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Assessing Depression in Childhood and Adolescence: A Guide for Social Work Practice

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ABSTRACT: Depression is relatively common in children and adolescents, and if left undetected and untreated, can have long-term negative consequences. Social workers providing services to families, children and adolescents need to understand the characteristics, and conduct developmentally appropriate assessments, of depressive symptoms. This paper provides a review of current literature related to the definition, prevalence, co-occurrence, and measurement of depression in childhood and adolescence. It also highlights relevant gender, race, and ethnic influences.

KEY WORDS: Depression; Childhood; Adolescence; Measurement.

Depression is one of the most commonly occurring disorders in childhood and adolescence (Lewinson et al., 1993). Research from the past two decades has shown that even very young children get clinically depressed and that rates of diagnosable depression increase in the early adolescent years (Cantwell & Baker, 1991; Kazdin, 1988). Depression that begins in childhood or adolescence is more likely to be associated with later, recurring depressive episodes than depression beginning in adulthood (Kovacs, 1996). Moreover, episodes of depression in childhood and adolescence increase the risk of other negative mental health outcomes (Fleming & Offord, 1990; Peterson et al.,

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1993) and reduce the likelihood of attaining age-appropriate cognitive, social and emotional developmental milestones (for a review see Angold, Costello, & Worthman, 1998). Depression in childhood and adolescence is a serious disorder, worthy of our attention (Brent et al., 1997; Kovacs & Bastiaens, 1995; Remschmidt & Schulz, 1995). Therefore, social workers should understand the nature of depression during this developmental period and know how to assess depression using age-appropriate tools.

This paper will review current definitions of depression and methods of assessing and measuring depression in school-aged children and adolescents, relevant for social work practice. It highlights recent and major findings related to the prevalence of co-occurring disorders and the challenges these add to accurate assessment and intervention decisions. It focuses on school-aged children and adolescents, rather than on preschool and infancy. Although depression can occur even in very young children, in this age group the nature of depression is insufficiently understood, rates in the population are lower, and assessment procedures differ from those used with older children and adolescents.

Definitions of Depression

Depression in childhood and adolescence is most commonly viewed as a mood state characterized by dysphoric affect, similar to adult depression (American Psychiatric Association, 1994; Cicchetti & Toth, 1998). The most widespread criteria used to assess depression in childhood, adolescence and adulthood are published in the Diagnostic and Statistical Manual of Mental Disorders (DSM IV) (American Psychiatric Association, 1994). According to these criteria, mood disorders can involve depression (also known as unipolar affective disorder) or alternating periods of depression and mania (bipolar affective disorder). Because the latter is much less common, we will focus on unipolar depression only.

For adults, depression involves depressed or low mood, which may be observed in client comments about feeling sad, low, or blue. While symptoms of depressed mood often predominate in adult diagnoses, other symptoms also make up the diagnostic criteria. These include loss of motivation, diminished ability to concentrate, weight gain or loss, insomnia or hypersomnia, psychomotor agitation or retardation, fatigue,

feelings of worthlessness, anhedonia (loss of interest and pleasure in activities), low self-esteem, somatic complaints, suicidal ideation, and difficulty concentrating (American Psychiatric Association, 1994).

In childhood and adolescence, depression is characterized by these same symptoms, but for children, symptoms of irritability, somatic complaints, and social withdrawal are more evident than low mood. For example, a child may complain of stomach aches, headaches, or lack of friends. Other symptoms are more salient in adolescence. In particular, symptoms of motor retardation, hypersomnia and delusions are more common for adolescents than for children (American Psychiatric Association, 1994). Weight gain may be less relevant for adolescents as it can be normative for physical development in this age group. Thus, rapid and extreme changes in weight would be more diagnositically relevant.

Clearly, these symptoms can be problematic in the short run, but they can also have long term negative effects by interfering with normal developmental acquisition of cognitive-academic and socio-emotional relational skills. When these symptoms occur in specified configurations of severity and duration, they are referred to as either major depressive disorder (MDD) or dysthymic disorder (DD) (American Psychiatric Association, 1994). A diagnosis of MDD is given when a person has an acute experience of five or more depressive symptoms for a period of two weeks or more, which may or may not include psychotic features such as delusional beliefs or sensory hallucinations. A diagnosis of DD is given when a person chronically experiences two or more depressive symptoms for at least a two-year period. Both MDD and DD can be referred to as clinical depression. When symptom levels are below the diagnostic criteria, the depression is referred to as a sub-clinical or as depressive symptomatology.

Prevalence and Etiology of Depression

At any point in time, estimates of the prevalence of a major depressive disorder (MDD) in the general population range from 0.4% to 2.5% for children and from 0.4% to 7.3% for adolescents (Cicchetti & Toth, 1998). When researchers focus on depressive *symptoms* in the population, rather than on disorders per se, even higher rates are reported (Garrison et al., 1989). Compared to other mental health problems, MDD had the highest life-time prevalence rates of the more than 20

disorders tested, and adolescent girls had significantly higher rates of MDD or DD than boys (MDD—girls = 25%, boys = 12% and DD—girls = 4%, boys = 2%) (Lewinsohn et al., 1993). In general, rates of depression are similar across gender during childhood, but increase for girls with the onset of puberty and remain flat or decline for boys (Angold et al., 1998), although depression remains a major health problem throughout adolescence.

These prevalence rates make depression the most important mental health problem for this age group, particularly for girls during adolescence. Though a variety of explanations have been offered for this shift away from the equal rates of depression for boys and girls prior to adolescence, a definitive explanation does not yet exist. It is likely that the interaction of social and physical changes accompanying puberty contributes to the high prevalence rates for girls (Angold & Rutter, 1992; Buchanan, Eccles, & Becker, 1992; Nolen-Hoeksema, 1994). While increased risk begins during puberty for girls, risk of depression recurring may peak in middle to late adolescence (ages 15–18) with twice as many females as males experiencing a second depressive episode (Hankin et al., 1998).

A variety of discrete biological, social, and psychological theories have been developed for the etiology of depression. We will describe etiology from an integrated bio-psycho-social perspective and highlight some of the key elements in the literature. First, chronic social factors such as poverty and discrimination have been linked to depression (Simmons & Blyth, 1987). For example, several studies have found higher levels of depression in lower socioeconomic status (SES) populations (Garrison et al., 1989). Also, race is often considered a proxy variable for discrimination, when controlling for SES, and race has been associated with depression. In one study of junior high school students (n = 677), 4.4% of adolescents overall reported symptoms severe enough to warrant a diagnosis of depression, but rates for black females were 11%, while rates for black males were only 1.7%. In this study, black females scored significantly higher than white females, black males, and white males in their symptom levels and in the persistence of their symptoms, with the latter difference remaining even when controlling for socioeconomic status. Additionally, white females scored significantly higher than all males, and although black males scored higher than white males, these differences were not statistically significant. These findings are consistent with other research indicating that risk of depression varies by race, sex and SES (Roberts & Saban, 1992; Roberts et al., 1997).

Second, race and gender differences may be caused by the consequence of the interaction of a variety of biological and social factors. The combination of social and physical changes accompanying puberty for females and social risk factors such as discrimination, victimization, and poverty for ethnic and racial minority youth may increase the occurrence of depression in African American females. Also, the way in which gender roles influence the manifestation of symptoms may increase the frequency of depression in females and the frequency of other disorders in males. For example, internalizing symptoms related to anxiety and depression befit female gender roles while more externalized, behavioral symptoms related to other disorders befit male roles. This may influence the development of different kinds of disorders or it may be different manifestations of a similar disorder.

Co-Occurrence of Depression and Other Mental Health Problems

An important recent advancement in the study of depression in childhood and adolescence is the clarification of the nature and occurrence of other psychosocial problems in conjunction with depression. Comorbidity is a specific term denoting the concurrent presence of two or more disorders greater than would be expected by chance in the research population (Kolvin, 1995). Recent research has found that 33% to 70% of children and adolescents with depression have an additional disorder or disorders (Kovacs & Devlin, 1998; Lewinson et al., 1993). When depression does co-occur with other disorders, the course and long-term outcomes are often worse than for depression alone (Angold & Rutter, 1992; Harrington et al., 1996; Rudolph et al., 1994; Sanders et al., 1992; Zoccolillo, 1992).

Depression has been found to co-exist with substance abuse, academic and social difficulties and phobias, eating disorders, anxiety disorders, obsessive-compulsive disorders and conduct disorders including oppositional-defiant disorder (Grunhaus et al., 1988; Lewinsohn et al., 1993), as well as attention deficit disorders and hyperactivity (Compas & Hammen, 1994). The nature of co-occurring disorders varies with age such that attention deficit, hyperactivity, and conduct disorders are more likely to co-occur with depression in childhood, whereas eating disorders and substance abuse are more likely to accompany depression in adolescence (Greenbaum et al., 1996). Prob-

lems that co-occur with depression can be grouped into two larger classes, *internalizing* and *externalizing* problems.

The Co-Occurrence of Depression and Other Internalizing Disorders

Depression, anxiety, social withdrawal, somatic difficulties, phobias, and obsessive-compulsive disorder are all internalizing disorders. Of these, anxiety is the most common co-occurring disorder with depression, with co-occurrence ranging from 20% to 75% of children and adolescents (Kovacs & Devlin, 1998). Specific anxiety-related disorders that co-occur with depression include eating disorders, over-anxious disorder, separation anxiety, social phobia, panic, and obsessive-compulsive disorder (Kovacs & Devlin, 1998). The high overlap of anxiety and depression means that it is often difficult to separate them in a particular diagnosis and also raises the question of whether treating the depression will reduce the anxiety and vice versa. Although the final word on this is not yet in, recent advances in the field of child and adolescent depression have provided evidence that depressive disorders can be distinct from anxiety disorders (Kovacs & Devlin, 1998). Assessing and treating both are especially important because anxiety, in conjunction with depressive symptoms, is associated with forms of depression that are harder to treat and have a greater chance of successful suicide (Kovacs & Devlin, 1998; Rudolph et al., 1994; Fawcett et al., 1990; Grunhaus et al., 1988).

The Co-Occurrence of Depression and Externalizing Disorders

Externalizing disorders, once thought to be alternate expressions of depressive symptoms, are also now known to be distinct from depression (Angold & Rutter, 1992; Harrington et al., 1996; Sanders et al., 1992). These include conduct disorder, oppositional-defiant disorder, attention deficit disorder, hyperactivity, and substance abuse disorders. Although generally less likely to co-occur with depression than are anxiety disorders, externalizing disorders have been documented as co-occurring with depression 7%–24% of the time, with an average across studies of about 16% (for a review, see Kovacs & Devlin, 1998).

Of the externalizing disorders, conduct and oppositional-defiant disorders are most commonly assessed for co-morbidity with depression because both are associated with a restricted range of emotional expression (Sanders et al., 1992). Substance abuse is another externalizing disorder that should be routinely assessed since it is associated

with both conduct disorder and co-morbid conduct and depressive disorders. In fact, youth with co-morbid conduct disorder and depression are more likely to also have a co-morbid substance use disorder than are youth with depression alone (Greenbaum et al., 1991).

When depression and externalizing disorders co-occur, children appear to be at especially high risk for future academic, social, emotional, and behavioral problems, a more chronic course of depression, and higher rates of suicidal behaviors (Compas & Hammen, 1994; Rudolph, Hammen, & Burge, 1994; Renouf, Kovacs, & Mukerji, 1997). Assessing for the co-occurrence of depression and externalizing disorders may be important for reducing these risks, improving a youth's chances of staying in school, and preventing future substance abuse.

Assessment of Depression

In daily practice, social workers make decisions about whether children and adolescents are experiencing depression. From our review of developmentally salient characteristics of depression and the likely contemporaneous expression of other internalizing or externalizing disorders, assessment of depression in childhood and adolescence should always include consideration of at least three elements: 1) age; 2) severity, duration, and number of depressive symptoms; and 3) co-occurrence of other problems or disorders with depression. That said, the practitioner must still decide on the protocol to be used to assess depression. Each diagnostic technique has limitations, and bias associated with racial-ethnic and sex-role stereotypes may be particularly pronounced when assessment is not structured with a standardized tool. Tools may provide scores about whether a threshold for depression has been met, and may also provide symptom-specific information even in the absence of clinical depression. Tools that assess symptomatology levels may have advantages over those that only diagnose the existence of the disorder. Symptom-specific information is particularly useful in differentially diagnosing depression and for diagnosing the existence of more than one disorder (see Hirschfield & Cross, 1982 for a review of this issue for adults).

Assessment Tools and Procedures

Assessment tools and procedures fall into several categories: standardized scales and inventories, less structured interviews, observational procedures, and interpretive tools. Scales and inventories may

be completed by the child or relevant others (e.g., a parent, teacher, or primary caregiver) or may be administered by the practitioner. Less structured interviews are also useful for eliciting information that may serve as a preliminary basis for using more structured tools. For example, observational procedures employed by the child's practitioner or relevant others may give direction for the selection of a more structured procedure. Sometimes a single, unidimensional scale to measure depression is sufficient. At other times, it will be beneficial to evaluate for co-morbidity or for associated conditions, and thus a tool that measures several disorders or conditions associated with depression may be more appropriate.

The benefits of standardized scales and inventories are substantial. They offer measurement objectivity, a standardized measurement process, and comparability across measurement points. Weaknesses include the exclusion of probing and open-ended inquiry of areas that allow the client to express, in one's own words, the nature of the depression or other experiences associated with the disorder. However, these issues can be followed up on subsequently. Conversely, the less standardized and objective the tool or procedure, the more the evaluator and the client become the instrument (Patton, 1990). That is, the effective use and interpretation of results of less standardized, less objective, more qualitative assessment methods depend considerably on the knowledge and skills of the evaluator to accurately diagnose depression and elicit relevant information.

Summaries of instruments for measuring depression in childhood and adolescence may be found in Maddox (1997), Murphy, Conoley, and Impara (1994), and Strober and Werry, (1986). These references provide considerable information about the reliability and validity of instruments for various developmental ages. An essential role for those who assess depression is to ensure that the instrument being selected for the assessment is valid and reliable. An instrument is considered valid when it measures what it is intended to measure and not some other construct. An instrument has reliability when it has been tested across a number of respondents with consistent results. The reliability and validity of a tool ought to be established by those who construct the tool and make it available for others to use. However, it is also important that the practitioner gain familiarity with the development and properties of the instrument being considered. Such familiarity is an important part of effective instrument use and appropriate assessment of the client.

Questions a practitioner ought to ask about a tool or procedure include the following (Corcoran & Fischer, 1987):

1. *Is there a concise description of the construct being assessed?* For example, is the survey designed to measure diagnostic criteria and symptomology patterns of MDD and DD? Does it assist with co-occurring problems that have been discussed as commonly occurring in childhood and adolescence?
2. *On whom was the tool normed (i.e., on whom was the instrument tested for reliability and validity)?* An appropriate instrument should include consideration of gender, race/culture, and developmental stages, and have been normed on a group demographically similar to that which a social worker will be assessing. For example, if a clinician is working with low socioeconomic status Hispanic children between the ages of 5 and 10 years, a depression inventory should be selected that has been tested on a similar population.
3. *Has the instrument been shown to correlate well with other tools that measure depression?*
4. *How well does the tool distinguish between depression and similar problems?* Often, factorial or correlational procedures are used for this.
5. *Have inter-rater reliability procedures been used to develop the tool?*

Assessments differ in the type of informant (child, parent, teacher) and the domain of the child's life being highlighted in the assessment (home, school, peer relations). Assessment techniques also differ in the extent that a practitioner actively elicits, from a child, direct expressions of that child's subjective experience. Since each type of assessment has benefits and limitations, triangulating evaluation procedures by choosing techniques that provide a richer, and probably more complete, assessment of the child in her or his context, are part of good practice. For example, if one employs a self-report measure, it is a good idea to also use an observational procedure. If a child is assessed at home, it is a good idea to also have a teacher assess the child at school (Kendall, Cantwell, & Kazdin, 1989). If one uses a standardized scale to measure depression, it may be useful to also use an interview schedule to better understand the child or adolescent's experience. Similarly, there are benefits to triangulating complementary forms of the same assessment tool, such as a child self-report and a parent-report measure of the same tool. These highlight for the practitioner the extent that the child and observers agree or disagree about the child's condition or situation, which is important for treatment planning. It may also be useful to use measures or procedures

that are divergent in their underlying structure to get a sense of the consistency of the problem across measurement metrics. Thought of in this way, assessing depression from multiple perspectives will invariably give a more complete assessment than any single tool or procedure can. This may be especially true for children with less verbal ability than adolescents to describe symptom characteristics, and patterns over time.

The time needed to administer tools also varies widely, from five to fifteen minutes for some short, standardized scales such as the Beck Depression Inventory, to one and a half hours for multidimensional, interview-based questionnaires such as the Structural Clinical Interview for DSM-IV Axis I Disorders. Some tools focus on determining whether a clinical diagnosis exists, others focus on the presence of symptoms of depression, and others report on the severity of symptoms. Many instruments have a wide range of ages to whom they can be applied, increasing their utility. However, age range information can only be approximate and the practitioner must still carefully assess the appropriateness of the instrument for a particular individual's developmental stage, and cognitive and linguistic capabilities, such as when using the Reynolds Adolescent Depression Scale (specified for those 13–18 years of age) and the Reynolds Child Depression Scale (specified for children 8–12 years of age). Some instruments are particularly useful in clinical settings because they can serve as rapid assessment tools. When immediate assessment is critical, an instrument that can be completed rapidly may be most appropriate, reserving the more extensive tools for subsequent evaluations.

To assess the co-occurrence of depression and other internalizing disorders such as anxiety, phobias or obsessive-compulsive disorder, or externalizing disorders such as conduct disorder or substance abuse, a tool that evaluates depression and other disorders must be used, such as the Kiddie Schedule for Affective Disorders and Schizophrenia, more commonly known as K-SADS, appropriate for late childhood and adolescence. Although its use can be quite involved, this semi-structured interview provides child and parent information that can serve to triangulate with information from the practitioner.

Some instruments, such as the Multiscore Depression Inventory, require practitioner administration. Even when it is not part of the protocol, a practitioner's presence may be useful in supporting self-administration, reading responses aloud to children with reading difficulties and explaining words to children with language difficulties. Practitioner presence may also provide an additional check on the validity and reliability of responses to the instrument. Tools character-

ized as interpretive, such as the Draw a Story: Screening for Depression, allow information to unfold from the child's or adolescent's perspective. Such interpretive procedures can complement observational procedures and can inform about internal states that it may not be possible to elicit with indices, scales or interviews. Interview procedures allow for the application of clinical judgment during the assessment process and to establish rapport necessary for further work. Ultimately, the clinician or examiner must determine the most appropriate tools to use given the needs of the situation.

Assessment of Children

Assessing children may require a tool that is more than a simple downward extension of instruments developed for adults and adolescents. Assessment with children often focuses on behavioral indicators associated with depression and involves interviews of parents or other observers. Underlying this approach is the assumption that a child's caregivers can give reliable information about the child, including behaviors symptomatic of or otherwise related to depression. These behaviors may include acting-out, social withdrawal, irritability, somatic complaints, and weight gain or loss. A semi-structured or unstructured interview with the child can provide additional information about feelings of sadness and other internal states and cognitions, but may not be sufficient, without the additional observations of others, to make an accurate assessment.

Another assessment method used with children is a behavioral observation inventory that can be completed by caregivers or other observers of the child, such as the Devereux Behavior Rating Scale for Children, which is completed by parents and teachers. Such inventories usually require observer training and sufficient time and opportunity to observe a child's solitary and social activities, and verbal and nonverbal expressiveness (Matson, 1989). The benefits of behavioral observation measures are their directness and timeliness of symptom measurement in a naturalistic setting for the child. In comparison, the interview methods noted above have the advantage of using the practitioner's expertise for conducting the interview and do not require training of observers.

A multi-level assessment approach for assessing depression in a child may proceed as illustrated below:

> A teacher recommends that a seven-year-old boy be seen by a social worker for disruptive behavior in the classroom. During the first meet-

ing with the practitioner, the boy's mother reports that he has lost weight due to refusing to eat at home, is irritable and spends most of his time in his room. The boy sits quietly, looking down and fidgeting during the meeting. He replies only "yes," "no," and "I don't know" to questions by the clinician. The clinician begins a triangulated assessment by asking the mother to fill out an at-home behavioral inventory of the boy's behaviors, which will specify discrete behaviors over time in addition to the ones initially reported by the mother at the meeting. An observational inventory is also sent to the school teacher as a second informant. Finally, the clinician meets with the child individually, begins with a "Draw-a-Story" screening, and later follows up with verbally conducting the "Children's Depression Rating Scale" with the boy. Within a few sessions, the clinician has multiple indicators of depression and can make a detailed diagnosis and determine an appropriate course of treatment.

Assessment of children involves developmental characteristics that make conducting interviews with them different from adults. Children may not come willingly to an assessment and may refuse to verbally express information to an adult they perceive as judging them. Therefore, assessing depression in children, regardless of the instrument of measurement, may require pre-assessment time to establish an alliance, trust, and compliance with the child.

Assessment of Adolescents

Depression is clearly established as an adult disorder. Thus, with adolescents, downward extensions of existing tools work more effectively than with children. Although such instruments may include questions about school activity instead of work activity, about sibling relationships rather than relationships with coworkers, such instruments are basically reworded equivalents of adult instruments. It is essentially the application of adult criteria to non-adults. An assumption underlying such downward extensions is that the adolescents' ages are sufficient to consider their responses as earlier developmental equivalents of adult responses (DeRoos & Allen-Meares, 1992; Kovacs, 1985). Also, the nature of eliciting and reporting information, whether through scales, interviews or subjective self-reports are similar for adolescents and adults.

As with children, assessing adolescents may involve developmental characteristics that make conducting interviews with adolescents different from adults. Adolescents may also have reluctance about engaging in the assessment and may be reluctant to share information with

an adult. Therefore, as with children, assessing depression in adolescents may require time to establish an alliance, trust, and compliance with the adolescent. Also, adolescents may be engaging in behaviors they wish to hide from adults for fear of negative consequences for themselves or friends. For example, it is not uncommon to engage in substance use as a form of self-medication to reduce depressive symptoms. A tool, such as the Assessment of Chemical Health Inventory that evaluates both alcohol and depression-related issues, may be useful. Also, developmentally, adolescents are undergoing a process of identity formation and may fear being judged as mentally ill, deviant, or not fitting into appropriate gender roles. Such fears may decrease disclosure of information. For accurate assessments, these considerations require a practitioner who is experienced in working with adolescents, patient and conscientious about establishing an alliance, empathic to their fears of disclosure, and who can provide some protection from punitive consequences to the adolescent.

Concluding Remarks

This article provides a current review of literature and research on the definition, prevalence, co-occurrence, and measurement of depression in childhood and adolescence. There is growing evidence that depressive symptoms are likely to co-occur with other disorders. Thus, depression should be specifically assessed even when other conditions are known to exist. Furthermore, chronic social factors such as poverty and discrimination have been linked to depression for some children and adolescents. The assessment of depression in childhood and adolescence is a complicated process requiring familiarity with the psychometric properties and limitations of assessment tools, knowledge of child and adolescent psychology and the different manifestations of the disorder on the developmental continuum, and consideration of gender and cultural dynamics.

Accurate assessment makes possible the selection of appropriate treatment modalities. Most notably, differential diagnosis and treatment of co-occurring disorders has been found to play an important role in the successful treatment of depression for children and adolescents (Kovacs et al., 1997). To date, research has noted only a few efficacious interventions with early onset depression (Mueller & Ovaschel, 1997). Most noteworthy, cognitive-behaviorial treatments have shown greater promise than psychodynamic and psychopharmacologi-

cal interventions with this age group (Brent et al., 1997; Kutcher et al., 1994; Marcotte, 1996). However, research also suggests that a variety of therapies fail due to poor compliance with medication and lack of family participation in treatment (King et al., 1997). As is recommended for assessment, clinicians should select interventions that have been tested and shown effective on populations similar to those seen by the clinician, taking into consideration developmental stage, gender, race/ethnicity, and socioeconomic status.

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