Youth Suicidal Behavior: An Introduction and Overview

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Abstract. Youth suicidal behavior continues to be a significant national problem in need of urgent attention by school personnel. The purpose of this introductory article to the special series is to provide an overview of youth suicidal behavior, including research-based information on demographic data; risk factors and warning signs; and where, when, and how youth suicidal behavior typically occurs. Common myths and current controversies about youth suicide are also discussed, as are the implications of youth suicidal behavior for school-based practice. A brief discussion of current research gaps and needs is provided, as well as an introduction to the other articles in the special series on school-based suicide prevention.

Among the many challenges confronting our nation’s schools, few if any are more urgent than youth suicidal behavior. Youth suicide continues to be a significant public health problem at a national level, and clearly is “a crisis in need of attention” (Mazza, 2006, p. 156). Unfortunately, although school psychologists have an ethical and legal responsibility to prevent youth suicide whenever possible (Jacob & Hartsel, 2007), they report being frequently ill-prepared to effectively respond to this problem (Anderson & Miller, 2009; Debski, Spadafore, Jacob, Poole, & Hixson, 2007; Miller & Jome, 2008, 2009). This issue is a critical one, given that the manner in which school psychologists and other school-based practitioners respond to suicidal youth can literally mean the difference between life and death.

According to the Centers for Disease Control and Prevention, although suicide is the 11th leading cause of death among Americans overall, it is the third-leading cause of death among young people in the United States, trailing only accidents and homicide (Centers for Disease Control and Prevention, 2006). Moreover, although overall suicide rates among youth ages 10–19 years declined from 1990 to 2004, from 2003 to 2004 suicide rates for females ages 10–19 and males ages 15–19 increased significantly (Centers for Disease Control and Prevention, 2007). The number of children ages 10–14 committing suicide has been of particular concern, with suicide rates increasing 51% between 1981 and 2004.
among children in this age group (American Association of Suicidology, 2006). Adding to this concern is the possibility that the number of reported youth suicides may be an underestimate of their actual occurrence (Lieberman, Poland, & Cassel, 2008). Furthermore, despite fluctuating rates of youth suicide over the last several decades, including notable decreases during the 1990s, the overall suicide rate for children and adolescents has increased over 300% since the 1950s (Berman, Jobes, & Silverman, 2006) and will likely continue to increase (Gutierrez & Osman, 2008).

Suicide (i.e., a fatal, self-inflicted act with the explicit or inferred intent to die) is only one behavior among a continuum of suicidal behaviors, which also includes suicidal ideation (i.e., serious thoughts of suicide often viewed as a precursor to more serious forms of suicidal behavior), suicidal intent (i.e., the intentions of an individual at the time of his or her suicide attempt in regard to that person’s wish to die), and suicide attempts (i.e., self-injurious behaviors conducted for the intent of causing death; Mazza, 2006). As such, suicidal behavior includes and incorporates a much larger set of behaviors than suicide alone. The behaviors along this continuum vary and are not mutually exclusive, nor do all suicidal youth advance sequentially through them. Moreover, although the frequency of each behavior decreases as individuals move along this continuum, the level of lethality and probability of death increases (Mazza & Reynolds, 2008). The profile of individuals who engage in different forms of suicidal behavior also varies. For example, the typical youth who attempts suicide is an adolescent female who ingests drugs at home in front of others (e.g., parents), whereas the typical youth who commits suicide is an adolescent male using a firearm (Berman et al., 2006). Individuals who attempt suicide should therefore not be viewed as synonymous with individuals who commit suicide; there are often significant differences between them.

The scope of the problem of youth suicidal behavior becomes clear when considering the prevalence of suicidal ideation, suicide plans, and suicide attempts in addition to suicide. For example, according to the most recent Youth Risk Behavior Surveillance System (Centers for Disease Control and Prevention, 2008), a national survey of students in Grades 9–12, approximately 14.5% of U.S. students seriously considered attempting suicide in the previous 12 months, including 18.7% of females and 10.3% of males. During the same 1-year period, 11.3% of students made a plan about how they would attempt suicide (13.4% of females and 9.2% of males), 6.9% reported making at least one suicide attempt (9.3% of females and 4.6% of males), and 2% reported making at least one attempt that resulted in an injury, poisoning, or an overdose that had to be treated by a doctor or nurse (Centers for Disease Control and Prevention, 2008). Collectively, these data suggest that in 2007 approximately 1 out of 7 high school students engaged in serious suicidal ideation, 1 in 10 made a suicide plan, and 1 in 14 made a suicide attempt, some to a degree that required medical treatment or hospitalization. Viewed from this perspective, youth suicidal behavior clearly is a significant national public health problem that should be of urgent concern to all school personnel.

Demographics of Youth Suicide

Race and Ethnicity

A variety of racial and ethnic factors are correlated with youth suicidal behavior. For example, ethnic groups differ in rates of youth suicide, the context within which suicide occurs, and in patterns of help seeking (Goldston et al., 2008). Among the larger ethnic groups in the United States, the highest youth suicide rate is among Caucasians, followed by African Americans and Latinos (Berman et al., 2006). Although historically African American youth have consistently had a lower suicide rate than Caucasian youth, the suicide rates of African American males have had the greatest increase in recent decades. Between 1960 and 2000, the suicide rate among African American males ages 15 to 19 more than tripled, increasing 234% during that period (Berman et al., 2006).

Proportionally, the highest rates of youth suicide are among Native Americans,
whereas the lowest rates tend to be among Asian/Pacific Islanders (Mazza, 2006). Several hypotheses regarding the high rate of suicidal behavior among Native American youth have been proposed, including a proportionally higher use of alcohol and firearms and a frequent lack of social integration in this group (Middlebrock, LeMaster, Beals, Novins, & Manson, 2001). There are, however, great variations in suicide rates among Native American youth by geography, tribe, and reservation (Berman et al., 2006).

Gender

Gender appears to have a stronger influence on youth suicidal behavior than does race and ethnicity. Research has consistently found a strong but paradoxical relationship between gender and suicidal behavior (Canetto & Sakinofsky, 1998). Specifically, although females report more suicidal ideation than males and attempt suicide at rates two to three times the rate of males, males commit suicide at a rate five times that of females (Berman et al., 2006). Reasons for the higher suicide rate of males in comparison to females include the higher rates of significant suicide risk factors among males (e.g., access to firearms, alcohol abuse) as well as their being less likely than females to engage in a number of protective behaviors, such as seeking help, being adequately aware of warning signs, having flexible coping skills, and building effective social support systems (Maris, Berman, & Silverman, 2000).

Age

The probability of suicide increases in both males and females as children grow older, with adolescents ages 15 to 19 being at higher risk than youth ages 10 to 14 (Berman et al., 2006). As such, suicide is much more prevalent in adolescents than in younger children, although as noted previously, the suicide rate among youth ages 10 to 14 has shown notable increases over the last two decades. Suicide does occur in children under the age of 10, but is very rare (Mazza & Reynolds, 2008).

Geography

Youth suicide rates are and consistently have been highest in the Western states and Alaska and lowest in the Northeastern states (Berman et al., 2006; Gould & Kramer, 2001). It has been suggested that this may largely be because of the greater population density in the Northeast compared to many Western states and Alaska (Berman et al., 2006). The sparser population and greater physical isolation in many Western states may lead to greater social disconnection, a variable associated with suicide (Joiner, 2005). Consistent with this hypothesis is the finding that suicide rates are typically higher in rural areas than in urban areas (Berman et al., 2006; Fingerhut, 2003).

Socioeconomic Status

Empirical investigations regarding the influence of socioeconomic status (SES) and suicidal behavior have been described as “mixed and contradictory” (Berman et al., 2006, p. 31). Although suicide occurs across all economic classes, research suggests there generally is an inverse relationship between SES and suicide rates in both the United States and other countries (Stack, 2000). Research on SES and youth suicide is lacking, although one study examining the socioeconomic differences among more than 20,000 Danish youth who committed suicide found that individuals in the lowest socioeconomic quartile had more than five times the risk of suicide compared to others (Qin, Agerbo, & Mortenson, 2003).

Youth Suicide: When, Where, and How

When

Although a number of studies have examined temporal variations in suicide (e.g., Blachly & Fairly, 1989; Lester, 1979), none to date have been specific to youth suicide. Research indicates that suicides occur most often between March and September, with no particular month standing out as a peak month. The month that has the fewest recorded suicides is December, a finding consistent with
research indicating that suicide rates tend to decrease somewhat before and during major holidays (Berman et al., 2006; Bradvik & Berglund, 2003; Phillips & Feldman, 1973).

Suicides appear to occur most often on Mondays and least often on weekends (Bradvik & Berglund, 2003). In terms of time of day, the majority of youth suicides occur in the afternoon or evening (Hoberman & Garfinkel, 1988; Shafii & Shafii, 1982). Berman et al. (2006) suggest that the research on temporal trends and youth suicide be interpreted with caution given the limited data currently available and because death certificates may not accurately reflect when a suicide actually occurred.

Where

Although data on this topic are limited, it appears that most youth suicides occur in the home, where the primary means for suicide (e.g., firearms) are typically available (Berman et al., 2006; Hoberman & Garfinkel, 1988). The majority of nonfatal youth suicide attempts involve ingesting drugs, also typically kept in the youth’s home (Berman et al., 2006). A much smaller percentage of youth suicides or suicide attempts occur in schools or in areas other than the youth’s place of residence.

How

The risk of suicidal behavior often is a function of intention, and intention is closely linked to the method an individual uses to attempt or commit suicide. Although there are exceptions (e.g., an individual may have a strong intention to die but use a low lethality method), in general the stronger the intention to commit suicide, the greater the potential lethality of the method selected to carry out that intention (Berman et al., 2006). For example, firearms and hanging typically are more lethal methods than wrist cutting, carbon monoxide poisoning, or drug ingestion overdose. Choice of suicide method is strongly influenced by a number of factors, including accessibility and readiness for use; knowledge, experience, and familiarity; meaning and cultural significance; and the state of mind of the person at risk (Berman et al., 2006; Berman, Litman, & Diller, 1989).

The suicide attempts of most children and adolescents tend to be of low lethality and allow for a high likelihood of being rescued (Garfinkel, Froese, & Hood, 1982), suggesting the possibility that many young people are ambivalent about taking their lives (Mazza, 2006). Research conducted with 469 adolescent suicide attempters found that the two most common methods were drug ingestion overdose (i.e., taking pills) and wrist cutting, respectively (Reynolds & Mazza, 1993). The use of firearms is the most frequently used method among males ages 10–19 who die by suicide. Historically, firearms were the most frequently used suicide method among females in this age group as well. Beginning in 2001, however, and continuing through 2004 (the last year for which data are currently available), young females were more likely to use hanging/suffocation rather than firearms to commit suicide (Centers for Disease Control and Prevention, 2007).

Risk Factors and Warning Signs

Variables that help explain or predict youth suicidal behavior can be placed into two broad categories: risk factors that may predispose an individual to suicidal behavior and warning signs that may indicate the possibility of a suicidal crisis (Van Orden, Witte, Selby, Bender, & Joiner, 2008). Although risk factors and warning signs are frequently linked concepts, there are important distinctions between them, with perhaps the most salient being that risk factors suggest a distal relationship to suicidal behavior whereas warning signs suggest a proximal relationship (Van Orden et al., 2008). In addition, risk factors have been derived empirically whereas warning signs have generally been derived from clinical practice and experience (Rudd et al., 2006).

Although numerous risk factors for suicidal behavior have been identified, the most reliable and robust risk factor is the presence of psychopathology. Findings from “psychological autopsies” (i.e., systematic collection
of data via structured interviews of family members and/or friends of the suicide victim) estimate that approximately 90% of youth who die by suicide experienced at least one mental disorder at the time of their deaths, the most common of which are mood disorders (e.g., major depressive disorder; dysthymic disorder; bipolar disorder) followed by substance-related disorders and disruptive behavior disorders (Fleischmann, Bertolote, Belfer, & Beautrais, 2005). Although the large majority of clinically depressed youth are not suicidal and not all suicidal youth are clinically depressed (Reynolds & Mazza, 1994), approximately 42% to 66% of youth who die by suicide appear to have been experiencing some type of depressive disorder at the time of their deaths (Fleischmann et al., 2005; Shaffer et al., 1996).

Other forms of psychopathology linked to youth suicide include anxiety disorders (e.g., panic disorder; post-traumatic stress disorder), schizophrenia, borderline personality disorder, and adjustment disorder (Brent et al., 1993; Mazza, 2000; Mazza & Reynolds, 2001; Moskos, Olson, Halbern, Keller, & Gray, 2005; Shaffer et al., 1996). Although not a diagnosable mental disorder, the presence of hopelessness also is highly associated with youth suicide (Thompson, Mazza, Herting, Randell, & Eggert, 2005). Other variables associated with youth suicide include peer victimization (Brunstein Klomek, Marrocco, Kleinman, Schonfield, & Gould, 2008), sexual and/or physical abuse (Mazza, 2006), and self-injury (Miller & McConaughy, 2005). In fact, most youth who commit suicide have multiple comorbid psychiatric disorders and/or psychological problems (Miller & Taylor, 2005). The consistent finding of the substantial presence of comorbid forms of psychopathology strongly indicates that suicide does not occur in isolation but rather is the by-product of other mental health problems (Mazza, 2006). In addition to psychopathology, the other prominent risk factor for suicide is previous suicidal behavior, particularly previous suicide attempts. This relationship has been found in both adult and youth samples (Joiner et al., 2005). For example, the presence of a prior suicide attempt was found to significantly elevate the risk for future suicide attempts in adolescence (Borowski, Ireland, & Resnick, 2001). Other risk factors for youth suicide include biological deficits in serotonin functioning, social isolation, limited access to mental health facilities, poor problem-solving and coping skills, low self-esteem, problematic parenting or family environments, parental psychopathology, cultural or religious beliefs, access to lethal weapons, and repeated engagement in or exposure to violence (Brock, Sandoval, & Hart, 2006; Joiner, 2005; Lieberman et al., 2008). Children and adolescents who exhibit milder forms of suicidal behavior (e.g., suicidal ideation) but who are under-treated or not treated for it (e.g., not receiving antidepressant medication or psychotherapy) are also at increased risk for suicide.

Minority youth in the United States may also be affected by various risk factors that Caucasian youth may not face, such as racial discrimination, acculturative stress, a fatalistic philosophy, and passive coping strategies (Gutierrez & Osman, 2008). In addition, although it has been suggested that gay and lesbian youth may be at higher risk for suicidal behavior than heterosexual youth, research on this issue is complicated by a number of factors, including a lack of accurate youth suicide rates specific to the gay and lesbian population (Berman et al., 2006; Lieberman et al., 2008). Finally, exposure to suicide through death of a peer may be considered an accelerating risk factor, particularly among those already predisposed to be at risk (Berman et al., 2006). As such, conducting a suicide risk assessment of close friends of a suicide victim is strongly recommended.

In contrast to risk factors, warning signs for suicide are more dynamic and proximal factors that suggest the increased probability of a suicidal crisis (Van Orden et al., 2008). Some of these warning signs include (a) rage, anger, seeking revenge; (b) acting reckless or engaging in risky activities, seemingly without thinking; (c) feeling trapped, as if there is no way out; (d) increasing alcohol or drug use; (e) withdrawing from friends, family, or society; (f) experiencing anxiety and/or agitation; (g)
being unable to sleep or sleeping excessively; (h) dramatic mood changes; and (i) perceiving no reason for living or no sense of purpose in life (Rudd et al., 2006). Many of the currently known warning signs, however, have not been validated specifically for youth suicide, and more research is needed to determine if signs of acute suicide risk differ among children, adolescents, and adults (Van Orden et al., 2008). Moreover, many if not most youth exhibit some or several of these warning signs and never engage in suicidal behavior, and it is not clear how many of these warning signs or what combination of them are the best predictors of suicide. Nevertheless, youth who exhibit several warning signs in addition to the risk factors described here should be viewed as being at high risk for suicide. For more information on risk factors and warning signs, the reader is referred to a listing of organizations devoted to suicide prevention in Table 1.

### Table 1

**Suicide Prevention Organizations**

- American Association of Suicidology (http://www.suicidology.org)
- American Foundation for Suicide Prevention (http://www.afsp.org)
- Columbia University Teen Screen Program (http://www.teenscreen.org)
- Iris Alliance Fund (http://www.irisfund.org)
- Jason Foundation (http://www.jasonfoundation.com)
- Jed Foundation (http://www.jedfoundation.org)
- Kristin Brooks Hope Center (http://www.hopeline.com)
- Link Counseling Center’s National Resource Center for Suicide Prevention (http://www.thelink.org)
- National Association of School Psychologists (http://www.nasponline.org)
- National Council for Suicide Prevention (http://www.ncsp.org)
- National Organization for People of Color Against Suicide (http://www.nopcas.com)
- National Suicide Prevention Lifeline (http://www.suicidprevlifeline.org)
- Samaritans, Inc. (http://www.samaritansofboston.org)
- SOS Signs of Suicide (http://www.mentalhealthscreening.org)
- Suicide Awareness Voices of Education (http://www.save.org)
- Suicide Prevention Action Network USA (http://www.spanusa.org)
- Suicide Prevention Resource Center (http://www.sprc.org)
- Yellow Ribbon Suicide Prevention Program (http://www.yellowribbon.org)

Although an understanding of risk factors and warning signs can assist in explaining or predicting youth suicide to a degree, they cannot fully account for why individuals engage in suicidal behavior. There is no typical suicidal youth, and a more complete understanding of the etiology of youth suicidal behavior requires sensitivity to a broad range of integrated variables, including psychological, social, neurobiological, and genetic influences (Berman et al., 2006). Although a comprehensive discussion of these variables is outside the scope of this article, many researchers contend that at the root of most forms of suicidal behavior is psychological pain—what the eminent suicidologist Edwin S. Shneidman (1996) refers to as *psychache* and a condition that Joiner (2005) describes as a combination of perceived burdensomeness (i.e., the sense that one is ineffective and/or expendable) and thwarted belongingness (i.e., the sense that one is disconnected and isolated from others).

Although not a central focus of this article or the ones that follow in this special series, school personnel should be cognizant of the importance of reducing psychological pain in their attempts to prevent youth suicidal behavior. Indeed, individuals in the process of contemplating or attempting suicide often do not want to die as much as they want their...
suffering to end (Shneidman, 1996). In many cases, their multiple and varied attempts to decrease or end their pain has not been successful, and as a result they may view death as the only viable option for accomplishing this goal. As such, children and adolescents engaging in suicidal behavior are often seeking relief from a kind of suffering that is “prolonged, intense, and unpalliated” (Jamison, 1999, p. 24) and frequently perceived as unendurable. Although psychological pain is not sufficient to cause suicidal behavior, when experienced in conjunction with the desire for death and the acquired ability to engage in potentially lethal self-harm, the risk for suicide may increase significantly (Joiner, 2005).

Common Myths About Youth Suicide

There are several myths regarding youth suicide, and they may be potential barriers to effective prevention efforts (Miller, Eckert, DuPaul, & White, 1999). Perhaps the most significant and dangerous myth is that asking questions or talking about suicide with children and adolescents will increase the probability of its occurrence (Kalafat, 2003). There is no empirical basis for this belief (Gould et al., 2005), and evidence suggests that youth who are able to openly discuss suicide with a trusted adult can lead to beneficial outcomes for them as well as their peers who may be at risk (Mazza, 2006). Further, the direct questioning of youth suspected of engaging in suicidal behavior is an essential component of effective suicide risk assessment (Miller & McConaughy, 2005).

A second pervasive myth is that those who attempt suicide usually receive medical attention or some other form of treatment (Mazza, 2006). Unfortunately, research suggests this typically does not occur. For example, Smith and Crawford (1986) found that only 12% of a sample of 313 adolescent suicide attempters received medical treatment, leaving 88% untreated. Given that many school-age youth are not old enough to drive, transportation for medical or other forms of treatment would require informing a parent/caregiver or older sibling about their suicidal behavior, an approach that does not appear to be taken by most children and adolescents (Mazza, 2006).

A third myth is that most young people who die by suicide leave suicide notes (Martin & Dixon, 1986). Garfinkel et al. (1982), however, found that only 5% of children and adolescents wrote a suicide note before their suicide attempts, a finding consistent with other research indicating that the majority of people who commit suicide (including both youth and adults) do not leave suicide notes (Jamison, 1999). Like the treatment myth mentioned earlier, it has been suggested that one of the primary reasons why youth typically do not write suicide notes is that they do not want to reveal what they are thinking or feeling to their parents. They may believe that their parents are overinvolved in their lives and that writing a suicide note only increases the probability of parental involvement and/or interference (Mazza, 2006).

A fourth myth is that parents/caregivers are cognizant of their child’s suicidal behavior (Mazza, 2006). One study found that 86% of parents were unaware of the suicidal behavior of their children, including suicide attempts (Kashani, Goddard, & Reid, 1989). This myth again underscores the notion that youth typically do not communicate their suicidal thoughts or actions to their parents/caregivers, and reinforces the need for school personnel to directly ask youth about their suicidal behavior rather than relying on parents or other adults for this information (Miller & McConaughy, 2005).

Finally, other common myths regarding youth suicide include the belief that it is caused primarily by family and social stress rather than mental health problems or disorders (Moskos, Achilles, & Gray, 2004), that individuals who talk about suicide are only doing so to get attention and are not seriously considering it (Martin & Dixon, 1986), and that once an individual decides to commit suicide there is little or nothing that can be done to prevent it (King, 1999). This last myth has particular implications for suicide prevention, given that underlying it is the mistaken notion that preventing suicide or a suicide
attempt is ultimately fruitless because the individual will simply attempt or commit suicide at another time. Research suggests, however, that this is regularly not the case. For example, in a frequently cited study, Seiden (1978) examined 515 individuals who were restrained from attempting suicide from the Golden Gate Bridge from 1937 through 1971 and found that 94% did not later die by suicide. More recently, researchers in Great Britain found a significant reduction in suicides (more than 50%) after a fence was installed on a local bridge (Benneworth, Nowers, & Gunnell, 2007). In addition, these researchers found no evidence of increased jumping from other sites in the region protective fences had been erected.

Current Controversies

There are a number of current controversies in the area of youth suicide, most of which relate to suicide prevention. One controversy involves the use of antidepressant medication with children and adolescents and its possible relationship to suicidal behavior. This began when research suggested that Paroxetine, a selective serotonin reuptake inhibitor, demonstrated a slight increase in suicidal ideation and behavior in children and adolescents with major depressive disorder, leading to public concerns voiced by the Food and Drug Administration and other regulatory agencies (Kratochvil et al., 2006). In 2004, the results of a meta-analysis including 24 controlled clinical trials (approximately 4,400 pediatric patients) of nine antidepressant medications were presented at a public hearing. There were no suicides within any of the trials, and the cumulative risk of spontaneously reported suicidal ideation was 4% for active medication and 2% for placebo (Hammad, Laughren, & Racoosin, 2006).

Following this hearing and recommendations from various public health and psychopharmacological organizations, in October of 2004 the Food and Drug Administration issued its “black box” warning for all antidepressants. This warning essentially stated that an increased risk of suicidality may accompany the use of antidepressants with pediatric populations (Hammad et al., 2006). Following this warning, the number of antidepressant prescriptions written for pediatric populations has decreased significantly (Bhatia et al., 2008). Ironically, there is now speculation that the decreased numbers of youth taking antidepressant medication because of fears about its possible relationship to suicidality may be at least partially responsible for an increase in youth suicide (Gibbons et al., 2007). In a recent review, Bostwick (2006) found the evidence for a link between antidepressants and youth suicide to be “underwhelming” and suggested that, if vulnerability to suicide from medication use exists, it is most likely to develop in the first few weeks after beginning medication, and that the more time an individual is medicated, the less likely suicidal behavior will occur. This issue remains highly controversial, however, and more research in this area is clearly needed.

A second controversy concerns the issue of “no-suicide” or “safety” contracts, which are written or verbal agreements commonly negotiated with suicidal individuals in the hope that it will improve intervention compliance and decrease the probability of further suicidal behavior (Brent, 1997). This procedure appears to be popular among many mental health professionals, particularly in outpatient settings where they often are a major element of treatment (Berman et al., 2006). Although some individuals appear to support the use of no-suicide/safety contracts in risk assessment (e.g., Stanford, Goetz, & Bloom, 1994) and intervention (e.g., Egan, 1997), others (e.g., Goin, 2003) believe they provide mental health professionals with a false sense of security and decrease clinical vigilance. For example, Jobes (2003) has suggested that “safety contracts are neither contractual nor do they ensure genuine safety, because they tend to emphasize what patients won’t do versus what they will do” (p. 3). A recent literature review on this topic found no empirical support for the use of no-suicide contracts, leading the authors to propose the use of commitment to treatment statements as an alternative (Rudd, Mandrusiak, & Joiner, 2006). Never-
theless, the use of no-suicide contracts continues to be a widespread practice among many mental health professionals (Berman et al., 2006).

A third controversy concerns the relationship between the media and suicide, a topic that has long been debated. This concern developed from research supporting the notion that suicide can be “contagious” in the sense that exposure to suicidal behaviors can influence others to copy them. Research suggests that the extent of media contagion is modest, although the media can play a crucial role in the decision-making process of vulnerable individuals (Hawton & Williams, 2001), especially in cases of nonfictional presentations of suicide on television or in books or newspapers (Pirkis & Blood, 2001). Media-related suicide contagion appears more likely to occur when members of the audience feel a sense of identification with the suicide victim (e.g., age, gender, nationality), when the method of suicide is specified in a story, when a story is reported or displayed prominently or dramatically, and when suicides of celebrities are reported (Hawton & Williams, 2001; Pirkis, Blood, Beautrais, Burgess, & Skehan, 2007; Stack, 2003). Listening to or viewing certain kinds of rock music or music videos may also increase suicidal ideation in certain vulnerable individuals (Rustad, Small, Jobes, Safer, & Peterson, 2003).

Given that children and adolescents may be especially vulnerable to media influences (Hawton & Williams, 2001), providing guidelines to the media about the appropriate portrayal of suicide is critical. Some of these recommended media guidelines include (a) avoid sensationalistic coverage of the suicide, (b) avoid glorification or vilification of the victim, and (c) do not provide excessive details of the suicide (Brock, 2002). The American Association of Suicidology provides a more detailed description of media guidelines (www.suicidology.org), and school personnel are encouraged to become familiar with them. Unfortunately, Pirkis et al. (2007) suggested that there is currently inconclusive evidence regarding whether media guidelines have had an effect on the behavior of media professionals or on suicide rates.

Implications for Schools and School Psychologists

Suicidal behavior in children and adolescents has many implications for schools and school psychologists. First, school personnel have an ethical and legal responsibility to make reasonable and appropriate efforts to prevent youth suicide, including creating clear policies and procedures on this topic (Jacob & Hartshorne, 2007). School psychologists can and should play an integral role in this process. Second, there is a strong relationship between youth suicide and mental health problems (Mazza, 2006), and school personnel have been have been asked to take on a greater role in promoting students’ mental health and wellness (Miller, Gilman, & Martens, 2008), particularly in the area of prevention (Power, DuPaul, Shapiro, & Kazak, 2003). Third, given the substantial amount of time children and adolescents spend in school, it would appear that educational facilities provide an ideal arena for focused prevention efforts (Eckert, Miller, DuPaul, & Riley-Tillman, 2003). Fourth, given that recent national surveys indicate many school psychologists perceive themselves as requiring additional training in suicide risk assessment (Miller & Jome, 2008), prevention, and intervention (Anderson & Miller, 2008; Debski et al., 2007; Miller & Jome, 2009), they would clearly appear to benefit from additional information on this topic. Moreover, in those tragic cases in which a student does die by suicide, schools and school psychologists can play an important role in developing postintervention procedures designed to prevent additional suicidal behavior, including possible contagion effects (Brock, 2002).

Another important implication of youth suicidal behavior for school personnel is the possible relationship between academic problems and suicidal behavior. For example, Daniel et al. (2006) found that adolescents with poor reading ability were more likely to experience suicidal ideation or attempts and to
drop out of school than youth with typical reading ability, even when controlling for psychiatric and demographic variables. Similarly, there may be a relationship between perceived academic performance and youth suicidal behavior. One study found that perceptions of failing academic performance were associated with an increased probability of a suicide attempt among a group of adolescents, even when controlling for self-esteem, locus of control, and depressive symptoms (Richardson, Bergen, Martin, Roeger, & Allison, 2005). A longitudinal follow-up study found that perceived academic performance, along with self-esteem and locus of control, were significantly associated with suicidal behavior, with perceived academic performance found to be a particularly good long-term predictor of suicidality (Martin, Richardson, Bergen, Roeger, & Allison, 2005). Additional research in this area is needed, especially given the hypothesized relationship between perceived ineffectiveness and suicide (Joiner, 2005).

School psychologists can also play an important role in monitoring antidepressant medications, which may be prescribed for students with a history of or potential for engaging in suicidal behavior. Medication monitoring is an appropriate role for schools psychologists, and one that research suggests they are willing and able to perform (Gureasko-Moore, DuPaul, & Power, 2005). For medication monitoring to be most effective, school psychologists are encouraged to take a flexible approach that includes an assessment of the acceptability and feasibility of evaluation components and is integrated into a problem-solving framework (Volpe, Heick, & Gureasko-Moore, 2005).

Finally, the importance of school psychology practice addressing youth suicidal behavior was recognized within the context of two broad themes (i.e., focusing on prevention and early intervention; incorporating public health approaches) identified in the 2002 Multisite Conference on the Future of School Psychology. Two of the priority outcome goals from that conference (i.e., Outcome 2: Improved Social Emotional Functioning for All Children; Outcome 5: Increased Child and Family Services in Schools that Promote Health and Mental Health) clearly relate to this topic as well (Dawson, Cummings, Harrison, Short, Gorin, & Palomares, 2003/2004).

### Research Gaps and Needs

Although research in the area of youth suicidal behavior has steadily progressed, there remain several important gaps in the literature, including the identification of effective and acceptable school-based suicide prevention programs. In particular, there is a need for more research on effective and acceptable methods for the early identification of mental health problems and potential suicidal behavior through school-based screening and assessment (Levitt, Saka, Hunter Romanelli, & Hoagwood, 2007). Research also is needed to identify school organizational factors that promote the development, implementation, and sustainability of effective suicide prevention initiatives.

In addition, research on the possible warning signs for suicidal behavior has not yet been conducted specifically with children and adolescents, and further research in this area would have important implications for school-based suicide prevention (Van Orden et al., 2008). More research also is needed to determine effective methods of teaching students, school personnel, and parents/caregivers how to effectively recognize and respond to youth suicidal behavior, as well as the degree to which commonly accepted myths about youth suicide may possibly inhibit prevention efforts. Finally, given the controversy surrounding the use of antidepressant medication and its relationship with youth suicidal behavior, more research in this area would be beneficial, including the issue of how schools can more effectively and efficiently monitor medication effects.

### Purpose and Overview of the Special Series

The special series has three primary purposes. First, it is designed to provide a current, state-of-the-art overview of school-based suicide prevention. Second, the articles in this
series address current gaps in the professional literature, particularly the identification of effective school-based suicide prevention programs and procedures. Third, these articles are designed to promote the use of best practices in implementing, evaluating, and sustaining school-based suicide prevention efforts.

The special series includes four core articles and three invited commentaries, in addition to this introductory paper. First, Miller, Eckert, and Mazza (2009) provide a public health perspective on school-based suicide prevention programs, including a literature review of this topic as well as a discussion of how schools and school psychologists can advance suicide prevention efforts. In the second article, Zenere and Lazarus (2009) discuss the development, implementation, and longitudinal outcomes of a comprehensive school-based youth suicide prevention program implemented in a large, urban, multicultural school district. This research brief is especially valuable because it provides one of the few examples in the professional literature of a school-based prevention program demonstrating long-term reductions in actual suicidal behavior rather than simply changes in students’ knowledge or attitudes. Next, Gutierrez and Osman (2009) examine the sensitivity and specificity of scores obtained from a school-based screening project to identify high school students at risk for suicidal behavior. Implications of their findings for large-scale screening efforts are discussed with special consideration of false positive and false negative rates. Given many researchers contend that student screening is an essential component of effective school-based suicide prevention, this study should have particular interest for school psychologists.

In the fourth paper, Nickerson and Slater (2009) examine whether specific indicators of school violence (e.g., weapon carrying; involvement in physical fights) and victimization (e.g., being threatened; being fearful to go to school) predict the likelihood of high school students thinking about or attempting suicide based on data obtained from the Youth Risk Behavior Survey. This study examines the unique influences of violent behavior and peer victimization in the school and community and their relationship to adolescent suicidal behavior—a topic not typically addressed in the professional literature and one that has important implications for school-based suicide prevention. The special series concludes with commentaries from Alan Berman (2009), Susan Jacob (2009), and Thomas Joiner (2009). Alan Berman is a nationally recognized scholar in the area of youth suicide and is the executive director of the American Association of Suicidology, a leading national organization devoted to suicide prevention. Susan Jacob is Professor of Psychology at Central Michigan University and an acknowledged authority in the area of professional standards, ethics, and legal requirements for the delivery of school psychological services. Thomas Joiner, one of the leading figures in contemporary suicidology, is Distinguished Research Professor and the Bright-Burton Professor of Psychology at Florida State University and editor of Suicide and Life-Threatening Behavior, the premier journal in the field. All three commentaries provide interesting, informative, and unique perspectives on the articles in the special series.

**Conclusion**

Youth suicidal behavior is a significant national problem that requires urgent attention in our nation’s schools. Despite fluctuating rates over time, the number of child and adolescent suicides has increased significantly in recent decades, a trend that is likely to continue. All school personnel, and particularly school-based mental health practitioners such as school psychologists, have an ethical and legal responsibility to prevent youth suicide whenever possible, to address this problem at a systems level, and to do so in manner supported by empirical research. Although comprehensive youth suicide prevention requires the involvement of family members, peers, professionals, and members of the community (Berman et al., 2006), schools and school psychologists can play a vital role in this process. The articles in this special series are designed to provide current information on research ad-
vances in school-based suicide prevention as well as their implications for practice. It is our hope that the articles in this series will shed some light on this topic and ultimately lead to more effective suicide prevention efforts in our nation’s schools.

References


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<thead>
<tr>
<th>Name</th>
<th>Institution</th>
<th>Field</th>
<th>Research Interests</th>
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<tbody>
<tr>
<td>David N. Miller, PhD</td>
<td>Lehigh University</td>
<td>School Psychology</td>
<td>School-based suicide prevention, childhood internalizing disorders, positive youth development</td>
</tr>
<tr>
<td>Tanya L. Eckert, PhD</td>
<td>Lehigh University</td>
<td>Psychology</td>
<td>Examining procedures for assessing academic and behavioral problems, classroom-based interventions, measuring the acceptability of assessment and intervention procedures</td>
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She is an associate editor of the *School Psychology Review*. 