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The Prevention of Adolescent Depressive Disorders

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Adolescence is a unique and distinct period in the development of human beings. The unique aspects of this developmental period have enormous implications not only for mental health and disorder among young people but for adults as well. It isimportant because most of the major mental disorders begin not in childhood but during adolescence. It is, moreover, likely the optimal time for prevention and treatment of psychopathology, and for the promotion of mental health and positive emotional and behavioral functioning. Prevention canbe **universal**, where the intervention is implemented for a designated population regardless of risk or **targeted** to a population at high risk for the disorder. Targeted interventions can be further classified into **selective** interventions which focus on populations with a risk factor for disorder e.g. family history and**indicated** interventions which focus on populations with symptoms or signs suggestive of the incipient disorder. Some Reports recommend that **prevention is defined as those interventions that occur prior to the onset of a clinically diagnosed disorder.** Prevention Interventionsare often delivered in schools or primary care settings, included both **educational and psychological** approaches,and risk factors for depression included two major groups: Individual and social factors. Some individual factors are composed of personality and temperament, cognitivevulnerability, and some of the social factors composed of schools,stress, and interpersonal relationships. In addition to the risk

factors that have implications for prevention of depression: subclinical depression, poverty, and violence.There are some evaluated preventive strategies which are based primarily on **cognitive behavioral and family-educational** approaches that seek to reduce risk factors and enhance protective and resilience factors associated with depression in youth.

Introduction:

At least one in five youth suffers from a current developmental, emotional, or behavioral problem (Burns et al., 1995; Institute of Medicine, 1989; Irwin, Burg, & Cart, 2002; U.S. Department of Health and Human Services, 1999; Zill & Schoenborn, 1990). The prevention and treatment of such difficulties in adolescence is one of the major public health problems facing any nation. To help adolescents achieve their full potential both as youths and as adults, it is important that we focus resources on this issue now. Helping adolescents reach their potential involves the identification, treatment, and prevention of mental disorders that interfere with the adolescent's development into a successful adult. However, getting rid of the disorder is not enough. We need also to instill positive values and behaviors that enable formerly troubled young people to flourish, contribute to society, and be happy and healthy.

WHY FOCUS ON ADOLESCENCE?

Adolescence, which we define here broadly as ages 10 to 22, is a unique and distinct period in the development of human beings. The unique aspects of this developmental period have enormous implications not only for mental health and disorder among young people but for adults as well. Adolescence is a critical period of development characterized by significant changes in brain development, endocrinology, emotions, cognition, behavior, and interpersonal relationships. This

period of life is a transitional period of development that is foundational but also noticeably malleable and plastic from a neurobiological, behavioral, and psychosocial perspective. From a mental health perspective, adolescence is important because most of the major mental disorders begin not in childhood but during adolescence. After onset in adolescence, many chronic mental disorders carry over into adulthood, leading to ongoing significant mental health impairment during the adult years. This later influence of adolescence applies to not only the major mental disorders but also a range of health habits that influence adult behavior and may influence medical diseases in adulthood. Specifically, adolescent development and behaviors set the stage for adult behavior in terms of use of substances (both legal and illegal) and dietary habits and can have an impact on the development and outcome of medical illnesses, such as cardiovascular disease, diabetes and obesity.

The past two decades of research have revealed that many mental disorders are relatively common in adolescence Some of the more striking examples are the following:

• The lifetime prevalence rate of major depressive disorder in adolescence is estimated to be about15%, but 20% to 30% of adolescents report clinically significant levels of depressive symptoms

• Over half of young people have used an illicit drug by the time they graduate from high school

• The 12-month prevalence estimates for anxiety disorders in adolescents range from 9% to 21%

• Suicide is the third leading cause of death among youth

What is especially alarming is that the prevalence of some of these disorders has been on the rise over each successive generation. Certain changes over time in the nature of adolescence and the environments that adolescents find themselves in, may be responsible for these observed increases in the prevalence of psychopathology in adolescence. A major factor is that adolescence itself is now more extended. Puberty has been occurring progressively earlier, At the other end, full-time work and marriage now occur later in life. Thus, if adolescence is defined in terms of the onset of puberty, the total time spent in adolescence is now longer than in the past, and if its upper end is defined as the end of formal schooling, the total time is now much longer. Access to and availability of potentially harmful environments and substances have increased. Compounding the potentially negative consequences of harmful environments is the increasing behavioral independence of adolescents in association with less parental or even adult influence. There are many unanswered questions about the ways in which the interplay between biology and environment lead to the alarming numbers of adolescents we now see afflicted with mental illness and why this seems to have worsened in recent years. However, what is clear is the need to make adolescent mental health a major public health priority. A decade ago, early childhood moved into the spotlight and became a major health priority, but from the point of view of mental health, adolescence may be the more criticaltransitional period given its neurobiological and behavioral plasticity. It is, moreover, likely the optimal time for prevention and treatment of psychopathology, and for the promotion of mental health and positive emotional and behavioral functioning. By increasing our knowledge of the causes, treatment, and prevention of mental disorders that begin in adolescence, we will help reduce the suffering and impairments associated with these disorders and reduce overall health care utilization. Furthermore, progress in adolescent mental health could prevent mental disorders in adulthood that have

onset in adolescence and modify the prevalence or course of medical illnesses in adulthood that are related in part to adolescent behaviors or mental disorders.

Intervention in Adolescence:

With all the changes occurring during adolescence and the associated neurobehavioral vulnerabilities and resilience, it is clear that this phase of life is an ideal time to target with interventions aimed at improving young people's lives. This is true for both the treatment of adolescent disorders and the prevention of both adolescent-onset and adult-onset disorders. For many mental disorders, it is increasingly clear that the earlier the intervention, the better. For example, disorders such as schizophrenia and bipolar disorder have a progressive course, with onset in adolescence or early adulthood, followed by the potential for further deterioration with the occurrence of each subsequent episode of illness. Therefore, rather than waiting for an individual to meet all diagnostic criteria from the *Diagnostic and Statistical Manual for Mental Disorders* (DSM) for a psychiatric disorder, it may be far better to identify and treat individuals who have risk factors or display some of the early signs of the illness. In the case of schizophrenia, such early-intervention programs have shown promise in reducing the annual incidence of first-episodepsychosis (Falloon, Kydd, Coverdale & Laidlaw, 1996). These early-intervention efforts and the targeting of high-risk and other non-disordered populations speak to the importance of interventions that have a preventive perspective. Although treatment of actual disorders in adolescence will remain an essential aspect of adolescent mental health research and practice, prevention may be the key to diminishing the burden of adolescent and adult disorders on society. There are many forms of prevention as follow:

Description of the Interventions:

Prevention can be **universal**, where the intervention is implemented for a designated population regardless of risk or**targeted** to a population at high risk for the disorder. Targeted interventions can be further classified into **selective** interventions which focus on populations with a risk factor for disorder e.g. family history and**indicated** interventions which focus on populations with symptoms or signs suggestive of incipient disorder. Some **selective** interventions target risk factors for depression, such as trauma, to prevent long-term sequelae. The primary target may not be depression, although the effect on depression may have been measured along with other outcomes. Early intervention may be considered prevention or treatment. The Institute of Medicine Report (Mrazek 1994) and the updated report (O'Connell 2009) recommends that **prevention is defined as those interventions that occur prior to the onset of a clinically diagnosed disorder.** - Many investigators recommend that prevention research focus primarily on targeted interventions, particularly those that focus on individuals at imminent risk. There are several reasons for this recommendation. Targeted programs may provide enormous benefit to participants. They have larger effect sizes, on average, than universal interventions and so require smaller samples to evaluate.When the risk is imminent, it is easy to tell when these programs succeed or fail.

Universal interventions also may be a valuable component of a national depression prevention strategy. These interventions are especially important when (a) the specific problem is widespread, (b) the problem is increasing, (c) the increase appears to be related, at least in part, to changes in lifestyle or behavior, and (d) screening procedures fail to identify many of the individuals who ultimately develop the problem. All these statements apply to depression. Our

knowledge of risk factors for depression is imperfect. It is likely that many individuals who score low on screening measures will develop clinical depression.

Some research illustrates the possibility that large numbers of people who develop clinically relevant levels of depression may not be identified by screening instruments. Offord, Kraemer, Kazdin, Jensen, and Harrington (1998) made a similar point. The absolute number of individuals who develop a disorder may actually be higher in low-risk groups than in high-risk groups (Offord et al.,1998). Frequent assessment of multiple risk factors would improve the identification of those individuals who are truly at risk. However, in practice, risk factors are rarely assessed, and some risk factors are difficult to assess. For example, without parental consent and cooperation, it is hard to inquire about children's experience of parental conflict, neglect, or abuse. Risk factors such as stressful or traumatic events may be difficult to predict. Universal interventions that teach coping and problem-solving skills may prevent depression by preparing people to deal more effectively with a variety of stressors that they may encounter.

Intervention Settings:

The depression prevention interventions are often delivered in a group setting, both to reduce cost and because a group may reinforce effectiveness by providing positive peer experiences. Both group and individual interventions usually take place on a weekly basis and typically last for 10 to 15 sessions. Family-based programs are based on the premise that family members can influence one another’s well-being and have a significant effect on the outcomes of interventions. Implementation within the family system is thought to result in a more robust outcome as family discord is a risk factor for depression.

1-School setting:

There is evidence supporting the importance of the school environment for young people's well-being. Young people spend a significant amount of time in school and disseminating a program within a school or classroom is likely to be cost-effective as many young people can be taught at the same time. Schools have long been recognized as an important context for adolescent mental health development and service delivery. In fact, schools have been described as the de facto mental health service delivery system for children and adolescents, with between 70% and 80% of those that receive any form of mental health service obtaining such services from within the school setting (Burns et al., 1995). Higher prevalence rates of mental disorders and higher rates of comorbidity have been found among children and adolescents receiving services within the special education services of school than in specialty mental health clinics or in substance abuse clinics (Garland et al., 2001). More than any other setting, schools provide access to adolescents for assessment and intervention. Student functioning, at least in terms of cognitive functioning needed for successful academic achievement, is tracked regularly, and behavior is assessed by multiple observers (teachers). At the first sign of problems, interventions could be initiated, rather than waiting until serious disorders develop, and the adolescent is brought to a psychiatrist. Preventive interventions designed to target large populations of adolescents are particularly well suited for the school setting. Unfortunately, the current state of mental health services in school is poor. There is wide variability across Governorates and between urban and rural locations in the availability of mental health services in schools. Increasing the availability and quality of school-based services for the assessment, treatment, and prevention of adolescent mental health problems is therefore a central component of any plan for improving the lives of adolescents.

2- Primary Care Settings:

A particular component of the service delivery system, primary care medical practice, merits special attention in regard to adolescent mental health. In a typical year, over 70% of young people visit a primary care physician (Wells, Kataoka, & Asarnow, 2001). Primary care physicians typically serve as the gateway to obtaining specialist care, including mental health services. However, primary care physicians are typically poorly trained in psychiatry and psychology. Compounding the problem is the fact that primary care physicians have enormous time constraints. These time constraints make it difficult for primary care physicians to adequately diagnose mental health problems. Inaccurate or missed diagnoses will lead to inadequate treatment.

The intervention program includes both **educational and psychological** approaches to preventing depression. The key differentiating point is that **educational interventions** simply provide information about depression, through lectures or fact sheets, whereas **psychological interventions** attempt to change how people think, using a variety of different strategies.

Depressive Disorders:

Although for many years' depression was considered a problem that afflicted only adults, in the last 30 years there has been increasing recognition that this disorder can and does occur in children, particularly in adolescents. Fifty years ago, its mean age of onset was near 30, but now it is closer to 15. As mentioned previously, major depressive disorder is now seen as not uncommon in adolescents. When it occurs, it often has a severe impact on school performance and interpersonal relationships of afflicted youth. Since depression is a recurring

disorder, its onset in puberty predicts an increase in the incidence of major depressive disorder. This constellation of facts about depression suggests that the adolescent years are key to understanding the etiology and course of depressive disorders. Identification and treatment of major depression in adolescence may be the key to preventing the insidious progression of this illness and thereby reducing the burden of the illness on the individual and society. The same criteria defined in the *Diagnostic and Statistical Manual of Mental Disorders* (4th ed., with text revisions) (DSM-IV-TR) (American Psychiatric Association, 1994) to diagnose MDD in adults are used to diagnose MDD in adolescents (Table 1.1). Five or more of the following symptoms must be present **nearly every day during the same 2-week period** to diagnose an adolescent with a major depressive episode:

Table 1 Symptoms of Depressive episode

1- Depressed or irritable mood most of the day.

2- Markedly diminished interest or pleasure in almost all activities, most of the day.

3- Significant weight loss or gain or change in appetite; failure to gain expected weight.

4- Sleep disturbance, insomnia or hypersomnia nearly every day.

5- Psychomotor agitation or retardation nearly every day.

6- Fatigue or loss of energy nearly every day.

7- Feelings of worthlessness or inappropriate guilt or hopelessness nearly every day.

8- Indecisiveness or diminished ability to think or concentrate nearly every day.

9- Recurrent thoughts of death or recurrent suicidal ideation or suicide attempt.

At least one of the following two symptoms must be present: **depressed or irritable mood, or markedly diminished interest or pleasure in almost all activities.** These symptoms must cause clinically significant impairment in social, occupational, or other important areas of functioning. They cannot be due to the direct physiological effect of substance abuse or a general medical condition. Also, the symptoms should not be better accounted for by bereavement or schizoaffective disorder. A major depressive episode cannot be superimposed on schizophrenia, schizophreniform disorder, delusional disorder, or a psychotic disorder not otherwise specified.

Risk factors for Adolescent Depression:

Due to the complexity of depressive disorders, there is overlap between the risk factors of the disorders. for Clarification, we can separate between two major groups of risk factors: **Individual and social factors.**

Individual Risk Factors:

Information on risk factors for adolescent MDD comes both from epidemiologic and clinical studies. The two most consistent risk factors for MDD in both studies of adolescents and adults are **female gender** (2-to 3-fold increased risk) and a **family history** of MDD. The offspring of depressed parents are at 2-to 4-fold increased risk of MDD, an earlier age of onset, and recurrent episodes (Hammen, Burge, Burney, & Adrian, 1990; Weissman, Warner, Wickramaratne, Moreau, & Olfson, 1997; Weissman et al., 2004). The risk is transmitted across generations to grandchildren (Warner, Weissman, Mufson, & Wickramaratne, 1999).

Personality and Temperament:

Several theorists have hypothesized a heritable trait vulnerability factor common to most, if not all, emotional disorders. This trait has been defined slightly differently and given various labels by different theorists including **harm avoidance** (Cloninger, 1987), **neuroticism** (Eysenck, 1947), **trait anxiety** (Gray, 1982), **behavioral inhibition** (Kagan, Reznick, & Snidman, 1987), and **negative affectivity** (Watson & Tellegen, 1985), Although the conceptual and empirical overlap among these constructs far outweighs the differences. Each implies a **trait disposition** to experience **negative affect**. The term ***neuroticism***is often used to refer to this trait. Longitudinal studies have shown that neuroticism predicts later negative affect and symptoms of emotional distress (Costa & McCrae, 1980; Larson, 1992; Levenson, Aldwin, Bosse, & Spiro, 1988), even after controlling for initial symptom levels (Gershuny & Sher, 1998; Jorm, Christensen, Henderson, & Jacomb, 2000). Clark, Watson, and Mineka (1994) reviewed several longitudinal studies showing that neuroticism predicts both subsequent diagnoses and chronicity of major depression. Since this review, studies reported by Hayward, Killen, Kraemer, and Taylor (2000), Kendler and colleagues (Kendler, Kessler, Neale, Heath, & Eaves, 1993; Kendler et al., 2002; Roberts & Kendler, 1999), and Krueger et al. (1996) have each obtained result consistent with the conclusions of Clark et al. (1994). Thus, neuroticism appears to be a significant predictor of depression, though it might not be a specific vulnerability marker. Moreover, it is still difficult to distinguish among common cause, precursor, and predisposition

models of the relation between neuroticism and depression (Klein, Durbin, Shankman, & Santiago, 2002).

Cognitive Vulnerability:

According to **cognitive theories** of depression (Abramson, Metalsky, & Alloy, 1989; Abramson, Seligman, & Teasdale, 1978; Beck, 1967), depressed individuals have more negative beliefs about themselves, the World, and their future, and tend to make global, stable, and internal attributions for negative events. These negative cognitions are expected to be both concurrently associated with depression and to contribute to the onset and exacerbation of depressive symptoms. Cognitive theories of depression are inherently concordant with **diathesis-stress theories**. When confronted with stressful life events, individuals who have such negative cognitive tendencies will appraise the stressors and their consequences negatively and hence are more likely to become depressed than are individuals who do not have such cognitive styles. Several types of cognitions have been proposed to be related to depression, including **low self-esteem**, **negative automatic thoughts**, **dysfunctional attitudes**, and **cognitive distortions** (Beck, 1967); **self-control** (Rehm, 1977); **control-related beliefs and self-efficacy** (Bandura, 1977); **depressive attributional style** (Abramson et al., 1978); **hopelessness** (Abramson et al., 1989); and a **ruminative response style** (Nolen-Hoeksema, 2000). Cross-sectional studies with clinic andcommunity samples of children have consistently shown a significant relation between negative cognitions, particularly low self-esteem and a pessimistic attributional style, and depression (Garber & Hilsman, 1992). Meta-analyses of studies reporting on attributional style and depression have demonstrated moderate to large effect sizes in cross-sectional studies

suggesting a strong concurrent association between negative attributional style and higher levels of depressive symptoms in childrenand adolescents (Gladstone & Kaslow, 1995; Joiner & Wagner, 1995). Longitudinal investigations of the role of cognitions in the prediction of childhood depression have yielded varying results. Global self- worth

(Allgood-Merton, Lewinsohn, & Hops, 1990; Garber, Martin, & Keiley, 2002; Vitaro, Pelletier, Gagnon, & Baron, 1995) and perceived self-competence in specific domains (Hoffman, Cole, Martin, Tram, & Seroczynski, 2001; Vitaro et al., 1995) have predicted child and adolescent depressive symptoms (e.g., Allgood-Merton et al., 1990; Vitaro et al., 1995) and diagnoses (Garber, Martin, & Keiley, 2002), controlling for prior levels of depression. However, these same cognitive constructs also failed to predict depressive symptoms (Dubois, Felner, Brand, & George, 1999) and onset of new episodes. However, in one of these null studies, participants were selected from a drug and alcohol treatment clinic. Attributional style generally has been investigated in the context of stress, though several studies have tested main-effects models or reported main effects in the absence of interactions. Significant prospective relations have been observed between attributional style and later depressive symptoms in children and young adolescents (Nolen Hoeksema, Girgus, & Seligman, 1986; 1992; Panak & Garber, 1992), though a few studies have failed to find this relationship. In a longitudinal study of the developmental trajectories of negative attributions and depressive symptoms, Garber, Keiley, and Martin (2002) showed that attributional styles that were increasingly negative across time were associated with significantly higher initial levels and increasing growth of depressive symptoms during adolescence.

Prospective studies in children and adolescents have also found support for the cognitive diathesis–stress model of depression (Dixon & Ahrens, 1992; Hilsman &

Garber, 1995; Lewinsohn, Joiner, & Rohde, 2001; Nolen- Hoeksema et al., 1992; Panak & Garber, 1992). Using different stressors (grades, peer rejection, and school transition) and different time periods, Garber and colleagues showed in three (Dixon & Ahrens, 1992; Panak & Garber, 1992; Robinson, Garber, & Hilsman, 1995) different short-term longitudinal studies that cognitions (attributions, self-worth) measured before the stressors occurred moderated the effect of the stressors on depressive symptoms in children. Among children who experienced high levels of stress, the relation between negative cognitions about the self or causes of events and depressive symptoms was stronger than in those without such negative cognitions. Lewinsohn et al. (2001) found that among adolescents who had experienced negative life events, intermediate levels of dysfunctional attitudes predicted the onset of depressive disorders a year later.

Developmental theorists (Nolen-Hoeksema et al., 1992; Weisz, Southam- Gero, & McCarty, 2001) have suggested that negative cognitions emerge over time and that their relationship with depression becomes stronger with development. For example, in a longitudinal study of children in grades 3 through 8, Nolen-Hoeksema et al. (1992) showed that attributional style alone and in conjunction with stress significantly predicted depressive symptoms in the older but not in the younger children. Similarly, in across-sectional comparison of children in grades 4, 6, and 8, Turner and Cole (1994) found that negative cognitions contributed to the prediction of depressive symptoms for the oldest children, but not for the two younger groups.

Thus, the relation between the cognition–stress interaction and depressive symptoms appears to be increasing from middle childhood to early adolescence. If negative cognitions contribute to the development of mood disorders, then “high-risk” offspring of depressed parents should be more likely to exhibit a cognitive

vulnerability than children whose parents have not experienced mood disorders. Indeed, children of depressed mothers report significantly lower perceived self-worth and a more depressive attributional style than do children of well mothers (Garber & Robinson, 1997). Thus, children who are at risk for depression, but who have not yet experienced depression themselves, have been found to report a more negative cognitive style that likely represents a vulnerability to later depression. In summary, correlational, predictive, and offspring studies have provided evidence that there is a cognitive style that represents a vulnerability to depression in children. This cognitive style involves beliefs about the self and explanations about the causes of negative events. Future studies need to examine the development of this cognitive vulnerability over time, and whether it needs to be primed in children (Ingram, Miranda, & Segal, 1998).

Sociocultural risk factors:

Most of the existing depression prevention programs attempt to modify individual risk and protective factors such as maladaptive interpretive styles and coping skills deficits. Individual risk factors are easier to address and to measure than family, community, or societal risk factors. However, social risk factors probably play a large role in the development of depression. If dramatic advances are to be made in depression prevention, it will be necessary to focus on these risk factors as well. Rates of depression vary across cultures, as does the sex difference in depression (Cross-National Collaborative Group, 1992; McCarthy, 1990). Clinical depression and suicide appear to have increased substantially over the past century (e.g., Cross-National Collaborative Group, 1992; Murphy, Laird, & Monson, 2000). Self-reported anxiety symptoms, which correlate strongly with depression, increased by about one standard deviation in the last 50 years alone. Mean anxiety scores obtained in research with children today were in the clinical

range a few decades ago (Twenge, 2000). Several psychologists and social historians have documented a parallel decline in social connectedness in modern life (e.g., Myers, 2000; Putnam, 2000; Twenge, 2000). Compared with people in the 1950s, they today spend less time visiting with family and friends and devote less time to community organizations and activities. Children are more likely to see their parents' divorce and are less likely to live near extended family. Materialism also seems to have increased. Another obvious change is the growing role of media, particularly television, in most of our lives. The increasing exposure to violence in entertainment and local news shows may amplify anxiety and distrust of others (Myers, 2000). The increasingly thin body image ideals presented in magazines, movies, and television shows may contribute to body dissatisfaction and, in turn, symptoms of eating disorders and depression (e.g., Heinberg & Thompson, 1995; McCarthy, 1990). Research is needed to identify the specific social factors that increase vulnerability to depression as well as the social factors that may protect against it. Such research should inform depression prevention efforts. Programs that strengthen family relationships or promote social strengths (e.g., generosity, perspective-taking, and empathy), teamwork.

Schools:

Although depression researchers have sometimes used schools as a site for intervention (see Clarke et al., 1993; Jaycox, Reivich, Gillham, & Seligman, 1994), few if any researchers have approached the school as the target of intervention (Farmer & Farmer, 1999). A growing body of evidence suggests that schools can cause or exacerbate existing risk factors for developing behavior problems that children bring to the classroom and that these aspects of school can be modified to reduce risk (see Farmer & Farmer, 1999; Reinke & Herman, 2002). Much less is known about if and how schools might contribute to internalizing disorders such as

depression, though some patterns have been described. For instance, a cyclical pattern of emotional distress and academic failure has been described by some researchers that may be consistent with learned helplessness. Additionally, teachers tend to avoid students with depressive characteristics (Morris, 1980–1981), which likely replicates the common cycle of family and peer rejection experienced by these children.

Stress:

Common to all definitions of stress is a focus on environmental conditions that threaten to harm the biological or psychological well-being of the individual (Grant et al., 2003). Stress may occur either as an

acute event or as chronic adversity, and as a major life event or as minor events with accumulated effects (either additive or multiplicative) (Grant et al, 2003). Stressful events may be normative (e.g., school transition) or pathological (e.g., abuse) and may be independent of, or directly related to and thus dependent on, an individual's actions. Objective environmental consequences of a stressor (i.e., can be reliably rated by objective observers) are hypothesized to have a direct effect on the development of depression. The subjective threat of a stressor involves individuals' appraisals of an event as stressful, which then may impact their psychological well-being (Lazarus, Delongis, Folkman, & Gruen, 1985). Finally, there may be specificity in the relation between stress and psychopathology such that certain subdomains of stressors may be more highly related to depression than others (Beck, 1967; Grant et al., 2003). Stress plays a prominent role in most theories of depression, and a clear empirical link exists between stressful life events and depression in children and adolescents (Compas, Grant, & Ey, 1994). In school-aged children, cross-sectional studies using either life events checklists or

interview methods consistently have shown that depressive symptoms and disorders are significantly associated with both minor and major undesirable life events in children, particularly cumulative or chronic stressors, and negative life events are more prevalent among depressed than no depressed children (Goodyer, Wright, & Altham, 1988). Cross-sectional studies, however, are not informative about the direction of the relation between stress and depression. Given the association between dependent stressors and depression (Garber, Martin, & Keiley, 2002), it is possible that depression contributes to the occurrence of stressors. Depressed individuals have been found to generate many of the stressors they encounter, and these stressors then serve to exacerbate and maintain the depressive symptoms (Bennett, Pendley, & Bates, 1995). Longitudinal studies in which stressors are assessed prior to the onset of symptoms can be informative about the temporal relation between stress and depression. Prospective studies have found that stress predicts depressive symptoms, controlling for prior symptom levels in children (Goodyer, Herbert, & Altham, 1998) and adolescents (Allgood-Merten et al., 1990).

The relationship is stronger when children's self-reports are used than when parents' reports of children's depressive symptoms are used (Stanger, McConaughy, & Achenbach, 1992). Fewer studies have examined the contribution of negative life events to the onset of depressive disorders in children. Stress has predicted the onset of depressive symptoms in previously asymptomatic children (Aseltine, Gore, & Colten, 1994) and the onset of clinically significant depressive episodes, controlling for prior symptom levels in samples comprised of both children and adolescents (Hammen, 1991) and adolescents alone (Garber, Keiley, et al., 2002). Only three of these studies (Aseltine et al., 1994; Garber & Kaminski, 2000; Monroe, Rohde, Seeley & Lewinsohn, 1999) controlled for lifetime history

of MDD to rule out the possibility that earlier depressive disorder contributed to onset. Reports of stressful life events have been shown to increase for both boys and girls from childhood through adolescence, with increases being greater for girls (Ge, Longer, Lorenz, & Simons, 1994), paralleling increases in rates of depression for boys and girls (Hankin et al., 1998). However, few studies have found that gender moderates the relationship between stress and depression. Cohen (1987) reported that negative events predicted depressive symptoms in girls who had experienced minimal positive events in the same time interval, and Ge et al. (1994) showed that growth of stressful life events over time predicted growth in depressive symptoms for girls but not boys. Although no one specific type of stressful event invariably leads to depression in children and adolescents, certain stressors consistently have been found to be associated with depression.

Interpersonal Relationships:

Interpersonal perspectives on depression emphasize the importance of the social environment and the development of secure attachments. Vulnerability to depression presumably arises in early familyenvironments in which the children's needs for security, comfort, and acceptance are not met. Bowlby (1980) argued that children with caretakers who are consistently accessible and supportive will developcognitive representations, or “working models,” of the self and others as positive and trustworthy. In contrast, caretakers who are unresponsive or inconsistent will produce insecure attachments leading to working models that include abandonment, self-criticism, and excessive dependency. Such working models may contribute to the development of negative cognitions about self and others, and presumably increase individuals' vulnerability to depression, particularly when exposed to new interpersonal stressors. Reviews of the literature on the relation between the family environment and depression (Beardslee,

Versage, & Gladstone, 1998; Rapee, 1997) indicate that families of depressed individuals are characterized by problems with attachment, communication, conflict, cohesion, and social support, as well as poor childrearing practices. Security in attachments helps infants cope with the environment and a lack of such attachments may lead infants to seek protection by withdrawing from the environment altogether (Bowlby, 1980; Trad, 1994). Two-year-old children with secure attachments have been found to be more cooperative, persistent, and enthusiastic, show more positive affect, and function better overall than those with insecure attachments (Matas, Arend, & Sroufe, 1978). In adolescents, depression has been linked with less secure attachments to parents (Kenny, Moilanen, Lomax, & Brabeck, 1993). Moreover, adolescents undergoing stressful life events are more likely to become depressed if they had insecure

attachments to their parents than adolescents with more secure attachments (e.g., Kobak, Cole, Ferenz- Gillies, Fleming, & Gamble, 1993).

Beyond attachment, other kinds of dysfunctional family patterns have been found to be associated with depression in children (Rapee, 1997). Serious abuse and neglect interfere with normal expressions of infants' emotions and lead to avoidant or resistant attachments, especially if the mother is the perpetrator of the abuse. Maltreatment also leads to withdrawal behaviors in infants and self-esteem deficits later in childhood (Trad, 1987). The parent–infant relationship is inevitably worsened from such abuse, which in turn puts the infant in higher danger of being abused again (Trad, 1987). Two main parenting dimensions particularly associated with depression in children are acceptance/rejection and psychological control/autonomy (Barber, 1996). In retrospective studies, currently depressed adults recalled their parents as having been critical, rejecting, controlling, and intrusive (Parker, 1993). Currently depressed children have described their parents

as authoritarian, controlling, rejecting, and unavailable (Stein et al., 2000), and they tend to perceive their families to be less cohesive and more conflictual than do no depressed youth (Walker, Garber, & Greene, 1993; although see Asarnow, Carlson, & Guthrie, 1987, for contrary findings). Mothers of depressed children similarly describe themselves as more rejecting, less communicative, and less affectionate than mothers of both normal and psychiatric controls (Puig- Antich et al., 1985a). In observational studies, mothers of depressed children have been described as being less rewarding (Cole & Rehm, 1986) and more dominant and controlling than mothers of no depressed children. Several longitudinal studies have found a significant relation between the family environment and subsequent depressive symptoms (e.g., Barber, 1996; Sheeber, Hops, Alpert, Davis, & Andrews, 1997), whereas others have reported null findings (Burge et al., 1997). Barber (1996) showed that children's ratings of parents' psychologically controlling behavior predicted their depressive symptoms, controlling for prior levels of depression, although children's prior depressive symptoms also predicted their ratings of their parents' behavior.

In addition, maternal hostile child-rearing attitudes have been found to significantly predict increases in children's depressive symptoms (Katainen, Raikkonen, Keskivaara, & Keltikangas-Jarvinen, 1999). Using observational data of parental warmth, hostility, and disciplinary skills, Ge et al. (1994) reported that increases in adolescent internalizing symptoms were predicted by lower levels of parental warmth and higher levels of maternal hostility. In this same sample, Rueter, Scaramella, Wallace, and Conger (1999) found that escalating parent–adolescent conflict predicted increases in adolescent internalizing symptoms, which in turn increased the risk of the onset of internalizing disorders.

Depressed children also have significant peer difficulties and social skills deficits (Altmann & Gotlib, 1988). Self-reported depression significantly correlates with teachers' reports of peer rejection in children (Rudolph, Hammen, & Burge, 1994). In laboratory studies, children with depressive symptoms were rated by their peers more negatively than were children without symptoms (Peterson, Mullins, & Ridley-Johnson, 1985). French, Conrad, and Turner (1995) noted that rejection by peers predicted higherlevels of self-reported depressive symptoms among antisocial, but not among non-antisocial youth.

Panak and Garber (1992) found a significant relation between peer-rated rejection and self-reported depression, and this relation was mediated by perceived rejection. Kistner, Balthazor, Risi, and Burton (1999) similarly found that perceived rejection predicted increases in depressive symptoms during middle childhood. Finally, in a longitudinal study of children in sixth grade, Nolan, Flynn, and Garber (2003) found that a composite measure of rejection by peers, family, and teachers significantly predicted depressive symptoms across 3 years. Thus, depression in children is associated with high levels of interpersonal conflict and rejection from various members in their social domain.

Finally, relationships between depressed parents and their children have also consistently been found to be disrupted. Depressed parents report more conflict and less coherence in their families (Billings & Moos, 1983), are less involved and affectionate with their children, and experience poorer communication in parent–child relationships than no depressed parents (Weissman, Paykel, Siegel, & Klerman, 1971). Moreover, depressed mothers tend to feel more hostile toward their children and less positive and competent about their parenting than do well mothers. (Webster-Stratton & Hammond, 1988). Observations of depressed mothers interacting with their children reveal that these mothers are more negative

(Lovejoy, 1991), more controlling (Kochanska, Kuczynski, Radke-Yarrow, & Welsh, 1987), and less responsive and affectively involved (Cohn & Tronick, 1989) and use less productive communications (Gordon et al., 1989). Depressed mothers spend less time talking to and touching their infants and show more negative affect in their interactions with their infants who themselves show less positive affect, less activity, and more frequent protests (Field, 1995). Parental depression can also lead to disturbed attachment behavior and an inability by the infant to regulate emotions, thereby putting the infant at greater risk for developing depression (Gaensbauer Harmon, Cytryn, & McKnew, 1984). Offspring of depressed parents have more insecure attachments than do offspring of well mothers (DeMulder & Radke-Yarrow, 1991; Teti, Gelfand, Messinger, & Isabella, 1995). Moreover, insecurely attached offspring of depressed mothers tend to have difficulties in their relationships with peers (Rubin, Booth, Zahn- Waxler, Cummings, & Wilkinson, 1991). Finally, negative reciprocal interaction patterns have been observed between depressed mothers and their children (Radke-Yarrow, Nottelman, Martinez, Fox, & Belmont, 1992).

In summary, two important findings emerge regarding the link between interpersonal vulnerability and depression. First, families with a depressed member tend to be characterized by less support and more conflict, and such family dysfunction increases children's risk of developing depression. Second, depressed individuals are themselves more interpersonally difficult, which results in greater problems in their social network.

Thus, the link between interpersonal vulnerability and depression likely is bidirectional (Gotlib & Hammen, 1992). Longitudinal studies examining the contribution of family dysfunction, parent–child conflict, peer difficulties, and interpersonal rejection to increases in and maintenance of depressive symptoms in

children have shown both that social problems temporally precede depression, and that depression contributes to interpersonal difficulties. Moreover, interpersonal difficulties appear to persist after depressive symptoms have remitted (Puig-Antich et al. 1985b). In addition, social adversities such as persistent poor friendships, low involvement of fathers, negative attitudes by family members, and stressful family environments can contribute to the maintenance or relapse of depressive disorders in youth (e.g., Asarnow, Goldstein, Tompson, & Guthrie, 1993). The interpersonal environment clearly is an important and sometimes stressful context in which children develop schema about themselves and others, which can then serve as a vulnerability to depression. In addition, children's own reactions to these environments can exacerbate and perpetuate negative social exchanges, which furthers the interpersonal vicious cycle, thereby resulting in more rejection and depression. Thus, a transactional model of mutual influence probably best characterizes the association between depressed individuals and their social environment. In addition to the preceding risk factors, the following risk factors that have implications for prevention of MDD are important and worthy of further detailed review. These include **subclinical depression,poverty, and violence.**

Subclinical Depression:

Prevention policy and research often focus on preventing specific disorders (e.g., Le et al., 2003; Muñoz, Mrazek, & Haggerty, 1996). Prevention of clinical depression is an important goal, but there are several good reasons to focus on the prevention of high (subclinical) levels of symptoms as well. **First**, elevated depressive symptoms are associated with many of the same costs as depressive disorders. Adolescents with subclinical depressive symptoms are indistinguishable from clinically depressed adolescents on a variety of measures of social impairment, for example (Gotlib, Lewinsohn, & Seeley, 1995). **Second,** subclinical

depression often warrants treatment in its own right. Many cases of depression that are treated in mental health and primary care clinics today are subclinical and would not meet the strict *DSM–IV* diagnostic criteria that are commonly used in research studies. (Judd et al., 1998; Zimmerman & Posternak, 2002). **Finally**, smaller samples are required to detect differences in continuous variables (like symptoms) than categorical variables (like diagnosis). Thus, broadening the focus of prevention to include depressive symptoms may facilitate research on universal interventions. Among adults, subclinical depression (two or more symptoms for 2 weeks or longer) appears to cause as much health impairment and economic burden as MDD, and these individuals are at increased risk for developing subsequent MDD (Fava, 1999; Johnson, Weissman, & Klerman, 1992; Judd, Akiskal, & Paulus, 1997). In a longitudinal study, subclinical depression among adolescents predicted poorer functioning as these individuals became adults (Devine, Kempton, & Forehand, 1994). Subclinical depressive symptoms among adolescents predicted MDD later on in adolescence and young adulthood (Pine, Cohen, & Brook, 1999; Rao et al., 1995; Weissman, Warner, Wickramaratne, Moreau, & Olfson, 1997). Lewinsohn, Solomon, Seeley, and Zeiss (2000) found that increasing levels of depressive symptoms among a large sample of no depressed adolescents (average age of 16 1/2) predicted increased levels of social dysfunction and incidence of MDD, as well as increased substance abuse at age 24. These data indicate that subclinical depression renders adolescents at risk for a first episode of MDD, and they are prime candidates for depression prevention programs.

Poverty:

Poverty has been linked with an early onset of depression. It is not clear whether this represents an independent risk factor or can be grouped among the more

general examples of diversity that are associated with depression. Results from epidemiological studies have linked lower socioeconomic status with depression and a multitude of other mental health problems (Robins, Locke, & Reiger, 1991). This vulnerability is particularly strong for families living at poverty levels (Bruce, Takeuchi, & Leaf, 1991). This relationship may be explained in part by a phenomenon of selection, whereby those with mental health problems are more inclined to drift toward economic disadvantage and remain there (Dohrenwend et al., 1992). Longitudinal data have also demonstrated that socioeconomic disadvantage is largely a cause of higher vulnerability to psychiatric disorder, particularly for depression (Dohrenwend et al., 1992; Gilman, Kawachi, Fitzmaurice, & Buka, 2002; Johnson, Cohen, Dohrenwend, Link, & Brook, 1999).

In a study of over 4,000 Australian families, poverty caused a small but significant increase in risk when other sociological variables were controlled (Spence, Najman, Bar, O'Callaghan, & Williams, 2002); this effect was more pronounced in girls than in boys. If we consider poverty as a generator for a variety of stressors, the possible mechanisms driving poverty-induced vulnerability appear boundless.

A number of mediators between socioeconomic disadvantage and depression have been studied empirically. These include external mediators such as access to health care, quality of social networks and resources, quality of parenting and parent availability, and, of course, level of exposure to violence. Children of families who are of lower socioeconomic status are most likely to witness violence and to be the victims of abuse (Buka, Stichik, Birdthistle, & Earls, 2001; Sedlak & Broadhurst, 1996). Internal individual mediators include self-esteem, health-risk behaviors, cognitive deficits, interpersonal skills, and academic achievement. Several comprehensive reviews on the consequences of poverty and mediating

factors demonstrate the vast amount of knowledge we have accumulated on the relation between poverty and depression (Aber, Bennett, Conley, & Li, 1997; Leventhal & Brooks-Gunn, 2000; Turner & Lloyd, 1999). This literature highlights the importance of two larger factors: (*a*) the need for universal health care with parity for mental illness and physical illness and parity for services for adults and children; and (*b*) the need to address large-scale public health risk factors that have a strong effect on the occurrence of adolescent depression (i.e., exposure to violence).

Violence:

Exposure to violence during childhood is a potent risk factor for future psychological and psychiatric disorders (Kilpatrick et al., 2003; MacMillan et al., 2001) as well as physical health-risk behaviors (Felitti et al., 1998), in both the short and long term. The violence to which children are exposed has many forms. This includes being a victim of sexual or physical abuse as well as witnessing violence in the home (Kilpatrick et al., 2003). A large number of children also frequently witness violence in the community (Buka et al., 2001). Children who are exposed to violence are most often exposed to more than one type, and evidence suggests that the amount of violence-related adversities a child encounters has a substantial impact on the severity of the outcome (Felitti et al., 1998) The most disturbing illustration of this accumulation phenomenon is the gradation effect of violence-related adversities on risk for suicide attempt. Results from the Adverse Childhood Experiences Study demonstrated that for every additional adversity experienced as a child, the risk of suicide attempts increased from 2-to 5-fold, such that children or adolescents who encounter seven or more adversities are 50 times as likely to attempt suicide as those without violence exposure (Dube et al., 2001).

Although the mental health consequences of violence exposure are diverse, the most prevalent and commonly studied are posttraumatic stress disorder (PTSD) and major depression. This makes sense, particularly if violence exposure is viewed as a form of trauma. Violence-related trauma experienced during childhood can have particularly devastating effects, because the trauma is inflicted during a critical period of development. Neurobiological and neuroendocrine studies of depressed women, which look at the volume of certain brain regions and at hormonal stress-response mechanisms, provide evidence that violence-related trauma experienced during childhood can have profound and lasting effects on brain structure and function (Heim, Newport, Bonsall, Miller, & Nemeroff, 2001; Vythilingam et al., 2002). These alterations, in turn, increase vulnerability to stress-related disorders like depression. Depression that is comorbid with PTSD or other disorders, as well as depression that has an established neurobiological etiology like that experienced by childhood victims of trauma, are forms of the disorder that are particularly resistant to treatment and are associated with increased levels of impairment (Mervaala et al., 2000; Petersen et al., 2001). Thus, it is essential that prevention strategies attend to violence exposure.

Goals of Prevention Programs:

In addition to the major goal of reducing the number of new cases and delaying the onset of MDD and the insidious nature of the onset and course of MDD, there are other ancillary and associated goals ofprevention programs. For example, prevention of initial MDD is likely to have an impact on school and work performance, social skills, and quality of life, reduce the need of medical services, and reduce MDD-related substance abuse disorders. In the long run, prevention programs may actually extend the lives of individuals who were at risk but did not develop the disorder, by reducing both the risk of suicide completion and the

behavioral and biological squeal of the disorder. Another goal of prevention programs is to teach resiliency to the program participants. Individuals at risk for MDD are likely to experience negative and traumatic events, as are other individuals in our society. Prevention programs have a goal of teaching at-risk individuals to become more resilient—to develop skills and abilities to spring back from or adapt to adversity. A further goal of prevention programs is to enhance and enrich the positive aspects of living. By changing cognitive patterns, enhancing social skills, and increasing resiliency, individuals who otherwise might live a marginally happy life may have the opportunity to develop greater self-esteem and self-efficacy and live a more successful and adaptive life. This positive adaption in life may lead to the development of more adaptive neurological pathways. Emotional intelligence (Goleman, 1995) may also be enhanced by successful preventive programs. The societal goals of depression prevention programs are also numerous. For example, even a modest reduction in new cases of MDD would reduce the economic burden of the disorder. The disorder itself would not have to be treated so frequently, nor would the associated (sometimes self-treatment) problems of alcohol, tobacco, and other forms of substance abuse. Each prevented case of MDD would increase the limited resources available to other health initiatives. Productivity would be increased in the workplace. Thus, the call for effective programs to prevent the first episode of MDD is a forceful and significant one—significant for individuals, families, and society as a whole.

How the intervention might work:

The etiology of depressive disorder is complex and includes biological, psychological and social factors (Davidson 2002; Cicchetti 1998; Goodyer 2000; Lewinsohn 1994). While it is clear that a single approach will not reduce all

depressive disorders, some psychological theories propose that individual factors create a predisposition to developing depressive disorders, and alternatively may provide a model for promoting resilience in the face of stress. These theories have led to the development of effective treatments for depressive disorder in young people and are ***often used to provide a theoretical basis for the development of prevention programs***. There is a rationale for using the entire spectrum of preventive interventions, including both **targeted and universal interventions**, to curb the depression epidemic. The important thing in designing prevention program is that can be realistically and cost-effectively implemented and that target both the ***individual and the individual's social and cultural surroundings***. **Universal, selective, and indicated prevention** strategies may be needed to address the broader *social causes of depression*. To date, most prevention trials have focused on individual contributions to depression (e.g., increasing coping skills). While important, these trials neglect systemic changes that may be needed to significantly impact the prevalence of depression. Evidence of sociocultural influences on the depression epidemic in general, and among women in particular, comes from epidemiological research showing the rapid increase in the prevalence of depression during the past century.

Such evidence begs for an ecological analysis of ways various systems (individual, family, neighborhoods, schools, institutions, and political structures) interact to confer individual risk for depression. An ecological framework is also consistent with the support for efforts to integrate findings from multiple perspectives (e.g., biological, psychological, and sociocultural). An additional advantage of an ecological framework is that it calls attention to obvious leverage points that may be overlooked by existing research.

During the past decade, a number of promising strategies for the prevention of childhood depression have emerged. The overarching principles of these programs are similar, and the specifics of preventiveinterventions for children and adolescents have taken into account the development level of the participants. The evaluated preventive strategies are based primarily on **cognitive behavioral and family-educational** approaches that seek to reduce risk factors and enhance protective and resiliency factors associated with depression in youth. In general, progress in the field of prevention science has been made through the introduction of rigorous standards for the development and evaluation of manualized preventive strategies that are based on well-established theoretical frameworks and proceed through a series of orderly stages. This is best described in the 1994 Institute of Medicine 's *Report on the Prevention of Mental Disorder*. The IOM suggested that prevention development and evaluation proceed through five stages. **The firstand second stages** are identifying risk factors and describing the relative contributions of different factors to the disorder. **The third stage** is applying strategies developed in pilot studies and completing efficacy trials to evaluate the overall effectiveness of these approaches. **The fourth stage**, carrying out effectiveness trials, involves the examination of such strategies in multiple sites in large-scale investigations under non-ideal, real-world conditions. **The final stage** consists of implementing such strategies in large-scale public health campaigns. Following this sequence and the articulation of a set of rigorous empirical standards by which to test preventive intervention approaches, a number of important strategies for prevention of depression have emerged. These have begun to be tested in randomized trial designs according to the recommended guidelines.

Consideration of the prevention of depression also must take place in the context of the remarkable progress in developmental neuroscience, the sequencing of a human genome, and in psychiatric epidemiology. As these important scientific advances unfold, they will offer important opportunities for future prevention programs. These findings will need to be integrated with adolescents' developmental, social, cultural, and family contexts in the development of preventive interventions.

Beck developed **cognitive behavioral therapy** based on his cognitive model of depression (Beck 1976). He proposed that individuals prone to depression have cognitive distortions which result in a negative view of themselves, the world and the future. In cognitive behavioral therapy (CBT), people learn to monitor and evaluate their thoughts, identify different levels of mood in themselves, recognize thoughts and behaviors that have contributed to this mood, and learn how to address these.

The associated concepts of "**attributional style**" (Abramson 1978) and "**learned helplessness**" (Petersen 1993; Seligman 1979) have also contributed to components of CBT. Those with **a pessimistic attributional style** see negative events as a **stable** and **enduring** part of themselves, while positive events are seen as **transient** occurrences in which they have played no part. Learned helplessness is a phenomenon of withdrawal and depression that follows a failure to control aversive events. Both are associated with a sense of helplessness and hopelessness, which leads to passivity in the face of challenges and contributes to low mood.

People who are prone to depression are then less likely to take an active approach to dealing with difficulties. **Cognitive behavioral therapy** usually includes a component of effective **problem-solving**. Cognitive behavioral therapy

can alleviate symptoms of depression in children and adolescents (Harrington 1998; Reinecke 1998) and can prevent relapse (Paykel 1999) although long-term results in studies in children and adolescents have contradictory findings (Fonagy 2005). Interpersonal conflict, difficulty with role transitions and experiences of loss are all well known as risk factors in the development of depressive disorder in young people (Birmaher 1996; Lewinsohn 1994; McCauley 2001;). **Interpersonal therapy** (IPT) addresses some of these components and there is evidence of efficacy in treatment of teenage depression (Bolton 2003; Mufson 1996; Mufson 2004).

Positive Youth Development:

In addition to our focus on the treatment and prevention of mental disorders in adolescence, there is important perspective on adolescent mental health: positive youth development. Rather than focusing on symptomatology, disorders, or problems, positive youth development deals with each youth's unique talents, strengths, interests, and future potential. There are two major reasons why positive youth development is an essential aspect of adolescent mental health and is therefore included prominently in any Program for prevention of mental health problems. The **first** is the emphasis on prevention. Preventive programs that target non-disordered populations (e.g. universal mental health prevention) often are oriented toward building strengths, such as social competencies, rather than directly addressing negative behaviors, emotions, or symptoms. A full understanding of the range of positive virtues and strengths and their relation to competencies, well-being, and the development of disorders, problems, and symptoms is therefore necessary to successfully design preventive efforts and evaluate their effectiveness. The **second** reason that positive youth development features prominently in any Program for prevention of mental health problems is

that adolescent mental health is much more than symptoms and disorders. As parents, teachers, and mental health professionals, our goals are to prepare young people for the demands of life.

Having no symptoms or disorder is not likely to be sufficient to ensure that adolescents thrive and form positive connections to the larger world as they transition into adulthood. Successful achievement of positive mental health, satisfaction with life, and adjustment to society may have more to do with certain positive characteristics such as curiosity, persistence, gratitude, hope, and humor than with the absence of symptoms. Indeed, research has shown that positive external (i.e., family support and adult mentors) and internal (commitment to learning, positive values, and sense of purpose) factors in youth are associated with academic success, the helping of others, leadership, and decreased problems (Benson, Leffert, Scales, & Blyth, 1998; Leffert et al., 1998; Scales, Benson, Leffert, & Blyth, 2000) The emphasis on positive youth development is complementary to the treatment and prevention of disorders. Adolescents will obviously continue to experience problems and disorders that need attention and treatment. Disorders themselves may be preventable or reducible through development of strengths and virtues.

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*The references on Which has an asterisk, mentioned in the research text, but the researcher did not actually refer to and mentioned for other researchers interested in the subject, and the rest of the references, the researcher refers to and are available to researchers interested in the subject electronically, except books.

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