YOUTH SUICIDE PREVENTION

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A Literature Review

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A LITERATURE REVIEW

Background: Youth Suicide

As the third leading cause of death for people aged 15-24, youth suicide represents a major problem within the United States (Miller et al, 2009). This problem represents more than individual loneliness or isolation, but in fact suggests a larger societal problem. In fact, for every one person who takes their life by suicide, more than 30 will attempt it (Office of the Surgeon General, 2012). Young people may face unique pressures. For example, almost 16 percent of high school students reported seriously considering suicide, and almost 8 percent noted having attempted suicide *at least once* in the past year (Office of the Surgeon General, 2012). Suicide and its associated behaviors take a toll on family members, friends, and colleagues, placing a heavy emotional, financial, psychological, and social burden on the entire community.

However, there are a number of promising interventions to prevent youth suicide, such as means restricting programs (for example, limiting access to guns), physician education, and gatekeeper education (such as programs designed to help teachers and other trusted adults identify young people in distress and to instruct them on how to make referrals to youth serving organizations, crisis lines, medical professionals, or other mental health counselors). This literature review identifies the most promising interventions to youth suicide, and points the way forward to the use of evidence-based programs to support young people in time of crisis. In addition, these promising interventions have been highlighted as high quality by some of the leading researchers in the field. These researchers, who have conducted meta-analyses on youth suicide (literally, a review of research reports), include some of the field's notable experts on youth suicide. The research included in this brief report aims to shine a light on a troubling problem for young people.

Toward Health Promotion: Integrating Mental, Emotional and Behavioral Health

Informed by trends in youth suicide prevention interventions specified in national, state, and local programming, this literature review provides an introduction to the field of youth suicide prevention. Across national, state, and local levels, youth suicide prevention programs aim to reduce risk factors for suicide while increasing protective factors, develop young people's lifelong skills of self-esteem and emotional management, and to educate the community about how to identify at-risk young people and refer them to appropriate care.

For example, in an influential report O'Connell et al (2009) provided a framework to integrate mental, emotional and behavioral health outcomes for youth. Mental health, according to this valuable report, is an important component of young people's general health. Promoting positive aspects of mental, and

emotional health, such as the ability to achieve developmentally appropriate tasks, and to gain self-esteem and a sense of wellbeing, is now an important goal for those who work with young people (p. 65-69). This new approach values youth development as a strategy for preventing youth problems, such as feeling isolated, disconnected, or at risk from stressors.

There are of, course, a number of factors, including both risk and protective factors, that support or inhibit young people's mental, emotional, and behavioral health (O'Connell, 2009). Risk factors that seem to inhibit youth development include: family environment stress (e.g., single parenting, divorce), lack of bonding to school, and lack of optimal relationships with peers, including poor connection with peers, or peers who engage in delinquent activities (Crews, Bender, et al, 2007). McMahon, Grant, et al (2003) found that a few risk factors were related to adverse life effects for young people, including: "exposure to violence, abuse, divorce/marital conflict, poverty, and illness" (O'Connell, p. 87). On the whole, O'Connell and others argue that since problem outcomes, such as substance abuse, academic challenges, and social isolation, are associated with particular risk factors, it makes sense to support prevention interventions that will have an effect on multiple problem areas.

Certain protective factors, such as the family, are strong enough to mediate influences in multiple domains. For example, the influence of parents (and parenting) can serve to mediate against the threat of parental divorce, parental bereavement, parental mental health, and poverty (O'Connell, p. 89). Outside the home, school and community risk factors threaten young people's success, potentially causing academic failure, violence, and substance abuse. Hawkins and Catalano (1992) suggested that bonding to school and community (and family), supports young people's prosocial development and works to mitigate the influence of harmful substances. Kellam and Brown (2008) found that programs that promoted prosocial behavior in first grade students was still effective *thirteen years later*, as evidenced by a reduction in those people diagnosed with alcohol or drug dependence (O'Connell, p. 109).

Therefore, this literature review approaches youth suicide prevention from a health promotion perspective—that is, we view youth suicide prevention programs as linked to larger networks that support public health and well-being, with the understanding that promoting positive youth development in one area (such as school) will lead to benefits in other areas (such as home, work, and with peers).

Organization of this Literature Review

First, service areas included in SAMHSA's 2015 RFP for suicide prevention are outlined. Following that is the actual review of the literature, which is organized by IOM category (Universal, Selective, Indicated). Here, research from each category has been synthesized, with important themes presented. The review closes with a short list of selected evidence-based programs, one from each IOM category.

Universal

Universal preventive interventions take the broadest approach, targeting "the general public or a whole population that has not been identified on the basis of individual risk" (O'Connell, 2009). Universal prevention interventions might target schools, whole communities, or workplaces.

Examples: *community policies that promote access to early childhood education, implementation or enforcement of anti-bullying policies in schools, education for physicians on prescription drug misuse and preventive prescribing practices, social and decision-making skills training for all sixth graders in a particular school system.*

Outreach & Engagement

Prevent the Attempt (http://www.preventtheattempt.com/) offers tools to provide information to Internet users who, for example, do a search for "suicide" on Facebook, Twitter, or other popular social media platforms. This initiative will provide information to users, including organizations that offer support.

Suicide Prevention Training

- **Baber & Bean (2009)**
  The authors evaluated the effectiveness of a **"community-based youth suicide prevention project."** This project aimed to educate young people about youth suicide, particularly about the importance of reporting suicidal ideation & behavior to trained adults. In addition, the project aimed to support adults by preparing them to help youth in distress.
  There were a few major outcomes as a result of participation in this training program. First, for adults, they increased their "perception of preparedness" to help young people at risk of suicide, as well as the notion that mental health care can help those young people at risk of injuring themselves (p. 693). Second, for young people, they were more likely to turn to adults if they expressed concern about a peer (rather than trying to help a young person in distress on their own). Third, like adults, they were more likely to believe that mental health care is useful for those in need. Finally, the program increased their sense of responsibility to help a peer and their sense of self-confidence in knowing how to respond to situation. Authors noted that "the most striking change was in regard to participants' awareness that firearms are the method most frequently used in youth suicide" (p. 694). **In addition, the authors recognized that knowledge increases was around their understanding that "many young people communicate" plans for suicide** or self-harm in advance and that young people are not bound to keep that information confidential (p. 694). Finally, the authors noted that participation in the training not only recognized the usefulness of mental health care to help those thinking about suicide, but that structural changes in the community resulted from this-- now there is a **"critical mass" of trained professionals with knowledge, protocols, and training manuals** available to help those in need, which represents a "coordinated, community response to youth suicide prevention" (p. 695).

- **Miller et al (2009)**
  The authors completed an extensive review of school based prevention programs, based on a three-tiered public health model (universal; selected; and indicated populations). Universal suicide prevention programs have focused on a "stress model," noting that individuals often

commit suicide during moments of extreme stress. Research has indicated, Miller noted, that these programs should be "of longer duration, have a comprehensive mental health focus, assess a broader spectrum of suicidal behaviors (eg, suicide attempts), rather than focusing on knowledge and attitude change" (p. 170). In addition, universal programs may be more useful for **nonsuicidal youth; more insidiously, some universal programs may even "normalize" suicidal behavior** (p. 170).

Two of the most effective evidence-based youth suicide prevention programs described by Miller (2009) in the literature review are Klingman & Hochdorf (1993) and LaFromboise & Pitney (1995). Miller (2009) singles these two programs out for their "statistically significant effects" and for implementing the program with strong fidelity. Additionally, LaFromboise & Pitney used multiple methods (participant & peer reports) to evaluate program effectiveness, while also creating a program for Native American (Zuni) youth.

- **Klingman & Hochdorf (1993)**
  In this intervention, middle school students (8th graders) received cognitive-behavioral training (education, skill acquisition, and application/rehearsal) as a way to prevent suicide. They received education about the nature of stress and distress, then taught life skills of coping (such as defeating negative self-talk), and finally given the opportunity to practice these skills with others. Overall, the program was found to reduce young men's potential for suicide, increase distress-coping skills in young people, improve empathy for young women, and increase knowledge of resources to provide a friend in distress.

- **LaFromboise & Howard-Pitney (1995)**
  This article describes an intervention program for the Zuni, a Native American population who live in the southwestern U.S., and whose youth suffer from high rates of suicide. This intervention, specifically designed to be aligned with Zuni culture and traditions, focused on teaching life skills to the youth, including increasing self-esteem, identifying emotions, and recognizing & eliminating self-destructive behavior. An important feature of the program was a historical overview of how Zuni people have dealt with enormous stress and pressures before as well as the impact on the community of suicide. Each lesson provided information, as well as opportunity to model & practice the skills, as well as an opportunity to give and receive feedback to peers. It was found that this program increased some of the protective factors against suicide and decreased some of the risk factors. Through methodological evaluation of participants, their peers, and teacher observations, it was found that this curriculum was beneficial to preventing youth suicide among Zuni youth.

- **Gould et al (2003)**
  The authors conducted a meta-analysis (literature review) of ten years of research on youth suicide risk and interventions, attempting to explore the reasons behind a recent drop in youth suicide.

    - **School-based prevention programs**
      While there have been a number of school-based youth suicide prevention programs that aim to "facilitate self-disclosure and prepare teenagers to identify at-risk peers and take responsible action" (p. 394), such as programs that have produced increases in

knowledge and attitudes (Kalfat & Elias, 1994) and help-seeking behavior (Ciffone, 1993), others have found these programs to produce limited or even detrimental effects. Therefore, the authors noted, "emphasis has shifted toward alternative school-based strategies" such as skills training and gatekeeper training.

- **Skills training**
  The authors noted that, in contrast to awareness campaigns, skills training programs aim to develop problem solving, coping, cognitive support, and social support for young people (Eggert et al, 1995; Randall et al, 2001).

- **Gatekeeper training**
  Gatekeeper training has been noted as a promising approach that helps teachers and other school personnel to develop the knowledge to **"identify students at risk, determine levels of risk, and make referrals when necessary"** (p. 395). These programs, which have produced increases in personnel knowledge, intervention skills, and referral practices, are typically much preferred by principals and school administrators than school-wide screenings (Garland & Zigler, 1993; King & Smith, 2000).

- **Health-care based prevention programs**
  Gould et al (2003) found that after a 1-day training on how to communicate about suicide and identify risk factors for suicide, primary care physicians in Australia reported a 130% increase in the number of patients identified.

Selective

Selective preventive interventions target "individuals or a population sub-group whose risk of developing mental disorders [or substance abuse disorders] is significantly higher than average", prior to the diagnosis of a disorder (O'Connell, 2009). Selective interventions target biological, psychological, or social risk factors that are more prominent among high-risk groups than among the wider population.

Examples: *prevention education for new immigrant families living in poverty with young children, peer support groups for adults with a history of family mental illness and/or substance abuse*

- **Miller et al (2009)**
  The authors found one intervention (Randall et al, 2001) to be particularly effective with a selective population, that of high school students with a high risk of dropping out.

- **Randall et al (2001)**

The authors found that those youth who have difficulties in school are more likely to commit suicide, and thus there is a clear need for this time of intervention. Amazingly, this study showed that a single counseling session was almost as effective as a class that lasted a semester, and probably more cost and time effective as well. This study assessed the effectiveness of two programs; the first (CAST), a computer-based assessment of risk & protective factors, followed by an intervention aimed to increase a young person's social support; and the second (C-CARE), a 12 week long life-skills program that was in addition to the first program. In conjunction with factors that influence the successful completion of longer programs (such as at-risk youth's low rates of treatment compliance) suggests that a shorter program like CAST may be particularly useful for young people at risk of suicide. In addition, this study raised the possibility that other components of the program designed to increase social support (such as life-skills and parent programs) may provide benefit above & beyond the original design of the computer-based training program.

- **Gould et al (2003)**
  - **Peer Helpers**
    Peer helpers have been identified as a promising approach, based on the theory that young people are more likely to trust in a peer than an adult (Kalafat & Elias, 1994), with some programs linked to other possible risk-factors, such as eating disorders (Lewis & Lewis, 1996). The authors of this literature review, Gould et al, **note that there has been little empirical evaluation of effectiveness of peer helping programs; and while anecdotal evidence may suggest that these programs are putting school counselors and other trained professionals in touch with at risk young people, more research is needed.** In fact, Lewis & Lewis (1996) noted the possibility of these programs causing harm, due to the complexity of mental health issues.

  - **Community-based prevention programs**
    Gould et al (2003) noted that **crisis center telephone hotlines are often used by those in a moment of crisis (such as having suicidal thoughts),** and that these telephone centers provide immediate support when people need them most (i.e., at moments that are convenient to them). For example, Boehm & Campbell (1995) reported that between **14-18% of suicidal youths have used these hotlines**, noting that there has been little evaluation of how these hotlines may address self-harm.

Indicated

Indicated preventive interventions target "high-risk individuals who are identified as having minimal but detectable signs or symptoms foreshadowing mental, emotional, or behavioral disorder" prior to the diagnosis of a disorder (IOM, 2009). Interventions focus on the immediate risk and protective factors present in the environments surrounding individuals.

Examples: *information and referral for young adults who violate campus or community policies on alcohol and drugs; screening, consultation, and referral for families of older adults admitted to emergency rooms with potential alcohol-related injuries*

- **Miller (2009)**
  Here the author found that no indicated programs were found to be particularly effective at preventing youth suicide.

- **Brown & Green (2014)**
  The authors described a series of interventions designed to provide follow-up care to people who have attempted suicide. A number of interventions were found to be successful in reducing the rate of suicide, including: providing caring letters to those people who have attempted suicide; sending people postcards; intensive communication; phone-calls. T**he authors note that there are a variety of low-cost and effective interventions that may help to reduce the rate of suicide.**
  While the authors noted that these interventions may be useful, they were careful to observe some limitations of this line of work as well. For example, while follow-up services have prevented youth suicide & self-harm, these outcomes are "not generalizeable to services that will actually prevent youth suicide" (p. S212). In addition, it is unclear if follow-up services lead to greater engagement with the mental health care system. **One important result from Brown & Green's research is the promotion of a standardized assessment form for suicide ideation; they recommend the CDC's Self-Directed Violence Classification System (SDVCS).** In addition, the authors recommended that follow-up services be provided by digital media (such as iPhone or Android applications, or apps) that can reach larger populations relatively inexpensively; they noted that a small pilot program that used text-messaging following discharge represented an exciting possibility of this type.

Select List of Evidence-Based Programs

Universal

Zuni Life Skills Development

This program was originally designed for the Zuni people who live in the southwestern U.S. A school-based youth suicide prevention program, this intervention aims to reduce risk of suicide while increasing protective factors. See also research by LaFromboise & Howard-Pitney (1995) for additional information about program goals, effectiveness, and outcomes. More information available at http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=81

Selective

Gatekeeper Program

This program is an educational program designed to teach "gatekeepers," such as teachers, coaches, and other trusted adults, how to identify the warning signs of a potential youth suicide and to make referrals for professional help. For related research on gatekeeper programs, see research by Garland

& Zigler (1993) and King & Smith (2000) for program goals, effectiveness, and outcomes. More information available at http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=299

Indicated

CAST (Coping & Support Training)

This program delivers life-skills training and social support to youth who have been identified as at-risk for youth suicide. Students participating in this program learn to handle moods, improve school performance and decrease drug and alcohol use. See Randall et al (2001) for additional information about program goals, effectiveness, and outcomes. More information available at http://www.nrepp.samhsa.gov/ViewIntervention.aspx?id=51

Author Information

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Resources

1) **CDC:** http://www.cdc.gov/violenceprevention/suicide/prevention.html
2) **SPRC (Suicide Prevention Resource Center):** http://www.sprc.org/bpr
3) **Evidence-Based Programs List:** http://www.sprc.org/bpr/section-i-evidence-based-programs
4) **Best Practices Brief:** http://visionforchildren.org/wp-content/uploads/2014/03/BestPracticesBrief.pdf

References

Baber, K., & Bean, G. (2009). Frameworks: a community- based approach to preventing youth suicide. *Journal of Community Psychology*, *37*(6), 684-696.

Brown, G. K., & Green, K. L. (2014). A review of evidence-based follow-up care for suicide prevention: where do we go from here?. *American journal of preventive medicine*, *47*(3), S209-S215.

Crews, S. D., Bender, H., Cook, C. R., Gresham, F. M., Kern, L., & Vanderwood, M. (2007). Risk and protective factors of emotional and/or behavioral disorders in children and adolescents: A mega-analytic synthesis.*Behavioral Disorders*, 64-77.

Gould, M. S., Greenberg, T. E. D., Velting, D. M., & Shaffer, D. (2003). Youth suicide risk and preventive interventions: a review of the past 10 years. *Journal of the American Academy of Child & Adolescent Psychiatry*, *42*(4), 386-405.

Klingman, A., & Hochdorf, Z. (1993). Coping with distress and self harm: the impact of a primary prevention program among adolescents. *Journal of adolescence*, *16*(2), 121-140.

LaFromboise, T., & Howard-Pitney, B. (1995). The Zuni life skills development curriculum: Description and evaluation of a suicide prevention program. *Journal of Counseling Psychology*, *42*(4), 479.

Miller, D. N., Eckert, T. L., & Mazza, J. J. (2009). Suicide prevention programs in the schools: A review and public health perspective. *School Psychology Review*, *38*(2), 168.

O'Connell, M. E., Boat, T., & Warner, K. E. (Eds.). (2009). *Preventing Mental, Emotional, and Behavioral Disorders Among Young People:: Progress and Possibilities*. National Academies Press.

Office of the Surgeon General (US, & National Action Alliance for Suicide Prevention (US. (2012). 2012 National Strategy for Suicide Prevention: Goals and Objectives for Action: A Report of the US Surgeon General and of the National Action Alliance for Suicide Prevention.