SCHUBERT CENTER FOR CHILD STUDIES

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YOUTH SUICIDE: Prevalence and Prevention

Suicide is a major public health issue facing young people worldwide. Suicidal ideation (thoughts or wishes to end one's life) and suicide affect youth from all cultures and socioeconomic groups.[1] In the United States and in Ohio, suicide was the second leading cause of death for children ages 10-17 in 2014.[2] In Ohio, suicide accounted for 23% of deaths (59 deaths total) in this age group.[2] Locally in Cuyahoga County, Ohio, the Youth Risk Behavior Survey (YRBS) asks middle and high school students four questions about depression and suicide risk behaviors, including questions about self-harm, feeling sad or hopeless, thinking about suicide, and attempting suicide.[3,4] Data from the 2014 middle school YRBS shows that 21.3% of students reported feeling sad or hopeless almost every day for two weeks or more. It also revealed that 14% of middle schoolers had seriously considered attempting suicide and 10% said they had attempted suicide in the past year.[3] Data from the 2013 high school YRBS shows that high schoolers seriously considered suicide and attempted suicide at similar rates to the middle schoolers.[4] The three leading methods of youth suicide include firearms, hanging and poisoning.[5] In recent years there has been a growing body of research investigating the risk factors and protective factors contributing to youth suicide. Understanding the risk and protective factors that contribute to suicidal behavior can lead to better intervention and prevention programs.

SUICIDE IN CHILDHOOD & ADOLESCENCE

Age and Gender

Suicide rates increase with age from childhood to adolescence.[5] Rates of suicide in adolescents (ages 12-19) are roughly 50 times higher than in children ages 5-11.[6] This increase could be due to the greater incidence of mental health problems in adolescents. It could also be related to a number of developmental factors including increased autonomy and more advanced cognitive abilities for planning and executing a lethal suicide attempt.[5]

Epidemiological data reveal a gender paradox, specifically that adolescent girls have higher rates of suicide attempts, but adolescent boys have higher rates of completed suicide.[7] This paradox is also age dependent.[7] The higher rates of suicide attempts among girls increase with age and peak in mid-adolescence. The higher rates of suicide among boys continue to climb until early adulthood. Researchers have suggested that these gender differences may be explained by a variety of factors including different genetic vulnerabilities as well as the different social and cultural contexts that youth interact with as they develop.[7]

Race and Ethnicity

Although suicide affects all races and ethnicities some groups have higher rates than others. In the United States, American Indian and Alaska Native youth have the highest rates of attempted and completed suicides when compared with youth of other races and ethnicities.[8] When comparing only white and black youth, trends show that white youth have higher rates of suicide than black youth.[8] However, in recent years the racial gap has narrowed due to an increasing rate of suicide among older black adolescents.[8] Compared with non-Hispanic youth, Hispanic youth show higher rates of suicidal ideation and attempted suicide.[8]

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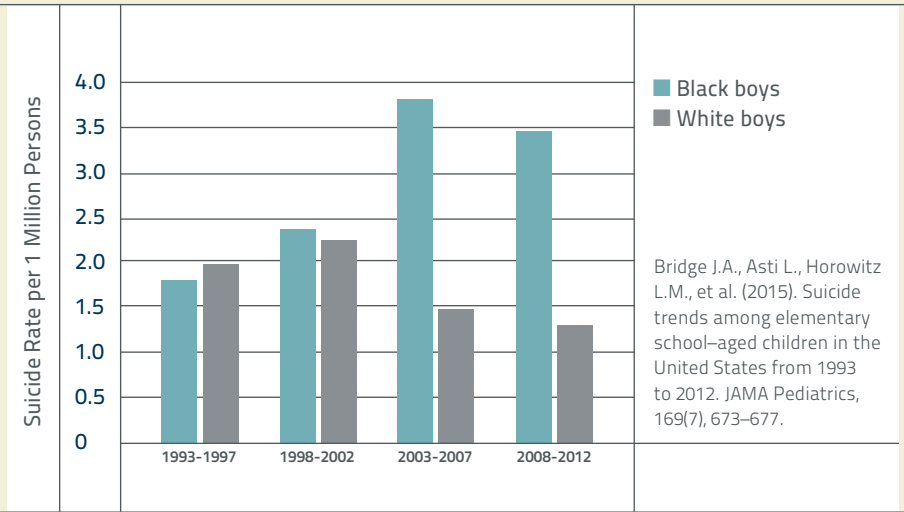
FIGURE 1: SUICIDE RATES AMONG WHITE AND BLACK BOYS AGED 5 TO 11 YEARS IN THE U.S.



Bridge J.A., Asti L., Horowitz L.M., et al. (2015). Suicide trends among elementary school–aged children in the United States from 1993 to 2012. JAMA Pediatrics, 169(7), 673–677.

TABLE 1: DEPRESSIVE SYMPTOMS AND EXAMPLES IN ADOLESCENTS

Signs and Symptoms of Major Depressive Disorder	Signs of Depression Frequently Seen in Youth
Depressed mood most of the day	Irritable or cranky mood; preoccupation with song lyrics that suggest life is meaningless
Decreased interest/enjoyment in once-favorite activities	Loss of interest in sports, video games, and activities with friends
Significant weight loss/gain	Failure to gain weight as normally expected; anorexia or bulimia; frequent complaints of physical illness; eg, headache, stomach ache
Insomnia or hypersomnia	Excessive late-night TV; refusal to wake for school in the morning
Psychomotor agitation/retardation	Talk of running away from home, or efforts to do so
Fatigue or loss of energy	Persistent boredom
Low self-esteem; feelings of guilt	Oppositional and/or negative behavior
Decreased ability to concentrate; indecisive	Poor performance in school; frequent absences
Recurrent suicidal ideation or behavior	Recurrent suicidal ideation or behavior (writing about death; giving away favorite toys or belongings)

Diagnostic and Statistical Manual of Mental Disorders. Washington, DC: American Psychiatric Association; 2000.

youth suicide continued >

While there is no definitive reason for these differences some research suggests that acculturation, assimilation and different cultural and/or religious beliefs about suicide may contribute to the different rates.[8,9,10] More specifically, among Native American and Hispanic populations, research suggests that the loss of traditional cultural values and contexts may lead to the development of risk factors for suicide such as alienation and inter-generational conflict.[5]

Research by Jeff Bridge and colleagues on age, race and suicide shows a new trend that may be beginning to emerge.[6] Between 1993 and 2012, 657 children in the U.S. aged 5 to 11 years died by suicide, 84% of whom were boys. The overall suicide rate for this age group didn't change over time; however, when examining the trends by race, the suicide rate decreased significantly among white children and increased significantly among black children **(Figure 1)**. Looking more closely at the data, analyses by sex and race revealed that these significant racial differences were restricted to white and black boys. The suicide rate among black boys increased from 1.78 to 3.47 per 1 million, and the suicide rate among white boys decreased from 1.96 to 1.31 per 1 million. This research suggests that there may be an emerging racial disparity that should be further explored.

RISK FACTORS FOR SUICIDE IN CHILDHOOD & ADOLESCENCE

In recent years there has been a surge of research aimed at better understanding the complex phenomenon of suicide by children and teenagers ("youth suicide"). Understanding the factors that can lead to suicide and suicidal behaviors (including suicidal ideation and attempts) can help lead to better prevention and intervention programming. Researchers agree that suicidal behavior is a product of interactions between developmental, psychiatric, sociocultural and environmental factors.[5]

There are numerous psychiatric risk factors for youth suicide. More than 90% of adolescent suicide decedents met the criteria for a psychiatric disorder.[1] Mood disorders, such as depression and bipolar disorder, contribute substantially to the risk for both boys and girls. **Depression is the main predictor of suicidal ideation, and between 40-80% of adolescents that attempt suicide meet the criteria for depression.**[8] Severe and pervasive suicidal ideation and previous suicide attempts are risk factors for reattempting suicide.[5,8] Prior suicide attempts have been identified as the most significant risk factor for youth suicide.[11] In addition, substance use disorders have also been found to be associated with attempted and completed suicide among youth.[8]

Social context and social relationships also can contribute to risk factors associated with youth suicide. Youth who report having a same-sex sexual orientation are at a greater risk of having reported a suicide attempt.[8] In addition

negative family reaction to their coming out is associated with a greater rate of attempted suicide.[8] Bullying and cyberbullying have also been shown to be risk factors.[8] Peer victimization has been shown to lead to higher rates of suicidal ideation and suicide attempts.[12]

Some environmental factors also have been found to contribute to the risk of youth suicide. A focus on the family environment has highlighted key risk factors that contribute to youth suicide. Youth who have poor relationships with their parents or whose families are not intact are more likely to be at risk of attempting or committing suicide.[5] Child maltreatment and presence of firearms in the home are also risk factors.[5] In addition to a poor family environment, youth who are drifting, socially isolated, or disconnected from major support systems, such as the school environment, are at a very high risk for suicide.[5] Students who have dropped out of school have a higher risk of attempted suicide, and students on the verge of dropping out have shown indicators of suicidal risk.[5]

PROTECTIVE FACTORS FOR SUICIDE IN CHILDHOOD & ADOLESCENCE

There are several protective factors centered around youth's connectedness to family and community that have been identified as important for decreasing the risk of suicide in children. Improved access to effective mental health care is a key protective factor for reducing the rates of youth suicide.[13] Research has shown that youth and their families who are engaged with mental health care programs have better outcomes than those who are not.[11] Also, while lack of perceived parental support and poor family relationships are risk factors for suicide, the converse are protective factors. Family cohesion, positive parent-child relationships, parental supervision, and parents having high academic and behavior expectations have all been shown to be protective factors.[5] For LGBT adolescents, family acceptance and support has been shown to protect against suicidal ideation.[14] Having a good connection to school and academic achievement also have been shown to be protective.[5] Finally, cultural and religious beliefs against suicide can be beneficial to youth as well.[5]

POLICY AND BEST PRACTICE IMPLICATIONS

Youth suicide is a public health problem that requires prevention and early intervention. Prevention and intervention can be achieved in a number of ways including public education, training, and clear programming and practice guidelines. In addition, specific administrative and legislative policy changes can advance these efforts. **Both in Ohio and nationally a variety of programs and policy changes have begun to take shape that bring increased awareness to the issues of child and adolescent mental health.**

PRIMARY CARE SETTING PREVENTION

To improve prevention and early intervention, pediatricians are focusing on better screening measures to identify at-risk youth and on different treatment approaches. Specifically, depression and suicide attempts are two risk factors that could be addressed in pediatric primary care and emergency department (ED) settings.[11] **Data suggest that up to 80% of youth who die by suicide were seen by their primary care physician or in the ED in the year prior to their death.**[7] Adolescents who go to the emergency department after a suicide attempt are a high risk group who should be targeted and engaged in mental health services. **The American Academy of Pediatrics recognizes suicide prevention as a priority for pediatricians and has a set of practice guidelines for how to screen and care for depressed and other at-risk youth in primary care settings.**[1] In addition to physician screening and treatment protocols, creating interventions and programs that engage youth and their family in mental health services when they first go to the ED could lead to better outcomes in the long-term.

SCHOOL-BASED PREVENTION

School-based programming has also been found to be effective at educating both children and teachers about childhood depression and how to identify those at risk of suicide. Ohio received one of the Garrett Lee Smith (GLS) Youth Suicide Prevention and Early Prevention SAMHSA grants in 2015. The grant, titled **Ohio's Campaign for Hope: Collaboration for Advancing Strategies for Youth Suicide Prevention**, will serve over 30,000 people in Ohio over the next five years. As part of Ohio's Campaign for Hope, free access to "gatekeeper" trainings are provided for all middle and high school educators and administrators in Ohio. Gatekeepers are individuals in a community who may come in contact with a person who feels suicidal. The **Kognito Gatekeeper Trainings**, At-Risk for Middle School Educators and At-Risk for High School Educators, are

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YOUTH SUICIDE PREVENTION RESOURCES:

Immediate Crisis Resources:

- National Suicide Prevention Lifeline: http://www.suicidepreventionlifeline.org / 1-800-273-TALK (8255)
- Crisis Text Line: http://www.crisistextline.org / Text START to 741-741
- The Trevor Project: http://www.thetrevorproject.org / 1-866-488-7386
- Cuyahoga County Suicide Prevention Hotline: 216-623-6888

Additional Resources:

- Suicide Prevention Resource Center: http://www.sprc.org
- ReachOUT USA (Youth Peer Support): http://us.reachout.com
- It Gets Better Project: http://www.itgetsbetter.org
- Caring for Every Child's Mental Health: http://www.samhsa.gov/children

evidence-based training simulations that are designed to help teachers and school staff to recognize when a student is experiencing psychological distress and how to have a conversation with the student to connect them to the appropriate resources. Access to the trainings are available at https://ohio.kognito.com.

Begun as a pilot program in Ohio schools in 1998, Red Flags is a school based depression awareness and intervention program aimed at teaching students and teachers about mental illness and how to identify it. Funded by the Ohio Department of Mental Health and Addiction Services, Red Flags is endorsed by the Ohio Department of Education for all Ohio School Districts and is on the Ohio Registry of Effective Practices. More information on Red Flags can be found at http://www.redflags.org.

An evidence-based program that is currently being piloted in Ohio schools is the SOS Signs of Suicide Prevention Program. This program focuses on prevention through education. Using the acronym ACT (Acknowledge, Care, Tell), students and teachers learn to identify symptoms of depression, suicide, and self-harm in themselves and their peers and the steps they should take if they are in a situation where they recognize the signs. The high school version of SOS is on the Substance Abuse and Mental Health Services Administration's (SAMSHA) National Registry of Evidence-based Programs (NREPP). In a peer-reviewed study the SOS program showed a 40% reduction in self-reported suicide attempts.[15] More information on SOS can be found at https://mentalhealthscreening.org/programs/youth.

The need for better mental health resources and education for youth has been addressed in key legislation. In 2004 the GLS Memorial Act was signed into law.[16] The GLS Act provided SAMHSA funds for three year grants to support best practice suicide prevention programs among youth ages 10-24 in campus, state and tribal communities. Activities supported by the GLS Act have included education and training programs, screening activities, improved infrastructure for connecting youth to services and crisis hotlines. A bill to reauthorize the funding for the GLS Act, in addition to the Mental Health in Schools Act, was introduced in 2015 along with more comprehensive reform in the Helping Families in Mental Health Crisis Act of 2015 (HR 2646).[17,18] The goal of the Mental Health in the Schools Act is to provide funding for comprehensive school mental health programs that are culturally appropriate, age appropriate and trauma-informed. ■

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