Resource Sheet

Understanding Youth Suicidal Behavior and Suicide

How are Suicidal Behaviors Expressed Differently in Youths than in Adults?

Questions invariably arise from clinical practitioners about differences in youth and adolescent suicide, notably whether signs and symptoms, risk factors, warning signs, and behaviors are different or differentially expressed than in adults. This Resource Sheet examines what is known and empirically validated, both clinically and epidemiologically, regarding developmental differences.

There is more evidence for similarities than differences between youth and adult suicidal behavior. The majority of the empirically validated differences are epidemiologic (e.g., related to prevalence rates and suicide methods). There is less research evidence for developmental differences between youths and adults in suicidal behavior than is commonly assumed.

Empirically Validated Differences between Youth and Adult Suicidal Behaviors:

Signs, Symptoms, and Treatment-Related Risk

1. Precipitants: Both youth and adult suicidal behaviors are commonly precipitated by losses or relationship and family difficulties (e.g., Beautrais et al., 1997; Connor et al., 2001; Gould et al., 1996; Heikkinen et al., 1994), but for youths, disciplinary crises and academic problems also are relatively common precipitants (Gould et al., 1996) as is bullying (Brunstein et al, 2007; Kaltiala-Heino, et al. (1999).

2. Alcohol/Substance Use and Mental Disorders: Findings from the National Death Reporting System suggest that youths have lower rates of drug and/or alcohol involvement at the time of death than adults (14% and 55%, respectively) (http://www.sprc.org/library/YouthSuicideFactSheet.pdf). Similarly, police and medical examiner/coroner death investigation reports indicate that youths who die by suicide are less likely than adults who die by suicide to have a mental health or substance abuse problem (46% and 64%, respectively) (http://www.sprc.org/library/YouthSuicideFactSheet.pdf). Nevertheless, it is important to know that the positive relationship between substance use/dependence and suicide attempts strengthens as youths get older, continuing through young adulthood (Brent et al., 1999; Goldston et al., under review; Gould et al., 1998). In addition, psychological autopsy studies (e.g., Brent et al., 1988; Shaffer et al., 1996) -- using all available information -- have documented much higher rates of psychiatric and substance use disorders among adolescents than reports based on forensic data (such as death investigation reports), thus this finding is source dependent.

3. Impulsivity: Impulsivity has been associated with greater suicidal behavior among at least some groups of adolescents (Horesh et al., 2003; Kashden et al., 1993; McKeown et al., 1998). However, a significant relationship between suicidal behavior and impulsivity also has been demonstrated among adults (Oquendo et al., 2004; Swann & Dougherty, 2005; Zouk et al., 2006), so it is unclear whether adolescent attempts are on average more impulsive than those of older individuals. In fact, in one study of 13- to 34-year-olds with nearly lethal suicide attempts, age was not related to the likelihood of an impulsive suicide attempt (Simon et al., 2001).

4. Hopelessness: In prospective studies, hopelessness has been linked to suicidal behavior among both adolescents and adults (Brittlebank et al., 1990; Brown et al., 2000; Fawcett et al., 1990; Goldston et al., 2001.; Kuo et al., 2004). However, "hopelessness" may mean different things to younger and older individuals, as adolescents have a different time perspective and future orientation than adults. Adolescents' level of planning for the future, for example, increases as they get older (Nurmi, 1991).

5. Response to Antidepressants: Adolescents and young adults up to the age of 24 seem to have a slightly increased risk of suicidal thinking and behavior, i.e., "suicidality," during initial treatment with modern antidepressants (mostly SSRIs), primarily in the first one to four months. Scientific data did not show this increased risk in adults older than 24 and gave evidence that adults ages 65 and older taking antidepressants had a *decreased* risk of suicidality (FDA News, May 2, 2007).

In summary, there are relatively few developmental differences in the signs and symptoms for suicidal behaviors among youths versus adults. Most of the substantiated differences are epidemiologic. The following represent the most significant of these differences:

Epidemiologic Findings on Youth Suicide

1. Methods: In the US, suffocation (most often by hanging) is the most common method of suicide death for adolescents age 16 and younger; firearms are more frequently used as means for suicide deaths among older adolescents and adults (Centers for Disease Control and Prevention, 2007: http://webapp.cdc.gov/sasweb/ncipc/mortrate10_sy.html)

2. Rates of Completed Suicide: The incidence of suicide increases as children mature through adolescence and into young adulthood. According to CDC data from 1999 to 2004: suicide death rates were 0 per 100,000 for children 4 and younger, 0.02/100,000 for children ages 5 to 9, 1.28/100,000 for 10- to 14-year-olds, 7.82/100,000 for 15- to 19-year-old adolescents, and 12.25/100,000 for 20- to 24-year-olds (Centers for Disease Control and Prevention, 2007: http://webapp.cdc.gov/sasweb/ncipc/mortrate.html)

3. Rates of Suicide Attempts: Rates of suicide attempts increase from early- to mid-adolescence (Angle, O'Brian, & McIntire, 1983; Kovacs et al., 1993; Lewinsohn et al., 2001). Results from one community study indicated that rates of suicide attempts may decline after the period of mid-adolescence, particularly among females (Lewinsohn et al., 2001). Results from the Youth Risk Behavior Survey of high school students, when compared to similar self-report studies of college students (cf. ACHA, 2001), confirm that self-reported rates of suicide ideation and attempt are lower in college students than among those in high school.

4. Lethality of Suicide Attempts: A significantly greater proportion of suicide attempts among older individuals are lethal; that is, there are more non-lethal suicide attempts per suicide death among younger relative to older individuals**.** In a study comparing suicide attempts (with injuries resulting in emergency department visit or hospitalization) to deaths by suicide across eight US states (Spicer & Miller, 2000), the proportion of suicide acts that were fatal by age group was as follows: 0-14 years: 1.9%; 15-19 years: 3.9%; 20-24 years: 6.5%; 25-44 years: 7.0%; 45-64 years: 14.8%; $\geq$ 65 years: 30.7%; In addition, younger adolescents as a group tend to have suicide attempts of lower lethality than older adolescents (Brent et al., 1999).

5. Suicide as a Manner of Death: The proportion of all deaths (in that age group) that is comprised by suicide increases from early adolescence through young adulthood (Centers for Disease Control and Prevention, 2007). http://webapp.cdc.gov/sasweb/ncipc/mortrate10_sy.html).

6. Suicide Post-Discharge: Suicide following psychiatric hospitalization is eight times more likely in adults than in youths in the first 3.5 years after discharge (Safer, 1997).

7. Clusters: Youth suicides are more likely to occur in clusters than those of older individuals (Gould et al., 1990). (The Center for Disease Control and Prevention defines suicide clusters as a group of suicides or suicide attempts, or both, that occurs closer together in time and space that would normally be expected in a given community.)

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