

**Chapter 5**  
**SCREENING PROGRAMS**

## Chapter 5

# Screening Programs

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### Overview and Rationale

Typically, screening programs are conducted in schools and involve the administration of a screening instrument to identify high-risk youths. Persons identified by the initial screening test then receive in-person counseling and, if warranted, referral and treatment.

One model of such a program could involve multistage screening to identify students with psychological problems or personality traits that could be related to suicide, such as depression, and impulsive or aggressive behavior. Students might be identified through a general screening questionnaire; students with high scores would then consult with a guidance counselor or social worker specially trained to identify the signs of a potentially suicidal youth. Students thought to be at risk would then be given a third screening by a specialist and referred to receive treatment. This might consist of intensive psychotherapy, drug therapy, family counseling, and/or enrollment in classes intended to help students cope with their special problems.

The rationale for this type of approach is that, since suicide is a rare event, prevention efforts will be most efficient if we can identify persons who are at a high risk of suicide so that they can be referred for specific interventions. At present, for many people, depression and other psychological problems go undiagnosed, and thus these people never receive appropriate treatment. As illustrated in Figure 5, a multistage screening program would theoretically allow us to identify these youths and enroll them in a treatment program.

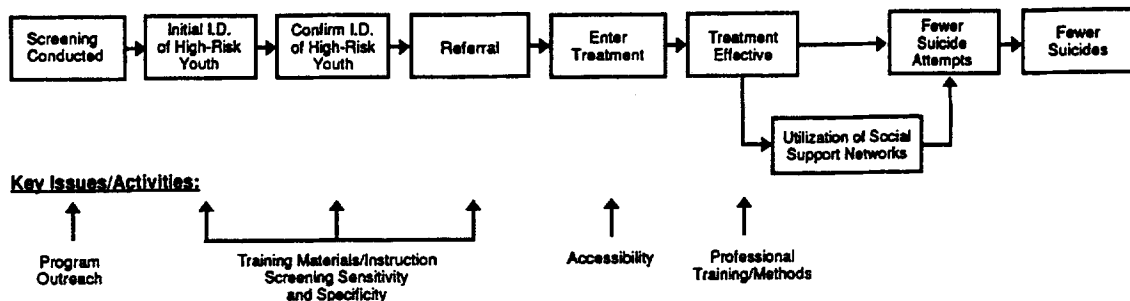
### Research Findings

The potential of such screening protocols has been widely discussed (Yufit, 1989; Shaffer, et al., 1988; Eddy, Wolpert, and Rosenberg, 1989). Unfortunately, most screening protocols are in a developmental stage. Work on one research instrument is being done by Dr. Gail Slap and her colleagues at the Children's Hospital in Philadelphia. Without a high degree of sensitivity, however, the capability of a screening instrument to detect a potential suicide case is limited; such a limitation will, in turn, limit the potential effectiveness of a screening program. Likewise, lack of specificity (the capability of correctly identifying low-risk youth) may also compromise screening efforts.

The strongest predictor of suicide is prior suicide attempts. Adolescents who attempt suicide can be identified in emergency rooms or through school screening surveys. For instance, in the New Jersey School Evaluation, students were asked if they had ever thought about killing themselves or had tried to kill themselves. Students who answered "yes" to either question were then asked if they had stopped feeling that way. Those who said that "I haven't stopped feeling that way," along with students who said that they would like for someone to help them with their problems, were then contacted by a school guidance team. When asked later how they felt about being contacted, almost all these students said that they were pleased, although several students also felt embarrassed or angry (Shaffer, Garland, and Whittle, 1988). Identification of prior suicide attempters as high-risk students is important, but it is not

**FIGURE 5.**  
**Rationale for Screening Programs to Prevent Youth Suicide**

**Processes and Outcomes:**



sufficient for screening. Results of epidemiologic studies in the United States (Shaffer, et al., 1988) and in Britain (Shaffer, 1974) suggest that only 25 to 40 percent of suicide victims have made prior suicide attempts. Other predictors of completed suicide among youth include depression (Shaffer, et al., 1988); feelings of hopelessness and inability to have fun (Fawcett, et al., in press); antisocial behavior (Shaffer, et al., 1988); substance abuse (Shaffer, et al., 1988, reported this for males) and alcoholism (Robins, Murphy, and Wilkerson, 1959); and a family history of suicide (Shaffer, et al., 1988).

A similar set of risk factors has been identified for youths *attempting* suicide. Results of a case-control comparison of Philadelphia teenagers who had attempted suicide with those who had not (Slap, et al., 1989) showed that those who had attempted suicide were more likely to have (1) made a previous suicide attempt, (2) experienced school failure, (3) experienced family problems, and (4) used marijuana.

These types of factors can be included in screening tests for adolescents. A screening test has not yet been developed, however, that has both the sensitivity and specificity necessary for accurately yet efficiently identifying high-risk youth.

Another issue in the screening approach is when to screen. Adolescents at low risk of suicide today may be at high risk of suicide a month later. Yet another issue to consider is the potentially adverse consequences of referring "false positives"—teens who are not truly at high risk of suicide, but who score in the dangerous zone of the screening instrument—for more intensive counseling or screening. The screening approach is perhaps most useful and practical in a crisis situation (e.g., in the face of an apparent suicide cluster).

## Illustrative Programs

We identified only a small number of screening programs in operation. Among the programs is the Rural Minnesota Program (operating in schools throughout the state) that uses a screening test to assess suicidal ideation, depression, and related problems among 8th-through-12th-grade students, followed by individual interviews with those identified as being at high risk. The screening is done along with a series of five to six class sessions on stress, depression, and coping.

In the Crisis Intervention Program in the Dade County, Florida, schools, a very different type of screening is used. The program uses easily available school performance data to identify students who may need special attention. The program develops a computerized "Student Intervention Profile" every nine weeks that consists of seven elements based on grades, attendance, tardiness, and classroom behavior. When a student profile changes in three or more areas, a message is generated that the student may need help, and a counselor has a private meeting with the individual.

These programs are described at the end of this chapter.

### Evaluation Needs

In developing an effective screening instrument, researchers must ask several key questions. One priority research area is to validate the sensitivity and specificity of various screening instruments. Given the complex web of risk factors for suicide, any sufficiently sensitive screening tool will probably refer more false positives than true positives.

For programs that choose to undertake screening programs with existing instruments, the priority evaluation issues concern the follow-up to the screening effort. In particular, it would be useful to develop a tracking system to assess:

- What proportion of students were deemed to require follow-up screening? Of these, how many actually received follow-up screening?
- Of students receiving follow-up screening, what proportion was determined to require counseling, treatment, or special competency development training?
- Of students determined to require some kind of treatment, how many actually received help? What kinds of therapy were provided? What were the reasons that therapy was not provided (e.g., failure of the student to keep appointments, lack of funds, lack of treatment space)?
- Of students receiving follow-up counseling or therapy, how many completed the treatment? What evidence exists of behavioral change as a result of the treatment?
- Was any stigma attached to follow-up? Did the follow-up screening detract from or augment the capability of mental health services to provide treatment services?

The final concern, of course, will be to determine what effect the program might have on suicide attempts. Given low incidence rates in this type of study, several years of data collection might be required before any determination can be made. Such a study might be possible by carefully instituting a system of records that would allow matching the names of students (and their screening scores and treatment status) with an independent source of records of suicide attempts.

The feasibility of such a study will vary by location. First, conducting such a survey will require the cooperation of institutions, such as hospital emergency rooms, that would identify the majority of suicide attempts in the area. Second, it will require agreements concerning confidentiality that would allow the names of youths attempting suicide to be matched with the names of youths who made previous suicide attempts or who were identified as being at risk of suicide. If the logistics of such matching can be worked out, such an evaluation would greatly facilitate an assessment of the utility of screening programs.

### Summary

Because suicide is a rare event, screening programs have been designed to identify and provide treatment or other assistance for youth at high risk of suicide. As designed, the programs typically administer an initial screening test to a large number of students, with follow-up screening of students who are identified as potentially at risk. Screening represents a potentially efficient way to focus prevention resources on those in greatest need. Unfortunately, most screening protocols are still in the developmental stage, and further research is needed before the screening programs are ready for wide implementation. Even when reliable screening instruments become available, issues of the timing of screening, the costs of follow-up, and referral of "false positives" will need to be resolved before widespread implementation becomes practical.

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### Suggested Additional Reading

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**Screening Programs:  
Program Descriptions**

## **Rural Minnesota Program**

**Location:** Minneapolis, Minnesota

**Contact:** Barry Garfinkel, M.D., (612) 626-6577

**Targets:** Students (8th through 12th grade), gatekeepers.

**Years in operation:** 4

**Source of funding:** Blandin Foundation.

**Amount of funding (per year):** Not provided.

**Program description:** In this program, different education and therapy programs are used for parents, teachers, students in general, and students at risk of suicide. Program staff developed a prototype curriculum for 8th through 12th graders consisting of five to six sessions on stress, depression, and coping. Early identification and screening is done by checking rating scales to see how disturbed or how suicidal adolescents are and selecting those in need of extra education or attention. Other programs include one for parents on recognizing suicidal behavior and one for teachers that, through slides, manuals, video tapes, and other aids, shows them the warning signs of suicide and what to do when they recognize such signs.

**Exposure:** Five to six class sessions in 8th through 12th grades.

**Coverage:** Statewide.

**Content/topics:** Stress, depression, and coping strategies.

**Evaluation:** Program personnel are starting to collect data but have conducted no formal evaluation yet. Program staffers want to do follow-ups every 6 months. They used a screening questionnaire to survey an additional 3,000 youngsters to determine the occurrence of suicidal ideation, depression, and associated findings. The screening is done in the classroom, and all students between grades 8 and 12 complete the form. Program staffers are looking at a study that will measure the validity of the screening by comparing answers that at-risk students give during interviews with those of a matched control group.

**Data availability:** Results from screening instruments.

**Special population outreach:** Not described.

**Related components:**

- General suicide education
- Parent programs
- School gatekeeper training

**Address:** Rural Minnesota Program  
Barry Garfinkel, M.D.  
Division of Child Psychiatry  
University of Minnesota Hospital  
Mayo Building  
420 Delaware Street, SE  
PO Box 95  
Minneapolis, MN 55455



## **Youth Suicide Prevention Programs: A Resource Guide**

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**Reports:** Screening instrument, Student Pictorial Attention Measure (SPAM).

**Advice to others interested in starting this type of program:** Communities should learn to screen students and to develop the resources for providing the appropriate follow-up to screening. Schools might need to have a crisis intervention team that can work with the youngsters once they are identified as being at risk. The cost of this type of investigation would probably be the total of the cost of the crisis interventionist and of the screening. These costs would vary from locale to locale throughout the country, but most investigations can probably be effectively done for under \$50,000 per year.

**Crisis Intervention  
Dade County Public Schools**

**Location:** Miami, Florida

**Contact:** Dr. J. L. DeChurch, (305) 995-7315

**Targets:** All students.

**Years in operation:** 5

**Source of funding:** School district and grant.

**Amount of funding (per year):**\$120,000.

**Program description:** This program consists primarily of training school-based staff in suicide awareness and providing classes on suicide prevention for 10th graders. Screening is done by means of computerized profiles of each student that record seven behavioral elements and monitor changes in these elements over time.

**Coverage:** All students in Dade County public schools.

**Screening method:** The "Student Intervention Profile" (SIP) is produced every nine weeks and consists of seven elements, including grades, attendance (absent, late), and classroom behavior (not doing homework, acting up). Every time a counselor intervenes, information is added to a data base, so when a counselor or teacher notices a potential needy student, he or she can check the student's record for previous problems. All information is coded to preserve anonymity.

**Referral procedures:** When an SIP changes in three or more areas, a message is generated that the student may need help. A counselor then has a private conference with the student or invites him or her to attend a group session.

**Evaluation:** Participant written and verbal feedback, which has been positive.

**Findings:** There were 19 suicides in 1988 and only 7 in 1989, but program staffers are not sure whether they should take credit for the apparent decline. They found students in middle school to be most at risk and also found a link between suicidal tendencies and sexual abuse.

**Data available:** The program is building a data base to be used for research and evaluation, but it is not yet operational.

**Special population outreach:** Dade County has a high black and Hispanic population. Suicide information is printed in English, Spanish, and Creole.

**Related components:**

- General suicide education
- Means restriction
- Postvention
- School gatekeeper training

**Address:** Dr. J. L. DeChurch  
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## **Youth Suicide Prevention Programs: A Resource Guide**

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### **Reports:**

- State guidelines
- Student lesson plans
- Youth in crisis hotline report form
- Student intervention profile form

**Advice to others interested in starting this type of program:** Contact various programs to find out what has worked best in different communities.