OVERVIEW AND ASSESSMENT OF THE SUICIDAL CHILD

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A comprehensive evaluation and assessment of the suicidal child is important to target those at risk. This article identifies risk factors for suicide in children and adolescents and provides a step-by-step interview scheme that captures all relevant information that is obtained when assessing these children and adolescents. Depression and Anxiety 14:157–163, 2001.

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INTRODUCTION

Suicide in children and adolescents is a major public health concern. Each year approximately 2,000–2,500 adolescents, 13–19 years old, commit suicide in the United States [National Center for Health Statistics, 2000]. The suicide rate among 15–19 year olds has increased by a factor of three since the 1960s, while the rate among 10–14 year olds has doubled [National Center for Health Statistics, 1999]. Suicide is the third leading cause of death among 15 to 24 year olds, just behind unintentional injuries and homicide [Bell and Clark, 1998]. While more females than males attempt suicide, male adolescents are five times more likely than females to complete the act [NIMH, 1999]. Currently, white males have the highest rate of suicide, but the rate among African American males is on the rise [Bell and Clark, 1998]. Firearms and strangulation are the two most common methods of suicide used by adolescents [Brent, 1987]. Among those who use firearms to commit suicide, there is an increased rate of co-morbid substance abuse. When girls injure themselves, the most common method is poisoning [National Center for Health Statistics, 2000].

In 1996, the rate of suicide amongst 15–24 year olds was approximately 12.2 per 100,000 and the ratio of attempts to completions was estimated to be 8–25:1 [NIMH, 1999]. Fergusson and Lynskey [1996] found that 12% of their birth cohort had experienced suicidal ideation and 3% reported making a suicide attempt before the age of 16. Those who actually attempted suicide had increased risk factors that included psychiatric disorders, problems of adjustment, and childhood and/or family adversity. Their findings suggest that approximately 40% of youth with this profile will attempt suicide by the age of 16. They concluded that suicidal ideation in combination with multiple risk factors is associated with a substantial risk of suicide attempt, while suicidal ideation in the absence of other risk factors is rarely associated with suicide attempts.

RISK FACTORS

Depression, substance abuse, and aggressive or disruptive behaviors have been identified as the strongest risk factors for suicide in youth [NIMH, 1999]. Among adolescents, those with suicidal ideation or those who have made suicide attempts have higher rates of co-morbid psychiatric disorders than those who deny suicidal behavior [Fergusson and Lynskey, 1995]. In a psychological autopsy study of 170 children and adolescents, over 90% of suicide victims met criteria for at least one psychiatric diagnosis with mood disorders being the most common [Shaffer et al., 1996a].

There is an amplified risk of suicide during a first occurrence of an affective illness [Goodwin and Jamison, 1990]. Twenty to twenty-five percent of true bipolar patients become ill before the age of 19. According to the American Foundation for Suicide Prevention, the earlier the illness begins, the higher the risk for suicide. Ten to fifteen percent of all patients with Bipolar disorder commit suicide [APA, 1994], so it is not surprising that mania and hypomania are frequently associated

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with suicidal ideation, suicide attempts, and suicide completion [Bell and Clark, 1998]. About 20–50% of individuals with bipolar disorder attempt suicide at least once. Most of those with bipolar disorder who attempt suicide do so soon after the onset of the illness, which generally occurs during the teenage years. Risk factors for suicide in bipolar disorder include a previous history of suicide attempts, history of severe depression and mixed episode, onset of the illness at a young age, and co-morbid substance abuse.

Substance abuse and alcohol use are associated with 50% of suicides. Substance abuse is commonly co-morbid with an affective illness, and male victims of suicide are more likely to be intoxicated at the time of death [Brent, 1995]. Overall, substance and alcohol abuse are more common in male adolescents. Of the 18- and 19-year-old victims studied by Shaffer and colleagues [1996b], substance and/or alcohol abuse were present in two thirds of the victims. Evidence suggests that the increase in suicide rates among young people may be due, in part, to the increasing rates of alcohol abuse [Brent, 1987].

Socioeconomic factors such as unemployment and lower educational level may also play a role in attempted suicide. Some theories suggest altruistic motives justify suicidal behavior in certain situations, such as avoiding family disgrace. For example, during the Armenian genocide, young girls approached by Turkish soldiers threw themselves off cliffs into the Euphrates river to avoid being attacked and disgraced.

A connection also exists between cluster B personality disorders, including antisocial personality, borderline personality, and histrionic personality disorder, and suicide. Individuals with co-morbid major depression and borderline personality disorder are more likely than other patients to have a history of multiple suicide attempts and are also more likely to have made a highly lethal attempt. However, it is extremely important for the clinician to remember the dangers of diagnosing youth with borderline personality as their personality is still being formed. Treatment of the mood disorder often ameliorates the symptoms of borderline personality disorder. Severity of co-morbid cluster B personality traits should be considered when assessing suicide risk in major depression, even in those without a personality disorder diagnosis. Cluster B personality traits are risk factors for completed suicide in adolescents.

Studies have shown suicidal ideation and suicide attempts among prepubertal children are strong predictors for suicide in adolescence. One third of adolescents who complete suicide have made a prior attempt; thus previous attempts should be taken seriously [Pfeffer et al., 1988]. In a recent study, 77% of suicide victims reported suicidal ideation 3–5 years prior to completion [Klimes-Dougan et al., 1999]. Lewinsohn et al. [1994] found that those who had a suicide attempt prior to their study were 18 times more likely to make a subsequent attempt during the study than those with no previous attempt. They concluded that “the strongest predictor of future attempt was the occurrence of a past attempt.” Finally, Shaffer et al. [1996] found one third of the adolescents who committed suicide had made previous attempts.

Parental psychopathology is a risk factor for suicide. In a study of suicidality in children of depressed and well mothers, Klimes-Dougan et al. [1999] concluded children of unipolar depressed mothers were more likely to report suicidal behaviors or attempts that began in early childhood, have seriously considered suicide by adolescence, and have more persistent thoughts of suicide than children of well mothers. Furthermore, they found children of bipolar mothers were at increased risk for suicidality. Taking this one step further, Garber et al. [1998] assessed whether the relationship between maternal depression and adolescent suicidality was mediated by overall family functioning. They concluded that the contribution maternal depression makes to a negative family environment might actually be a more direct cause of the adolescent’s suicidal ideation and behavior than maternal depression alone. Parental substance abuse, criminality, and antisocial behavior were also found to put children and adolescents at increased risk for suicidal ideation and completed suicide [Brent, 1995].

Shaffer and colleagues [1996] found approximately two thirds of those who completed suicide had at least one of three risk factors: prior suicide attempt, mood disorder, and substance and/or alcohol abuse. They also found a life stressor usually preceded the actual suicide attempt or completion. Common stressors included, but were not limited to, disciplinary crises, loss of a relationship, child abuse, teen pregnancy, conflict with or between parents, trouble at school or with the law, physical and sexual abuse, a recent move, and exposure to suicide.

However, the important clinical question is “What leads children possessing these risk factors to go on to commit suicide?” It may be a chain of events leads to suicide. An adolescent who has an underlying psychiatric condition (i.e., depression, substance abuse, or conduct disorder) undergoes a stressful life situation like loss of a loved one or trouble with the law. The resulting stress leads to anxiety. Then suicide becomes a way of avoiding or relieving the anxiety. However, not all adolescents who undergo this chain of events end up committing suicide. In fact, most do not [Shaffer and Craft, 1999].

Shaffer and Craft [1999] then proposed inhibitory and facilitating factors that influence the final step in the chain. For example, access to a firearm or weapon, recent exposure to suicide, an agitated or excited state, and weak societal taboos about suicide might facilitate suicide in a young person with an underlying condition who has experienced a stressful life event. On the other hand, strong societal taboos about suicide, a strong support system, the presence of others, and a sluggish mental state may prevent or inhibit a suicide attempt [Shaffer and Craft, 1999].
DEVELOPMENTAL FACTORS

Developmental factors are an important consideration for suicidal behavior. Prepubertal children who have not yet fully developed abstract levels of thinking may not be able to fully understand the lethality of suicide [Piaget and Inhelder, 1969]. However, they are still capable of completing the act of suicide. Another contributing factor is a prepubertal child’s inability to problem-solve without assistance. This results in a lack of alternative solutions in times of high stress, which can ultimately lead to suicide. Developmental immaturity has the potential to magnify hopelessness in stressful life situations, which can be a contributing factor in suicidality [Pfeffer, 1997a].

An additional developmental factor is attachment. According to the theories of John Bowlby [1973], established internal models of attachment determine how humans adapt to future stressful experiences. Suicidal children appear to have insecure or disorganized attachment styles, which may impair their ability to adapt under stress [Pfeffer, 1997b]. Parental abuse of children, which is a result of deviant attachment behavior of adults toward children, is a severe risk factor for suicide as it can lead to cognitive distortions, affect instability, impulsivity, low self-esteem, shame, guilt, and suicidal ideation/behavior [Green, 1978].

BIological FACTORS

Genetics cannot be overlooked when assessing risk for suicide. Studies have shown that there is a higher concordance for suicide in monozygotic twins than dizygotic twins [Roy et al., 1991]. Also parental depression is more common among suicidal adolescents than controls [Wright, 1985; King et al., 1993]. The relationship between parental suicidal ideation and behavior and suicidal youth has been studied with mixed results. Two studies found in families with suicidal youth that there are higher rates of parental suicidal ideation and behavior [Pfeffer et al., 1997; Brent et al., 1995], while others found no relation [Pfeffer et al., 1988]. In a prospective study by Garber et al. [1998], there was no relationship between maternal history of suicide and suicidal symptoms in adolescents. They concluded that, while some Axis I and II disorders associated with suicide are heritable, there is less convincing evidence for “familial transmission of suicidal symptoms” [Garber et al., 1998].

Low levels of the serotonin metabolite, 5-HIAA, in the cerebrospinal fluid have been associated with elevated risk for suicide [Shaffer and Craft, 1999]. Also an association between low CSF levels of 5-HIAA and violent suicide attempts has been reported [Traskman et al., 1981].

Other biological factors include physical illnesses and changes associated with puberty. Although not widely studied in children and adolescents, physical illness has been shown to be a contributing factor in 11 to 51% of suicides [Brent et al., 1995]. Velez and Cohen [1988] proposed that the biological changes and fluctuating moods present during puberty play a role in suicide.

PSYCHOLOGICAL FACTORS

The role of depression, anxiety, aggression, and impulsivity in suicidal behavior has been widely studied. Apter et al. [1990] found anxiety, depression, violence, and impulsivity were related to suicidality and central serotonergic abnormalities. Gispert et al. [1987] suggested that dysphoria and anger were important in predicting suicide attempts. Shaffer et al. [1988] and Farberow [1985] concluded that negative affects such as anxiety, depression, aggression, and impulsivity were a requirement for suicide to occur in predisposed individuals.

In 1991, Myers et al. determined that impulsivity, aggression, and depression were strong predictors of suicide independent of co-morbid major depressive disorder. Apter et al. [1995] further subdivided these characteristics and defined two types of suicidal behavior. An internalizing type, which is marked by severe depression, and an externalizing type, which is characterized by increased violence. A study conducted by Stein et al. [1998] suggests suicidal behavior in adolescents is determined by a co-existence of depression and aggression. Thus, it is a combination of the internalizing and externalizing types of suicidal behavior. They concluded that for patients with pre-existing depression and anxiety, a high level of aggression would be highly predictive of suicidality [Stein et al. 1998].

SOCIAL FACTORS

Durkheim [1951] proposed four social factors (1) altruism, 2) egoism, 3) anomie, and 4) fatalism) involved in suicide that can still be applied to today. He theorized that under select circumstances, altruistic motives warrant suicidal behavior. This results when a person lacks individuation [Maris, 1969] and society has the “ultimate sway over an individual” [Bell and Clark, 1998]. Examples of this include religious martyrs, soldiers, and, in some societies, those who would avoid family disgrace.

Egoistic motives come into play when an individual receives an emotional injury such as a loss of a relationship or a disciplinary crisis or begins to questions his reasons for living. There is an emphasis on the “self” that results in egoistic suicidal behavior and a weakening of society’s control over the individual [Bell and Clark, 1998]. In a sense, this is the opposite of altruism because the individual experiences “excessive individuation” [Maris, 1969] and acts in an egocentric fashion.

Anomie, feelings of separation or alienation from society secondary to social or economic adversity, is thought to contribute to suicidality [Bell and Clark, 1998]. This leads to a lack of societal restraint over the
individual and unregulated emotions. Individuals experience irritation, disgust, and anger, which leads to violence, murder, and suicide [Maris, 1969]. It is thought that this may account for the rising rate of suicide in young black males [Youth Suicide Prevention Program, 1996].

Fatalism, in the theory proposed by Durkheim [1951], is the feeling of “being trapped” in one’s situation. This may account for increased suicide rates in jail [Danto, 1973] and increased suicidal behavior among homosexual adolescents [Bell and Clark, 1998]. Furthermore, it may also be a factor in suicide within the black community [Swanson and Breed, 1976].

Poor adaptive functioning at home and school [Gispert et al., 1987; Hawton et al., 1982; Kotila and Lonnqvist, 1987], long-term stress [Gispert et al., 1987], social isolation [Kotila and Lonnqvist, 1987; Stanley and Barter, 1970], and a discordant family environment [Kotila and Lonnqvist, 1987] are social factors associated with multiple suicide attempts. Strong social supports and peer relationships are important protective factors for adolescents. A sense of belonging to a group was found to counteract the effects of depression and isolation in a study by Morrow et al. [1993]. D’Attilo et al. [1992] noted that an adolescent’s perception of the quality of a single relationship is more important than having many relationships.

**ASSESSMENT OF THE SUICIDAL CHILD**

Attempted suicide is not always fueled by a wish to die. The majority of suicide attempts are expressions of extreme distress. Approximately 2 million adolescents attempt suicide each year in the United States [AACAP, 2001]. Cluster suicides are estimated to constitute 5% of all teenage suicides in the United States and 75% of cluster members have at least one major psychiatric disorder [Gould et al., 1998]. Over 90% of adolescent suicide victims have a psychiatric disorder [Brent, 1995; Shaffer and Craft, 1999]. The strongest factors in youth are substance abuse, aggressive or destructive behavior, and depression [AACAP, 2001].

Screening for psychiatric disorders is essential in accurately identifying children who are at risk for suicide. The assessment should focus on mood disorders, anxiety disorders, substance abuse, conduct disorders, family history, and suicidal ideation. While there are several structured or semi-structured diagnostic interviews available, the Children’s Interview for Psychiatric Syndromes (ChIPS) [Weller et al., 1999] developed by the authors will be discussed here. Benefits of the ChIPS include its straightforward format and the relative rapidity with which it can be administered. Additionally, the ChIPS utilizes a simple vocabulary and short sentence length, expediting the interview with young children and enabling them to focus on the question. This interview moves question by question through a spectrum of psychiatric syndromes found in children and adolescents, aiding the clinician in the identification of psychiatric syndromes and the duration of symptoms [Weller et al., 1999]. With its clear and easy to interpret scoring summary, this test was designed to be easier to use than earlier diagnostic instruments. The ChIPS has two forms: a parental version recording the parent’s observations of the child and self-report by the child. Diagnoses are based on DSM-IV criteria.

A thorough evaluation is necessary for correct and timely identification of suicide risk factors. For the most effective intervention, accurate diagnosis is key. With the proper diagnosis, an aggressive treatment protocol can be established. An effective treatment plan should address all precipitating factors, predisposing factors, perpetuating factors, and protective factors. Diagnostic interviews such as the ChIPS will assist the clinician in targeting factors associated with suicide.

The following is a description of a method we have successfully used to ensure a complete and detailed psychiatric evaluation. A family interested in an evaluation for a child is first given an explanation for how the interview takes place. There are two visits. The initial visit lasts approximately 2 hr. During this visit, the clinician speaks with family members together and individually. Then the parent and child versions of the ChIPS are completed by a trained B.A. level psychometrician. The family will then return 7–10 days later for a follow-up visit. At the close of the second visit, diagnoses and treatment recommendations are given.

**VISIT 1**

The initial interview lasts approximately 2 hr. The clinician begins by presenting a general scheme for the interview. The clinician informs the patient and his/her family that information reported by the family during the interview will be confidential and will not in any case be shared with someone else, including other members of the family without the patient’s permission. The general structure of the interview is as follows.

**DAY 1**

**PHASE I (45–60 MIN)**

Interview with the family to obtain the following: 1) source of referral, 2) main problem(s) from the viewpoint of child and parents, 3) Life Line- Child (Parent Report) (E. Weller, c. 2001), 4) mood log, 5) past psychiatric history (previous treatments, hospitalizations, and any suicide attempts), 6) developmental history, 7) social history (school behavior, activities, peer relationships, and substance abuse history), and 8) family medical and psychiatric history for the past three generations (child is excused for this portion).

With regard to the above information, the patient’s
social history is particularly important for proper treatment. For example, bipolar children often report substance abuse in their prepubertal years, and any history of abuse, sexual abuse, or legal involvement is necessary to know. The clinician elicits a complete medical history of the patient that investigates allergies, non-psychiatric illnesses, non-psychiatric hospitalizations, surgeries, previous EEGs or MRIs, ensuring all immunizations are up to date, and conducting a review of systems. This is important. For example, children and adolescents with mood disorders often complain of headaches and stomachaches. A systematic approach is recommended. The clinician obtains history of 1) cardiovascular problems (to avoid heart problems if medication will need to be prescribed), 2) the pulmonary system (asthmatic children seem to be at risk for psychiatric disorders), 3) the endocrine systems (diabetic children seem susceptible to psychiatric disorders), and 4) the neurological system (children with seizures are at high risk for suicide). Other organ system problems can include the following: patients with mood disorders can complain of eczema or severe intolerance of several topical substances. Genital urinary problems as well as gastrointestinal disorders are common in patients with depression.

Next, a medication history of the patient is obtained. In recent years, there has been somewhat of a trend towards over-prescription and sometimes patients are taking multiple medications. There has also been an increase in the number of over-the-counter herbal medications that young children are taking. Despite the lack of research into the effects of herbal medications on children, many parents give them to their children. The clinician must have an understanding of all herbal and prescription drugs administered to the child.

**PHASE II (30 MIN)**

ChIPS: Child. After the medical history is completed, the patient is administered the Children’s Interview for Psychiatric Syndromes (ChIPS) – a structured diagnostic interview by a trained psychometrician who has a B.A. in psychology, social work, or a related mental health field.

Interview with the mother. While the child is doing the ChIPS, the patient’s mother is interviewed by the clinician. Questions about her family of origin, childhood, school and student years, family life, her own psychopathology (if any), parenting skills, marital issues, and her understanding of the current problems are evaluated. The interview closes with an inquiry into the mother’s expectations for the visit.

**PHASE III (30 MIN)**

P-ChIPS. The patient’s mother (or primary caregiver) is administered the Parent’s version of the Children’s Interview for Psychiatric Syndromes (P-ChIPS) – a structured diagnostic interview by a trained psychometrician.

**Interview with the father.** This is similar to the interview with the mother described above.

**PHASE IV (45–60 MIN)**

Interview with the child. After the clinician has interviewed both parents and the ChIPS interviews are completed, the clinician evaluates the present problem from the child’s own perspective. The clinician asks questions such as, “What is it like to live in your family? Who lives there? Who do you get along best with? What do you enjoy doing? If you had three wishes, what would you wish?” If the patient is taking any medication, it is important to ask, “Are any of the medications you’re taking helping you?” The interview closes with a detailed mental status examination of the child, including questions about psychosis including visual, auditory, tactile, and olfactory hallucinations.

**VISIT 2**

After the initial evaluation, the family returns for a follow-up examination. Since children’s presentations can vary from day to day, the second visit is scheduled for some time after the first visit.

**DAY 2**

**PHASE I (30–45 MIN)**

Interview with the patient. 1) The patient is asked to report any significant events and/or changes in his/her condition since the last visit, 2) the patient is asked if there is any information he/she forgot to report during the initial visit, and 3) the child is given an interpretation of the findings in a developmentally appropriate manner and consent/assent for treatment is obtained.

**PHASE II (30 MIN)**

Interview with the family. 1) Results of the ChIPS and P-ChIPS are compared. The clinician explains which diagnostic symptoms are endorsed and whether diagnostic and/or duration criteria are met by the child in the presence of all family members, 2) predisposing factors, precipitating factors, perpetuating factors, and protective factors are considered in making a diagnostic formulation, 3) a final diagnosis is discussed with the family, and 4) a treatment plan is developed in a biopsychosocial manner.

With complete information regarding the patient, the clinician can decide what additional diagnostic work-up is needed for the child, such as an endocrine work-up, an EEG, an MRI, an educational assessment, etc. If medication is prescribed, the physician reviews for the family the evidence necessary to support this decision; then side effects are reviewed for parent and child prior to asking for consent. Specific plan for psychotherapy is also recommended and explained when needed. Most of the patients in our clinic have been referred for diagnostic clarification. After obtaining written permission from the parent and the child, a summary is sent to the referring or treating clinician.
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