Preventing Teen Suicide: A Review of School-Based Strategies

Madelyn S. Gould, Ph.D., M.P.H.
Columbia University/
New York State Psychiatric Institute
New York, NY USA

Garrett Lee Smith Suicide Prevention Grantee Meeting
Phoenix, Arizona
January 6, 2009

School-based prevention strategies are a significant feature of most national suicide prevention agendas

Schools a much higher focus arena than the workplace, housing areas or within the military (WHO, 2002)

17 of 18 countries of the WHO European Region administer suicide prevention in schools

Convenient, cost-effective way to reach youth (Shaffer & Gould 2000)

A comprehensive plan for suicide prevention in schools involves a continuum of activities:

Health promotion

Prevention

Intervention

Postvention

Two general goals of school-based suicide prevention strategies

- ***Case Finding*** *with accompanying referral and treatment (e.g., suicide "awareness"/educational curricula; screening; gatekeeper training)*
- ***Risk Factor Reduction*** *(e.g., skills training)*

School-Based Suicide Awareness/ Educational Curriculum

Underlying rationale:

Large proportion of teens know a suicidal peer

Teenagers more likely to turn to peers for help

Major aims:

Facilitate self-disclosure

Increase teens' identification of at-risk peers

School-Based Suicide Awareness/ Educational Curriculum

Typical program:

- one class period – several hours
- didactic presentation on "warning signs"
- video tape of suicidal youngster/ consequences of lack of disclosure

Marked proliferation in 1980's prompted evaluation

(Abbey et al., 1989; Cliffone, 1993; Kalafat and Elias, 1994; Klingman and Hochdorf, 1993; Orbach and Bar-Joseph, 1993; Shaffer et al., 1991, 1990; Spirito et al., 1988 ;Vieland et al., 1991)

School-Based Suicide Awareness/ Educational Curriculum

Beneficial Effects

- Modest ↑ in knowledge, attitudes, and help-seeking behavior

- Rated by school administrators and school psychologists as more acceptable, appropriate and effective than other school-based suicide prevention strategies

School-Based Suicide Awareness/ Educational Curriculum

Detrimental Effects

- ↓ in desirable attitudes
- ↓ recommendations for mental health referrals by peers
- ↑ in hopelessness
- ↑ in maladaptive coping responses among boys
- ↑ negative reactions among at-risk students

e.g., not recommending program

"makes more kids more likely to kill themselves"

School-Based Suicide Awareness/ Educational Curriculum

Other limitations

- only a minority of students hold problematic views
- health education ***attitude*** changes not correlated with ***behavioral*** changes (e.g., sex education)
- inadvertent imitation possible
- peer networks of suicidal youth not extensive

School-Based Suicide Awareness/ Educational Curriculum

New Developments

- *Hybrid/composite* curriculum programs have spurred a new interest:
  - For example, **Lifelines** (gatekeeper and student curriculum) and **Signs of Suicide (SOS)** (screening a curriculum)

Screening in General Populations: Direct Case-Finding by Self-Administered Questionnaire

—M O D E L—

SCREEN FOR

- Mood disorder
- Suicidal ideation
- Suicide attempts
- Substance and alcohol abuse

↓

CASE-MANAGE

↓

TREAT

(Shaffer & Craft, 1999)

Screening

Background

- Strategies to identify and refer suicidal youth are based on the valid premise that suicidal adolescents are under-identified (Kashani et al., 1989; Shaffer et al., 1990; Shaffer & Craft, 1999; Velez et al., 1988).
- Youth suicide occurs in the context of an active, often treatable, mental illness (Brent et al., 1999; Groholt et al., 1998; Shaffer et al., 1996).
- Potent risk factors have been established that can identify high risk youth (Gould et al., 2003).

Screening

Examples of Programs

- Teen Screen / Columbia Suicide Screen
  (Shaffer & Craft, 1999; Shaffer et al., 2004)
- U.S. College Screening Project
  Web-based service *(Haas et al., 2003)*
- Signs of Suicide (SOS)-
  Hybrid of student educational component and screen
  (Aseltine, 2003; Asentline & DeMartino, 2004;Aseltine et al., 2007)

Screening

Beneficial Effects

- Clinical validity and reliability findings of school-based screening procedures are encouraging *(Aseltine, 2003; Aseltine & DeMartino, 2004; Thompson & Eggert, 1999; Reynolds, 1991; Shaffer & Craft, 999; Shaffer, 2004).*
- Shown to identify high risk students -
  very good to excellent sensitivity 75% - 100%
  few false negatives
- Many high risk teens were not otherwise known *(Scott et al., in press*
- "SOS" found short-term decrease in attempts *(Aseltine et al., 2007)*
- Facility-level risk of serious suicide attempts reduced by screening in *juvenile justice* facilities *(Scherff et al., 2005)*
- Cost effective
- Safe *(Gould et al., 2005)*

Screening

Limitations

Poor specificity - many false positives
second-stage evaluations necessary

Suicide risk “waxes and wanes”
multiple screenings may be necessary

Implementation meets resistance by HS
principals and superintendents

Screening

Another Limitation

Success is dependent on effectiveness of referral

There has little systematic assessment of whether at risk youth have accessed services *after* their identification by the screen and whether their health status has improved.

Help-Seeking by At-Risk Youth After Suicide Screenings

Madelyn S. Gould, Ph.D., M.P.H.
Kimberly Hoagwood, Ph.D.,
Frank Marrocco, Ph.D.
Lia Amakawa, B.A.
Marjorie Kleinman, M.S.
Elizabeth Altschuler, M.S. Ed.

Columbia University/
New York State Psychiatric Institute

Project funded by Centers for Disease Control
(R49 CE000258)

Help-Seeking Assessed at Follow-Up

- Approximately two-thirds of those who were referred to treatment (and participated in the follow-up interview) had used a new service by follow-up

- These services were mainly outpatient services and mainly some form of psychotherapy, *not pharmacotherapy*

↓ ↓ ↓

Screening appears to be effective in getting at-risk students into treatment

Help-Seeking for At Risk Youth After Suicide Screenings

MAIN REASONS FOR NOT USING SERVICES

Barriers Related to Perceptions about Mental Health Problems

- **Parent did not think child had a problem**
- **Child did not think he/she had a problem**
- **The problem wasn't serious enough**
- **Thought problem would get better on its own**
- **Wanted to solve problem by ourselves (by myself on youth questionnaire)**

Gatekeeper Training

Underlying rationale

Suicidal youth are under-identified

Community helpers in a position to be among the first to detect signs of suicidality

Even professionals are reluctant to ask about suicide

Major aims

Develop knowledge, attitudes, and skills to identify at-risk youth, manage the situation, and make referrals

Gatekeeper Training

Examples of Programs

Lifelines – School-based hybrid of gatekeeper training, student curriculum and parent training *(Kalafat et al., ongoing)*

QPR – "Question, Persuade and Refer" (like CPR) nearly 2,000 Certified QPR Instructors have been trained and over 200,000 QPR gatekeepers *(Quinett, ongoing; Wyman et al., 2007)*

ASIST – Applied Suicide Intervention Skills Training www.livingworks.net

Gatekeeper Training

Efficacy

- First group-based randomized trial of QPR in 32 schools on 252 school staff in the U.S. (Wyman et al., 2007) showed:

  ↑ knowledge, *self-ratings* of preparation and efficacy and access to referral and treatment services

However,

Variability in gatekeepers' ability and interest – small proportion of staff (14%) increased their number of queries about students' suicidal thoughts

- To date, no data on whether service *utilization* increased, but evaluations of QPR and ASIST are ongoing

- Acceptable to parents and school staff

Peer Gatekeeper Training

Underlying rationale

- Large proportion of teens know a suicidal peer
- Teenagers more likely to turn to peers for help

Major aims

- Facilitate self-disclosure
- Increase teens' identification of at-risk peers

The role that peers play varies considerably by program, with some limited to listening and reporting any possible warning signs and others involving counseling responsibilities.

Peer Gatekeeper Training

Examples of Programs

Yellow Ribbon

(www.yellowribbon.org)

Many Helping Hearts

(Stuart et al., 2003)

Peer Gatekeeper Training

Efficacy

- Empirical evaluations of these programs are quite limited (Lewis and Lewis, 1996).
- Evaluations are often confined to student satisfaction measures (Morey et al., 1993).
- Some indication of increase in knowledge, attitudes and skills – but no control group (Stuart et al., 2003)
- Potential negative side effects are rarely examined.
- To date, there is not a sufficient body of evidence documenting the efficacy or safety of peer helping programs, despite their widespread use.

Skills Training

Underlying rationale:

Suicidal youth have deficits in problem-solving, coping and cognitive skills

Assume that providing these skills will have "immunization" effect

Unlike school-based suicide awareness programs, the focus of these programs is not directly on suicide, which should reduce their likelihood of contagion.

Skills Training

Major Aims

- ↑ strategies to cope with stress and problems
- Enhance resilience and interpersonal relationships
- Prevent/reduce self-destructive behaviors
- Create a positive school environment

Skills Training

Examples of Programs

MindMatters
(Wynn et al., 2000)

Zuni Life Skills Development Curriculum
(LaFromboise and Howard-Pitney, 1994)

Reconnecting Youth
(Eggert, 2001)

Skills Training

Efficacy (I)

Several evaluation studies have shown promising results. For example:

Two evaluation of *Zuni Life Skills* program showed:

- ↓ ideation, hopelessness, hostility in control group; and
- ↑ ability to manage and cope with stress, recognize suicidal symptoms and use appropriate resources

(*LaFromboise and Howared-Pitney, 1995)*

Skills Training

Efficacy (II)

The most systematic evaluations of skills training have been conducted by *Reconnecting Youth* team

(Eggert et al., 2001 for review)

- ↑ protective factors (such as self-esteem)
- ↓ suicidal ideation and behaviors
- ↓ risk factors (such as depression, anger, hopelessness)

However.....

Skills Training

Efficacy (III)

- *Reconnecting Youth's* "intervention as usual" sometimes produced significant reductions in suicide risk; and
- Recent evidence of a *negative* effect:
  - Students bonded with other at-risk youth, had a lower grade point average, and a higher level of anger *(Cho et al., 2005)*
  - Being exposed to the intervention program caused increased alcohol use and anger *(Sanchez et al., 2007)*

Grouping at-risk youth, with similar behavioral and/or emotional problems, seems to be a potential flaw of this intervention, eliciting untoward iatrogenc effects.

Conclusion (I)

- No school-based strategy reviewed is without its unique strengths and limitations, and continuing evaluation studies are needed.
- Promising empirically-based prevention strategies include screening for at-risk youth, gatekeeper training programs, and types of skills training for students.
- Positive results from new "composite" curriculum programs may overcome long-standing reluctance to implement any curriculum-based strategy.

Conclusion (II)

- Programs will need to be adapted to the cultural traditions of each community. For example, the WHO's cooperative work with SEAR countries has recognized various traditional knowledge, and has incorporated non-western wisdom in problem-solving and life-skills training programs to improve youth mental health (SEAR, 2007)