THE SOS SIGNS OF SUICIDE® PREVENTION PROGRAM

EVALUATION REPORT

APRIL 2013 - MAY 2014

PROGRAM COORDINATOR:
ADAM VALENCIA, M.A.
TULARE CO. OFFICE OF EDUCATION
7000 DOE AVE., BLDG. 300
VISALIA, CALIFORNIA 93291
E-MAIL: ADAMY@TCOE.ORG

EXTERNAL EVALUATOR:
SANDER C. VALYOCSIK, M.A.
SOCIETAS, INC.
P.O. BOX 3534
VISALIA, CALIFORNIA 93278
E-MAIL: SV@SOCIETAS.COM

This program was paid for with California Mental Health Services Act Prevention and Early Intervention funds.

Table of Contents

I. Executive Summary	3
II. Program Description	5
III. Presentations	8
IV. Student Contact Following Presentations and Referrals	9
V. Participants	10 11
VI. Outcomes	13 14 17 21 22 25 28 29 34 39 41
4. Telling Someone Else That Somebody Might Be at Risk	

I. Executive Summary

The SOS Signs of Suicide[®] Prevention Program (SOS) is an award-winning, nationally recognized program for middle and high school students. The program teaches students how to identify the symptoms of depression and suicidality in themselves and their friends, and encourages help-seeking through the use of the ACT[®] model (Acknowledge, Care, Tell). The program can be completed in one class period (less than an hour). There are separate versions of SOS for middle school students and high school students, with the middle school version modified to be appropriate for the younger age group and including a shorter video.

Both SOS curricula include a seven-question Brief Screen for Depression, which the students fill out and which is scored by school staff members and then reviewed by the School Counselor or School Psychologist. Students who score highly on the assessment are contacted by the School Counselor or School Psychologist and referred to an outside mental health care provider for screening by a clinician, if deemed appropriate.

Subsequent to the SOS presentations, there were approximately 126 students with whom a School Counselor or School Psychologist met. This took place either due to high scores on the Brief Screen for Depression or because of the students' desire to speak to an adult, as expressed on the distributed response card or in conversation with an adult, following the presentation. Of these 126 students, approximately 22 referrals were made to a mental health care provider for assessment.

SOS presentations were provided with funding from the Tulare and Kings Counties Suicide Prevention Task Force for three semesters at 17 locations in Kings and Tulare counties, from April 2013 through May 2014, with 3,606 students participating. Over one-third (38%) were middle school-age students while the remaining 62% were of high school age.

Students filled out surveys both immediately before and immediately following the SOS presentations and some classes filled out follow-up surveys, an average of two-and-a-half months later. As part of the surveys, the students were asked three true-or-false questions about depression, suicide, and suicide prevention. There were large, statistically significant increases in student knowledge, on average, from before to after SOS.

By the time of follow-up, the students demonstrated only small (from four to nine percentage points), but statistically significant, decreases in knowledge, compared to their knowledge immediately following the SOS presentation. Some amount of decrease in knowledge is expected, as memories naturally fade with time. However, it is positive that the students' knowledge on all three indicators remained far higher than it was prior to the SOS presentation.

Students were then asked to consider what they would do if a friend told the student that he or she was having thoughts of suicide, and to indicate the degree to which they agree or disagree with four statements; "I wouldn't know what to do.", "I would keep it

to myself", "I would keep it a secret if my friend made me promise not to tell", and "I would tell an adult about it."

Even before SOS, on average the students responded as desired to the four statements (disagreeing with the first three and agreeing with the fourth), however there were statistically significant changes in the responses to all four statements, in the expected directions. The largest change in mean response was to the statement, "I would keep it a secret if my friend made me promise not to tell."

Comparing the students' mean responses immediately after SOS to their responses at the time of follow-up, an average of two-and-a-half months later, there was some degree of regression (changes in mean responses toward what they had been before SOS), statistically significant but very small in magnitude, but with the mean responses remaining much closer to the desired responses than before SOS.

Next, students were asked to respond to a series of seven questions that assess their degree of stereotypical or discriminatory thinking about people with mental illness, a modified version of an assessment made publicly available by one of the foremost scholars on the stigma of mental illness, Patrick W. Corrigan, Psy.D. Comparing the students' mean responses before and after SOS, we find statistically significant changes, in the direction of reduced stereotypical and discriminatory thinking about people with mental illness, on all seven indicators.

When we compare the students' mean responses immediately after SOS to those at the time of follow-up, we find a very small, but statistically significant, degree of regression on five of the seven indicators. The fact that the amount of regression is so small is a positive result. However, the students' mean response to the statement, "How likely is it that you would help Anna [a student with mental illness] with schoolwork?" remained virtually unchanged and the mean response to "I would feel sorry for Anna." actually decreased significantly. This latter result is positive because feeling sorry for people with mental illness is an element of stigma.

On the follow-up survey we asked the students four questions about their activities in the area of suicide prevention in the time since they participated in SOS. Nearly one-quarter (23%) of the students said they noticed someone they thought might be at risk of suicide since they took SOS.

Of these students who said that they noticed someone who might be at risk of suicide, 74% said they reached out to the person and acknowledged there might be a problem, 88% let the person who might be at risk of suicide know that they care, and 66% told someone else that the person might be at risk of suicide. These results are highly positive. (The mean responses of the middle school students were all higher than those of the high school students, markedly so on the first two questions, regarding acknowledgement and caring.)

II. Program Description

The SOS Signs of Suicide[®] Prevention Program (SOS) is an award-winning, nationally recognized program for middle and high school students. The program teaches students how to identify the symptoms of depression and suicidality in themselves and their friends, and encourages help-seeking through the use of the ACT[®] model (Acknowledge, Care, Tell).

The SOS High School Program is the only school-based suicide prevention program listed on the Substance Abuse and Mental Health Services Administration's National Registry of Evidence-based Programs and Practices that addresses suicide risk and depression, while reducing suicide attempts. In a randomized control study, the SOS program showed a reduction in self-reported suicide attempts by 40%.

The basic program can be completed in roughly one hour (one class period) at a minimum, but local experience in Woodlake indicates that it works well as a two class-period program. The Kings County presentations were two class periods long. The video was shown the first day, with some discussion following, and additional discussion the next day. In Tulare County, the SOS presentations lasted one day, although in many cases the pre survey and the BSAD were administered the previous school day, to save time on the presentation day.

Students watch a video that teaches them to recognize signs of depression and suicidality in others. They are taught that suicide is not a normal response to stress, but rather a preventable tragedy that often occurs as a result of untreated depression. Students are given specific action steps, encouraged to engage in a discussion about these issues with their parents, and utilize the peer-to-peer help-seeking model known as ACT[®] (Acknowledge-Care-Tell), that the appropriate response to these signs is to acknowledge them, let the person know you care, and tell a responsible adult (either with the person or on that person's behalf). The intervention is designed to prevent suicide attempts, increase knowledge about suicide and depression, develop desirable attitudes toward suicide and depression, and increase help-seeking behavior.

The SOS kit provides the tools needed to implement the program successfully, utilizing existing school staff. The kit includes a procedure manual, step-by-step instructions including training materials, best practice guidelines, educational resources, lesson plans, templates (in English and Spanish), and a training DVD, so no formal training is necessary to deliver the curriculum. There is also a 90-minute online self-paced interactive training course available free of charge. Free continuing education credits (CEUs) are available for those who complete the course.

As noted above, the SOS Signs of Suicide[®] High School Program incorporates peer intervention as part of its implementation strategy. Research indicates that adolescents are more likely to turn to peers than adults when facing a suicidal crisis. By training students to recognize the signs of depression, self-injury, and suicidality and empowering them to

intervene when confronted with a friend who is exhibiting these symptoms, SOS capitalizes on an important social/emotional aspect of this developmental period.

The DVD features the true stories of three teenagers who all struggled with mental health issues. The video also showcases vignettes that provide students with simple and specific instructions on how to recognize signs of distress, in either themselves or a friend, and to respond effectively.

SOS includes a seven-question Brief Screen for Adolescent Depression (BSAD), for both parents and students, with scoring instructions. The Tulare and Kings Counties SOS Program administered only the student version of the BSAD, not the parent version. In most cases, school staff members, typically teachers or the School Counselor, scored the assessments. Then the School Counselor or the School Psychologist reviewed the scored assessments. At some schools, the SOS Instructors, Tulare County Office of Education employees, reviewed the scored assessments. The School Counselor or School Psychologist then met with the students who scored highly on the assessment. If he or she deemed it warranted, the students were referred to a mental health care provider, to be formally assessed by a clinician.

Some schools opted, in one or more semesters, not to have the BSAD administered to their students, and only offered the SOS presentation itself. They felt that they did not have sufficient School Counselor or School Psychologist time in order to see all of the students who might have scored highly on the assessment. In other cases, the administration of the BSAD was not possible, due to a lack of sufficient class time.

Results from the BSAD are not diagnostic, but merely indicate the presence or absence of symptoms that are consistent or inconsistent with depression or suicide. Negative responses to the questionnaire do not rule out depression or suicidality and positive responses do not conclusively establish depression or suicidality. A thorough diagnostic evaluation by a healthcare professional is always necessary to determine whether or not there is the presence or absence of depression or suicidality.

The High School Program also includes a student newsletter with helpful articles, facts, tips, and resources. The kit also includes wallet cards, posters, stickers with the ACT message, and postvention guidelines.

The content of the SOS Signs of Suicide[®] Middle School Program is the same as that of the High School Program, however it is designed to be appropriate for its target age group (grades 5-8). The accompanying video is also shorter (18 minutes long compared to 25 minutes for the High School Program). The Middle School Program also includes a newsletter for both parents and students, the BSAD depression screener for students only, educational materials for parents and staff, and stickers with the ACT message.

The goals of the program are to decrease suicide, suicide attempts, and self-injury through awareness and knowledge of the signs of depression, self-injury and suicidality in youth, and to provide information about available referral resources. By treating men-

tal illness like any other physical illness, the program also helps to fight the stigma surrounding depression and suicide.

Response cards were handed out to all students before the presentations. The cards included a space for the student to write his or her name as well as two checkboxes, to indicate whether the student did or did not want to speak to somebody after the presentation. At the end of the presentation, all students were asked to fold their cards in half and turn them in. This was done in an effort to preserve the anonymity of the students who wanted to talk to someone (and were possibly having suicidal thoughts or knew someone who was). All students who indicated that they wanted to talk to someone were seen by the School Counselor or School Psychologist, and, if warranted, referred for formal assessment to an outside mental health care provider.

¹At several schools each student was handed several response cards. A box was available on the campuses into which the students could discreetly drop their cards at any time during the school year, requesting someone to talk to for themselves or others. The School Counselor or School Psychologist followed up on all requests.

III. Presentations

SOS presentations were given with funding from the Tulare and Kings Counties Suicide Prevention Task Force for three semesters at 17 locations in Kings and Tulare Counties, with 3,606 students participating. (See Table 3-1.)

Table 3-1

SOS Presentations, Communities, and Participating Students						
		Students,	Students,	Students,		
Location	Community	Spring 2013	Fall 2013	Spring 2014		
Burton Middle School (MS)	Porterville		500			
Corcoran High School (HS)	Corcoran		72	100		
Farmersville HS	Farmersville	190	105			
Hanford HS	Hanford	110				
Hanford West HS	Hanford	96				
John F. Kennedy Junior HS	Hanford		114			
La Sierra Military Academy	Visalia		215			
(high school students)						
La Sierra Military Academy	Visalia	56				
(middle school students)						
Leadership Conference	Across		150			
(middle school students)	Tulare Co.					
Lemoore HS	Lemoore	351		400		
Pixley MS	Pixley	42				
Pleasant View MS	Poplar		120			
Reef-Sunset MS	Avenal			250		
Step Up Youth Conference	Across		130			
(high school students)	Tulare Co.					
Summit Charter Collegiate	Porterville		160			
Academy						
(high school students)						
Summit Charter Collegiate	Porterville		300			
Academy						
(middle school students)						
Tulare Union HS	Tulare		35			
University Preparatory HS	Visalia		17			
Woodrow Wilson Junior HS	Hanford		93			
TOTAL		845	2,011	750		
GRAND TOTAL	3,606					

IV. Student Contact Following Presentations and Referrals

Subsequent to the SOS presentations, there were approximately 126 students whom a School Counselor or School Psychologist on their campus saw. This took place either due to high scores on the Brief Screen for Adolescent Depression or because of the students' desire to speak to a caring adult, as expressed on the distributed response card during the presentation or in conversation with an adult following the presentation.

Of these 126 students, approximately 22 referrals were made to an outside mental health care provider for assessment.

V. Participants

A. Gender

Of the 3,149 students who filled out initial surveys and responded to the question, 1,593 (51%) are male, 1,550 (49%) are female, and five (5) students indicated that they are "Other (e.g., intersex, questioning)." (Note that, due to rounding, the category percentages on some graphs may not total 100%.)

The number of students whose survey results are presented in the following graphs in in this section is lower than the total number of students who attended the presentations because, at some schools, not all students filled out and returned the surveys.

Participants By Gender Signs of Suicide Students, April 2013 - May 2014 Other 0% Female Male 49% 51% Other: n=5 Sample size: 3,149

Figure 5-1

B. Age

Of the 3,103 students who answered the question on the initial survey, 1,193 (38%) are 11-13 years old, 1,606 (52%) are 14-15 years old, 267 (9%) are 16-17 years old, and 33 (1%) are 18-20 years old. The 11-13 year old students are in middle and junior high schools, while the rest are high school students.

Figure 5-2

Participants By Age
Signs of Suicide Students, April 2013 - May 2014

Sample size: 3,103

SOS Signs of Suicide[®] Prevention Program Evaluation Report, April 2013 – May 2014, page 11

C. Race/Ethnicity

Of the 3,351 students who responded to the question on the initial survey, 1,982 students indicated that they are Latino, 883 are White, 160 are African-American, 133 are American Indian or Alaskan Native, 26 are Southeast Asian, 102 are Other Asian, 77 are Native Hawaiian or Pacific Islander, 15 are "Other" and 179 categorized themselves as having more than one ethnicity. Students were able to select multiple categories.

Participants By Race/Ethnicity
Signs of Suicide Students, April 2013 - May 2014

White
25%

African-Am. Am. Indian SE Asian Other Asian
Pac. Islander Latino Mite More than One/Other
Note: Students were able to select more than one category.

Sample size: 3.151

VI. Outcomes

A. Knowledge of Suicide and Suicide Prevention

Students were given two-page surveys to fill out both immediately before and immediately following the presentation. In addition, students at some schools were given follow-up surveys to complete approximately two-and-a-half months after their presentation.

The sample sizes indicated on the outcome graphs presented in this section are smaller than those shown on the demographics graphs in Section IV of this report, because comparison of student survey responses at different time points (e.g., pre and post) are included only for students who answered the same question at both time points. Some students who attended SOS presentations only filled out a survey at one time point and some students skipped questions.

This section reviews students' knowledge of suicide prevention immediately before and right after the SOS presentation. As the survey needed to be very brief, so it could be administered at the beginning and end of a single class period, just three indicators of suicide and suicide prevention knowledge were included.

The participants were asked to indicate whether the following statements are true or false:

- 1. "Most people who kill themselves or try to kill themselves do it without any warning signs or clues." (False)
- 2. "Depression is an illness that doctors can treat." (True)
- 3. "The <u>best</u> thing to tell a friend who is considering killing himself or herself is 'Pull yourself together and things will get better." (False)

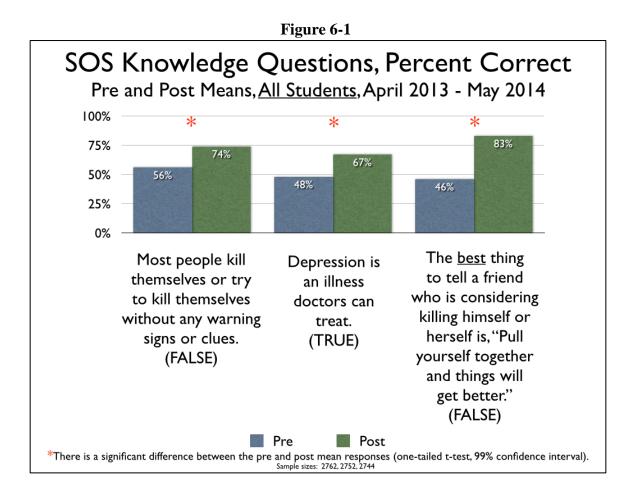
These statements and the survey questions listed in the next section were taken from surveys used in a major study of SOS, which was mentioned in Section II of this report. The survey statements and questions were used with the express permission of the lead and corresponding author, Dr. Robert H. Aseltine, Jr. The following is the study citation:

Aseltine, Robert H. Jr., Amy James, Elizabeth A. Schilling, and Jaime Glanovsky. "Evaluating the SOS Suicide Prevention Program: A Replication and Extension." *BMC Public Health* 7:161 (18 July 2007). doi:10.1186/1471-2458-7-161, http://www.biomedcentral.com/1471-2458/7/161.

1. Immediately Before and After SOS

a. All Students

Figure 6-1 shows the percentage of students who responded correctly to each statement both right before (in blue) and immediately following (in green) SOS. There were large and statistically significant increases in the percentage of students who answered each question correctly. This shows that the students' knowledge – of these key facts and, by extension, suicide and suicide prevention – increased from immediately before to immediately following SOS.



SOS Signs of Suicide® Prevention Program Evaluation Report, April 2013 – May 2014, page 14

As the SOS curricula for middle school students and high school students differ somewhat, it is logical to compare the responses of middle school students and high school students. Figures 6-2 and 6-3 on the next page show the responses of middle school (and junior high school) students and high school students, respectively.

For both groups of students there are statistically significant increases in correct responses to all three statements. A lower percentage of middle school students initially responded to the statements correctly than the high school students, however after SOS virtually the same percentage of middle school students and high school students answered the last two of the three statements correctly.

At the end of the class, a larger percentage of high school students (79%) than middle school students (67%) responded correctly to (that is, answered "false") the false statement, "Most people kill themselves or try to kill themselves without any warning signs or clues."

Figure 6-2

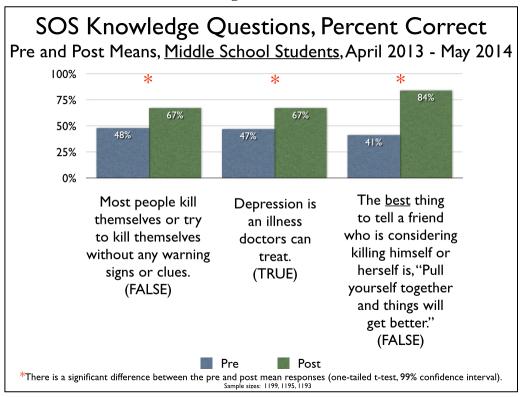
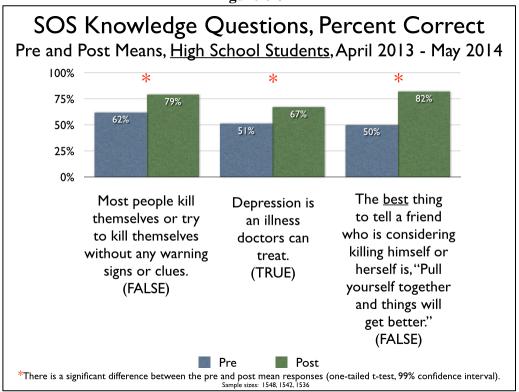


Figure 6-3



2. Immediately After SOS and Follow-Up

a. All Students

Figure 6-4 shows the percentage of students who responded correctly to each statement both immediately following SOS (in green) and about two-and-a-half months later (in gold). There were small to moderate, and statistically significant, decreases in student knowledge over the intervening time period. However, the students' knowledge level remains much higher than it was before SOS, on all three indicators. The fact that the knowledge the students learned in SOS was largely retained after more than two months is a positive finding.

It is worth noting here that the number of students who responded to both the pre and follow-up surveys is much lower than the number who responded to both the pre and post surveys. The groups of students responding to questions on the post survey (shown by the green bars on the graphs) is different on the graphs that compare pre and post responses than those that compare post and follow-up responses, because far fewer students filled out follow-up surveys than filled out either pre surveys or post surveys. For this reason, a result shown by a green bar on the pre-post graph may differ, in some cases markedly, from the result shown by a green bar on the post-follow-up graph.

Figure 6-4 SOS Knowledge Questions, Percent Correct Post and Follow-Up Means, All Students, April 2013 - May 2014 100% * * 83% 75% 79% 73% 69% 68% 59% 50% 25% 0% The best thing Most people kill Depression is to tell a friend themselves or try an illness who is considering to kill themselves doctors can killing himself or without any warning treat. herself is, "Pull signs or clues. (TRUE) yourself together (FALSE) and things will get better." (FALSE) Post Follow-up

*There is a significant difference between the post and follow-up mean responses (one-tailed t-test, 97% confidence interval).

Sample sizes: 903,896,897

SOS Signs of Suicide® Prevention Program Evaluation Report, April 2013 – May 2014, page 18

Figures 6-5 and 6-6 on the next page show the responses of middle school (and junior high school) students and high school students, respectively.

A higher percentage of high school students initially responded correctly to the first two statements, compared to the middle school students. However, a slightly greater percentage of middle school students (85%) than high school students (81%) initially responded correctly to the false statement, "The <u>best</u> thing to tell a friend who is considering killing himself or herself is, 'Pull yourself together and things will get better."

In addition, there were statistically significant declines in the mean responses to the last two statements by both groups of students. The largest was a ten percentage point drop, from 66% to 56%, in the mean response by middle school students to the true statement, "Depression is an illness that doctors can treat." The other declines were much smaller, of six percentage points or less.

While there was a statistically significant decline in the percentage of high school students who responded correctly to the false statement, "Most people kill themselves or try to kill themselves without any warning signs or clues.," there was no significant change for the middle school students.

Figure 6-5

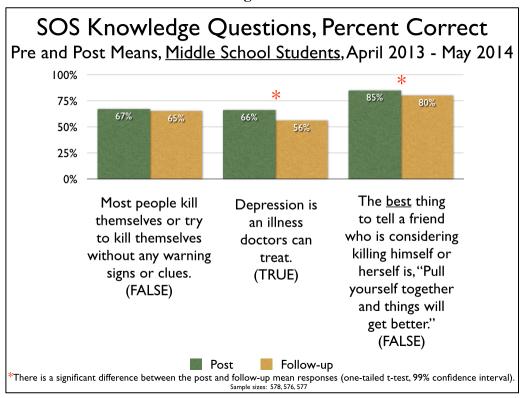
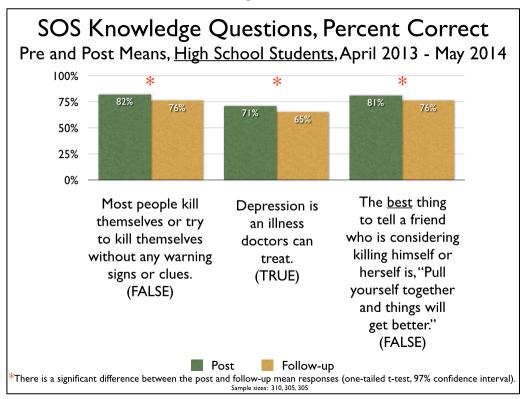


Figure 6-6



B. Anticipated Response to a Friend's Suicidal Ideation

Next participants were asked to consider what they would do, "If a friend told me he/she is thinking about killing himself/herself" They did so by responding on a five-point Likert scale (with options of "strongly disagree," "disagree," "neither agree nor disagree," "agree," and "strongly agree") to the following four statements:

- 1. "I wouldn't know what to do."
- 2. "I would keep it to myself."
- 3. "I would keep it a secret if my friend made me promise not to tell."
- 4. "I would tell an adult about it."

1. Immediately Before and After SOS

a. All Students

Figure 6-7 presents the mean student responses, both immediately prior to SOS (in blue) and immediately following SOS (in green). It bears noting that even before SOS, the students, on average, responded appropriately to all four statements, disagreeing with the first three and agreeing with the fourth.

By comparing the responses before and after SOS, the results indicate that SOS produced a statistically significant change in the expected direction in student responses to all four statements. The largest change in mean response (a 0.52-point decrease) was to the statement, "I would keep it a secret if my friend made me promise not to tell."

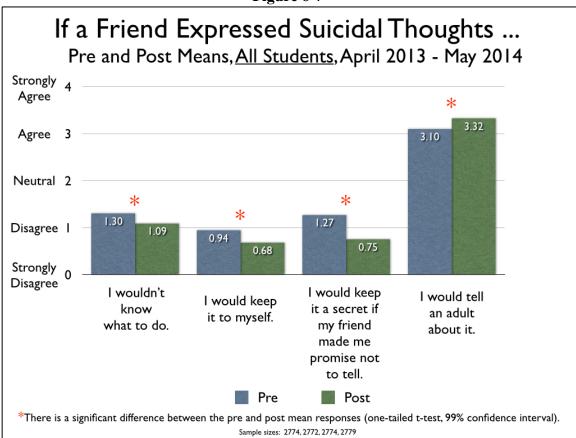


Figure 6-7

Figures 6-8 and 6-9 on the next page present the responses of middle school (and junior high school) students and high school students, respectively.

There were statistically significant changes in the expected direction for both sets of students. However, the middle school students' responses started out and ended farther in the desired direction (lower on the first three statements and higher on the last one), compared to the high school students' responses.

Figure 6-8

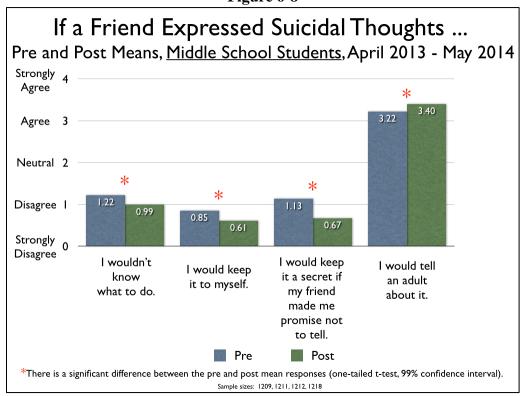
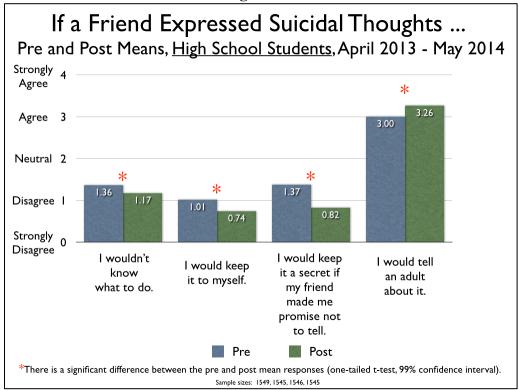


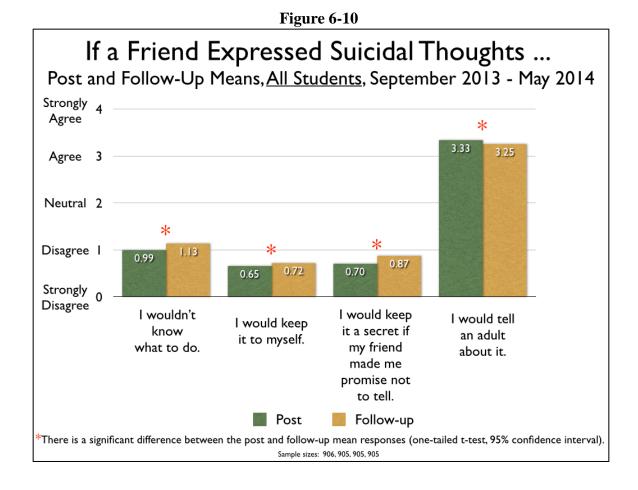
Figure 6-9



2. Immediately After SOS and Follow-Up

a. All Students

Figure 6-10 presents the mean student responses both immediately after SOS (in green) and about two-and-a-half months later (in gold). As expected, there was some degree of regression between the two time points, statistically significant but very small in magnitude, but with the mean responses remaining much closer to the desired responses than before SOS. The fact that the degree of regression is so low after more than two months is a positive result, because it shows that the knowledge of how to act and the willingness to act when faced with a friend at risk of suicide was largely retained between the time of SOS training and more than two months later.



SOS Signs of Suicide® Prevention Program Evaluation Report, April 2013 – May 2014, page 25

Figures 6-11 and 6-12 on the following page show the responses of middle school (and junior high school) students and high school students, respectively.

Here, too, the middle school students' responses started out and ended farther in the desired direction (lower on the first three statements and higher on fourth one), compared to those of the high school students.

All of the changes from post to follow-up show a small amount of regression (in the opposite direction of the desired responses), however there was variation in which changes were statistically significant.

For both groups of students, the changes in the mean responses to "I would tell an adult about it" were not statistically significant and the changes in the mean responses to "I would keep it a secret if my friend promised me not to tell" were significant. However, only for the middle school students was the change in the mean response to "I wouldn't know what to do." significant and only for the high school students was the change in the mean response to "I would keep it to myself." statistically significant.

Figure 6-11

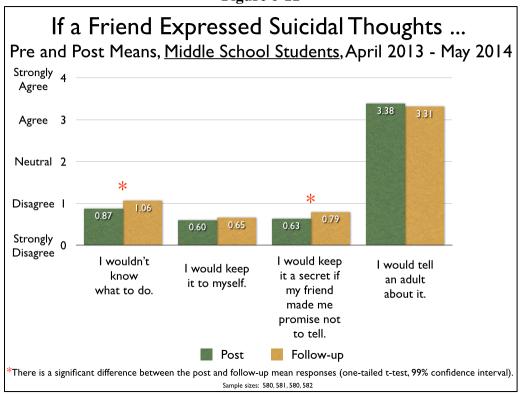
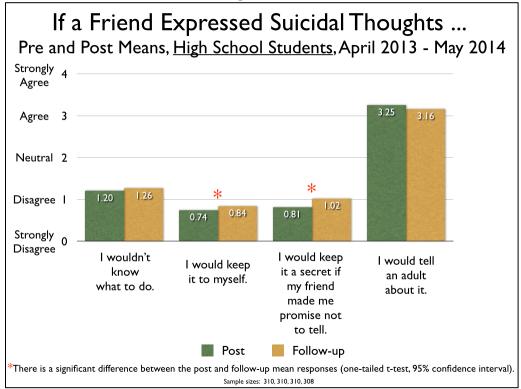


Figure 6-12



C. The Stigma of Mental Illness

We included a modified assessment of the public stigma of mental illness attribution in surveys before and after SOS as well two-and-a-half months later, at the time of follow-up. The assessment, called the AQ-8-C, was developed and made publicly available by one of the foremost scholars on the stigma of mental illness, Distinguished Professor Patrick W. Corrigan, Psy.D., who serves as the Director of the National Consortium on Stigma and Empowerment. The wording of the assessment was modified to place the scenario and questions in a school setting and to increase the cultural relevance (changing the name of the person in the scenario from Charlie to Anna). The wording of the questions was changed slightly to make it more familiar and comprehensible to the students, e.g. changing "pity" to "feel sorry for." In addition, one of the statements in the original assessment, which measured fear of people with mental illness, was excluded.

The following are the assessment's introductory paragraph as well as the statements and questions:

"Anna is a new student in your class. Before Anna's first day, you heard a rumor that Anna has a mental illness."

- 1. "I would feel sorry for Anna."
- 2. "I would feel comfortable if I were assigned to work in a group with Anna."
- 3. "I think Anna or her parents are to blame for her mental illness."
- 4. "Anna should be in a different type of class than mine."
- 5. "How angry would you feel at Anna?"
- 6. "How likely is it that you would help Anna with schoolwork?"
- 7. "I would try to stay away from Anna during breaks and after school."

I hypothesize that participation in SOS will make at least some of the participants more sensitive to the plight and needs of people with mental illness and, thus, be less likely to hold stereotypical or discriminatory opinions of them.

1. Immediately Before and After SOS

a. All Students

Figures 6-13 and 6-14 display the results from both before and immediately following SOS. We find small, statistically significant changes, in the direction of reduced stereotypical and discriminatory thinking about people with mental illness, on all seven indicators. The largest change is a 0.27-point drop in the mean response to, "Anna should be in a different type of class than mine."

While these differences are small, they do show statistically significant changes in SOS students' views of people with mental illness in the direction of greater understanding and tolerance.

Figure 6-13

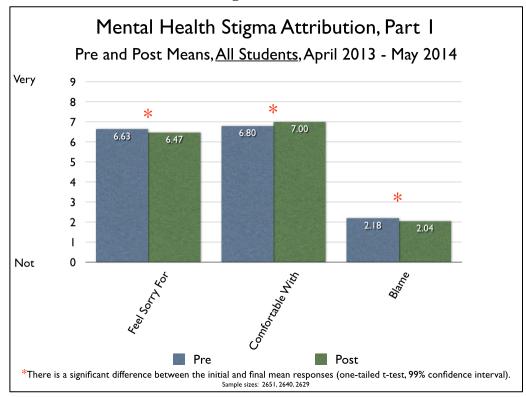
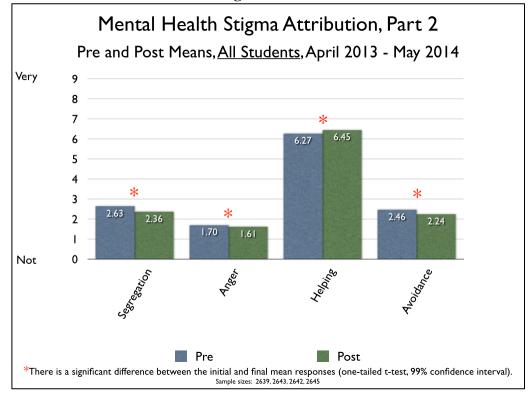


Figure 6-14



Figures 6-15 through 6-18 on the following two pages show the responses of middle school (and junior high school) students and high school students, respectively. The responses of both groups of students to the first three statements on the assessment are shown on the next page, while those to the last four statements are presented on the following page.

In Figures 6-15 and 6-16 we see that, initially, the middle school students, on average, indicate feeling sorry for a student with mental illness more than the high school students do. However, there is no change from before to after SOS in the mean response of the middle school students, whereas there is a small, statistically significant decline in this indicator for the high school students.

Initially, the high school students indicate having a slightly higher comfort level with a student with mental illness, on average, compared to the middle school students. There is a small, statistically significant increase in comfort level for both sets of students.

The middle school students initially have a mean response that lies slightly more toward blaming a student with mental illness or her parents for her mental illness, compared to the high school students. However, there are small, statistically significant changes in mean responses away from blame for both groups of students.

Turning to Figures 6-17 and 6-18, there are small, statistically significant drops in both groups of students' mean responses regarding keeping a student with mental illness in a separate class from other students.

The middle school students start out with a slightly higher mean level of anger toward the student with mental illness than do the high school students. There is a decline in expressed anger by both groups, statistically significant only for the middle school students.

The initial middle school students' expressed desire to help the student with mental illness was slightly higher, on average, than that of the high school students. There were small, statistically significant increases in the mean responses of both groups.

The initial responses of both middle and high school students regarding staying away from the student with mental illness were virtually identical (2.5) and the mean responses decreased after SOS to a virtually identical small but statistically significant degree.

Figure 6-15

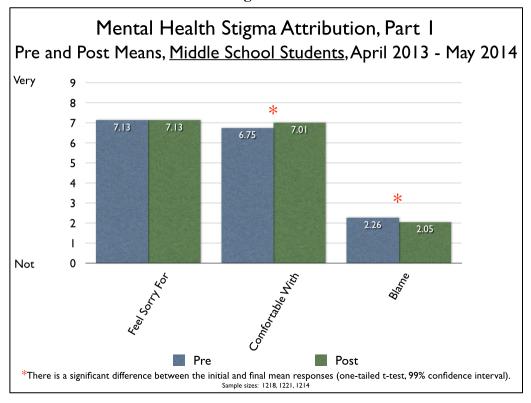


Figure 6-16

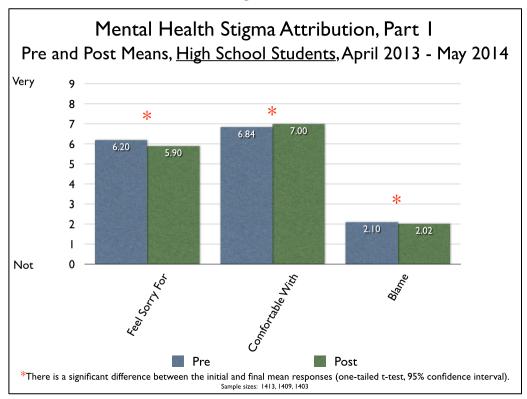


Figure 6-17

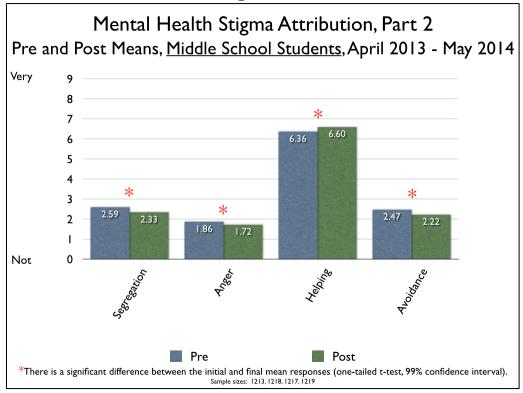
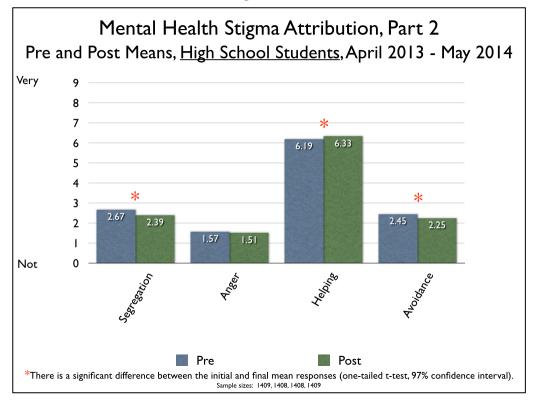


Figure 6-18



2. Immediately After SOS and Follow-Up

a. All Students

Figures 6-19 and 6-20 on the next page present the mean student responses both immediately after SOS (in green) and about two-and-a-half months later (in gold).

A positive result shown in Figure 6-19 is that the students indicate feeling significantly less sorry for the student with mental illness at the time of follow-up than immediately after SOS. This result is positive because feeling sorry for people with mental illness is an element of stigma.

However, the other two indicators in Figure 6-19 moved in the direction opposite to the desired outcomes, with a small but statistically significant decrease in comfort level with the student with mental illness and a small, statistically significant increase in blame of the student with mental illness or her parents. It is expected that there will be some regression in student responses, as memories naturally fade with time.

Figure 6-20 shows that there were small, statistically significant increases in the mean responses for placing the student with mental illness in a separate class, anger at the student, and staying away from the student. However, there was just a miniscule, non-significant decrease in the mean response for helping the student with mental illness.

Here again, the fact that the movements in the undesired direction are so small more than two months after the SOS presentation is a positive result. And the lessening in feeling sorry for the student with mental illness is an even more positive outcome.

Figure 6-19

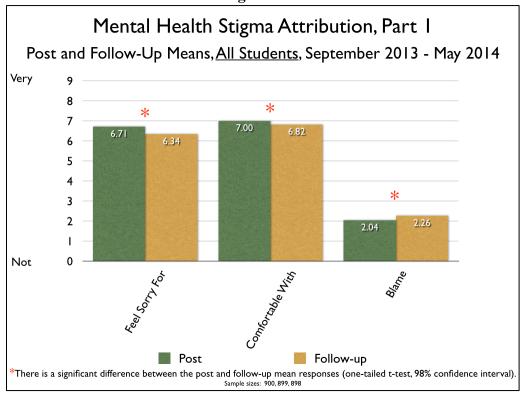
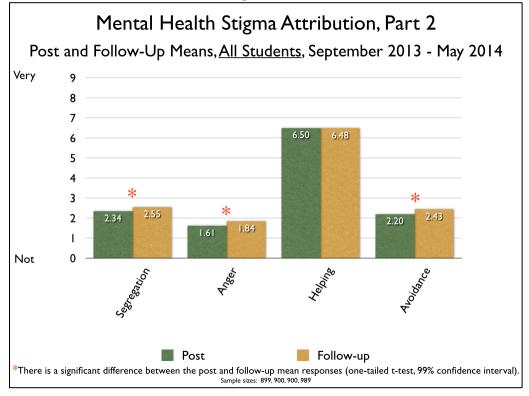


Figure 6-20



Figures 6-21 through 6-24 on the following two pages show the responses of middle school (and junior high school) students and high school students, respectively.

As we saw in Figures 6-15 and 6-16, the middle school students indicated feeling more sorry for the student with mental illness, on average, than did the high school students. From the time point immediately following SOS to the time of follow-up about two-and-a-half months later, there were small, statistically significant declines in feeling sorry for the student, larger in the case of the middle school students. As noted previously, feeling sorry for or pitying people with mental illness is an element of stigma. (See Figures 6-21 and 6.22 on the next page.)

For both the middle school and high school students, there were small decreases in expressed comfort level with the student with mental illness, after they took SOS, statistically significant for the middle school students, but not for the high school students.

In addition, there were small, statistically significant increases in blame of the student with mental illness or her parents, by both sets of students, on average.

Turning to Figures 6-23 and 6-24, we see small, statistically significant increases in the desire to place the student with a mental illness in a separate class, anger toward her, and the inclination to avoid her, by both middle school students and high school students, in the time since they participated in SOS.

The desire to help the student decreased slightly among the middle school students, on average, and increased slightly among the high school students, but both changes fell short of statistical significance.

Figure 6-21

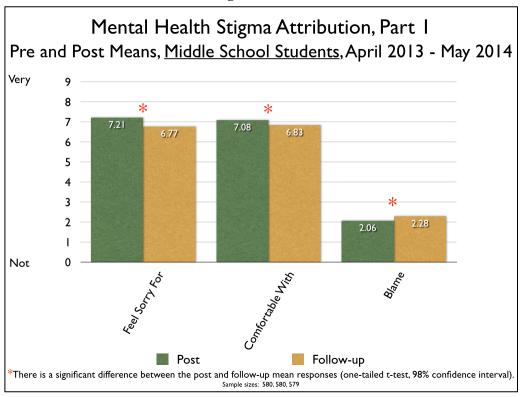


Figure 6-22

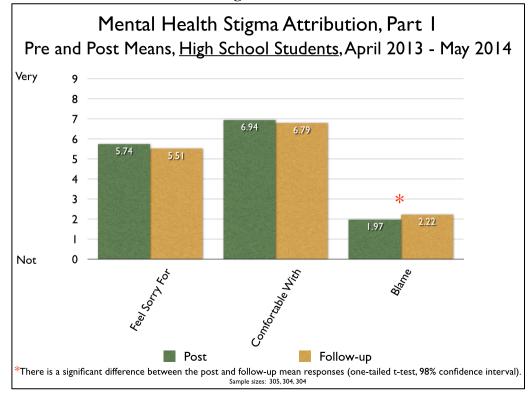


Figure 6-23

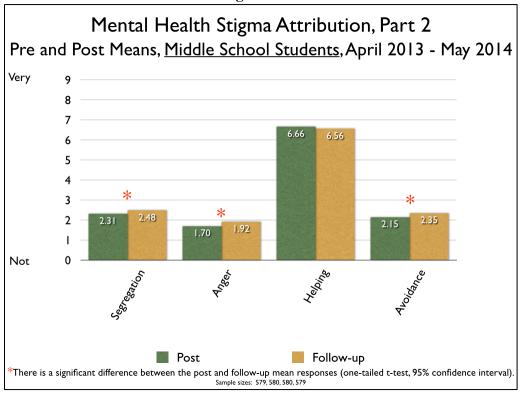
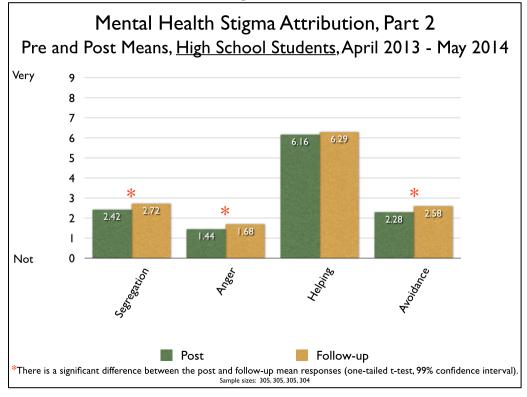


Figure 6-24



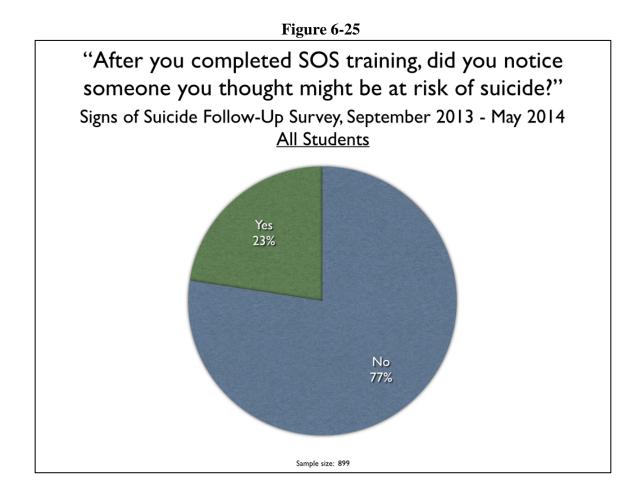
D. Recognition of Suicide Risk in Others and Use of the ACT® Model After SOS Training

On the follow-up survey we asked the students four questions about their activities in the area of suicide prevention, in the time since they participated in SOS.

1. Noticing Someone Who Might Be at Risk of Suicide

a. All Students

We asked the students, "After you completed Signs of Suicide (SOS) training, did you notice someone you thought might be at risk of suicide?" Nearly one-quarter (23%) answered in the affirmative.



SOS Signs of Suicide® Prevention Program Evaluation Report, April 2013 – May 2014, page 39

The percentages of middle school students (23%) and high school students (22%) who indicate that they noticed someone who might be at risk of suicide since they took SOS were virtually identical.

Figure 6-26 "After you completed SOS training, did you notice someone you thought might be at risk of suicide?" Signs of Suicide Follow-Up Survey, September 2013 - May 2014 100% 23% 22% 75% 78% 77% 50% 25% 0% Middle School Students **High School Students** No Yes Sample sizes: 581,303

2. Reaching Out and Acknowledging There Might Be a Problem

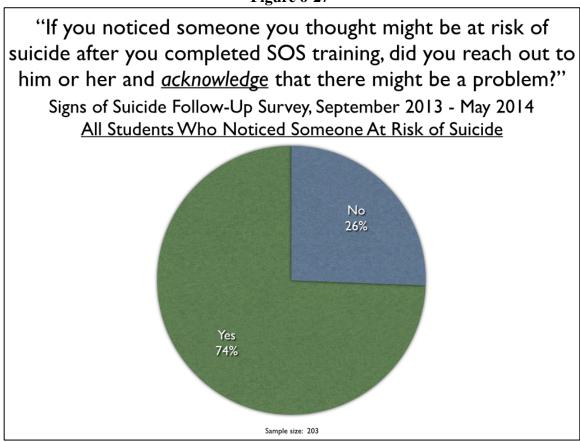
a. All Students

In the follow-up survey we asked the students, "<u>If you noticed someone you thought might be at risk of suicide after you completed SOS training</u>, did you reach out to him/her and <u>acknowledge</u> that there might be a problem?" Nearly three-quarters (74%) of the students who indicated that they noticed someone they thought might be at risk of suicide after SOS said that they reached out to the person and acknowledged that there might be a problem.

The ACT Model[®], which is at the core of SOS, is comprised of three elements:

- 1. Reaching out to someone who might be at risk of suicide and **Acknowledging** that there might be a problem
- 2. Letting the person at possible risk of suicide know that you Care
- 3. **Telling** someone else that the person might be at risk of suicide

Figure 6-27



While over two-thirds (68%) of high school students who noticed someone they thought might be at risk of suicide since they took SOS said that they reached out to the person and acknowledged there might be a problem, 77% of middle school students indicated that they did so.

"If you noticed someone you thought might be at risk of suicide after you completed SOS training, did you reach out to him or her and acknowledge that there might be a problem?" Signs of Suicide Follow-Up Survey, September 2013 - May 2014 100% 77% 68% 75% 50% 32% 25% 23% 0% Middle School Students **High School Students** Nο Yes Sample sizes: 135, 66

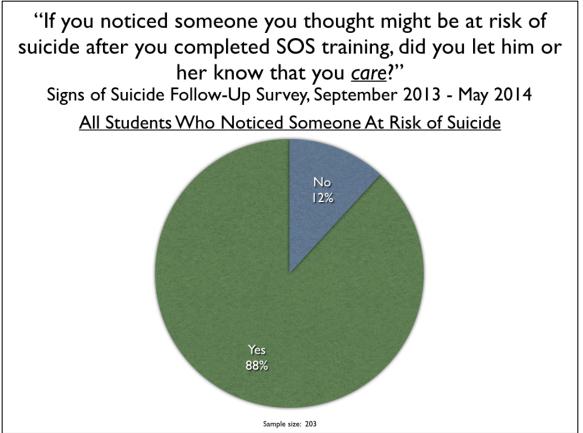
Figure 6-28

3. Letting People at Risk of Suicide Know That You Care

a. All Students

In the follow-up survey we asked the students, "<u>If you noticed someone you thought might be at risk of suicide after you completed SOS training</u>, did you let him or her know you <u>care</u>?" Nearly nine in ten (88%) students who said that they noticed someone who might be at risk of suicide since they took SOS said that they let the person know that they care.

Figure 6-29



While eight in ten (80%) high school students who noticed someone who might be at risk of suicide since they took SOS said that they let the person know that they care, 93% of middle school students said that they did so.

Figure 6-30 "If you noticed someone you thought might be at risk of suicide after you completed SOS training, did you let him or her know that you care?" Signs of Suicide Follow-Up Survey, September 2013 - May 2014 100% 93% 80% 75% 50% 25% 20% 7% 0% Middle School Students **High School Students** No Yes Sample sizes: 135, 66

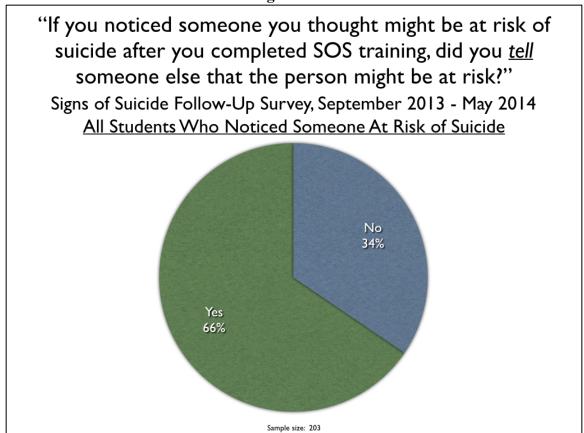
SOS Signs of Suicide® Prevention Program Evaluation Report, April 2013 – May 2014, page 44

4. Telling Someone Else That Somebody Might Be at Risk

a. All Students

In the follow-up survey we asked the students, "<u>If you noticed someone you thought might be at risk of suicide after you completed SOS training</u>, did you <u>tell</u> someone else that the person might be at risk?" Almost two-thirds (66%) of students who noticed someone who might be at risk of suicide since they took SOS said that they told someone else that the person might be at risk.

Figure 6-31



While 64% of high school students who noticed someone who might be at risk of suicide since they took SOS said that they told someone else that the person might be at risk, a slightly higher percentage (67%) of middle school students said that they did so.

"If you noticed someone you thought might be at risk of suicide after you completed SOS training, did you tell someone else that the person might be at risk?" Signs of Suicide Follow-Up Survey, September 2013 - May 2014 100% 67% 64% 75% 50% 36% 33% 25% 0% Middle School Students **High School Students** No Yes Sample sizes: 135, 66

Figure 6-32