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2. Discuss the traditional and non-traditional risk factors that are associated with teen suicide.
3. Describe the potential intervention strategies for preventing teen suicide and the National Objectives for Gate Keepers.

Article

Teen Suicide

Author: Colleen Symanski-Sanders, RN, Forensic Nurse Specialist

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Introduction

Suicide and youth hardly seem like they should have anything in common. Unfortunately, the statistics tell us that they have too much in common. Suicide is the third leading cause of death for youth between 10 and 24 years of age. In 1981, suicide amongst 10 to 14 year olds was the fourth leading cause of death, but it has moved up to third place today. In no other age group does suicide rank this high; however, bear in mind that suicide is a major public health problem regardless of age. It is one of the top ten leading causes of death in the United States, ranking 8th or 9th for the last few decades. The collected data basically involve suicide (meaning successful). There is no national database of attempted suicide. However, the Youth Risk Behavior Survey, conducted by the CDC biennially, provides information on young people and reports that a large number of youth in grades 9 through 12 consider or attempt suicide. This article will look at current studies, the risk factors, the pathology, and interventions of youth and suicide.

In one recent survey of high school students, 60% said they had thought about killing themselves. About 9% said they had tried at least once. Why has the youth suicide rate become so high in recent years?

- It's easier to get the tools for suicide (Boys often use firearms to kill themselves; girls usually use pills);
- the pressures of modern life are greater;
- competition for good grades and college admission is stiff; and
- there is more violence in the newspapers and on television.

Lack of parental interest may be another problem. Many children grow up in divorced households, whereas for others, both parents work and their families spend limited time together. According to one study 90% of suicidal teen-agers believed their families did not understand them. However, this is such a common teenage complaint that other factors are playing a role, as well. Young people also reported that when they tried to tell their parents about their feelings of unhappiness or failure, their mother and father ignored or rejected their point of view.

Gender Differences (See Table 1)

- In the U.S., nearly 3.6 times as many teen boys commit suicide as girls.
Suicide is often associated with aggressive behavior, which is more common in males. Gender differences in the chosen method for suicidal behavior, such as drug overdoses that are favored by women, are usually unsuccessful in North America and Western Europe, but are more likely to be successful in third world countries. Suicide rates among whites are higher than among blacks at all ages, including the teen years.

Methods

- Firearms are the most common method used in the United States. (Firearms are used in about 6 of every 10 suicides.)
- Drug ingestions account for very few male suicides.
- Hanging is more common in early adolescence than in later years.

Frequency of method

The most frequent method varies by location:

- Hanging: All locations
- Firearms: Rural
- Asphyxiation: Suburban
- Jumping: Urban

Precipitants

- Suicide often occurs shortly after a stress event, most commonly a disciplinary crisis or a recent disappointment or rejection (i.e. dispute with a girlfriend, examination failure, or failure to get a job).
- Attempts to reconstruct the mental state of teen suicides from psychological autopsy research suggests that high levels of anxiety or anger are commonly present just prior to death.

TABLE 1. Suicide rates * for persons 15 to 24 years of age, by age group and sex – United States, 1950 to 1990

<table>
<thead>
<tr>
<th>Category</th>
<th>Year 1950</th>
<th>Year 1960</th>
<th>Year 1970</th>
<th>Year 1980</th>
<th>Year 1990</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age 15 – 19 Male</td>
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<td>5.6</td>
<td>8.8</td>
<td>13.8</td>
<td>18.1</td>
</tr>
<tr>
<td>Age 15 – 19 Female</td>
<td>1.8</td>
<td>1.6</td>
<td>2.9</td>
<td>3.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Age 15 – 19 Total</td>
<td>2.7</td>
<td>3.6</td>
<td>5.9</td>
<td>8.5</td>
<td>11.1</td>
</tr>
<tr>
<td>Age 20 – 24 Male</td>
<td>9.3</td>
<td>11.5</td>
<td>19.2</td>
<td>26.8</td>
<td>25.7</td>
</tr>
<tr>
<td>Age 20 – 24 Female</td>
<td>3.3</td>
<td>2.9</td>
<td>5.6</td>
<td>5.5</td>
<td>4.1</td>
</tr>
<tr>
<td>Age 20 – 24 Total</td>
<td>6.2</td>
<td>7.1</td>
<td>12.2</td>
<td>16.1</td>
<td>15.1</td>
</tr>
<tr>
<td>Age 15 – 24 Male</td>
<td>6.5</td>
<td>8.2</td>
<td>13.5</td>
<td>20.2</td>
<td>22.0</td>
</tr>
<tr>
<td>Age 15 – 24 Female</td>
<td>2.6</td>
<td>2.2</td>
<td>4.2</td>
<td>4.3</td>
<td>3.9</td>
</tr>
</tbody>
</table>
Age 15 – 24 Total | 4.5 | 5.2 | 8.8 | 12.3 | 13.2

* Per 100,000 persons. Source: National Center for Health Statistics, CDC.

**Risk Factors**

There are no authoritative answers to explain why adolescents attempt and complete suicide. There is however, a consensus that youth who take their own lives feel hopeless about their situation and believe it will never change. Suicide emerges as a reaction to seemingly unbearable pain. A complex set of factors interacts with the biological, emotional, intellectual, and social stages of adolescent development. The factors identified below contribute to suicidal acts. High-risk factors for suicide have remained fairly constant over the years – previous suicide attempts, age 16 or over, associated mood disorders, and associated substance abuse.

**Socio-Environmental**

- There are minimal differences in the socioeconomic status of the suicide victim compared to that of the general population.
- Suicide victims are less likely to attend college than the same-age, same-sex general population.
- Access to firearms: there is conflicting evidence as to whether it is the same or higher in suicide victims than the general population.

**Families**

- Youngsters who commit suicide are somewhat more likely to come from a "broken" home than are others of the same ethnic group – approximately half lived with both biological parents at the time of the death.
- No strong connection to marital disharmony.
- No strong connection to parent-child friction, but there is a significant excess of poor parent-child communication in suicides.
- A high proportion of suicides and attempted suicides have had a close family member or friend who attempted or committed suicide. Familial suicide could be a function of imitation or genetics.

**Perinatal Hazard**

- Mothers of the potential suicide victims received less prenatal care.
- Thus, some suicide etiology could be due to CNS consequences of birth complications, exposure to some teratogen during pregnancy, the heritability of psychopathology, or the effects of inappropriate parenting by some mothers, etc.

**Sexual Orientation**

- Homosexuality may increase the risk for suicide attempts, but not for successful suicide.

**Neurochemical Abnormalities**

- Some studies suggest a neurochemical abnormality such as, abnormally low levels of the serotonin metabolite 5HIAA; reduction in pre-synaptic 5HT receptor density; or an increase in post-synaptic 5HT receptor density in older adolescents and adults.

**Imitative Suicide Evidence**

- Suicide rates tend to go up after the release of a film or news story on suicide.
- There are accounts of specific suicides committed shortly after seeing or reading about a suicide.
- Suicide clusters appear to depend on imitation.
Diagnosis in Completed Suicides

- Psychiatric diagnoses are present in about 90% of suicides.
- Alcohol and cocaine abuse are present in approximately 2/3 of 18 to 19 year-old males, but is not common in the younger male (< age 14) or female suicides.
- Depression with or without aggressive behavior and/or substance abuse or anxiety is found in over half of all suicides.
- Aggressive/impulsive behavior is common in both sexes.
- Only a small number of suicides occur in schizophrenic or manic-depressive teenagers.
- Approximately 1/3 of teenage suicide victims have made a previous suicide attempt.
- About half of the teenagers who commit suicide have had previous contact with a mental health professional.

Accutane Use

Accutane was approved in 1982 to treat severe nodular acne and the drug made claims that Accutane was useful for the "psychological trauma" and "emotional suffering" that is associated with acne. On February 25, 1998 the FDA issued a warning about the occurrences of depression, suicide, and psychosis in patients using Accutane. Hoffman-La Roche has since updated the drug label and stopped advertisements about the psychological benefits of the drug. Although the exact number of suicides associated with Accutane are not available due to reporting discrepancies, the combination of teens and the use of Accutane requires close monitoring.

New! Non-Traditional Risk Factors

The spiraling upward trend in the number of youths committing suicide was a catalyst for the Centers for Disease Control and Prevention (CDC) research and intervention (see table one). In April 2002, the CDC released results on non-traditional risk factors for nearly lethal suicide attempts. The study used an innovative approach in order to research individuals that attempted suicide (focused on 13 to 34 years old), who either used a highly lethal method or would have died without medical help. Researchers at the CDC identified several non-traditional health risk factors that have rarely been mentioned in previous suicide research. Their findings are published in a special supplement to the spring edition of Suicide and Life-Threatening Behavior (SLTB) – the official journal of the American Association of Suicidology, which can be accessed on the CDC’s website at www.cdc.gov/ncipc. Teens do not have the same sense of finality of suicide as adults do. Besides depression, other significant risk factors were identified in the CDC-Houston study such as substance abuse, severe stress in school, and/or social and behavioral traits, such as impulsiveness. The key findings are listed below.

1. Non-medically serious suicide attempters had a higher incidence of psychiatric problems than near lethal suicide attempters.
2. Teens from highly mobile families have been identified as being at significant high risk. Moving in the past 12 months was associated with an increased risk for a nearly lethal suicide attempt. Frequency of moving, distance moved, and difficulty staying in touch with friends were factors that increased the likelihood of a nearly lethal suicide attempt.
3. Nearly 1 in 4 of those who made a nearly lethal suicide attempt reported that less than 5 minutes passed between their decision to attempt suicide and their actual attempt, indicating the impulsiveness of the attempt.
4. Drinking within three hours of the attempt was the most important alcohol-related risk factor for a nearly lethal suicide attempt and was more important than alcoholism or binge drinking.
5. Nearly lethal suicide attempters more often sought help from family and friends than from professionals.

Re-Examination of Two Basic Prevention Strategies

Crisis Services hotlines, though helpful, often lack efficacy in the teen because of the disturbed mental state before suicide and the impulsiveness of the suicide. Teens don't use them and males don't use them. Only a few educational/awareness programs subscribe to a model of suicide as a product of mental illness. Many programs assume that suicide is a result of common environmental stresses and that all teenagers share a potential vulnerability to suicide. Programs do not effectively increase knowledge or alter unwanted attitudes toward suicide, nor do they increase help-seeking behavior. And, unfortunately, many are unselective having an audience that is predominantly not at risk for suicide.

Intervention

A longstanding practice in adult suicide prevention is screening, early detection, diagnosis, and treatment for clinical
depression, which has gained support by success. For adolescents/teens that are caught in emotional turmoil by influential hormones and development, the diagnosis of the same clinical depression has not been sensitive enough for suicidal screening and false positives are also common. Thus, this leaves the teen, family, and clinician paralyzed. Finland initiated the first national suicide prevention strategy in 1986. In 2001, efforts in the United States by advocates, clinicians, researchers, and survivors produced The National Strategy for Suicide Prevention (National Strategy or NSSP). It represents the first attempt in the United States to prevent suicide through a coordinated approach by both the public and private sectors. The National Strategy lays out a framework for action and guides development of services and programs to be set in motion. Within this document, is a key section entitled "Goals and Objectives for Action". It is a clear articulation of a set of goals and objectives that provides a roadmap for action for "gate keepers" (which are individuals on various federal, state, and local levels who have contact with youth). It is here that we must set aside our current thoughts and comfort level with our education and start anew, because past and current interventions have not been sufficient.

Safer and more effective psychotropic medications have led to better treatment of many conditions associated with suicidal behaviors and advances in family, group, and individual therapies have led to better treatment of at-risk individuals. However, with improved drugs, studies indicate a need for more effective medication management for teens. Approximately 45% of individuals who committed suicide had some contact with a mental health professional within a year of their attempt and it is estimated that only 18% of suicide decedents reported suicidal ideation to a healthcare professional prior to their death. There is concern that at-risk individuals often seek professional help, but may not have their condition adequately recognized and are not likely to report the true severity of their condition. Studies indicate a need for more healthcare professionals to be better trained to provide proper assessment, treatment, and management of suicidal individuals and/or know how to refer them properly for specialized assessment and treatment. It is difficult to dispute these claims given the suicide rate amongst our youth unless we claim there is nothing that can be done.

We are the Gate Keepers

The sixth goal listed in the National Strategy for Suicide Prevention is to "Implement Training for Recognition of At-Risk Behavior and Delivery of Effective Treatment". "Key gatekeepers", those people who regularly come into contact with individuals or families in distress, must be trained to recognize behavioral patterns and other factors that place individuals at risk for suicide and be equipped with effective strategies to intervene before the behaviors and early signs of risk evolve further. Key gatekeepers interact with people in environments of work, play, and natural community settings, and have the opportunity to interact in ways other than the medical setting. Although many textbooks, manuals, handbooks, multimedia presentations, journals, and brochures discuss the assessment and management of suicidal risk, as well as, the identification and promotion of protective factors, there is a need to define the minimum course objectives when educating each type of key gatekeeper about his or her special role and perspective. Each has a unique relationship to individuals at risk and a responsibility to intervene in a timely and effective manner. Key gatekeepers are identified as:

- Teachers and school staff and school health personnel
- Clergy
- Police officers and correctional personnel
- Supervisors in occupational settings
- Natural community helpers
- Hospice and nursing home volunteers
- Primary healthcare providers and emergency healthcare personnel
- Mental healthcare and substance abuse treatment providers

National Objectives for Gate Keepers

Perhaps because I am a mother of a male teen and an instructor at a middle school and high school I am biased toward the urgency of implementing the national goals and objectives. I am also reminded of the nursery rhyme "Jack and Jill" – you know – they went up the "hill"... But when faces and names can be put to adolescent/teen suicide statistics there can be no rational reason for professionals and organizations not to begin implementing these objectives voluntarily. Listed below are excerpts of the objectives from the National Strategy for Suicide Prevention.

Objective 6.1: By 2005, define minimum course objectives for providers of nursing care in assessment and management of suicide risk, and identification and promotion of protective factors. Incorporate this material into curricula for nursing care providers at all professional levels.
• Nurses deliver health care education and interventions in many different settings, from community health clinics to school settings to private practice offices to occupational settings and to hospital settings. They are often the first individuals to see and hear about signs and symptoms of at-risk behavior, and are often in a unique position to intervene effectively when such behaviors are identified. As important members of the healthcare delivery team their education and training in this subject is critical.

**Objective 6.2:** By 2005, increase the proportion of physician assistant educational programs and medical residency programs that include training in the assessment and management of suicide risk and identification and promotion of protective factors.

• Physicians and physician assistants can benefit from training in the assessment of at-risk behaviors for suicide and in the effective treatment interventions. They should be skilled in talking with patients about the risk for suicide, in providing crisis intervention for those at imminent risk for the expression of suicidal behaviors, and in referring their patients for expert assessment and treatment.
• Many suicidal individuals make contact with their physicians within a few weeks prior to their death. Their imminent risk for suicide may have gone undetected or unappreciated because, in part, the physicians were not appropriately trained to assess and manage suicide. With such training, fewer suicidal patients will go unrecognized and untreated.

**Objective 6.3:** By 2005, increase the proportion of clinical social worker, counseling, and psychology graduate programs that include training in the assessment and management of suicide risk, and the identification and promotion of protective factors.

• Counselors, clinical psychologists, and clinical social workers are often on the “front line” in assessing and treating individuals who are at increased risk for suicidal behaviors. It is important that these mental health personnel receive appropriate graduate school training on the subject of suicide while preparing for their professions. Surveys of clinical psychology training programs and social worker training programs, reveal that an insufficient number of training programs provide adequate preparation for the recognition of at-risk suicidal behavior and the delivery of effective treatment.

**Objective 6.4:** By 2005, increase the proportion of clergy who have received training in identification of and response to suicide risk and behaviors and the differentiation of mental disorders and faith crises.

• Clergy often provide counseling and interventions for those in distress, and for some, they may be the first or only professionals to be in a position to provide emotional support. Individuals who are adjusting to and recovering from personal losses may be at increased risk for the expression of self-destructive behaviors. Clergy should be trained to identify and respond to suicidal risk, as well as, to encourage and support appropriate protective factors to lessen the likelihood of suicidal behaviors.

**Objective 6.5:** By 2005, increase the proportion of educational faculty and staff who have received training on identifying and responding to children and adolescents at risk for suicide.

• Surveys by the Centers for Disease Control indicate that suicidal thoughts and self-reported suicide attempts are prevalent among high school students. It is well known that adolescents and young adults will not seek out interventions or counseling by adults unless they feel that they can trust the adult to maintain respect, confidentiality, and provide knowledge and appropriate information. Therefore, it makes sense to train those school personnel who are most likely to come in contact with students at risk. In addition to educational faculty, bus drivers, custodians, and playground supervisors are among those school staff that have frequent contact with students. Although efforts have been taken to develop training manuals and handbooks for educators, many school personnel lack the tools and training to intervene effectively on behalf of students at risk.
• The staff and teachers in these systems need to be better equipped to identify and communicate with students about suicidal behaviors, as well as, to communicate among themselves about these issues. School staff and faculty are not expected to make clinical diagnoses, but rather to be able to recognize developing signs and symptoms associated with mental disorders, substance abuse, or suicidal risk. Providing them with the vocabulary, techniques, and skills to be comfortable with these issues will enhance their ability to intervene effectively and make appropriate referrals.

**Objective 6.6:** By 2005, increase the proportion of correctional workers who have received training on identifying and responding to persons at risk for suicide.

• Although the Federal prison system has a lower suicide rate than the general population, there is an alarmingly high rate
of suicide attempts and suicides in jails and correctional institutions in the United States. Given the often volatile nature of the circumstances that result in someone being placed in a jail or a correctional facility, suicide and suicidal behaviors are much more common than in the general population. The training of correctional workers is an important step to reduce the likelihood of individuals engaging in self-destructive behaviors when placed in correctional settings.

**Objective 6.7:** By 2005, increase the proportion of divorce and family law and criminal defense attorneys who have received training in identifying and responding to persons at risk for suicide.

- Attorneys involved in divorce proceedings, custody cases, family law cases, and criminal defense cases, often work with clients who are in heightened emotional states, depressed, or hopeless, and who may have lost important social support. Such individuals may be at increased risk for violence and suicide, and attorneys are often in a position to identify this increased risk and to refer them for specialized interventions.

**Objective 6.8:** By 2005, increase the proportion of counties (or comparable jurisdictions such as cities or tribes) in which education programs are available to family members and others in close relationships with those at risk for suicide.

- It has been shown that educating family members about how to understand, monitor, and intervene with family members at risk for suicide, results in better management and treatment of those identified individuals.
- Organizations such as the National Alliance for the Mentally Ill have conclusively demonstrated the value of family education and they support a network education to improve the care of individuals who are at risk. Because the exact timing of suicidal behaviors is very difficult to predict, it is important that key members of the family unit and social support network are knowledgeable about potential risks for suicide and about how to protect an individual from self-harm.

**Objective 6.9:** By 2005, increase the number of re-certification or licensing programs in relevant professions that require or promote competencies in depression assessment, management and suicide prevention.

- The close association between mental disorders, especially depression, and suicidal behaviors warrants ensuring that professionals are competent in applying the tools and techniques of diagnosis, treatment, management, and prevention to those mental disorders associated with suicidal behaviors. In most states, nurses, psychologists, clinical social workers, physicians, and other healthcare professionals must complete licensing examinations or re-certification programs in order to maintain active licenses and to ensure ongoing professional certifications. One mechanism to ensure that professionals remain competent to deal with suicidal behaviors is to include the subject area in re-certification or licensing programs.

**Conclusion**

All adolescents with symptoms of depression should be asked about suicidal ideation, and an estimation of the degree of suicidal intent should be made. No data indicate that inquiry about suicide precipitates the behavior. Teens are often relieved that someone has heard his or her cry for help. For most, this cry for help represents an attempt to resolve a difficult conflict, escape an intolerable living situation, make someone understand their desperate feelings, or make someone feel sorry or guilty. Suicidal thoughts or comments are not to be dismissed as unimportant by clinicians or teens that are often their peer’s confidantes. An author (Ernest Hemingway) not a clinician wrote, " The world breaks everyone, and afterward some are stronger in the broken places...". We are obligated to heed those words and help those who are not stronger physically or psychologically.

**References or Suggested Reading:**

4. Centers for Disease Control and Prevention. Programs For The Prevention Of Suicide Among Adolescents And Young Adolescents And Suicide Contagion And The Reporting Of Suicide: Recommendations From A National Workshop. MMWR 1994;43 (No.RR-6) www.cdc.gov/mmwr/preview/mmwrhtml.
About the Author(s)

Colleen Symanski-Sanders, RN, Forensic Nurse Specialist, has been a Registered Nurse for over 18 years. She has extended her education into forensic nursing, criminal profiling, and psychopathy receiving a Certificate as a Forensic Nurse Specialist. She has over 16 years experience in public health and home care nursing.

Colleen has been an author of educational material for St. Petersburg College, St. Petersburg, Florida. She has also lectured on a variety of topics at numerous nursing symposiums and conferences across the country. She is on the Editorial Board for "Home Health Aide Digest" and "Private Duty Homecare" publications.