

**SOUTHERN CALIFORNIA ACADEMIC CENTER OF EXCELLENCE ON YOUTH
VIOLENCE PREVENTION, UNIVERSITY OF CALIFORNIA, RIVERSIDE**

Fact Sheet

YOUTH SUICIDE

by Michiko Otsuki, Tia Kim, and Paul Peterson

Introduction

Youth suicide is a major public health problem in the United States today. Each year in the U.S., thousands of teenagers commit suicide. Suicide is the third leading cause of death for 15-24 year olds, and the fifth leading cause of death for 5-14 year olds. (American Foundation of Suicide Prevention [AFSP], 2010; National Center for Health Statistics [NCHS], 2006) The reduction of adolescent suicide is one of the major objectives of the Healthy People 2010 Initiative (Department of Health and Human Services, 2010).

Scope of the Problem

Age and gender differences

Suicide is less common during childhood and the early teen years (Gould & Kramer, 2001). In 2006, the rate was .5 suicides per 100,000 children aged 10-14. (AFSP, 2010; NCHS, 2006) Suicide mortality increases considerably in the late teens and continues into the early twenties for both males and females. Although females are more likely than males to attempt suicide, males are roughly five times as likely to success in their suicide attempts.

Ethnic differences

American Indian/Alaska Native youth have the highest prevalence of suicide across all age groups. In this group males have the higher prevalence. European-American youth have the next highest prevalence. Their prevalence is higher than that of African-American, Latino, and Asian-American/Pacific Islander youth. Although research suggests that Native American and Latino youth have the highest suicide-related fatalities (Centers for Disease Control [CDC], 2009), Latino female youth are more likely to attempt suicide than all other groups of youth (National Adolescent Health Information Center, 2006).

Methods of youth suicide

Firearm death remains the most prevalent method of suicide, regardless of age, gender, and ethnicity. It accounts for 46% of suicide deaths among youths (CDC, 2009). The

second and third most prevalent methods of youth suicide are hanging and poisoning, respectively. The gender difference in the rates of completed suicide is largely explained by the gender differences in suicide methods. Females are more likely to poison themselves whereas males are more likely to shoot themselves. Firearms are more lethal than poison.

Nonlethal suicide behaviors

For every completed suicide, an estimated 100 to 200 suicide attempts are made. Attempted suicides are a risk factor for successful suicide.

Risk Factors

Suicidal behaviors are complex and have multiple risk factors.

Psychopathology

The majority of youth who have completed suicide had significant psychiatric problems, including depressive disorders and substance abuse disorders. Major depression has been the most prevalent condition. The intensity of a person's suicidal intent is associated with a history of depression and anxiety and current stress from a mental disorder (Koutek, Kocourkova, Hladikova & Hrdlicka, 2009). Although many mental disorders increase the odds of suicide ideation, disorders characterized by anxiety and poor impulse-control increase the odds of actual suicide attempts (Kwoy & Shek, 2009). Female youth suicides have a higher prevalence of an affective disorder than male youth suicides. Substance abuse is also a significant risk factor, especially for older adolescent male victims (Shaffer et al., 1996) and when co-occurring with an affective disorder (Gould & Kramer, 2001).

Previous suicide attempts

One quarter to one-third of youth suicide victims make suicide attempts prior to their completed suicide. Anxiety lowers the likelihood of one-time suicide attempts but increases the likelihood of repeated suicide attempts (Brezo, Paris, Herbert, Vitaro, Tremblay & Turecki, 2008). With each successive attempt, the risk of completed suicide increases -- for male adolescents the risk is thirty times higher, whereas for female adolescents the risk is three times higher (Shaffer et al., 1996).

Access to lethal methods

Given that death by firearms is the most common method of youth suicide, it is not surprising that the accessibility and availability of firearms, particularly loaded guns, in the home increase the risk of youth suicide (Brent et al., 1993; Kellerman et al., 1992). The home is the most common location for firearm suicides by youth (Brent et al., 1993).

Maladaptive coping skills

Maladaptive coping skills and poor interpersonal skills limit adolescents' ability to problem solve, thereby increasing the likelihood that suicide will be considered the only solution (McBride & Siegel, 1997). Early youth substance use also increases the risk of suicidal behaviors (Swahn, Bossarte, Ashby, & Meyers, 2009; Cho et al., 2007; Swahn et al., 2008; Swahn & Bossarte, 2007).

Stressful life events

Adolescents who attempt or complete suicide experience multiple negative life events (Reinhertz et al., 1995). The events may have occurred in childhood, such as physical and/or sexual abuse, neglect, separation and previous suicide attempts (King, O'Mara, Hayward, & Cunningham, 2009). These stressors often overwhelm the coping skills of the adolescent because of his/her inexperience with such life situations (Wagner, Cole, & Schwarzman, 1995). Other life events are also associated with suicide risk: interpersonal losses (e.g., breaking up with a boyfriend/girlfriend), legal or disciplinary problems (e.g., getting into trouble at schools or with a law enforcement agency), and victimization by peers (Kaminski & Fang, 2009). The experience of a disproportionate number of stressful life events may compound problem-solving difficulties present in the youth.

Suicide contagion

Exposure to suicide increases the likelihood of suicide. For example, the number of suicides goes up following the appearance of suicide stories in the mass media, including newspaper articles, television news reports, and fictional and non-fictional dramatization (Gould, 2001). The influence of suicide stories is greatest among adolescents (Phillips & Carstensen, 1986) and is diminished greatly after the age of 24 (Gould, Wallenstein, & Kleinman, 1990).

Family history

Several family factors are associated with an increased likelihood of youth suicide: poor family relationships (King, O'Mara, Hayward, & Cunningham, 2009), a family history of suicidal behaviors (Gould et al., 1996), obligation to the family (Zayas, Bright, Alvarez-Sanchez & Cabassa, 2009), and parental psychopathology namely, depression and substance abuse (Fergusson & Lynskey, 1995). Some research also points to genetic factors to explain the link between parental characteristics and youth suicide (Schulsinger, 1980).

Socioeconomic status

Little is known about the association between socioeconomic status and youth suicide. Low socioeconomic status may increase suicide risk if it is associated with barriers to mental health treatment, given that untreated depression and substance abuse disorders are major causes of adolescent suicide.

Immigrant experience

Among Latinos, being born in the United States is associated with a higher risk of suicide than being foreign-born Latino youths (Zayas, Bright, Alvarez-Sanchez & Cabassa, 2009; Fortuna et al., 2007). However, immigrant youths often experience stress associated with acculturation. The elevated stress level among immigrants has been offered as an explanation of the higher risk of non-lethal suicidal attempts among Latino youth. Studies have shown that both the association between psychopathology and suicidal behavior and the association between drug use and suicidal behavior are dependent on the degree of acculturative stress (Vega, et al., 1993).

Sexual orientation

Relative to their heterosexual peers, gay, lesbian, and bisexual (GLB) youth are at an elevated risk for suicide (McDaniel, Purcell, & D'Augelli, 2001). Discrimination causes depression among GLB adolescents, elevating the risk of suicidal ideation and self harm (Almeida, Johnson, Corliss, Molnar & Azrael, 2009). In addition, GLB youth are at high risk for associated maladaptive risk behaviors, including fighting, victimization, and drug use (Garofalo, Wolf, Wissow, Woods, & Goodman, 1999).

Biological risk factors

Abnormalities in the serotonergic system are associated with suicidal behaviors. For example, low levels of serotonin among suicide attempters were predictive of future completion of suicide (Pfeffer, McBride, Anderson, Kakuma, Fensterheim, & Khait, 1998). However, exposure to SSRIs has also been shown to increase risk of completed or attempted suicide among adolescents (Barbui, Esposito & Cipriani, 2009). Other data suggest that an abnormal neurotrophin system contributes to a tendency toward suicide (Kohli, Young, & Conwell, 2010).

Promising Prevention Strategies

The application of knowledge of suicide etiology to the design and evaluation of prevention strategies has just begun. According to the CDC (1992; 1994), the goals of youth suicide prevention strategies are twofold: risk factor reduction and case finding.

Risk reduction strategies include suicide prevention for youth and the community and involve: (a) promoting overall mental health among school-aged youth by reducing early

risk factors for depression, substance abuse, and aggression, and building resiliency (e.g., self-esteem and stress management); (b) providing crisis counseling; and (c) restricting access to lethal means, especially, handguns. Promotion of mental health among school-aged youth is typically achieved by general suicide education and peer support programs. General suicide education is designed to develop healthy peer relationship and social skills among high-risk adolescents (CDC, 1994). It provides youth with information about suicide, including its warning signs, and how to seek professional help for themselves or others. Crisis counseling through crisis centers and hotlines involves trained volunteers and paid staff providing counseling via phone or drop-by services for suicidal youth. Postventions are interventions after an incidence of both successful and unsuccessful suicide attempts. These programs aim at preventing suicide contagion and helping youth and family cope effectively with an interpersonal loss following a suicide. Interventions restricting access to lethal means are designed to reduce a person's access to lethal means of completing suicide, such as through disposal of medications and removal and/or lock up of firearms from the home of a suicidal adolescent (CDC, 1994).

Case finding strategies may be active or passive and aim at detecting suicidal youth by referral to mental health care (CDC, 1994). A sample active strategy is general screening programs or a targeted screening program after a suicide). In screening programs, self-reports and individual interviews are administered to identify depression, alcohol or substance abuse problems, recent suicidal ideation, and past suicide attempts. Further detailed assessment and treatment are provided where necessary. Sample passive strategies include gatekeeper training for schoolteachers and community adults, general suicide education in schools, and crisis counseling. Gatekeeper training involves educating and training adults in contact with suicidal youth such as school staff (e.g., teachers, counselors, and coaches) and community members (e.g., physicians, clergy, and police) to identify and refer children and adolescents at risk for suicide (Gould & Kramer, 2001). General education efforts aim to reduce the stigma associated with accessing mental health care and to increase self-referral and/or referrals by persons who recognize suicidality in someone they know (CDC, 1994).

Current prevention efforts are in need of evaluation. Available evidence shows that interventions restricting access to lethal suicide means are among the most promising efforts. Studies on the effectiveness of general suicide education in schools are equivocal, with some research showing iatrogenic effects of intervention. Screening programs have been found to be effective in identifying high-risk students. Crisis centers and hotlines are largely unevaluated.

Clearly, additional prevention efforts to reduce youth suicide need to be designed, implemented, and evaluated. Due to the enormous effort and financial cost involved in launching and maintaining programs, the efficacy and safety of the programs should be guaranteed before they are promoted. The CDC's (1994) recommendations include ensuring that prevention programs are matched with access to mental health resources

in the community, incorporate several prevention strategies, and incorporate rigorous scientific planning, process, and outcome evaluations.

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Internet Resources

American Association of Suicidology (ASA): <http://www.suicidology.org/web/guest/home>

American Foundation for Suicide Prevention (AFSP): www.afsp.org

U.S. Department of Health and Human Services: www.dhhs.gov

The Surgeon General's Call to Action to Prevent Suicide (1999):
www.surgeongeneral.gov/library/calltoaction/default.htm

Center for Disease Control and Prevention (CDC) National Center for Injury Prevention and Control (NCIPC): www.cdc.gov/ncipc

Centers for Disease Control and Prevention, National Center for Injury Prevention and Control (NCIPC), Division of Violence Prevention:
<http://www.cdc.gov/ViolencePrevention/youthviolence/index.html>

CDC's SafeUSA Guide to Preventing Suicide: www.cdc.gov/safeusa/suicide.htm

Suicide statistics from CDC's National Center for Health Statistics:
www.cdc.gov/nchs/fastats/suicide.htm