and emotional problems among three population samples of 15- to 16-year-olds over 25 years and found that rates of conduct problems, in particular, are increasing (Collishaw, Maughan, Goodman, & Pickles, 2004). They found a substantial rise in adolescent conduct problems for both boys and girls, which did not differ by social class or family type. They also found evidence for a recent rise in emotional problems but mixed evidence in relation to hyperactive behavior. Other community surveys have also identified increases in oppositional defiant behaviors but not in other youth problems (Achenbach, Dumenci, & Rescorla, 2003). Some of the social conditions affecting rates of these disorders include multigenerational adversity in inner cities, chronic poverty in women and children, pressures of family breakup, teenage pregnancy and parenting, physical abuse and neglect, sexual abuse (including victimization via the Internet), homelessness, problems of the rural poor, difficulties of North American Native adolescents, adjustment problems of adolescents in immigrant families, and conditions associated with the impact of prematurity, HIV (human immunodefi-

ciency virus), cocaine, and alcohol on young people's growth and development (McCall & Groark, 2000).

Ethnicity

Racial and ethnic minority persons comprise a substantial and vibrant segment of many countries, enriching each society with many unique strengths, cultural traditions, and important contributions. In the United States these groups are growing rapidly, with current projections showing that by 2025 they will account for more than 40% of all Americans (President's New Freedom Commission, 2003). Minority children in the United States are overrepresented in rates of some disorders, such as substance abuse, delinquency, and teen suicide (McLoyd, 1998). However, once the effects of socioeconomic status (SES), sex, age, and referral status are controlled, very few differences in the rate of children's psychological disorders emerge in relation to race or ethnicity (Achenbach, Howell, Quay, & Conners, 1991). Some minority groups, in fact, show even less psychopathology after controlling for SES (Samaan, 2000).

Even though rates of problems are similar, significant barriers remain in access, quality, and outcomes of care for minority children. As a result, American Indians, Alaska Natives, African Americans, Asian Americans, Pacific Islanders, and Hispanic Americans bear a disproportionately high burden of disability from mental disorders (Morreale, Kapphahn, Elster, Juszczak, & Klein, 2004), and areas in which disability is manifested may also differ depending on race and ethnicity (Ezpeleta, Keeler, Alaatin, Costello, & Angold, 2001). Specifically, the system has neglected to incorporate respect or understanding of the histories, traditions, beliefs, languages, and value systems of culturally diverse groups. Misunderstanding and misinterpreting behaviors have led to tragic consequences, including inappropriately placing minorities in the criminal and juvenile justice systems (President's New Freedom Commission, 2003).

Despite the growing ethnic diversity of the North American population, ethnic representation in research studies and the study of ethnicity-related issues more generally have received relatively little attention in studies of child and adolescent psychopathology (García Coll, Akerman, & Cicchetti, 2000). Research has generally been insensitive to possible differences in prevalence, age of onset, developmental course, and risk factors related to ethnicity (Kazdin & Kagan, 1994), and to the considerable heterogeneity that exists within specific ethnic and racial groups (Murry, Bynum, Brody, Willert, & Stephens, 2001). Consequently, a critical gap exists in many areas of normal and abnormal adolescent development for minority youth (Ohye & Daniel, 1999). Although global comparisons of the prevalence of different types of problems for different ethnic groups are not likely to be very revealing, studies into the processes affecting the form, associated factors, and outcomes of different disorders for various ethnic groups hold promise for increasing our understanding of the relationship between ethnicity and emotional and behavioral problems of adolescence (Bradley, Corwyn, Burchinal, McAdoo, & Garcia Coll, 2001).

Evidence gathered by the WHO (2001) suggests that by the year 2020, child and adolescent neuropsychiatric disorders will rise proportionately by over 50%, internationally, to become one of the five most common causes of morbidity, mortality, and disability among children. Unfortunately, youth who are not identified as having mental health problems and who do not receive appropriate services often end up in the criminal justice or mental health systems as young adults. In fact, about three-quarters of 21-year-olds with mental disorders have experienced problems at a younger age (Offord, 2000). Youth with mental disorders are at a much greater risk for school underachievement, school failure, and dropout and of not being fully functional members of society in adulthood (Ezpeleta et al., 2001; Vander Stoep, Weiss, Kuo, Cheney, & Cohen, 2003).

In 1998, total mental health utlilization costs for youth with problems were estimated to be more than $11 billion (Ringel & Sturm, 2001). Nonetheless, 70% or more of youth who experience serious difficulties neither seek nor receive help for their problems (Achenbach et al., 2003; Sheffield, Fiorenza, & Sofronoff, 2004; Sourander et al., 2004). The costs of adolescent disorders include not only human suffering of both the afflicted youth and the family and community members with whom they come into contact but also economic and social costs. Using estimates of economic loss, medical costs, and quality-of-life indicators, Miller (2004) estimates the cost of problem behaviors

among *all* youth in the United States at $435 billion in 1998. This breaks down to $12,300 per youth ages 12–20 each year ($1,500 in resources, $3,400 in future work losses, and $7,400 in quality of life). The costs incurred by *multiproblem* youth (i.e., those who have more than one mental health disorder or engage in multiple risk behaviors) is even more startling: These individuals account for 77–80% of the total cost of youth behavior problems, estimated at $2.5 million per multiproblem youth.

Experimental Risk Behaviors

Early to midadolescence is a particularly important transitional period for healthy versus problematic adjustment (Cicchetti & Rogosch, 2002). The greatest categories of risk behaviors during adolescence include drug and alcohol abuse, unsafe sexual behavior, school failure and dropout, and delinquency/crime/violence (Lerner & Castellino, 2002). Not surprisingly, the leading causes of death among youth stem from accidents and violence resulting from high-risk behaviors (Blum & Nelson-Mmari, 2004; Irwin et al., 2002).

Between the ages of 11 and 16, adolescents rapidly start to experiment with alcohol, drugs, smoking, sex, and violence in their peer and dating relationships. Substance use, risky sexual behavior, violence, accidental injuries, and mental health problems are prominent concerns that make adolescence a particularly vulnerable period (Kilpatrick et al., 2000; Leitenberg & Saltzman, 2000). Risk-taking behaviors account for 70% of adolescent mortality, which more than doubles between early (ages 10–14) and later (15–19) adolescence (Irwin et al., 2002). Whether or not they get involved with these potential risks directly, it is happening around them and they often find themselves in situations in which they have to make choices. For some, their role may become one of crisis counselor or bystander, and they may even encourage their peers to make safer choices. For others, the escalating experimentation of their peers may influence them to make harmful or premature choices. More likely, most adolescents will find themselves in both roles during their teen years. Regardless of their role, youth are desperate for information and guidance to help them handle the choices, pressures, and consequences associated with this tumultuous stage.

One of the first major contemporary advances in understanding adolescence and risk behaviors began with the recognition that many of these experimental risk behaviors are interconnected. Rather than studying youth risk behaviors as if they were separate and independent problems, researchers and clinicians noted that factors that increased the risk of one behavior, such as substance use, were highly similar to those that increased other behaviors, such as unsafe sexual behavior. A good example of this convergence comes from the substance abuse literature, in which alcohol and drug abuse were seen as related cousins, largely connected to (and sometimes responsible for) the youth's other problem behaviors. Similarly, researchers and clinicians involved with other youth problems, such as risky sexual behavior, violence, or crime, likewise began to see the overlap in predictors of these behaviors, challenging past assumptions that each outcome had a unique or independent pathway (Jessor, Donovan, & Costa, 1991).

Not only are risk behaviors related to one another and often occur in the same individual, these behaviors are important in terms of the goals of adolescence. Jessor, who conducted much of the pioneering work in this area and formulated problem behavior theory around the concept of co-occurrence and common causal factors, points out how some behaviors seen as problems are "functional, purposive, instrumental, and goal-directed, and that the goals involved are often those that are central in normal adolescent development" (Jessor et al., 1991, p. 378). Many of these goals are typical of ordinary adolescent development and not signs of disorder, which explains why risk behaviors that play an adaptive role during adolescence can be difficult to change, much less eliminate. Smoking, drinking, drug use, and early sexual activity, for example, can be instrumental in gaining peer acceptance and respect, establishing autonomy from parents, repudiating norms and values of conventional authority, coping with anxiety or failure, or affirming one's maturity. These activities can also be physically and psychologically dangerous or can compromise short- and long-term health.

Because adolescence must prepare an individual to manage adult roles and privileges, developmentalists generally accept that some amount of experimentation and transition is necessary. The issue becomes when, how, and with what they will experiment, as well as what

role adults should play in ensuring they make safe and responsible choices. About 80% of high school students have tried alcohol, 60% have tried cigarette smoking, and 50% have tried marijuana (Johnston, O'Malley, & Bachman, 2003); it is equally telling that very few adolescents (about 6%) refrain entirely from such behaviors (Moffitt, Caspi, Dickson, Silva, & Stanton, 1996). The challenge faced by parents, teachers, and professionals is how to keep teens safe, given that the majority (but not all) will experiment with adult privileges such as smoking, sex, and alcohol use, as well as with known illegal or unsafe activities (Wolfe et al., 2006).

Youths' relationships and their peer culture also play a significant role in understanding many of the motives and beliefs underlying their healthy or harmful choices. These relationships include past and present interactions with parents and family members, which shape many of their current attitudes and provide the foundation for making safe versus risky choices. These relationships also include their peer group and peer culture, which set the context for new opportunities to experiment with adult privileges, challenge rules, or define their own boundaries and choices. Rather than viewing youth behaviors primarily in terms of their degree of risk or harm, it is worthwhile to consider that risk behaviors almost always occur in the context of a relationship. As noted by Jessor and colleagues (1991), this relationship context reflects developmental circumstances, such as resolving disputes with parents or peers, seeking status or acceptance, or seeking new pleasures. Thus, it often comes down to the individual's skill at negotiating relationship issues, particularly with parents, peers, and romantic partners, which determines his or her degree of risk during this experimental period.

Getting a grasp on the myriad explanations for youth problem behaviors and disorders is daunting, as such behavior is clearly multidetermined (Mash & Dozois, 2003). Although numerous theories attempt to explain why some youth engage in particular risk behaviors, especially substance use and delinquency, few consider multiple risk behaviors and their underlying connections. A narrow, single-problem focus made sense when researchers were attempting to identify the vast number of variables needed to explain a single problem behavior. Today, it is necessary to consider how similar factors, such as poor parenting or role models, can lead to diverse outcomes, such as substance abuse or unsafe sex. Equally important is the need to consider how different factors can lead to similar adolescent outcomes, such as loss of a parent or abuse in childhood and adolescent depression. Identifying the common theoretical constructs and processes provides a more complete picture of an adolescent's experience and best informs universal efforts at education and prevention (Catalano et al., 2002).

Researchers have proposed many theories for why adolescents engage in risk behaviors. Some of these theories focus more narrowly on specific cognitive or behavioral processes that precede such behavior, while others involve processes rooted in childhood, early family interactions, and wide-ranging cultural factors. Although no one particular theory or conceptual model can fully accommodate all the likely processes contributing to adolescent risk behaviors, each has added pieces to the puzzle that permit a more complete picture. Researchers also determined that risk and problem behaviors are correlated, implying that the same individuals often show a number of risk behaviors beyond the one or two that may have initially been of concern (Dryfoos, 1990; Jessor et al., 1991). Such discoveries had an important bearing on theoretical explanations for risk and problem behaviors and have spawned a growing movement toward a more comprehensive, integrated study of adolescent risk and problem behaviors. Current theories use a developmental systems perspective that emphasizes the importance of adolescent-context relationships for understanding and enhancing the trajectory of change through adolescence into adulthood (Lerner & Castellino, 2002). Fortunately, theories stemming from the various fields of sociology, psychology, criminology, and many others have become less isolated from one another, allowing their important contributions to be integrated and more readily applied (Biglan et al., 2004).

Behavioral and Emotional Problems

The chapters in this volume provide comprehensive coverage of a wide range of behavioral and emotional problems of adolescents. These problems generally fall into two broad categories: (1) diagnosable disorders such as anxiety and depression, and (2) difficulties that do not fit neatly into current diagnostic categories but

are significant problems nonetheless (e.g., dating violence and risky sexual behaviors). Although we consider problems in both of these categories in separate chapters, most adolescents are known to experience multiple symptoms and problems, and there is much overlap among categories (Hoffmann, Bride, McMaster, Abrantes, & Estroff, 2004). For example, using semistructured diagnostic interviews, more than 50% of referred adolescents have been found to meet criteria for two or more DSM-IV Axis I diagnoses (Youngstrom, Findling, & Calabrese, 2003).

The DSM-IV-TR (American Psychiatric Association [APA], 2000) makes few developmental allowances for disorders of adolescents, with most diagnostic criteria for adolescents being the same as those for children or adults. The large section of DSM that is labeled "Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence" consists almost exclusively of disorders that first occur during infancy and childhood (e.g., attention-deficit and disruptive behavior disorders and pervasive developmental disorders) rather than ones with a predominantly adolescent onset. On the other hand, many disorders with a predominantly adolescent onset (e.g., depression and eating disorders) are diagnosed using the same criteria as for adults, with minor age-related adjustments. In most cases, DSM age-related adjustments are not differentiated based on developmental period. For example, in the case of a major depressive episode, irritability can substitute for depressed mood for both children *and* adolescents. Although there is much evidence to indicate that the same criteria used to diagnose many adult disorders can also be used to diagnose adolescents, current diagnostic systems are generally insensitive to the developmental concerns of adolescents. For example, although older adolescents have been found to report more depressive symptoms than adults and similar symptom persistence (Wight, Sepúlveda, & Aneshensel, 2004), it is not known whether the greater number of symptoms represents a higher actual risk for depression in adolescents or whether certain symptom criteria are generally more likely to occur during adolescence (e.g., sleep disturbances or suicidal ideation).

The most common disorders of adolescents are conduct disorder, substance abuse, and anxiety and depression. In addition, there are also several other disorders and problems (e.g., eating disorder, bipolar disorder, personality disorder, suicidal behavior, and self-harm) that are most likely to first occur during adolescence but occur far less often than conduct problems, substance abuse, and anxiety and depression. Because of their common occurrence or relatedness to adolescence, our knowledge base about both of these types of disorders and problems in adolescents is substantial. On the other hand, there are many disorders that first occur during childhood, such as learning disorders, pervasive developmental disorders, mental retardation, and ADHD, that typically continue into adolescence and adulthood. Because these disorders have traditionally been viewed as "disorders of children," they have not been extensively studied in adolescents. Until recently, the main features and associated characteristics of these disorders during adolescence were viewed as changing in expression but essentially the same as for children. As a result, the chapters on these topics that follow tell as much about what we do not yet know about these disorders in adolescents as what we do, and they outline important areas in which further research is needed.

Finally, a number of chapters in this volume are devoted to important problems of youth that, although not disorders per se, are serious concerns in their own right. These include adolescent health and chronic illness, adolescent sexual risk behavior, problems related to sex role development and gender identity disturbances, deviant sexual behavior, violence in adolescent dating relationships, and abuse and trauma. Many of these difficulties may be related to mental disorders and other problems in adolescents in ways that are only beginning to be investigated and understood. For example, in a community sample of adolescents, Goodwin, Lewinsohn, and Seely (2004) found that respiratory symptoms were associated with an increased risk of any mental disorder, particularly depression, substance use disorder, panic attacks, and ADHD. Although this relationship was partly accounted for by demographic differences, hypochondriasis, functional impairment, and cigarette smoking, these factors did not completely explain the association. These and other findings highlight the importance of examining mechanisms to account for the possible relationships between adolescent health-related problems and mental disorders (e.g., environmental risk factors or family vulnerability).

DEVELOPMENTALLY INFORMED PERSPECTIVES ON ADOLESCENT PSYCHOPATHOLOGY

The field of developmental psychopathology in adolescence has shifted dramatically with the increasing recognition that many of the same risk and protective factors predict diverse outcomes, including substance abuse, delinquency, school dropout, and mental disorders (Catalano et al., 2002). Furthermore, from a developmental perspective, there are many interesting parallels between the milestones and behaviors of young children and those of young adolescents, with some important differences. Both age groups have the highest level of problem behaviors of any other age period (Mash & Wolfe, 2005), especially in terms of noncompliant, disruptive, or difficult behaviors. Both age periods are also marked by rapid physical and emotional development. Perhaps most telling is how both age groups have difficulty controlling or regulating their emotions, usually under particular circumstances such as paying attention in class or sharing with peers or siblings.

An important difference between the developmental processes of young children and those of adolescents is connected to the fundamental goals demanded of each of them by their environment and biology. Whereas the young child's "job" is to form a secure, close relationship to his or her caregivers, the adolescent's role is to expand his or her attachments to peers and romantic partners. Under nonstressful circumstances, most adolescents accomplish this step by continuing to use their relationship with parents as a secure base to explore their autonomy and independence (Allen, McElhaney, Kupermine, & Jodl, 2004). Traditional folklore maintains that adolescents are *expected* to be troublesome and aggravating as they plot a course from their childhood connections to their adolescent peer group and struggle with rapid hormonal and environmental changes. Although this simplified and negativistic view has some truth to it, it overattributes adolescent emotional and behavior problems to their stage of development. Accordingly, insufficient consideration may be given to the *true* warning signs of problems, assuming they would grow out of it or there was little that could be done.

Today's view of adolescence focuses more on developmental issues and challenges accompanying the transition from childhood to adulthood (Holmbeck, Friedman, Abad, & Jandasek, Chapter 2, this volume). During adolescence, individuals often "try on" different characteristics and roles and are therefore more open to experimenting with new ways of relating to others. Adolescents start to make their own decisions about important issues affecting their lives. Self-reliance, self-control, and independent decision making all increase during the teen years, with a shift away from the family and onto the peer group. To the frustration of many parents, conformity to parental opinions gradually decreases while the tendency to be swayed by peers increases in early adolescence before it declines (Crockett & Petersen, 1993). Thus, by providing adolescents with growth opportunities that emphasize a more positive mode of relating to others, this natural inclination to try new patterns can be used to strengthen their interpersonal capacities. Conversely, if adolescents are not provided with helpful messages about ways to adapt to their ever-changing personal and interpersonal demands, they will be more vulnerable to the bombardment of other, less healthy messages and expectations.

Adolescence is a time of tremendous reorganization and transformations of the body, the mind, and one's responsibilities. Along with biological changes, more advanced thinking abilities develop in concert with social changes and the transition into new roles and expectations. The rate at which these changes take place is uneven, leaving a gap between physiological changes on the one hand, and cognitive and emotional maturity on the other. This gap may account for some of the observed risk-taking behaviors characteristic of adolescents. For example, pubertal changes are accompanied by increased novelty and sensation seeking, yet one's emotional self-regulation often does not fully mature until adulthood (American Psychological Association, 2002). As a result, it has been argued that interventions should begin with the premise that adolescents are inherently more likely than adults to take risks and should focus on reducing the harm associated with risk-taking behavior (Steinberg, 2004). An understanding of all the different changes taking place during adolescence provides the foundation for understanding the observed rise in risk behaviors and changes in emotional and behavioral problems.

Biological Influences

Navigating puberty is one of the major challenges faced by adolescents (Silbereisen & Kracke, 1997). Adolescents undergo significant psychological and emotional changes, in conjunction with physical changes, which are often related to gender (Graber, 2003). For example, they face transformations in physical appearance, such as breast development in females and growth of facial hair for males, and a dramatic increase in height. During this period, most youth will physically mature from children into adults, although males continue to grow into their early 20s. Self-image may be temporarily threatened as teens come to terms with all the physical changes, including bodily maturations and facial changes, each influencing the way they feel about themselves. The impact of puberty differs across the board: Some youth feel attractive, grown up, and confident, while others feel self-conscious, ugly, and afraid. These physical changes are intertwined with psychological and emotional transitions. Physical changes affect self-image and behavior while also prompting changes and reactions in others. Changes in a child's physical appearance may, for instance, elicit different types of behavior from parents, peers, and others. In addition to these types of challenges, adolescent moods tend to fluctuate more frequently over the day as compared to the disposition constancy of adults.

The extent to which early or late onset of puberty may affect emotional and behavioral problems is worthy of consideration. Early onset of puberty in girls has been found to be associated with a number of risk behaviors, including cigarette smoking and consumption of alcohol (Stattin & Magnusson, 1990). Furthermore, girls who mature younger tend to start dating earlier and often choose older partners (Silbereisen & Kracke, 1997). Involvement with older partners has been identified as a link in the observed relationship between premature physical maturation and earlier onset of sexual activity for girls (Stattin & Magnusson, 1990). In addition, early pubertal development relates to a younger age of sexual debut for both males and females (Capaldi, Crosby, & Stoolmiller, 1996). Self-report of appearing older or more mature than peers tends to coincide with earlier sexual involvement (Resnick et al., 1997). Earlier age at menarche has also been found to correlate with riskier sexual practices, most likely by increasing the likelihood of affiliating with older boyfriends, which, in turn, increases the chance of engaging in sexual risk behavior (Mezzich et al., 1997). Moreover, Baumeister, Flores, and Marin (1995) found that, among Latina adolescents, later age at menarche was associated with *not* becoming pregnant in adolescence.

Early as well as late onset of puberty, particularly early-maturing girls and late-maturing boys, is also associated with increased risk for emotional and behavioral problems. For example, early-maturing girls have been found to be at higher risk for depression, substance abuse, disruptive behaviors, and eating disorders (Ge, Conger, & Elder, 2001; Graber, Lewinsohn, Seeley, & Brooks-Gunn, 1997; Striegel-Moore & Cachelin, 2001). Similarly, early-maturing boys are more likely to be involved in high-risk behaviors such as sexual activity, smoking, or delinquency (Flannery, Rowe, & Gulley, 1993; Harrell, Bangdiwala, Deng, Webb, & Bradley, 1998). In contrast to girls, late maturation for boys is associated with greater risk for depression, conflict with parents, and school problems (Graber et al., 1997). Moreover, late-maturing boys are at greater risk of harassment and bullying due in part to their smaller physical stature (Pollack & Shuster, 2000).

In addition to outward pubertal changes taking place during adolescence, hormonal and nerve-related changes occur in the brain, which have been shown to affect teens' behavior. One significant hormonal change is the increased activity of the hypothalamic–pituitary–adrenal (HPA) axis, which plays a central role in the biological response to stress (Walker, 2002; Walker & Bollini, 2002). Heightened stress levels during adolescence have been attributed in large part to this more active HPA axis. The prefrontal cortex, where emotional control, impulse restraint, and rational decision making take place, grows quickly during adolescence. However, because this part continues to mature and grow throughout puberty and into early adulthood, it logically follows that most teens have not yet fully developed any of the aforementioned abilities, particularly during early and midadolescence (Durston et al., 2001). To a certain extent, this finding explains why many teenagers engage in high-risk and impulsive behavior: They simply lack the cognitive and self-regulatory skills to consistently make positive, well-considered decisions.

Cognitive and Emotional Influences

Adolescence is also a time of important cognitive and social development in which individuals learn to think more rationally and become capable of thinking hypothetically. Adolescents can consider extended time perspectives, not just the here and now, and adjust their goals and behavior accordingly; however, processing of information is still less systematic than formal and will depend on their prior knowledge and understanding. It is emblematic that their ability to consider and understand emotionally arousing topics is less sophisticated than that of adults. At the same time they must develop and use effective decision-making skills involving complex interpersonal relationships. These skills include an awareness of possible risks and considerations of future consequences, balancing their own interests with those of their peers, family members, and dating partners. Thus, cognitive-developmental changes in adolescence, such as increases in abstract thinking and changes in how self-evaluations are made (via social comparison rather than in terms of absolute standards) may affect both the type and strength of cognitive vulnerabilities for particular disorders (e.g., body image and eating disorders, self-appraisal and depression, hostile attributional bias, and conduct disorders).

Many of the cognitive and emotional changes that occur in adolescence are gender-related (Maccoby, 1998). For example, adolescent girls are more likely to initiate verbal exchanges and show greater responsiveness to the verbalizations of others than boys, and they are also more likely to think and talk about the emotional aspects of relationships than boys (Crick & Zahn-Waxler, 2003). As a result of these and other gender differences, the ways in which males and females think about social situations, regulate their emotions, and express their behavior and the types of mental health problems they develop during adolescence can vary considerably (Bell, Foster, & Mash, 2005a, 2005b). For example, with respect to body change strategies, adolescent boys attempt to become more muscular, whereas adolescent girls attempt to lose weight, and these differences are related to biological, psychological, and sociocultural influences (Muris, Meesters, van de Blom, & Mayer, 2005).

Self-identity and self-esteem also change dramatically during adolescence. Self-esteem reflects the person's judgment of his or her personal competence across such domains as attractiveness, acceptance by others, and academic, athletic, and interpersonal success. Self-identity, in turn, becomes more solidified as young adults develop a coherent picture of their capabilities and limitations and select and commit to their personal choices related to sexual, occupational, and social roles. In parallel, teens develop greater capability for abstract thought, which enables them to formulate a more complex view of themselves, coupled with greater self-reflection, social comparison, and autonomous decision making (Crockett & Peterson, 1993). However, Harter (1990) points out that these important changes are accompanied by certain vulnerabilities. Teens' overestimates of their confidence may lead to failure, while underestimates of their own confidence may lead to the avoidance of challenge and a diminished opportunity for growth. Optimally, teens should have the opportunity to explore a wide range of possible options in these domains before having to make commitments to one's identity. For example, even though their abilities are roughly the same, adolescent girls tend to feel more confident about their reading and social skills than boys, whereas adolescent boys tend to feel more confident about their athletic and math skills (Eccles, Barber, Jozefowicz, Malenchuk, & Vida, 1999).

As a result of the aforementioned neurological processes and experience in general, adolescents' intellectual and cognitive abilities become more sophisticated, their expectations about relationships become more realistic, and their ability to regulate emotions becomes more finely tuned. In addition, more advanced cognitive skills such as reasoning and problem solving emerge and are consolidated. More advanced thinking abilities also imply an increased propensity to consider hypothetical situations and abstract concepts, skills that affect how one thinks about the self, relationships, and the world. Along with this comes the ability to think from more than one perspective or angle—to consider what is being observed versus what is possible. As adolescents mature, they also gain the ability to plan ahead, anticipate the response of others, and become better debaters and arguers, all of which contribute to and are affected by increased problem solving in class and the ability to reflect on moral dilemmas.

This increased ability to think about possibilities may also lead to becoming lost in thoughts and worries. Adolescents first become capable of metacognition, or "thinking about thinking." As a result, they experience an increased propensity to monitor thoughts, more intense self-absorption, and often a belief that their own behavior is the focus of everyone else's concern and attention (the latter is known as the false audience consensus). Social cognition—thinking about people, relationships, human behavior, and social conventions such as social norms, guidelines for social interaction, and justice—is also an important part of adolescent growth. Adolescents are starting to make their own decisions about important issues affecting their lives. Self-reliance, self-control, and independent decision making all increase during the teen years, with a shift away from the family and onto the peer group. To the frustration of many parents, conformity to parental opinions gradually decreases while the tendency to be swayed by peers increases in early adolescence before it declines (Crockett & Peterson, 1993).

Social and Behavioral Influences

As cognitive and emotional development continues, adolescents begin to comprehend their own emotions and develop the ability to understand or analyze why they feel a certain way, which facilitates the formation of more long-lasting, mutual, and healthy relationships. Two distinguishing features of adolescence are the importance of peers and the development of romantic relationships. Most teens shift their focus of interest from parents to peer relations and develop the capacity for intimacy with other youth. Along with this new found type of relationship follows the sense of a greater need for privacy from family, which almost without fail leads to a change in family relationships. Although this shift to greater independence leads to less exclusive and intense relationships between parents and children, it does not necessarily mean a decrease in the importance of the parent–child relationship. Indeed, some research has shown that while youth turn to their peers for more superficial decisions (e.g., clothes and beliefs about curfews), parents are more influential than peers in more serious matters of religious beliefs, moral values, and political ideas (Steinberg & Morris, 2001).

Relationships are of central importance in adolescence, to the extent that some researchers have coined them the "organizing principle" of adolescence and teenage peer networks (Collins & Sroufe, 1999). The development of romantic relationships in particular encourages independence, assists with identity formation, and fosters skills for intimacy. These fledgling romances also provide a training ground for the development and refinement of interpersonal skills such as negotiation, reciprocity, emotional closeness, and disclosure. Romantic relationships also serve a function within the peer group and may be a way to gain status and acceptance.

While all these adjustments to family and peer relations are taking place, social status and social roles also transform. Newfound rights, privileges, and responsibilities are acquired during the latter phases of this developmental stage, such as the permission to drive, marry, vote, drink, and smoke. These changes in social status allow teens to take on fresh roles and try new activities. Social positioning also changes as adolescents begin training for adult roles, such as work, family roles, and responsibilities in their community. It is also the time in life when individuals generally attain adult status and training, with the completion of formal schooling and/or job training.

While simultaneously attempting to cope with all of the physical, cognitive, and emotional changes, adolescents must also deal with the challenge of developing an identity. As mentioned earlier, teens establish an identity beyond their family role by developing relationships with others and becoming more emotionally detached from their parents. Healthy same-sex relationships play a key role in the growth of an individual and a sense of self in relation to others. It is also a period of role experimentation—trying on different roles until the "true self" is found. Adolescents may even change their identity from context to context, particularly around the ages of 14–16. For example, an individual might be typically shy at school but behave in an outgoing manner at summer camp (Steinberg & Morris, 2001). At the same time, the need to be seen as a unique person while also fitting in with others poses an inner struggle for most teens. These challenges are all part of the changes in identity, self-esteem, and self-conceptions that occur during the teenage years, as new activities and roles trigger a new evaluation of self. Cultural identity is another critical part of this process, espe-

cially for adolescents who are not part of the white–Anglo majority (Phinney, 1990).

Along with these changes comes the need to establish a sense of autonomy and a healthy sense of independence. Teens strive to assert their own independence and to be seen as self-sufficient by others. To do so, they must become less emotionally dependent on parents; therefore, the ability to make independent decisions and establish a personal core set of values and morals is vital during these years. Attempts to achieve a balance between autonomy and connectedness lead to the push–pull behavior some parents observe in their adolescents: Youth may be childlike and affectionate one moment, and aloof strangers the next.

Intimacy takes on an important role as well, as adolescence is a time of forming close and caring relationships with others. Most teenagers experience a change in their capacity for intimacy with others, especially as far as their peers are concerned. They move from sharing activities and interests to relationships that involve openness, honesty, loyalty, and keeping confidences. Adolescence is a time for forming trusting and loving relationships, and expressing sexual feelings and enjoying physical contact with others represents one manifestation of this intimacy. Changes in emotions, motivations, behaviors, and relationships with others are also common. Teenagers often attempt to incorporate sexuality into a sense of self. In other words, they develop sexual values and morals and try to come to terms with relationships. Developing a sexual identity is a major component of developing intimacy, although the development of sexual identity may be a largely unconscious process for nonsexual minority youth (Savin-Williams, 1998).

Another developmental task of adolescence is the desire for a sense of achievement. Being successful and competent members of society and making decisions with long-term consequences are integral parts of attaining this sense of accomplishment. An evaluation of one's own competencies, capabilities, aspirations, and expectations for the future take on a major role in decision making during this period. However, as noted earlier, this process can be unduly influenced by gender stereotypes and expectations, that is, despite similar abilities, adolescent girls tend to feel more confident about their reading and social skills than boys, and adolescent boys tend to feel more confident about their athletic and math skills (Eccles et al., 1999). Males also value control and perceive themselves as more willing to take on leadership roles and responsibilities, whereas females tend to value relationship involvement, social relationships, and a desire of more affection, of intimate personal relationships, and for others to initiate more positive personal relationships with them (Bakken & Romig, 1992).

TREATMENT AND PREVENTION CHALLENGES

Although significant, given proper understanding, resources, and priorities, behavioral and emotional problems of adolescence can be significantly attenuated. In response to these mounting concerns, adolescents' special needs and problems are receiving greater attention, especially because efficacious treatments are available for many adolescent behavioral and emotional problems and serious consequences are largely preventable. For example, with respect to treatment, meta-analytic reviews have found medium to large effect sizes for adolescent interventions that are comparable to those reported for children and adults (Weisz & Hawley, 2002). However, far fewer treatment outcome studies have been conducted with adolescents than children and few psychosocial treatments have been developed *specifically* for adolescents. For example, nearly all the treatments for adolescents that were evaluated in the meta-analysis by Weisz and Hawley (2002) were either upward adaptations of treatments developed for children or downward adaptations of treatments developed for adults.

For youth to make healthy and adaptive choices, their home, community, and societal structures must be supportive. Understanding what interventions are most appropriate, however, requires understanding of the timing and nature of investments over the course of a lifetime and the factors and constraints that affect decisions to invest in children and youth by parents, family members, and young people themselves. Investing in youth preserves the benefits of prior investments in children, helps to recover some of the benefits for those who may not have had earlier assistance, and addresses new risks that arise during this period (Catalano et al., 2002). Only through more concerted efforts to assist youth will society complete the chain of education and services beginning in infancy and childhood that will

lead to lasting changes in health and productivity across the lifespan.

Furthermore, contemporary views of youth are predicated on the grounds that efforts to assist others must be *inclusive* rather than *exclusive*. Such a model builds on strengths rather than attempting to treat known weaknesses alone. Within the framework of a health promotion model, it is often more useful to look for the "at-risk" indicators and reduce their potency rather than wait for the person to show the undesired behavior. For example, because most forms of violence occur within the context of a close or intimate relationship, we have progressed considerably in terms of identifying preexisting risk factors that are amenable to change or elimination. Yet, policies and actions still remain overly focused on the discovery of individual deviancy and problem behaviors that will account for the tremendous expected differences between "problem" and "nonproblem" youth.

From the standpoint of prevention, health promotion efforts to reduce harm from normal risk taking and experimentation in adolescence are being implemented in primary health care settings, schools, and community programs (Irwin et al., 2002). The most effective prevention programs strive for ways to involve youth in education and prevention efforts rather than deliver programs that lack youth input and commitment, as such efforts are rewarding through the promotion of cooperation and mutual support (Wolfe et al., in press). To foster healthy adolescent development, efforts to reduce or prevent risk behaviors are needed, along with an equal commitment to helping young people understand life's challenges and responsibilities and to developing the necessary skills to succeed as adults. Youths need developmentally appropriate knowledge and education, delivered in a nonjudgmental and highly salient format, which emphasizes their choices, responsibilities, and consequences. In effect, they need to be prepared, not scared. Youth, especially high-risk youth, need education and skills to promote healthy relationships, to develop peer support, and to establish social action aimed at ending violence in relationships. They need to feel connected not only to their peers, which is relatively easy, but also to their school, family, and community. Such connection requires a commitment to building capacity in each community to be inclusive of all youth; to see each adolescent as a person rather than a potential problem. The ultimate act of inclusion is to empower youth to identify the critical issues they face and the solutions that are most meaningful to the reality of their lives and circumstances.

As a result of efforts targeting infants and children in the first few years of life, major progress in prevention science has occurred. These initiatives have built on the growing body of literature related to infant brain development and the crucial attachment process that sets the foundation for subsequent development, future relationships, and the ways in which attachments disturbances are related to various forms of adolescent psychopathology (Cicchetti & Toth, 1996; Hilburn-Cobb, 2004). However, adolescence remains a poor second cousin when it comes to empirically supported treatment and prevention initiatives (Weisz & Hawley, 2002). At the extreme, there is a belief that investing in adolescence has fewer dividends than investing in earlier stages of development. That is, much of the die has been cast in attitudes and behavior, and intervention is targeted to those who are readily identifiable because of their acting-out behavior. There may some truth to the view that the cost/benefit ratio of interventions is higher during adolescence. This fact should not lead to abandoning the full potential of this stage of development for meaningful prevention efforts. Because adolescent problems have been neglected relative to those of children, throughout the volume we look at the expression and treatment of various disorders in both childhood and adolescence when information about adolescents is lacking.

CONCLUSIONS

Although we have always known that adolescence is a unique and important period of development, research documenting its significance had lagged far behind research on children and adults. Throughout the 1990s this picture began to change dramatically, due in large part to expanding techniques for studying neurodevelopmental processes in the brain. As neuroimaging techniques advanced our understanding of areas of the brain that are immature relative to other areas of growth, theories of adolescent risk behaviors and mental disorders likewise expanded to accommodate knowledge of biological processes and their

interaction with social/environmental factors. Knowledge of adolescent development across cognitive, social, and biological dimensions likewise informed theories of the interplay between normal and abnormal adolescent behavior throughout this turbulent growth period. Simultaneously, we have seen a major shift in moving from the view of "fixing" adolescent problems and risk behaviors toward engaging youth in health promotion and positive solutions. More and more efforts are underway today to involve adolescents in learning healthy alternatives to risk behaviors and to tailor the delivery of knowledge and assistance to their developmental level and needs.

At the same time, there remains a lack of sensitivity to identifying adolescent emotional and behavioral disorders as unique from those presenting in child- or adulthood, and balancing knowledge of adolescent development with that of psychopathology. To address this need, the following chapters examine carefully how child-based disorders are often expressed during adolescence, noting similarities and differences that may be crucial to the choice of prevention or intervention. To this end, authors of each chapter discuss the increasing attention directed to understanding, assessing, and treating behavioral and emotional problems of adolescents. What emerges is a more balanced view of the special needs of this age group in relation to their ongoing physical, social, and cognitive development.

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