PROJECT SAFETY NET

CSU FINAL REPORT

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SUBMITTED BY

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EXECUTIVE SUMMARY

The Project Safety Net Evaluation Team at Colorado State University (CSU) was contracted to evaluate two gatekeeper trainings: Applied Suicide Intervention Skills Training, (ASIST) and Question, Persuade, Refer (QPR). Over the funding period, the CSU Project Safety Net team has closely worked with the Office of Suicide Prevention Prevention Services Division of the Colorado Department of Public Health and Environment (CDPHE), the six Project Safety Net Community Coordinators, and the developers of both training curricula (Richard Ramsey, ASIST; Paul Quinnett, QPR) pertaining to design, implementation, and evaluation of the ASIST and QPR trainings.

This final report consists of four parts: (1) a summary of evaluation logistics, additional scopes of work, and demographics of trainees in Year 3, and over the funding period (Sections A to M), (2) comprehensive report of evaluation results from Year 1 to Year 3 for ASIST training (Section N) and QPR training (Section O), (3) situational and system capacities of maintaining and strengthening Safety Net (Sections P and Q), and (4) Appendixes.

Over the three-year period, 2453 participants in six Colorado communities have received 110 QPR trainings and 43 ASIST trainings. Training effects were evaluated by multiple approaches. Trainees' satisfaction with both trainings generally met the minimum standard determined prior to the trainings.

Both ASIST and QPR trainees showed improvement from pre-tests to post-tests on suicide prevention knowledge, self-efficacy for suicide prevention, and intentions to inquire about suicidal feeling and intervene with a suicidal individual. However, the above desired effects tend to decrease from the post-test to the follow-ups for both trainings.

It is worthy to note that, three months after the training, 46 ASIST trainees reported performing 115 direct interventions with individuals who showed signs of being suicidal. Additionally, 58 ASIST trainees reported intervening with 302 individuals between the three-month follow-up and the six-month follow-up. Furthermore, six months after the training, 114 QPR trainees reported performing 357 referrals of individuals who showed signs of being suicidal.

The above results have been disseminated via journal submission, and presentations at local and national conferences (e.g., American Association of Suicidology Annual Conference). In addition, fact sheets based on the evaluation results were published and distributed to the participating communities.

Major challenges to be addressed in the future include (1) identifying ways of increasing the number of male participants in ASIST and QPR (Figure M-a1), (2) revising both training programs to address cultural differences (Figures N-a2 and O-a2), (3) discussing how to cope with obstacles (Figure P-a1) gatekeepers would likely face

during the training programs, (4) developing and evaluating sustainability strategies (Figure P-b1) to maintain the knowledge, skills and confidence that gatekeepers gained during trainings, (5) eliminating obstacles that prevent gatekeepers from engaging in suicide prevention tasks, (6) identifying factors that would affect suicide prevention behaviors (Figures N-f1 and O-e1), and (7) identifying and closing gaps in the referral process.

TABLE OF CONTENT

Executive Summary 2

Summary of Tasks

A. Monthly Conference Calls 5

B. Collaboration with CDPHE and ORC Macro 5

C. Website Development for Tracking Trainings 5

D. Collaboration with Community Coordinators 5

E. Project Meetings 6

F. Annual SAMSHA Grantee Meeting 6

G. Human Research Approval 6

H. Additional Scopes 6

I. Instrument Development 10

J. Evaluation Design 11

K. Demographics for ASIST Trainees In Year 3 11

L. Demographics for QPR Trainees In Year 3 14

M. Demographics for All Trainees Across Three Years 17

N. Evaluation of ASIST Training 22

O. Evaluation of QPR Training 35

P. Qualitative Data Analysis 42

Q. Sustainability Strategies Survey Results 45

Appendixes (A, B, C, and D)

SUMMARY OF TASKS

A. MONTHLY CONFERENCE CALLS

One or two of CSU Project Safety Net team members (Julie Gibbs and/or Taylor Moore) participated in conference calls with CDPHE Office of Suicide Prevention and Community Coordinators as scheduled from November 2006 thru September 2009.

B. COLLABORATION WITH CDPHE AND ORC MACRO

Over the course of Year 1, the CSU evaluation team met with the staff of CDPHE and ORC Macro to develop a streamline procedure for the administration of the Project Safety Net evaluation and the ORC Macro Training Exit Survey. The goal was to align the local and ORC Macro assessments to better serve the trainers and trainees. To collaborate with ORC Macro and provide services to CDPHE, the CSU evaluation team agreed to (1) send evaluation materials (including training information form, pre-training survey and post-training survey) to each of the six communities, (2) collect returned evaluation materials from each of the six communities (3) assist CDPHE to copy and mail surveys, and enter survey data with the understanding that the originally proposed budget is not reduced, and (4) send a portion of the local survey data and ORC Macro exit survey data to CDPHE and ORC Macro on a quarterly bases (i.e., December 5th, March 5th, June 5th and September 5th). In January 2009, ORC MACRO modified the cross-site instruments. The modification of the instruments resulted in an overall reduction in the number of items creating less of a burden on trainees. The CSU evaluation team modified the existing assessments to continue to be in alignment with the MACRO evaluation. The modified assessments were distributed to the six community coordinators in February 2009. No other changes noted in this agreement for Years 2 & 3.

C. WEBSITE DEVELOPMENT FOR TRACKING TRAININGS

In an effort to streamline procedures the CSU evaluation team developed a project website (http://lamar.colostate.edu/~chenp/cdphe.htm) containing QPR and ASIST training dates and training identification (ID) numbers. The website has served to facilitate data entry and tracking. In addition, the website provides a single source of training information for CDPHE and the community sites. Coinciding with the development of the website the CSU evaluation team instituted a protocol for obtaining monthly training updates from the community sites. In turn, the website is then updated twice a month by the CSU evaluation team.

D. COLLABORATION WITH COMMUNITY COORDINATORS

On November 13, 2007, the CSU evaluation team met with CDPHE to review the Year 1 annual report. Discussion focused on the evaluation results and feedback from community coordinators after the site visit. Specific topics discussed at the meeting included (1) evaluation logistics, (2) what was learned over the past year, and (3) a general discussion of strategies to strengthen the evaluation process. The report was then forwarded to the community coordinators. A detailed presentation of evaluation results were presented to community coordinators and CDPHE project staff on February

8, 2008 and August 14, 2008. In addition, the CSU evaluation team made several community site visits between August 2007 and May 2009 to streamline the evaluation process and to collect feedback on how to improve Project Safety Net. These visits and meetings have led to several additional scopes of work described in detail in Section H.

E. PROJECT MEETINGS

In addition to the standing monthly conference calls and numerous emails/phone calls with the community coordinators and CDPHE project staff, the CSU evaluation team attended each of the Project Safety Net Meetings: February 8, 2007, Denver, CO; November 13, 2007, Denver, CO; February 8, 2008, Denver, CO; August 14-15, 2008, Denver, CO; and May 29, 2009, Fort Collins, CO.

F. ANNUAL SAMSHA GRANTEE MEETING

A representative from the CSU evaluation team has attended each of the grantee meetings: December, 11-14, 2006, Washington, D.C; December 10-12, 2007, Portland, Oregon; and January, 5-8, 2009, Phoenix, AZ.

G. HUMAN RESEARCH APPROVAL

Human Research Approval was obtained from the Office of Regulatory Compliance at Colorado State University on February 1, 2007, the CSU HRC Protocol ID 08-609H. The Protocol is approved through January 2, 2010.

H. ADDITIONAL SCOPES

The CSU evaluation team has met with community coordinators, training program developers, and community suicide advocates in years 1-3. The purpose of the meetings were to address issues related to training effectiveness, project sustainability, project dissemination, and the translation of evaluation results. Based on partners' input, spirit of collaboration, and community service, the CSU evaluation team achieved several milestones beyond the scope of Project Safety Net.

Meetings and Conferences

1. January23-25 2008: Meeting with Sheila Linwood (Mesa County Suicide Prevention Coalition, Grand Junction, CO) to collect additional data from medical professionals.
2. February 12, 2008: 18th Annual State Mental Health Agency Services Research, Program Evaluation, and Policy Conference, Arlington, VA.
3. March 26-27, 2008: Meeting with Richard Ramsey about the identification of competencies of gatekeeper, Calgary, Canada.
4. April 17, 2008: Meeting with Paul Quinnett about the identification of competencies of gatekeeper, Boston, MA.
5. April 18, 2008: Meeting with Richard Ramsey about investigating accumulated effects of suicide prevention, Boston, MA
6. April 17-19, 2008: 41st American Association of Sociology Annual Conference, Boston, MA.

7. May 2008: Bridging the Divide: Suicide Prevention and Awareness Summit, Denver, CO.
8. August 5, 2008: Orientation meeting with Dana Lindsay, LCSRC and CDPHE, Loveland, CO.
9. September 12, 2008: ASIST Trainer Conference, Denver, CO.
10. April 15-18, 2009: 42nd American Association of Suicidology Annual Conference, San Francisco, CA.
11. April 17, 2009: Meeting with Richard Ramsey about emerging leaders in suicide prevention, San Francisco, CA.
12. April 18, 2009: Meeting with Paul Quinnett about the web-based QPR training, San Francisco, CA.
13. April- May, 2009: Focus group Interviews, Statewide, CO.
14. May 27, 2009: Bridging the Gap: Suicide Prevention, Regis University, Denver. CO.

Training Effectiveness and Sustainability

In response to the Year 1 feedback from community coordinators the following recommendations were addressed in Years 2 and 3: (1) increase integration of the evaluation process; (2) increase evidence practice of Project Safety Net by introducing control groups, and (3) strengthen community Safety Nets.

Increase integration of the evaluation process. The training and recruitment protocols were revised to address this need. Key talking points were added to the training protocol, which consists of (1) emphasizing that the trainings are part of a state-wide initiative to strengthen youth suicide prevention efforts in Colorado, called Project Safety Net; (2) communicating with participants that the evaluation is vital part of the training, and that the pre-test, post-test and follow-up results will strengthen future funding efforts; and (3) making the evaluation process personally relevant by informing participants that their participations in follow-up surveys will not only improve the training programs but also encourage more gatekeepers to follow in their steps. Additionally, *on February 8, 2008,* the CSU evaluation team brainstormed with the community coordinators on ways to increase the 3 month and 6 month evaluation results. This resulted in the development of a follow-up recruitment protocol. Community coordinators were encouraged to send initial "heads-up" recruitment e-mails to participants that participated 3- or 6- months ago. The e-mail emphasizes that as part of Project Safety Net efforts, a follow-up evaluation of the trainings is necessary to ensure future funding to support their suicide prevention initiatives.

Increase evidence practice of Project Safety Net by introducing control groups – The CSU evaluation team worked closely with Sheila Linwood, project coordinator in Mesa County, in order to coordinate the collection of control group data. On January 23 and 25, 2008, team member, Taylor Moore, traveled to Grand Junction, CO to collect control group data from a section of nursing students enrolled at Mesa State College. The pre-test and post-test measures were given two days apart to simulate the amount of time that would elapse in a regular ASIST training. They received normal classroom

instruction unrelated to suicide prevention, then received ASIST training the following week. After this initial data collection, a partnership with the nursing instructor at Mesa State College was formed and data continued to be collected based on a nine-week rotation of the nursing students. Due to changes in personnel at evaluation sites e, no further control group data has been collected since then. The results are reported in Section N-g.

Strengthen community Safety Nets- On September 8, 2008, the CSU evaluation team met via conference call with CDPHE Project Safety Net leadership to discuss the issue of how to maintain training effect after training. Our evaluation results indicate that knowledge of suicide intervention skills decrease significantly by the follow-up evaluation (3-month for ASIST and 6-month for QPR; see Sections N and O). Furthermore, the result revealed that self-efficacy for suicide prevention in the ASIST training significantly dropped from post-test to 3-month follow-up. However, the level of self-efficacy to prevent suicide at 3-month was maintained at 6-month follow up, and was still significantly higher than that at baseline. A similar downward trend was observed in the QPR training, although the decrease of self-efficacy for suicide prevention was not significantly different between post-test and 6-month follow-up. The central question is how we can help trainees maintain the knowledge, skills and confidence they gained during training? Approaches discussed during the meeting are as follows: (1) provide quick booster training, (2) provide a virtual support group (e.g., list serve that give trainees opportunities to network), (3) establish formal/informal network among trainees such as local conference of each county or "reunion" etc., (4) provide electronic coaching, (5) send trainees an appreciation letter from the Colorado Department of Public Health and Environment, (6) send follow-up emails to encourage trainees to provide suggestions and share success and challenges, (7) survivors send appreciation letters to trainees and encourage them for their work, (8) stop using most of the past evaluation questions for QPR, and focus on barriers trainees have encountered after the training, and (9) assess effects of strategies (if available) used to help trainees maintain their behaviors and self-efficacy.

To address topics generated from the conference call and feedback from the community coordinators, the CSU evaluation team has conducted three additional projects in Year 3.

1. Focus groups and in-depth interviews were conducted in each of the five communities (Larimer, El Paso, Mesa, Pueblo and the University of Colorado at Boulder) between April and May of 2009. Focus group participants included individuals who completed both the Project Safety Net QPR and ASIST training. The purpose of the focus group interviews was to generate sustainability strategies to assist trainees to maintain and sustain their level of self-sufficiency, knowledge and skill of gatekeeper suicide prevention. Results are described in Section P.
2. After a content analysis of the above focus group interviews, a web-based needs assessment survey was developed to address the six sustainability strategies. The survey was administered to past trainees. They were asked to evaluate each

strategy based on the following criteria: complexity, compatibility with existing practice, relative advantages over existing practice, and intention to use. Initial results are described in Section Q.

3. *Community fact sheets*- In May 2009, individual fact sheets were developed and distributed to each of the participating communities. Information included; trainee gender and ethnic composition, number of interventions after training, and summary of 3-month and 6-month follow-up evaluation. The fact sheets presented in Appendix A provide each individual community with practical information that can be used to inform their Boards and leadership, community partners, and funders.

Dissemination

To effectively disseminate lessons learned from Project Safety Net, the CSU evaluation team has made efforts to disseminate evaluation findings to the suicide prevention communities regionally and nationally. Records of conference presentations and journal submission are listed below. Abstracts for poster presentations and panel discussions at the American Association of Suicidology (AAS) Annual Conferences are included in Appendix B. One manuscript, submitted under review at the journal *Suicide and Life-Threatening Behavior*, is also included in Appendix B. Oral presentations are not included in Appendix B. CSU evaluation team members are in bolded font.

AAS Presentations

1. **Moore, J. T., Cigularov, K. P., Hoffmeister, K. K., Chen, P. Y., Rohr, S.,** & Martinez, J. M. (2008, April). Evaluation of a Community Gatekeeper Training: QPR. Poster presented at the 41st American Association of Suicidology Annual Conference, Boston, MA.
2. **Moore, J. T., Cigularov, K. P., Hoffmeister, K. K., Chen, P. Y., Rohr, S.,** & Martinez, J. M. (2008, April). Two Approaches to Evaluate a Gatekeeper Training. Poster presented at the 41st American Association of Suicidology Annual Conference, Boston, MA.
3. **Gardner, P. C., Putter, S. E., Chen, P. Y., Moore, J. T., Cigularov, K. P., Hoffmeister, K.K.**, & Martinez, J. M. (2008, April). *Gatekeeper training: What constitutes success?* Poster presented at the 41st American Association of Suicidology Annual Conference, Boston, MA.
4. **Hoffmeister, K. K., Cigularov, K. P., Carey, A., Rohr, S., Gardner, P. C., Putter, S. E., Gibbs, J., Chen, P. Y., Moore, J. T.,** & Martinez, J. M. (2008, April). *Barriers to Suicide Prevention Training Transfer*. Poster presented at the 41st American Association of Suicidology Annual Conference, Boston, MA.
5. **Cigularov, K.** (2008, April). Chair*. Who are suicide prevention gatekeepers*? Panel discussion, 41st American Association of Suicidology Annual Conference, Boston, MA.
6. **Cigularov, K.** (2008, April). Chair*. How to connect the dots to prevent suicide?* Panel discussion, 41st American Association of Suicidology Annual Conference, Boston, MA.

7. **Gardner, P.C., Moore, J.T., Cigularov, K., Putter, S.E., Sampson, J.M., Maertens, J.A., Chen, P.Y.**, Quinnett, P., & Baker, A. (2009, April). *Comparison of On-line and Face-to-Face Gatekeeper Training.* Paper presented at the 42nd American Association of Suicidology Annual Conference, San Francisco, CA.
8. **Moore, J.T., Cigularov, K.P., Chen, P.Y.**, Martinez, J.M., Hindman, J.,& Brietzman, S. (2009, April). *A Longitudinal Evaluation of Gatekeeper Training.* Paper presented at the 42nd American Association of Suicidology Annual Conference, San Francisco, CA.
9. **Moore, J.T., Cigularov, K.P., Chen, P.Y.**, & Linwood, S. (2009, April). *It is my job to prevent suicide? Perspectives of health care professionals*. Paper presented at the 42nd American Association of Suicidology Annual Conference, San Francisco, CA.

Other Presentations

1. Johnson, S. F., Jones, K. E., Walrath, C., McKeon, R., **Moore, J. T**., & Martinez, J. (2008, February). Suicide prevention gatekeeper trainings, from process to outcomes: A data-driven story. Oral presentation given at the 18th Annual State Mental Health Agency Services, Research, Program Evaluation, and Policy Conference, Arlington, VA.
2. Grenfell, D., Dahl,N., Gonzales,L., & **Cigularov, K.** (2008, May). *Bridging the Divide in Larimer County: A community story of hope*. Panel discussion presented at the Bridging the Divide: Suicide Awareness and Prevention Summit, Denver, CO.
3. **Moore, J. T**. (2008, September) *Project Safety Net: Using the data to inform the future*. Oral presentation given at the Colorado ASIST Trainers Conference, Denver, CO.
4. **Moore, J.T.**, (2009, June). *Situational Obstacles for gatekeepers and the Moderating Effect of Social Support.* Garrett Lee Smith Memorial Act/SAMHSA, Project conference call.
5. **Moore, J.T.**, (2009, August).*Strategies for Maintaining Skills, Knowledge, and Motivation of Suicide Prevention Gatekeepers.* Garrett Lee Smith Memorial Act/SAMHSA, Project conference call.

Manuscript

Moore, J.T., Cigularov, K.P., Chen, P.Y., Martinez, J., & Hindman, J. (2009, manuscript under review). Situational obstacles for suicide prevention gatekeepers and the moderating role of support. *Suicide and Life-Threatening Behavior.*

I. INSTRUMENT DEVELOPMENT

Between November 2006 and April 2007, the CSU evaluation team followed a rigorous and systematic process to develop two instruments with which to evaluate the effectiveness of ASIST (Appendix C) and QPR (Appendix D). Both instruments were designed to contain multiple measures, intended to assess different training outcomes in each of the trainings, such as knowledge, skills, behavioral intentions, self-efficacy,

and past behaviors. The survey instrument was further refined and revised in 2008 to address different issues.

J. EVALUATION DESIGN

The CSU evaluation team used a hybrid evaluation design to assess the effectiveness of ASIST and QPR. This design consisted of (a) a pre-test-post-test single-group design, (b) post-test-only design with nonequivalent groups design, and (c) pre-test and post-test with a control group. The first design contained four components: a pre-test (taken by the selected gatekeepers prior to the presentation), presentation of the programs, a post-test (immediately after training) on the same form, and follow-up post-tests (three and six months following the ASIST training, and six months following the QPR training) on the same form. The second design contained a post-test, a follow-up post-test, treatment groups, and control groups. The pre-test of the control groups was viewed as the post-test, which would be compared to the post-test and the follow-up post-test of the treatment groups. Detail descriptions are presented in Sections N and O.

K. DEMOGRAPHICS FOR ASIST TRAINEES IN YEAR 3

All numbers in this section are generated based on data collected from October 2008 to August 2009.

a. Demographics

In the third year, 206 participants were trained in ASIST with a majority being females as can be seen in Figure K-a1. In Figure K-a2, the gender of participants is broken down by site. Not all participants reported their gender, thus the sum of male and female participants in Figures K-a1 and K-a2 does not equal 206.

Figure K-a1: Gender of ASIST Trainees in Year 3

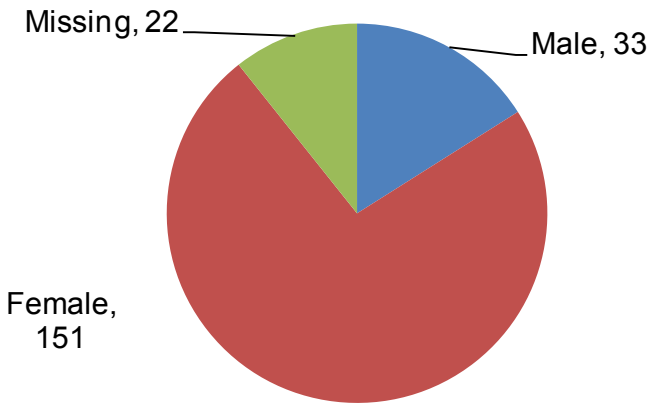
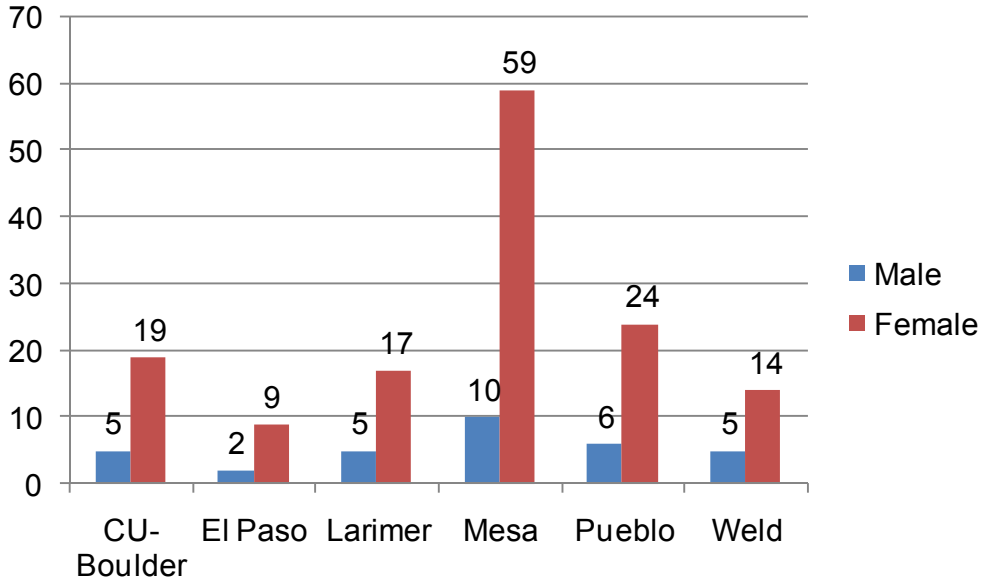


Figure K-a2: Gender of ASIST Trainees by Site in Year 3



The race and ethnicity of ASIST trainees in Year 3 is reported in Figure K-a3 and by site in Figure K-a4. A majority of trainees have identified themselves as Non-Hispanic (83%) and White (67%). Targeting of Non-white individuals for ASIST training is recommended. Ethnicity and race are not mutually exclusive, thus the sum of participants in Figures K-a3 and K-a4 will not be equal to 206.

Figure K-a3: Race/Ethnicity of ASIST Trainees in Year 3

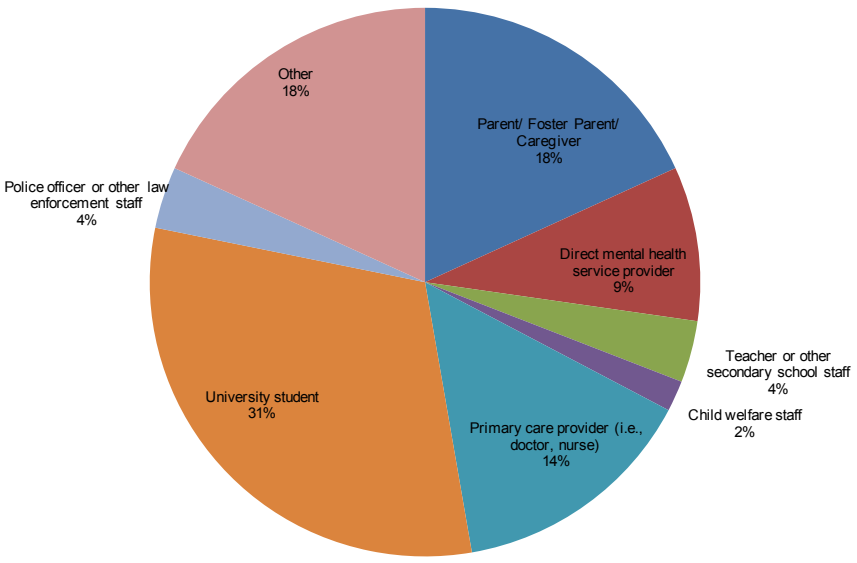
ASIST	Number	%
Hispanic or Latino	34	17
American Indian or Alaska Native	6	3
Asian	2	1
Black or African American	3	1
Native Hawaiian or Other Pacific Islander	1	0
White	138	67
Other	0	0
Not Reported	56	27

Figure K-a4: Race/Ethnicity of ASIST Trainees by Site in Year 3

Site	Hispanic/ Latino	American Indian or Alaska Native	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	White
CU - Boulder	1	1	1	2	0	18
El Paso	1	0	0	0	0	11
Larimer	3	0	0	0	0	20
Mesa	14	2	0	1	0	53
Pueblo	11	2	0	0	0	19
Weld	4	1	1	0	1	17
Total	34	6	2	3	1	138

Trainees self-identified their role as a participant in the ASIST training. Multiple roles could be selected and therefore the categories are not mutually exclusive. The most commonly identified roles for trainees were University Student (31%), Parent/Foster Parent/Caregiver (18%) and Other (18%). The break down for self-identified roles is presented in Figure K-a5.

Figure K- a5: Self-identified Role of ASIST Trainees in Year 3



b. Response Rate

The percentage of trainees who completed follow-up surveys is displayed in Figure K-a6 below. The response rate for the 3-month follow-up was about 17% for complete data that means completion of both the phone and online portion of the survey. If we break apart the response rate for the two modes of follow-up at three months, the percentage of trainees who completed the phone survey (37%) was higher than the percentage of trainees who completed the online survey (22%).

The response rate for completing 6-month follow-up data was 17%. Completion of 6-month follow-up data means that trainees completed the baseline survey, the post-test survey, the 3-month phone survey, the 3-month online survey, and the 6-month online survey. The 6-month partial response rate uses the number of completed 3-month online surveys as the denominator and the number of completed 6-month online surveys as the numerator. Thus, there is a 54% partial response rate from 3-month follow-up to 6-month follow-up.

Figure K-a6: Follow-up Response Rate in Year 3

Response Rate	%
3-month Complete Surveys	17
3-month Phone Survey	37
3-month Online Survey	22
6-month Complete Surveys	17
6-month Partial Surveys	54

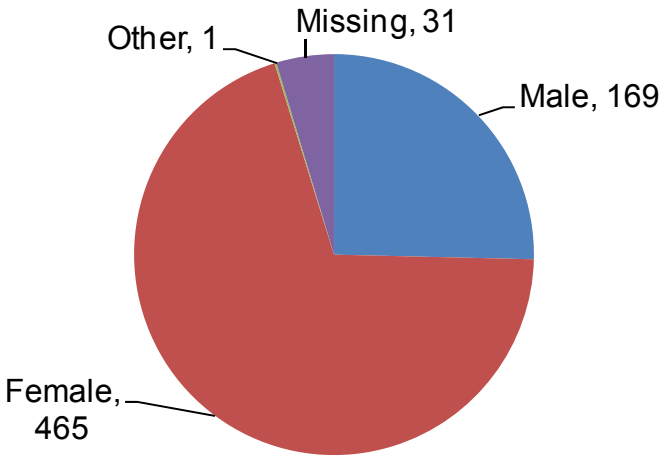
L. DEMOGRAPHICS FOR QPR TRAINEES IN YEAR 3

All results in this section are generated based on data collected from October 2008 to August 2009.

a. Demographics

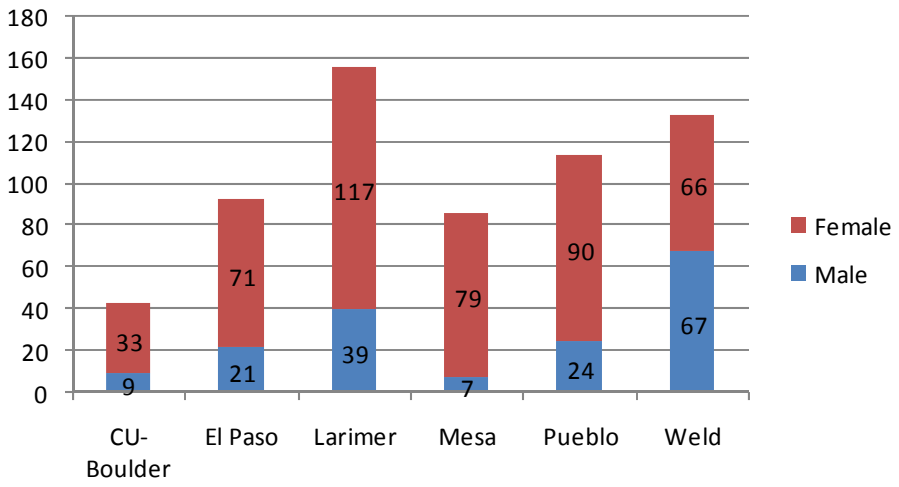
666 participants have been trained in QPR with a majority being females as can be seen in Figure L-a1. Not all participants reported their gender, thus the sum of male and female participants in Figures L-a1 and L-a2 does not equal 666.

Figure L-a1: Gender of QPR Trainees in Year 3



The number of QPR at each of the 6 sites ranges from 42 to 156 and is broken down by site for Year 3 in Figure L-a2 below.

Figure L- a2: Gender of QPR Trainees by Site in Year 3



The race and ethnicity of QPR trainees in Year 3 are presented in Figure L-a3 and are reported by site in Figure L-a4. A majority of trainees have identified themselves as Non-Hispanic (82%) and White (77%). Targeting of Non-white individuals for QPR training is recommended. Race and ethnicity are not mutually exclusive, thus the sum of participants in Figures K-a3 and K-a4 will not be equal to 666.

Figure L-a3: Race/Ethnicity of QPR Trainees in Year 3

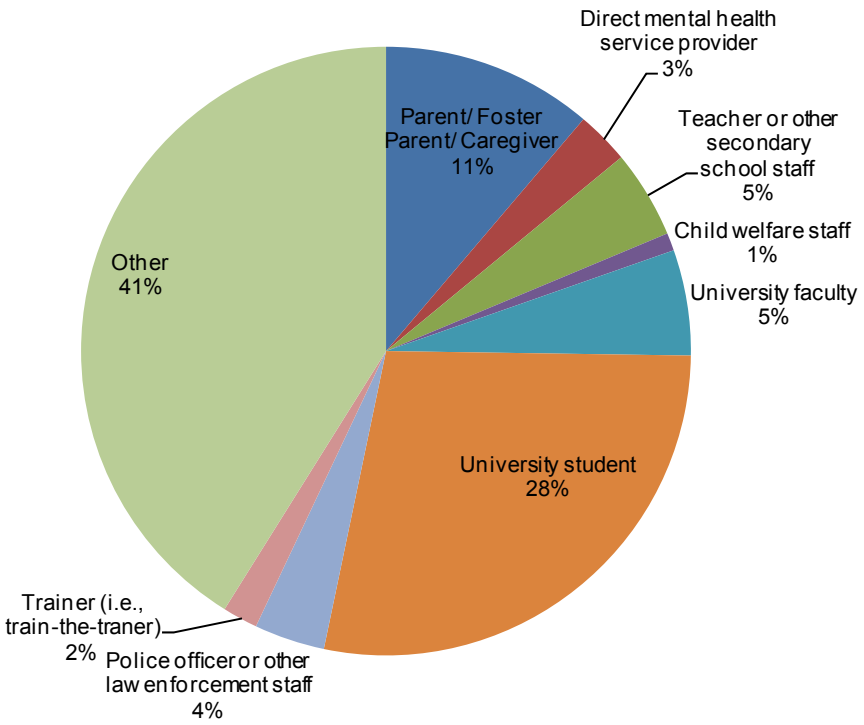
QPR	Number	%
Hispanic or Latino	122	18
American Indian or Alaska Native	17	3
Asian	13	2
Black or African American	18	3
Native Hawaiian or Other Pacific Islander	1	0
White	510	77
Not Reported	107	16

Figure L-a4: Race/Ethnicity of QPR Trainees by Site in Year 3

Site	Hispanic/ Latino	American Indian or Alaska Native	Asian	Black or African American	Native Hawaiian or Other Pacific Islander	White
CU - Boulder	2	1	4	2	0	37
El Paso	9	2	1	11	0	77
Larimer	15	3	4	4	0	136
Mesa	30	2	0	0	0	65
Pueblo	44	6	0	0	0	75
Weld	22	3	4	1	1	120
Total	122	17	13	18	1	510

Trainees self-identified their role as a participant in the QPR training. Multiple roles could be selected and therefore the categories are not mutually exclusive. The most commonly identified roles for trainees were “Other” (41%) and University Student (28%). The break down for self-identified roles is presented in the pie chart in Figure L-a5.

Figure L-a5: Self-identified Role of QPR Trainees in Year 3



b. Response Rate

The follow-up response rate, based on trainees who completed the baseline survey, the post-test survey, and 6-month online follow-up survey, was 25%.

M. DEMOGRAPHICS FOR ALL TRAINEES ACROSS THREE YEARS

All results in this section are generated based on data collected from November 2006 to August 2009.

a. Gender

Over three years, 2,453 participants have been trained as part of Project Safety Net with a majority being females (63.4%) as can be seen in Figure M-a1. In Figure M-a2 the gender of trainees is broken down by site where they were trained. Information was missing about the site where participants were trained, thus the numbers may not be consistent between Figures M-a1 and M-a2.

Figure M–a1: Gender of Trainees Across Three Years

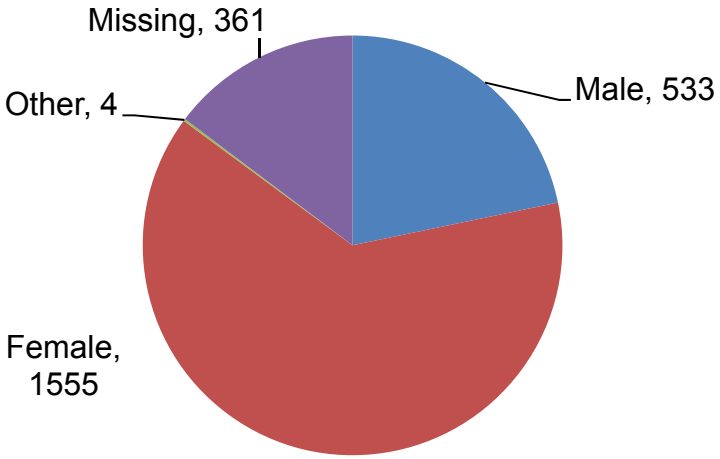
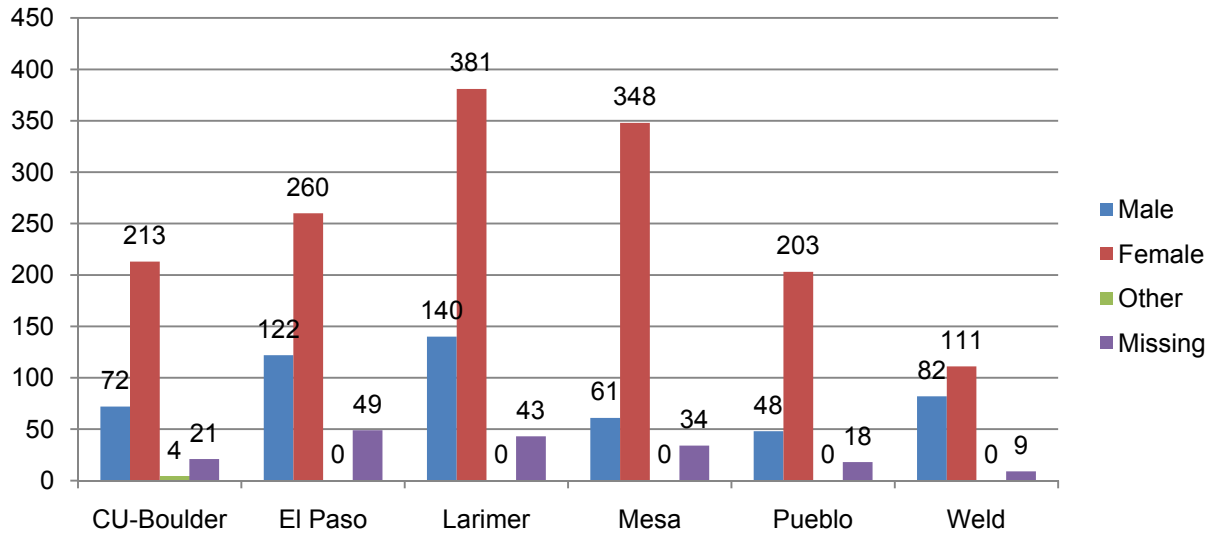


Figure M-a2: Gender of Trainees by Site Across Three Years



b. Age

Trainees ranged in age from 18 to 85 years, with a mean age of 40, across all six sites. Age range, mean, and standard deviations for each of the sites are presented in Figure M-b1.

Figure M- b1: Age of Trainees by Site Across Three Years

Site	Range	Mean	Standard Deviation
CU-Boulder	21-72	43.85	13.87
El Paso	18-77	39.66	13.49
Larimer	22-77	42.54	13.07
Mesa	18-84	39.94	13.33
Pueblo	19-67	39.72	11.58
Weld	22-83	37.42	11.07

c. Race/Ethnicity

The race and ethnicity of trainees are presented in Figure M-c1. Trainees were primarily White (75%). Race and Ethnicity by site is presented in Figure M-c2. Ethnicity and race are not mutually exclusive, thus the sum of participants in Figures M-c1 and M-c2 will not be equal to 2453.

Figure M-c1: Race/Ethnicity of Trainees Across Three Years

	Number	%
Hispanic or Latino	339	15
American Indian or Alaska Native	49	2
Asian	47	2
Black or African American	76	3
Native Hawaiian or Other Pacific Islander	6	0
White	1674	75
Other	15	1
Not Reported	586	26

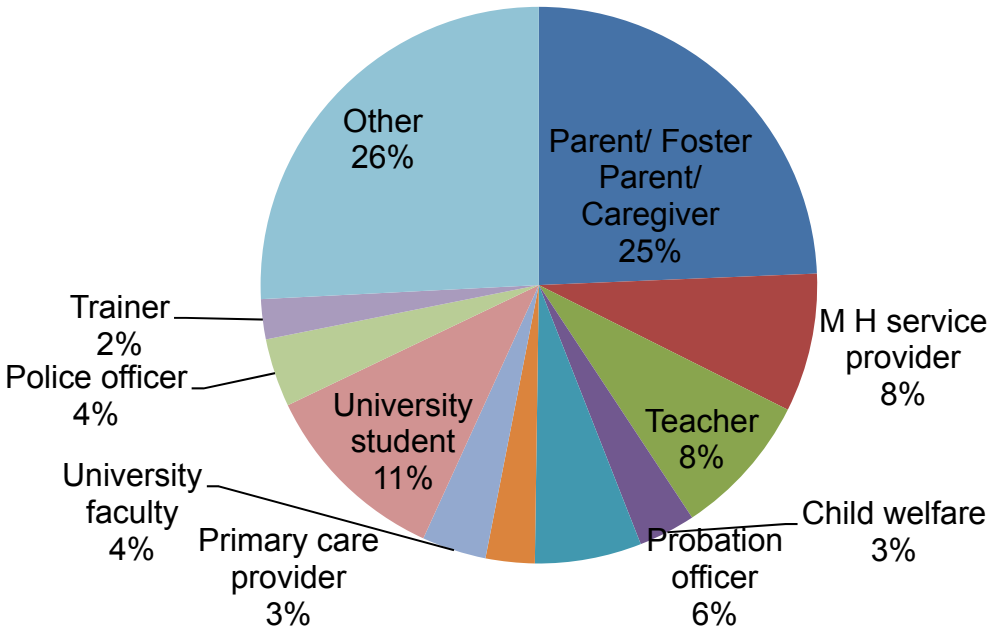
Figure M-c2: Race/Ethnicity of Trainees by Site Across Three Years

Community:	CU-Boulder	El Paso	Larimer	Mesa	Pueblo	Weld
Hispanic or Latino	20	53	61	63	103	38
American Indian or Alaska Native	5	7	9	11	12	5
Asian	19	11	11	1	0	5
Black or African American	14	44	13	2	2	1
Native Hawaiian or Other Pacific Islander	1	2	1	0	0	2
White	240	294	454	353	159	170
Other	2	0	1	1	6	5
Not Reported	29	73	75	75	90	14

d. Roles

Trainees self-identified their role as a participant in the ASIST and QPR trainings. Multiple roles could be selected and therefore the categories are not mutually exclusive. The most commonly identified roles for trainees were Other (26%) and Parent/Foster Parent/Caregiver (25%). The break down for self-identified roles is presented in Figure M-d1.

Figure M-d1: Self-identified Role of All Trainees Across Three Years



e. Response Rate

ASIST Training

The percentage of trainees who completed follow-up surveys for ASIST is displayed in Figure M-e1 below. The response rate for the 3-month follow-up was 19% for complete data that means completion of both the phone and online portion of the survey. If we break apart the response rate for the two modes of follow-up at three months, the percentage of trainees who completed the phone survey (38%) was higher than the percentage of trainees who completed the online survey (25%).

The response rate for completing 6-month follow-up data was about 15%. Complete 6-month follow-up data means that trainees completed the baseline survey, the post-test survey, the 3-month phone survey, the 3-month online survey, and the 6-month online survey. The 6-month partial response rate uses the number of completed 3-month online surveys as the denominator and the number of completed 6-month online surveys as the numerator. Thus, there is a 54% partial response rate from 3-month follow-up to 6-month follow-up.

Figure M-e1: Follow-up Response Rate for ASIST Training Across Three Years

Response Rate	**%**
3-month Complete Surveys	19
3-month Phone Surveys	38
3-month Online Surveys	25
6-month Complete Surveys	15
6-month Partial Surveys	54

QPR Training

The percentage of trainees who completed follow-up surveys for QPR is displayed in Figure M-e2 below. The response rate for completing 6-month follow-up data was about 22%. Completion of 6-month follow-up data means that trainees completed the baseline survey, the post-test survey, and the 6-month online survey. Some of the QPR trainings conducted as part of Project Safety Net were not given a baseline survey due to time constraints. Therefore we also calculated a response rate based on those participants who complete a post-test survey and the 6-month online survey. There was a 25% partial response rate from post-test to 6-month follow-up.

Figure M-e2: Follow-up Response Rate for QPR Training Across Three Years

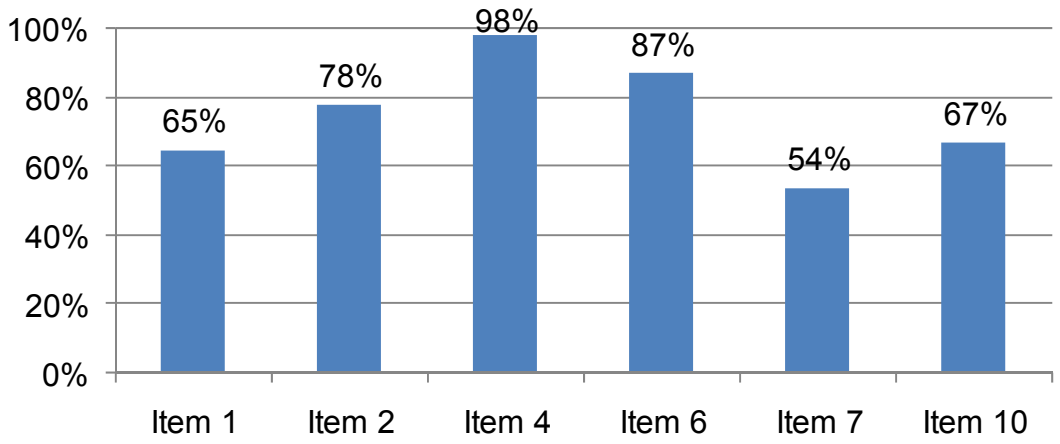
Response Rate	**%**
6-month Complete Surveys	22
6-month Partial Surveys	25

N. EVALUATION OF ASIST TRAINING

a. Minimum Competency

The first form of evaluation looked to see if participants met a predetermined minimum level of competency immediately after the ASIST training on items that evaluated knowledge of suicide intervention. Figure N-a1 indicates that three items (listed below) failed to meet the pre-determined minimum competency level of 70%.

Figure N-a1: Minimum Competency of ASIST Training



Item 1: Key caregiver tasks in the first phase of the Suicide Intervention Model are:

(a) engaging and identifying

(b) asking and assessing

(c) exploring and asking

(d) listening and contracting

Item 7: Which of the following provides more important information in reviewing the risk of suicide?

(a) symptoms

(b) stress

(c) resources

(d) physical health

Item 10: If someone admits to feeling suicidal, a caregiver should first:

(a) calmly inquire about what is happening in their life

(b) listen to their reasons for dying

(c) inform significant others

(d) arrange for immediate referral

The minimum competency approach can also be applied to trainees' assessment of the training. Figure N-a2 indicates that all but one item met the minimum pre-determined level of satisfaction of 90%.

Figure N-a2: Level of Satisfaction with the ASIST Training

Trainees' Assessment of the Training	%
The training increased my knowledge about suicide prevention.	94
The training met my needs.	98
The training addressed cultural differences in the youth I intend to serve.	52
The training was practical to my work and/or my daily life.	95
I fully understand why I attended the training.	98
I am now more ready to help with youth suicide prevention in my community.	98
I will use what I learned from this training.	99
The things I learned will help youth seek help for issues that might lead to suicide.	93
The things I learned will help prevent youth suicide or reduce the problems that might lead to suicide.	93

b. Internal Referencing Strategy (IRS) Approach

A second strategy used to evaluate the effectiveness of ASIST training is to employ the internal referencing strategy (IRS) to compare items that were trained in ASIST with items that were not trained in ASIST. Logically, ones would expect to see improvements in trained items, on average, from pre-training to post-training, whereas no change in non-trained items. IRS items were included in both the knowledge and self-efficacy sections of the evaluation.

<u>Knowledge of Suicide Intervention Skills</u>

Ten multiple-choice knowledge items pertaining to suicide intervention skills were used in the IRS approach. Among them, 6 items were covered in the training and 4 were not covered.

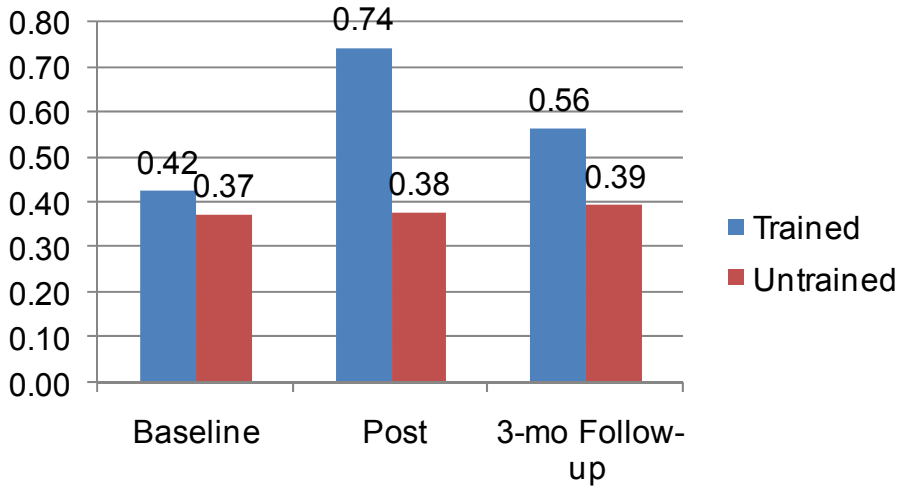
A series of 3 × 2 Analysis of Variances (ANOVAs) were conducted to test the within factor "Time" (baseline, post, 3-month follow-up), within factor "Items" (trained vs. untrained), and an interaction effect between Time and Items. Interpretation of the results focused on the interaction effects because they revealed whether ASIST participants improved on the trained items across time, while showing no or little improvement on the untrained items across time.

The results indicated a significant main effect for Time, $F(2, 191) = 73.44$, $p < 0.01$, partial $\eta^2 = 0.44$, a significant main effect for Items, $F(1, 192) = 145.29$, $p < 0.01$, partial $\eta^2 = 0.43$, and a significant interaction effect between Time and Items, $F(2,191) = 85.08$, $p < 0.01$, partial $\eta^2 = 0.47$. Post hoc analyses revealed that for the trained items there was a significant increase from baseline to post-test ($t(579) = 33.53$, $p < 0.01$), but a significant decrease from post-test to 3-month follow-up ($t(198) = -8.49$, $p < 0.01$). However, the 3-month follow-up knowledge score was still significantly higher than the baseline level of knowledge ($t(202) = 6.35$, $p < 0.01$).

Post hoc analyses also revealed that for the untrained items there was not a significant change from baseline to post-test ($t(579) = 0.18$, $p = 0.91$), nor a significant change from post-test to 3-month follow-up ($t(198) = 0.61$, $p = 0.54$). There was also no significant difference in untrained items from baseline to 3-month follow-up ($t(202) = 1.01$, $p = 0.31$),

Figure N-b1 illustrates the average knowledge scores for trained items and untrained items at each of the three time points. These average knowledge scores can be interpreted as the percentage of questions correct on the knowledge test across participants. Figure N-b1 demonstrates an increase in average knowledge scores from pre-training to post-training for trained items and no change in average knowledge scores for untrained items.

Figure N-b1: IRS Evaluation of Knowledge Across Three Years



Self-efficacy for Suicide Prevention

The self-efficacy items consisted of three items that assess self-efficacy to prevent suicide (i.e., the degree of confidence participants felt in intervening with a suicidal individual). Additional three IRS items unrelated to ASIST training were used to assess self-efficacy in relation to homicide.

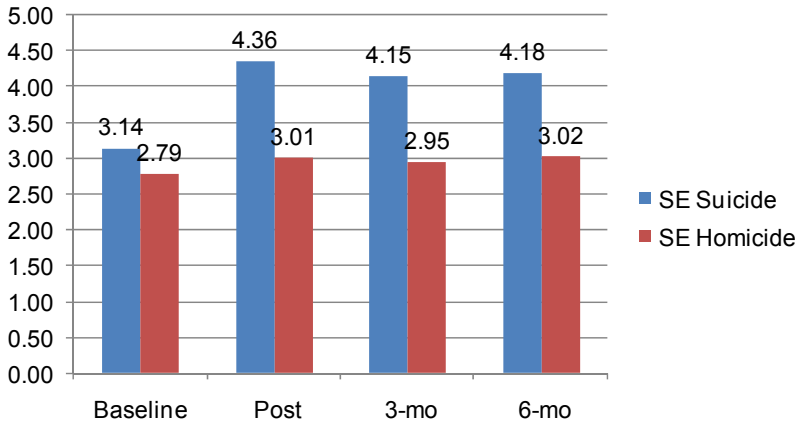
A series of 4 × 2 ANOVAs were conducted to test the within factor Time (pre, post, 3-month follow-up, 6-month follow-up), within factor Items (trained vs. untrained), and an interaction effect between Time and Items. Interpretation of the results focused on the interaction effects because they revealed whether ASIST participants improved on the trained items across time, while showing no or little improvement on the untrained items across time.

The results indicated a significant main effect for Time, $F(3, 68) = 44.05$, $p < 0.01$, partial $\eta^2 = 0.66$, a significant main effect for Items, $F(1, 70) = 173.20$, $p < 0.01$, partial $\eta^2 = 0.71$, and a significant interaction effect between Time and Items, $F(3, 68) = 20.61$, $p < 0.01$, partial $\eta^2 = 0.48$. Post hoc analyses revealed that for the trained items there was a significant increase from baseline to post-test ($t(567) = 26.41$, $p < 0.01$). While there was a significant decrease in self-efficacy to prevent suicide from post-test to the 3-month follow-up ($t(126) = -2.66$, $p < 0.01$), levels of self-efficacy to prevent suicide at 3-month was still significantly higher than those at baseline ($t(131) = 13.16$, $p < 0.01$). Self-efficacy to prevent suicide was maintained from 3-month to 6-month follow-up, ($t(80) = 0.85$, $p = 0.40$).

Post hoc analyses also revealed that for the untrained items there was a significant increase from pre-test to post-test ($t(562) = 9.04$, $p < 0.01$), indicating a possible carry-over effect. In other words, the effect of the ASIST training on the increase of trainees' self-efficacy to prevent suicide may also affect trainees' self-efficacy to prevent homicides, a related but not trained topic. Similar to the trained items above, self-efficacy for homicide prevention is maintained from baseline to 3-month follow-up and from 3-month follow-up to 6-month follow-up, although not at as high of levels as self-efficacy for suicide prevention.

An increase in self-efficacy for suicide prevention from baseline to post-training (M = 3.14 vs. 4.36) is depicted in Figure N-b2. There is also a significant mean increase in self-efficacy for homicide prevention, although the increase (M = 2.79 vs. 3.01) is relatively small.

Figure N-b2: IRS Evaluation of Two Types of Self-Efficacy



c. Rolling Groups

To answer the question, “How much change has occurred due to the training?” the rolling group design will be used. With the RGD, all groups receive training at different times and provide pre-test and post-test data. This approach is useful when the training program is offered to multiple groups of participants and use of a control/comparison group is not feasible. Modifying the RGD approach, we randomly assigned half the trainings to either the treatment group or the control group. Training effectiveness was then evaluated by statistically comparing mean scores between pretest and posttest scores of treatment and control groups for knowledge, self-efficacy for suicide prevention, and intention to ask. Specifically, four statistical criteria should be met in order to support its effectiveness.

1) Mean post-test scores for the treatment group should be significantly higher than their mean pre-test scores.

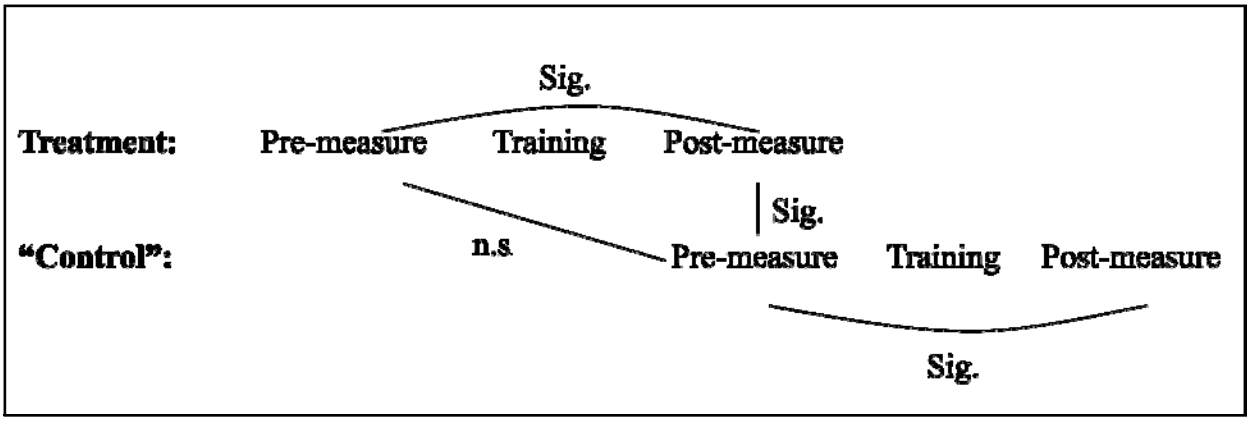
2) Mean post-test scores for the treatment group should be significantly higher than mean pre-test scores for the control group.

3) Mean post-test scores for the control group should be significantly higher than their mean pre-test scores.

4) There should be no significant differences between mean pre-test scores for treatment and control groups.

These four statistical criteria are illustrated in Figure N-c1, below.

Figure N-c1: Illustration of Four Statistical Criteria in the RGD Approach



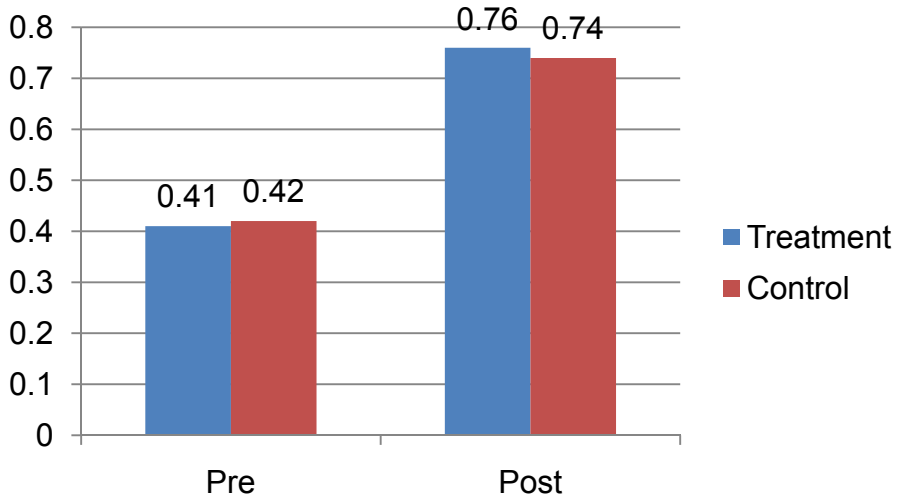
Knowledge

Using the RGD approach, the four statistical criteria were tested based on the average of the six trained knowledge items. Results of four statistical tests meet the four statistical criteria outlined below.

1) The mean post-test score for the treatment group (M = 0.76) was significantly higher than their mean pre-test score (M = 0.41), $t(617) = 21.24$, $p < 0.05$.
2) The mean post-test score for the treatment group (M = 0.76) was significantly higher than the mean pre-test score for the control group (M = 0.42), $t(613) = 21.08$, $p < 0.05$.
3) The mean post-test score for the control group (M = 0.74) was significantly higher than their mean pre-test score (M = 0.42), $t(621) = 19.44$, $p < 0.05$.
4) There was no significant difference between mean pre-test scores of treatment (M = 0.41) and control groups (M = 0.42), $t(622) = 0.61$, $p > 0.05$.

Figure N-c2 illustrates the mean knowledge scores for the treatment and control groups for pre-test and post-test.

Figure N-c2: Mean Scores of Knowledge



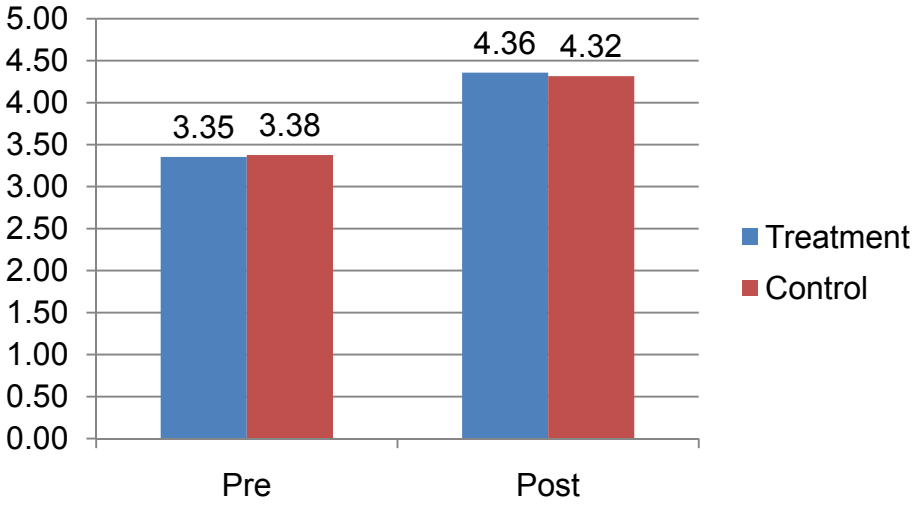
Self-efficacy for Suicide Prevention

Using the RGD approach, the same four statistical criteria were tested based on the average of the 3-item self-efficacy for suicide prevention. Results of four statistical tests meet the four statistical criteria outlined below.

1) The mean post-test score for the treatment group (M = 4.36) was significantly higher than their mean pre-test score (M = 3.35), $t(610) = 16.71$, $p < 0.05$.
2) The mean post-test score for the treatment group (M = 4.36) was significantly higher than the mean pre-test score for the control group (M = 3.38), $t(608) = 16.07$, $p < 0.05$.
3) The mean post-test score for the control group (M = 4.32) was significantly higher than their pre-test score (M = 3.38), $t(613) = 15.24$, $p < 0.05$.
4) There was no significant difference between mean pre-test scores for treatment (M = 3.35) and control groups (M = 3.38), $t(618) = 0.30$, $p > 0.05$.

Figure N-c3 illustrates the mean self-efficacy scores for the treatment and control groups for pre-test and post-test.

Figure N-c3: Mean Scores of Self-Efficacy for Suicide Prevention



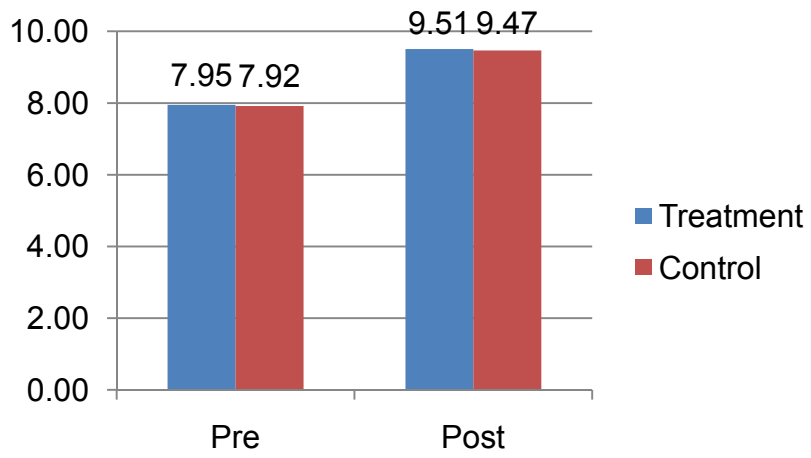
Intentions to Ask

Using the RGD approach, the four statistical criteria were again tested based on the average of the intention to ask items. Results of four statistical tests meet the four statistical criteria outlined below.

1) The mean post-test score for the treatment group (M = 9.51) was significantly higher than their mean pre-test score (M = 7.95), $t(573) = 12.49$, $p < 0.05$.
2) The mean post-test score for the treatment group (M = 9.51) was significantly higher than the pretest score for the control group (M = 7.92), $t(565) = 13.09$, $p < 0.05$.
3) The mean post-test score for the control group (M = 9.47) was significantly higher than their pretest score (M = 7.92), $t(567) = 13.35$, $p < 0.05$.
4) There was no significant difference between mean pretest scores for treatment (M = 7.95) and control groups (M = 7.92), $t(576) = 0.20$, $p > 0.05$.

Figure N-c4 illustrates the mean intention to ask for the treatment and control groups for pre-test and post-test.

Figure N-c4: Mean Scores of Intentions to Ask

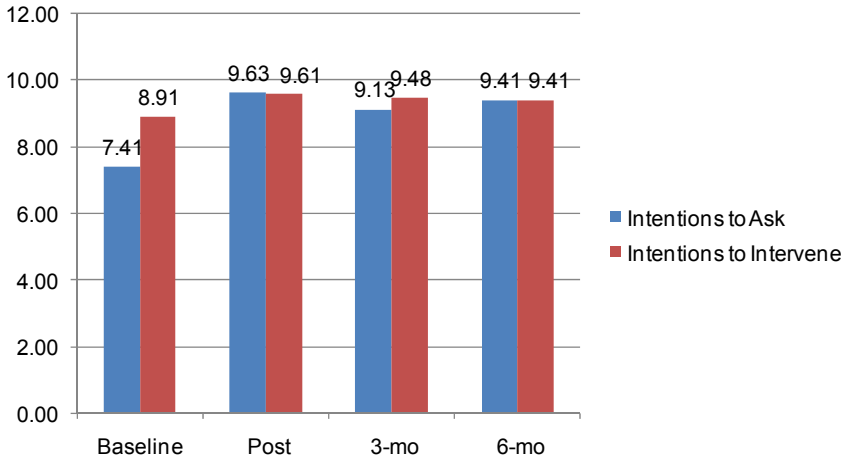


d. Changes in Intentions Over Time

The ability to ask a potentially suicidal person if they are thinking about suicide is a main goal of ASIST. Given that intention tends to predict actual behavior, therefore, measuring an increase of a trainee's intentions to ask the question between before and after training will indicate whether the training has achieved this goal. Figure N-d1 indicates that trainees' intentions to ask, on average, increased from pre-training to post-training ($t(528) = 20.72$, $p < 0.01$) and were maintained throughout the six month follow-up.

Intentions to intervene with a potentially suicidal person were also measured. It may be socially desirable to report intervening with a person who is potentially suicidal and therefore we see in Figure N-d1 high levels across the four time points. Trainees' intentions to intervene, on average, increased from pre-training to post-training ($t(568) = 8.06$, $p < 0.01$) and were maintained through the six month follow-up.

Figure N-d1: Mean Scores of Intentions to Ask and Intentions to Intervene



e. Number of Interventions

Three months after training, 46 trainees reported performing 115 direct interventions with individuals who showed signs of being suicidal. The number of interventions by the 46 trainees ranged from 1 to 20. Additionally, 58 trainees reported intervening with 302 individuals between the three-month follow-up and the six-month follow-up. The number of interventions by the 58 trainees ranged from 1 to 100. If we assume that respondents were not counting the same individuals when they were asked at the two follow-ups, then we can sum these two numbers to get a combined 417 individuals who have received a direct intervention by participants trained in ASIST for Project Safety Net. According to the American Association for Suicidology, it has been estimated that there are 25 suicidal attempts for every suicide completion. Extrapolating from this estimate, Project Safety Net has reduced 16-17 suicide completions!!

Based on 30 participants completing post and 3-month follow-up surveys, a regression analysis was conducted to determine whether post-training outcomes predicted the number of referrals reported. Specifically, self-efficacy of suicide prevention, intentions to ask, and intention to intervene at post-test did not predict number of referrals. Based on 32 participants completing post and 6-month follow-up surveys, a regression analysis was again conducted to determine whether post-training outcomes predicted the number of referrals reported. Specifically, self-efficacy of suicide prevention, intention to ask, and intentions to intervene at post-test did not predict number of referrals. Both non-significant results are likely attributed to the small sample size.

f. Use of Training Skills

To determine which specific behaviors the ASIST trainees had engaged in, we asked nine behaviors that are relevant to the skills learned in training. The number of times trainees performed each of these behaviors is presented in Figure N-f1, below.

Figure N-f1: Use of ASIST Training Skills

In how many of instances did you …	3 Months After Training Total Instances	6 Months After Training Total Instances
Ask directly about intent to harm?	135	212
Encourage talking about reasons for dying?	118	181
Encourage talking about reasons for living?	127	189
Ask questions concerning suicide plan?	130	188
Ask questions concerning how/why they felt alone?	133	192
Ask if they have attempted suicide before?	127	195
Contract a safe plan with individual?	117	169
Make a referral to another agency or resource?	121	177
Follow-up with the person after the referral?	86	136

g. Control Group Comparison

Similar to the RGD analyses presented above, analyses were performed with a small group of participants (n=40) who served as an actual control group in Mesa County. Training effectiveness was evaluated by statistically comparing mean scores between pre-test and post-test scores of treatment and control groups for knowledge, self-efficacy for suicide prevention, and intention to ask. Specifically, four statistical criteria should be met in order to support its effectiveness.

1) Mean post-test scores for the treatment group should be significantly higher than their mean pre-test scores.

2) Mean post-test scores for the treatment group should be significantly higher than mean pre-test scores for the control group.

3) There should be no significant differences between mean pre-test scores and mean post-test scores for the control group.

4) There should be no significant differences between mean pre-test scores for treatment and control groups.

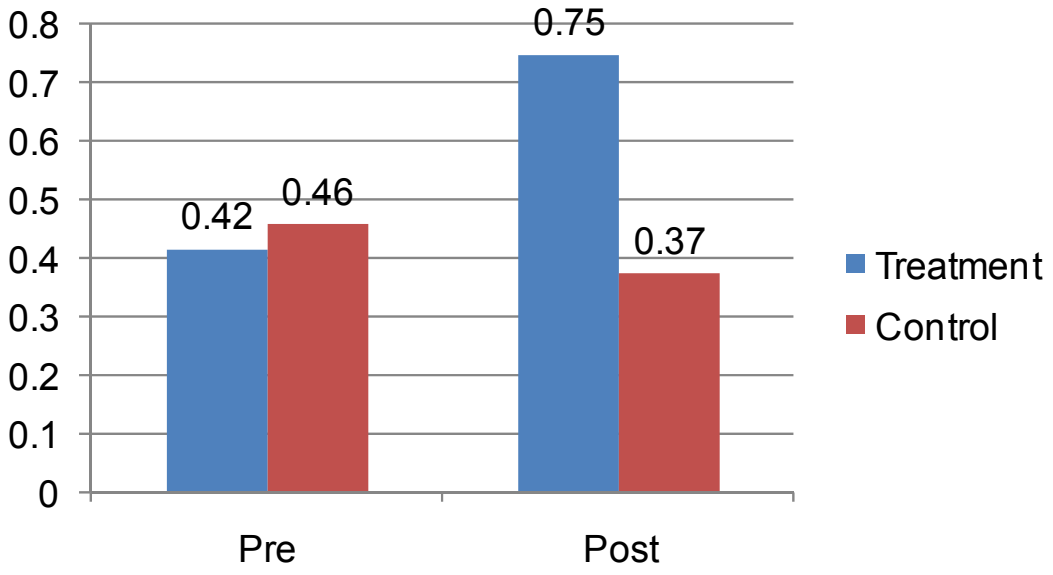
<u>Knowledge of Suicide Intervention Skills</u>

Six multiple-choice knowledge items pertaining to suicide intervention skills were used in the following analyses. Results of four statistical tests meet the four statistical criteria outlined below.

1) The mean post-test score for the treatment group (M = 0.75) was significantly higher than their mean pre-test score (M = 0.42), $t(1238) = 28.84$, $p < 0.05$.
2) The mean post-test score for the treatment group (M = 0.75) was significantly higher than the pre-test score for the control group (M = 0.46), $t(649) = 8.29$, $p < 0.05$.
3) There was no significant mean difference between pre-test score (M = 0.46) and mean post-test score (M = 0.37) for the control group, $t(67) = 2.11$, $p > 0.05$.
4) There was no significant mean difference between pre-test scores for the treatment (M = 0.42) and control groups (M = 0.46), $t(657) = 1.21$, $p > 0.05$.

Figure N-g1 illustrates the mean knowledge scores for the treatment and control groups for pre-test and post-test.

Figure N-g1: Mean Scores of Knowledge



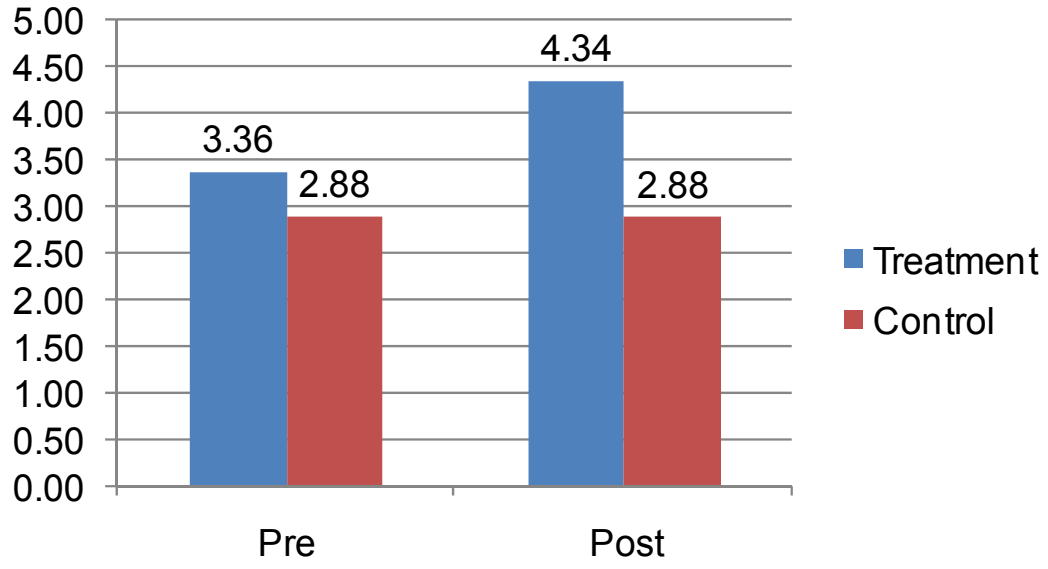
Self-efficacy for Suicide Prevention

The same four statistical criteria were tested based on the average of the 3-item self-efficacy for suicide prevention. Results of four statistical tests meet the four statistical criteria outlined below.

1) The mean post-test score for the treatment group (M = 4.34) was significantly higher than their mean pre-test score (M = 3.36), $t(1225) = 22.60$, $p < 0.05$.
2) The mean post-test score for the treatment group (M = 4.34) was significantly higher than the pre-test score for the control group (M = 2.88), $t(639) = 15.37$, $p < 0.05$.
3) There was no significant mean difference between pre-test score (M = 2.88) and mean post-test score (M = 2.88) for the control group, $t(65) = 0.04$, $p > 0.05$.
4) There was no significant difference between mean pre-test scores for the treatment (M = 3.36) and control groups (M = 2.88), $t(652) = 3.06$, $p > 0.05$.

Figure N-g2 illustrates the mean self-efficacy for suicide prevention scores for the treatment and control groups for pre-test and post-test.

Figure N-g2: Mean Scores of Self-efficacy for Suicide Prevention



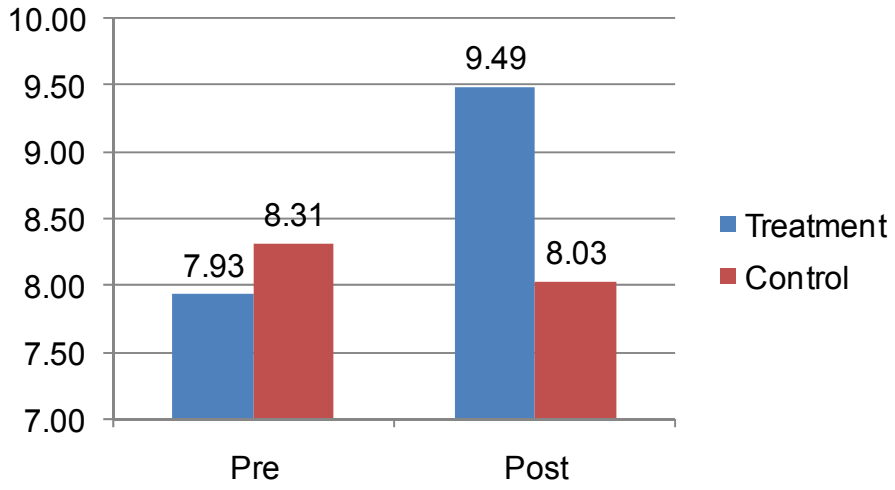
Intentions to Ask

The four statistical criteria were again tested based on the average of the intention to ask items. Results of four statistical tests meet the four statistical criteria outlined below.

1) The mean post-test score for the treatment group (M = 9.49) was significantly higher than their mean pre-test score (M = 7.93), $t(1142) = 18.26$, $p < 0.05$.
2) The mean post-test score for the treatment group (M = 9.49) was significantly higher than the pre-test score for the control group (M = 8.31), $t(599) = 6.49$, $p < 0.05$.
3) There was no significant mean difference between pre-test score (M = 8.31) and mean post-test score (M = 8.03) for the control group, $t(66) = 0.80$, $p > 0.05$.
4) There was no mean significant difference between pre-test scores for the treatment (M = 7.93) and control groups (M = 8.03), $t(611) = 1.25$, $p > 0.05$.

Figure N-g3 illustrates the mean intention to ask scores for the treatment and control groups for pre-test and post-test.

Figure N-g3: Mean Scores of Intention to Ask

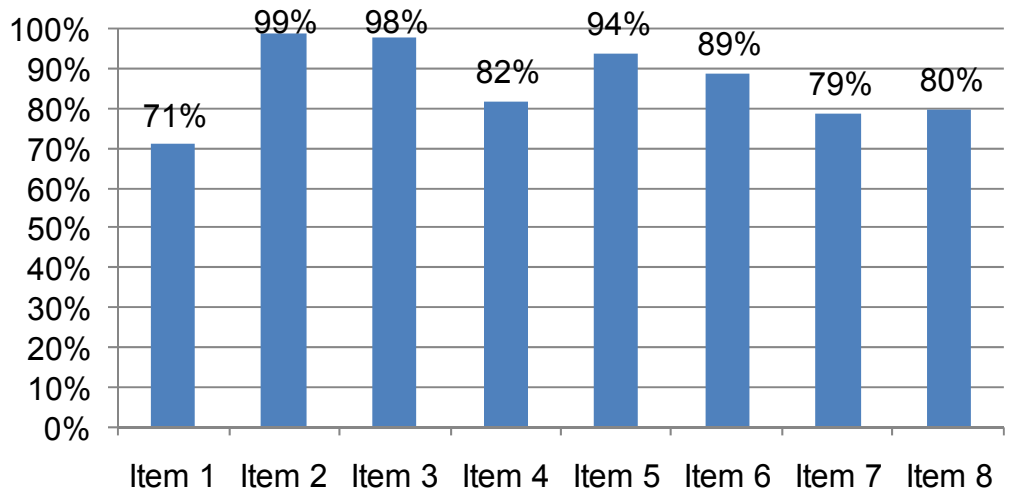


O. EVALUATION OF QPR TRAINING

a. Minimum Competency

The first form of evaluation looked to see if participants met a predetermined minimum level of competency immediately after the training on items that evaluated knowledge of suicide intervention. Figure O-a1 indicates that all items met the pre-determined minimum competency level of 70%.

Figure O-a1: Minimum Competency of QPR Training



The minimum competency approach can also be applied to trainees' assessment of the QPR training. Figure O-a2 indicates that all but one item met the minimum pre-determined level of satisfaction of 90%.

Figure O-a2: Level of Satisfaction with the QPR Training

Utility Reactions	%
The training increased my knowledge about suicide prevention.	96
The training met my needs.	94
The training addressed cultural differences in the youth I intend to serve.	44
The training was practical to my work and/or my daily life.	94
I fully understand why I attended the training.	96
I am now more ready to help with youth suicide prevention in my community.	89
I will use what I learned from this training.	97
The things I learned will help youth seek help for issues that might lead to suicide.	86
The things I learned will help prevent youth suicide or reduce the problems that might lead to suicide.	88

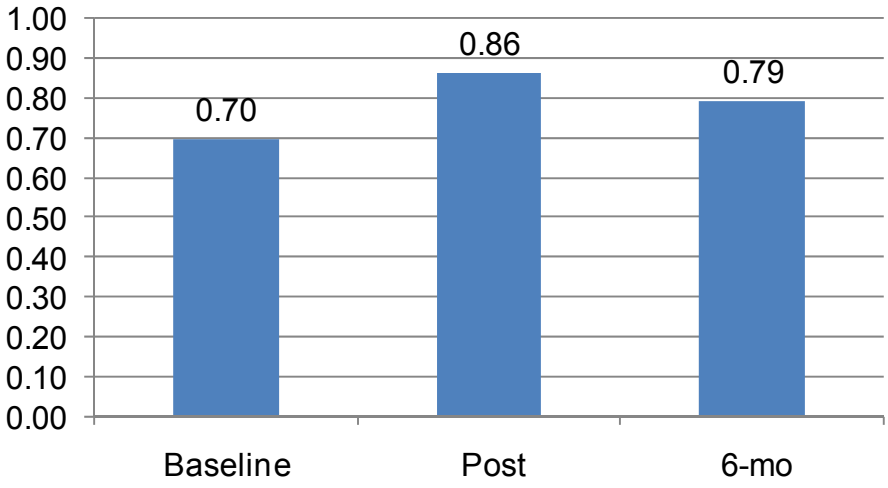
b. Improvement

A second way to demonstrate the effectiveness of QPR training is to compare the level of knowledge, confidence, and intentions a trainee possesses before the training to their resulting level of knowledge, confidence, and intentions after the training.

Knowledge of Suicide Intervention Skills

Knowledge of suicide intervention skills was measured with 8 items at baseline, post-training, and 6-month follow-up. A mean score increase in the number of correct items from baseline to post-training indicates an improvement in knowledge of suicide intervention. An improvement in knowledge of suicide intervention from baseline to post-training is statistically substantiated ($t(854)= 29.05$, $p < 0.01$). While there is a significant decrease in performance on knowledge of suicide intervention skills ($t(219)= -8.92$, $p < 0.01$) from post-training to 6- month follow-up, knowledge at 6-month follow-up is still significantly higher than at baseline ($t(220)= 4.63$, $p < 0.01$). These results suggest the need to identify strategies to help trainees maintain the knowledge after the training. Figure O-b1 illustrates this improvement in knowledge.

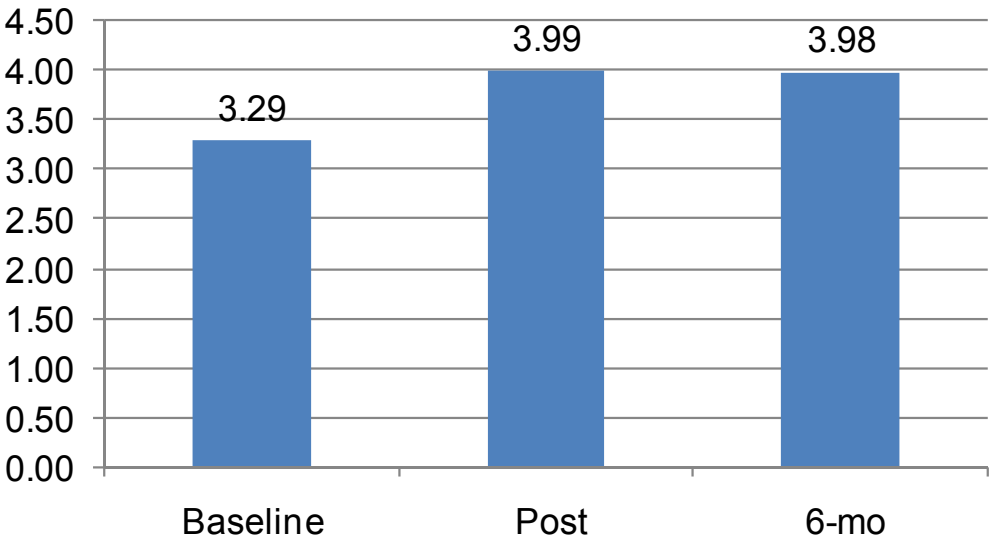
Figure O-b1: Mean Scores of QPR Knowledge



Self-efficacy for Suicide Prevention

Confidence in one's ability to intervene with a potentially suicidal person was assessed using items that measured self-efficacy. A mean increase in level of self-efficacy from baseline to post-training indicates an increase in confidence to intervene with a potentially suicidal person ($t(828)= 24.00$, $p < 0.01$). Inclusion of 6-month follow-up data demonstrates the relative maintenance of confidence level compared to post-training, ($t(211)= 1.68$, $p > 0.05$), yet significantly higher than baseline ($t(217)= 12.03$, $p < 0.01$). Figure O-b2 demonstrates this gain and maintenance in self-efficacy for suicide intervention.

Figure O-b2: Mean Scores of Self-Efficacy for Suicide Prevention

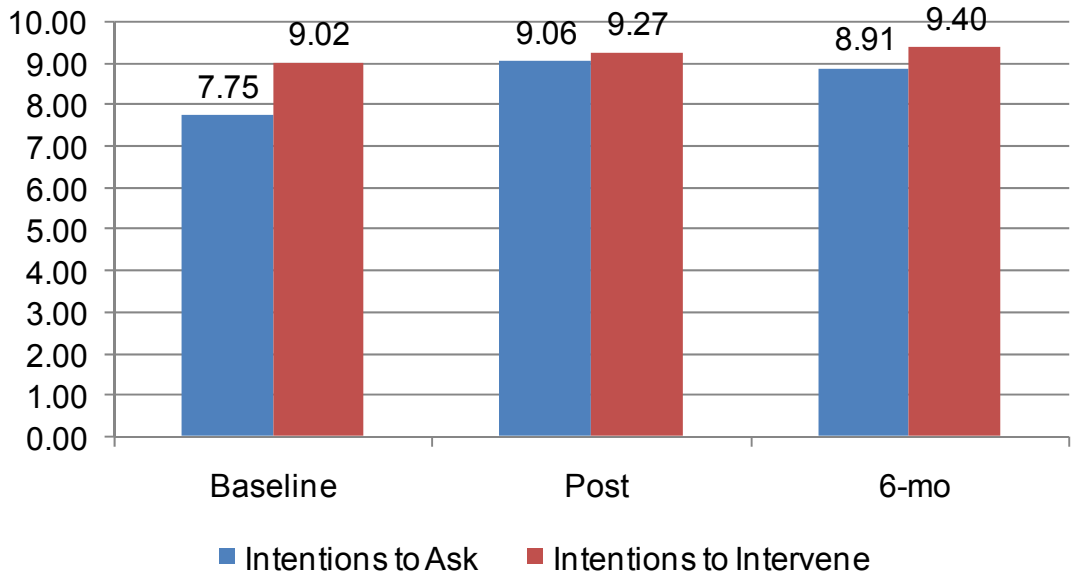


Intentions to Ask and Intervention to Intervene

Ability to ask a potentially suicidal person if they are thinking about suicide is a main goal of QPR. Given that intention tends to predict actual behavior, therefore, measuring trainee's intentions to ask the question before and after training will indicate whether the training has achieved this goal. Figure O-b3 indicates that trainees' intentions to ask, on average, increased from baseline to post-training ($t(835) = 21.05$, $p < 0.01$). Trainees' intentions to ask at 6-month follow-up decrease slightly compared to post-test ($t(212) = 2.35$, $p < 0.01$, but their intentions are still significantly higher than they were before training ($t(217) = 7.50$, $p < 0.01$).

Similarly, intentions to intervene with a potentially suicidal person were also measured. It may be socially desirable to report intervening with a person who is potentially suicidal and therefore we see in Figure O-b3 high levels across the three time points. Trainees' intentions to intervene, on average, increased from pre-training to post-training ($t(833) = 6.54$, $p < 0.01$). Trainees' intentions to intervene at 6-month follow-up do not differ significantly from pos-test ($t(210) = 0.91$, $p > 0.05$) and thus maintained. Intentions to intervene at 6-month follow-up are still significantly higher than they were before training ($t(216) = 4.55$, $p < 0.01$).

Figure O-b3: Mean Scores of Intentions to Ask and Intentions to Intervene



c. Rolling Groups

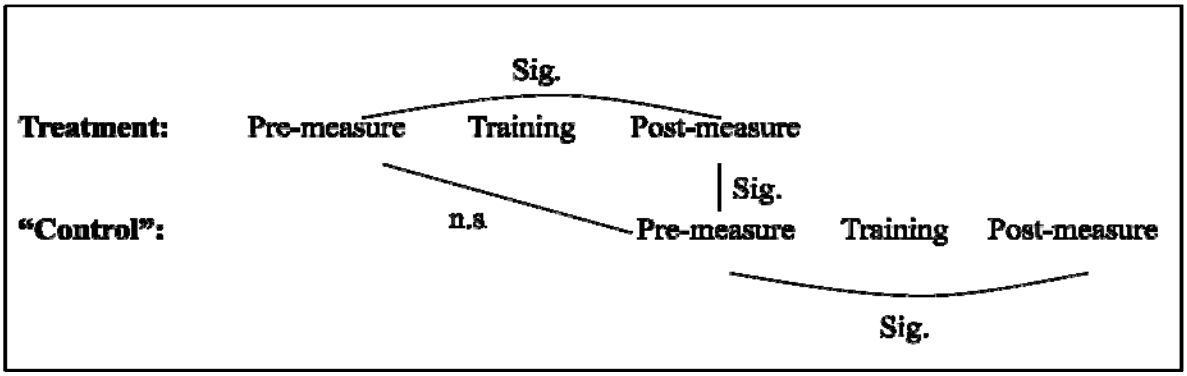
To answer the question, "How much change has occurred due to the training?" the rolling group design was used. With the RGD, all groups received training at different times and provide pre-test and post-test data. This approach is useful when the training program is offered to multiple groups of participants and use of a control/comparison

group is not feasible. Modifying the RGD approach, we randomly assigned half the trainings to either the treatment group or the control group. Training effectiveness was then demonstrated by statistically comparing means between pretest and posttest scores of treatment and control groups for knowledge, self-efficacy for suicide prevention, and intention to ask. Specifically, four statistical criteria should be met in order to support its effectiveness.

1) Mean post-test scores for the treatment group should be significantly higher than their mean pre-test scores.
2) Mean post-test scores for the treatment group should be significantly higher than mean pre-test scores for the control group.
3) Mean post-test scores for the control group should be significantly higher than their mean pre-test scores.
4) There should be no significant differences between mean pre-test scores for treatment and control groups.

These four statistical criteria are again illustrated in Figure O-c1, below.

Figure O-c1: Illustration of Four Statistical Criteria in the RGD Approach



Knowledge

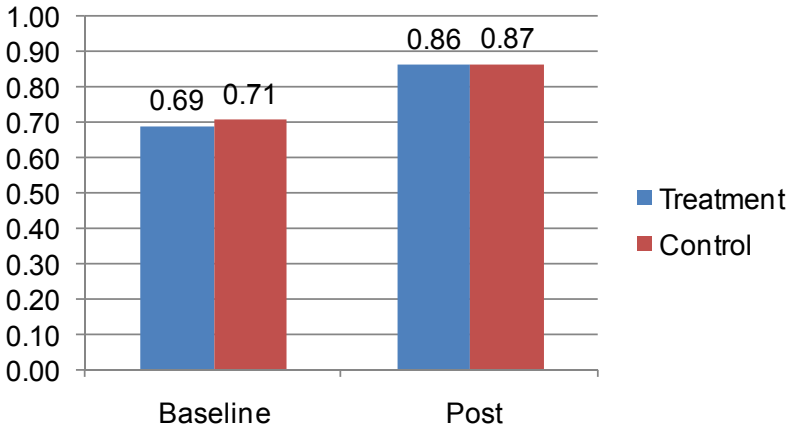
Using the RGD approach, the four statistical criteria were tested based on the average of the 8 knowledge items. Results of four statistical tests meet the four statistical criteria outlined below.

1) The mean post-test scores of the treatment group were significantly higher than their mean pre-test scores, $t(976) = 17.06$, $p < 0.05$.
2) The mean post-test scores of the treatment group were significantly higher than the mean pre-test scores of the control group, $t(948) = 15.40$, $p < 0.05$.
3) The mean post-test scores of the control group were significantly higher than their mean pre-test scores, $t(902) = 16.01$, $p < 0.05$.

4) There was no significant differences between mean pre-test scores for treatment and control groups, $t(944) = 1.86$, $p > 0.05$.

Figure O-c2 illustrates the mean knowledge scores for the treatment and control groups for pre-test and post-test.

Figure O-c2: Mean Scores of QPR Knowledge

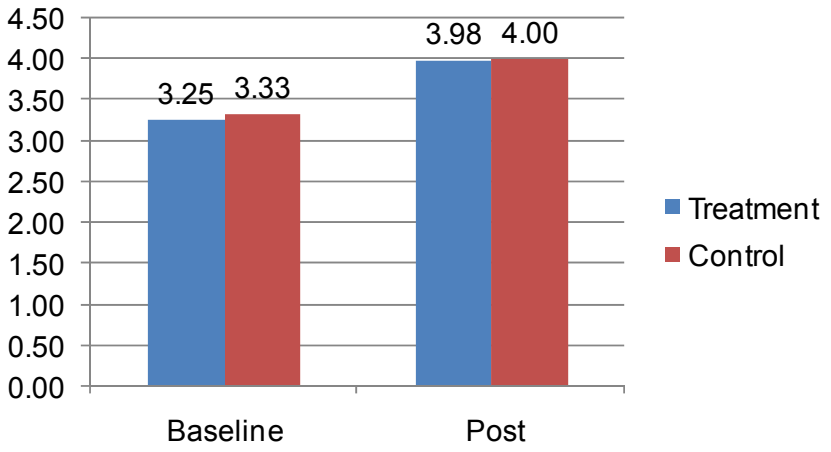


Self-efficacy for Suicide Prevention

Using the RGD approach, the same four statistical criteria were tested based on the average of the 2-item self-efficacy for suicide prevention. Results of four statistical tests meet the four statistical criteria outlined below.

1) The mean post-test scores of the treatment group were significantly higher than their mean pre-test scores, $t(957) = 13.63$, $p < 0.05$.
2) The mean post-test scores of the treatment group were significantly higher than the mean pre-test scores of the control group, $t(930) = 12.18$, $p < 0.05$.
3) The mean post-test scores of control group were significantly higher than their mean pre-test scores, $t(884) = 12.36$, $p < 0.05$.
4) There was no significant differences between the mean pre-test scores of treatment and control groups, $t(927) = 1.30$, $p > 0.05$.

Figure O-c3: Mean Scores of Self-Efficacy for Suicide Prevention

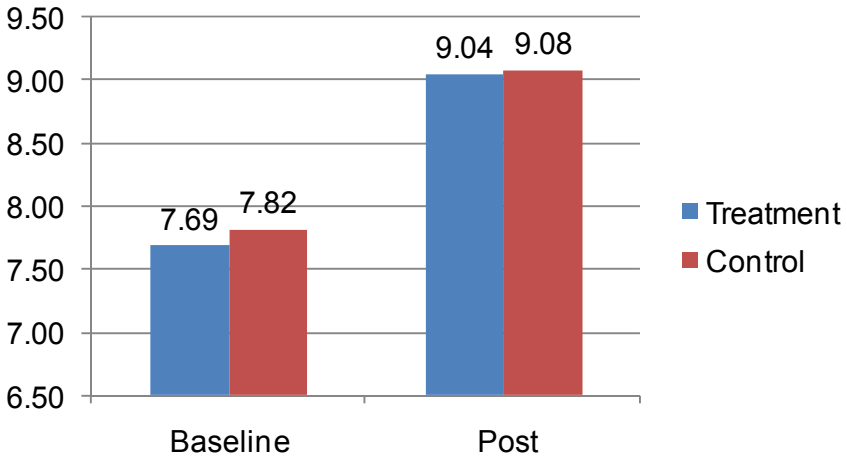


Intentions to Ask

Using the RGD approach, the four statistical criteria were again used to test the 2-item intention to ask. Results of four statistical tests meet the four statistical criteria outlined below.

1) The mean post-test scores of the treatment group were significantly higher than their mean pre-test scores, $t(961) = 13.10$, $p < 0.05$.
2) The mean post-test scores of the treatment group were significantly higher than the mean pre-test scores of the control group, $t(932) = 11.57$, $p < 0.05$.
3) The mean post-test scores of the control group were significantly higher than their mean pre-test scores, $t(889) = 11.41$, $p < 0.05$.
4) There was no significant differences between the mean pretest scores of treatment and control groups, $t(931) = 1.03$, $p > 0.05$.

Figure O-c4: Mean Scores of Intentions to Ask



d. Number of Referrals

Six months after training, 114 trainees reported performing 357 referrals of individuals who showed signs of being suicidal. The number of referrals by the each trainee ranged from 1 to 50. Based on 207 participants completing post and 6-month follow-up surveys, a regression analysis was conducted to determine whether post-training outcomes predicted the number of referrals reported. Specifically, self-efficacy and intentions to ask at post-test predicted number of referrals ($F(2, 205) = 3.67$, $p < 0.05$, $R^2 = 0.04$).

e. Use of Training Skills

To determine which specific behaviors the QPR trainees had engaged in, we asked five behavior-related questions relevant to the skills learned in QPR training. The number of times trainees performed each of these behaviors is presented in Table O-e1, below. Based on 207 participants completing post and 6-month follow-up surveys, regression analyses were conducted to determine whether post-training outcomes predicted these five behaviors. Overall, the results showed that self-efficacy and intentions to ask predicted two of the five behaviors: "recognize suicidal thoughts" ($F(2, 205) = 7.73$, $p < 0.05$, $R^2 = 0.07$) and "provided mental health services" ($F(2, 205) = 4.44$, $p < 0.05$, $R^2 = 0.04$).

Figure O-e1: Use of Training Skills

How many times in the last six months have you…	Total Reported
Screened individuals using QPR screening tools?	940
Discussed QPR training with others?	629
Recognize suicidal thoughts?	628
Asked if someone was considering suicide?	939
Provided mental health services to potentially suicidal individuals and/or their families?	519

P. QUALITATIVE DATA ANALYSIS

a. Barriers of Suicide Prevention

Four hundred and fifty-one ASIST trainees were contacted by telephone to participate in an interview three months after completing the ASIST training. One hundred ninety-eight (response rate = 44%) trainees agreed to participate. Participants were primarily female (83%) and Caucasian (88%). Their age ranged from 21 to 84, with an average age of 40. The interview generally lasted about 20 minutes.

The interview focused on what types of challenges the trainees had encountered in the past three months when applying knowledge and skills learned from their training to identify and refer potentially suicidal individuals. Each respondent was asked the primary question: "The first task for a gatekeeper is to identify an individual who may be suicidal. What would make it difficult for you or other gatekeepers to identify potentially

suicidal individuals?" The primary question was followed by two to three probing questions (e.g., "Have other gatekeepers that you know encountered any obstacles that have prevented them from identifying suicidal individuals?" "What other challenges might you encounter when identifying suicidal individuals?") in order to obtain specific information about the identified obstacles.

A content analysis was conducted by four independent research associates on the qualitative responses to the open-ended questions. Each research associate read 243 statements provided by the 198 participants. Sixteen categories were identified, which are presented in Figure P-a1 below. Consensus about the categories and definitions were determined by discussion among the four research associates. Following this process, three different independent coders sorted each of the 243 statements back into one of the 16 categories in order to validate these categories. Average pair-wise percent agreement among these three coders ranged from 93 to 100%.

Figure P-a1: Barriers of Identifying Potentially Suicidal Individuals

1. Challenges of asking questions	Gatekeepers are intimidated to ask someone if they have suicidal thoughts. They find it hard to remain calm and listen to someone's reasons for dying
2. No opportunity to use	Gatekeepers have not come in contact with someone they would consider to be suicidal since they completed the training.
3. Does not remember training materials	Gatekeepers do not remember what they learned during their ASIST training
4. Policies and procedures of work environment	The policies and procedures of the gatekeepers' work hinder their ability to intervene with suicidal individuals.
5. Lack of Practice	Gatekeepers remember the skills from ASIST training, but need more practice applying such skills to real-life situations.
6. Fear for own safety	Gatekeeper would not want to put their own self at risk if they believed intervening would put them in a dangerous situation.
7. Unable to adapt to unique situations	Gatekeepers believe the ASIST model is not adaptable to unique situations. For example, it is not sensitive to different genders and cultural backgrounds a suicidal individual may possess.
8. Relationship to suicidal individuals	Gatekeepers believe that their relationship with the suicidal individual, whether friend or stranger, prevents them from asking the question or referring the suicidal individual.
9. Lack of Time	Gatekeepers are too busy to intervene.
10. Lack of cooperation from suicidal individuals	Gatekeepers try to ask suicidal individual about their thoughts of killing themselves but individuals do not

	cooperate and do not want to talk.
11. Lack of ongoing relationship with suicidal individuals	Gatekeepers are unable to complete the intervention process because they have no ongoing relationship with suicidal individuals.
12. Ambiguous referral procedures	Gatekeepers do not know where to refer suicidal individuals and/or if they will follow through on that referral.
13. Fear of intervening	Gatekeepers do not believe in their ability to intervene with a suicidal individual due to the seriousness of the situation.
14. Don't know how to recognize or distinguish warning signs	Gatekeepers have trouble recognizing and distinguishing warning signs.
15. Don't know when to intervene	Gatekeepers have found it difficult to know when it is appropriate to get involved with a suicidal individual.
16. Other	Statements do not fit the other categories and/or are not relevant to the question.

b. Strategies to Maintain Trainees' Knowledge, Skills, and Motivation

Thirty-eight gatekeepers participated in eight focus groups to discuss the strategies that would help them maintain their knowledge, skills, and motivation after training. Demographic information about participants was not collected to maintain anonymity. One moderator and one note taker were present at each focus group interview. Focus groups ranged in size from 2 to 9 individuals and lasted between sixty and ninety minutes. During the focus group, participants were asked to brainstorm potential ideas that they believed could help them maintain their knowledge, skills, and motivation after training. The moderator asked the participants to answer the following question: "How can we help you continue to be an effective Gatekeeper in your community? What kinds of ideas come to mind?" Each participant was given time to brainstorm their ideas individually and then brought together as a group to share and build on ideas. The note taker wrote each idea on a note pad for all participants to see. The participants were then asked to evaluate the perceived advantages and disadvantages of each idea. Following an extensive group discussion, participants voted for the strategies that they deemed to be most helpful.

A grounded theory analytical process was used to analyze the transcripts created from the focus groups. One research associate analyzed and identified categories of sustainability strategies in the focus group transcripts. Six sustainability strategies emerged: (1) gatekeeper refresher course, 2) monthly newsletter, 3) 1-800-debriefing line, 4) gatekeeper social networking site, 5) Colorado suicide prevention website, and 6) support group. Figure P-b1 below describes each of these strategies in further detail. Three different independent coders sorted each of the identified statements back into one of the 6 strategies in order to validate them. Average pair-wise percent agreement ranged from 85 to 100%. Consensus about the categories and definitions were determined by discussion among these three independent coders.

Figure P-b1: Strategies to Maintain Trainees' Knowledge, Skills, and Motivation

1. Gatekeeper refresher course	Gatekeepers periodically attend a short version of a suicide prevention training that highlights the basics of suicide prevention knowledge and skills. The gatekeeper refresher can be offered with different formats such as face-to-face or on-line.
2. Monthly newsletter	A newsletter via email or regular mail would include updates of suicide prevention in Colorado, reminders of refreshers and conferences, new national and regional suicide statistics, new procedures, tips, success stories, and/or a question and answer portion.
3. 1-800-debriefing line	A toll-free number that gatekeepers could call after they had performed an intervention. This Line would provide support and debriefing for gatekeepers and also give feedback about on how they do.
4. Gatekeeper social networking site	A central and informal place to network with other gatekeepers and organizations involved in suicide prevention. For example, Facebook or MySpace.
5. Colorado suicide prevention website	The website would have information such as regional, state and national statistics, resources, tips, and an online forum or blog where the gatekeeper community could connect. The website would also include access to resources and referral information.
6. Support group	Group meetings where gatekeepers in their area can chat about suicide prevention, tips, success stories and come together for support and share information and their own strategies for suicide prevention.

Q. SUSTAINABILITY STRATEGIES SURVEY RESULTS

Based on the strategies to maintain trainees' knowledge, skills, and motivation described in Figure P-b1, a survey was developed to investigate which of the six strategies will most likely be adopted by trainees. Specifically, each strategy is rated on a 7-point scale based on four criteria: relative advantage, compatibility, complexity, and intention to use. These criteria have been shown in the literature to affect the likelihood of adopting new ideas. Relative advantage refers to the degree to which the strategy is perceived as better than the previous strategies. Compatibility is the degree to which the strategy is perceived as being compatible with the existing structure. Complexity is the degree to which the strategy is perceived as simple to understand and use. Finally, intention to use is the degree to which the trainee perceives that they are likely to use the strategy in the future. Criteria used to evaluate each strategy are depicted below.

How effective would this strategy be to help you maintain your suicide intervention knowledge and skills compared to existing practices, if any?

Ineffective 1 – 2 – 3 – 4 – 5 – 6 – 7 Effective

Should this strategy be made available, how compatible would this strategy be with your daily activities?

Incompatible 1 – 2 – 3 – 4 – 5 – 6 – 7 Compatible

How easy would it be for you to use this strategy, should it be made available?

Easy 1 – 2 – 3 – 4 – 5 – 6 – 7 Complex.

Overall, how likely would you be to use this strategy, should it be made available?

Very Unlikely 1 – 2 – 3 – 4 – 5 – 6 – 7 Very Likely

Surveys were sent via email to 255 trainees who completed either ASIST or QPR training between July 2008 and February 2009. Forty participants have completed the survey to date, and the on-going survey will not end until the end of September of 2009. Figure Q-a1 presents the mean scores and standard deviations for each of the six strategies on each of the four criteria. Gatekeeper Refresher was rated as the most effective strategy, while Monthly Newsletter was rated as the most compatible and least complex strategy. Monthly Newsletter was also rated as the strategy that trainees would be most likely to use.

Figure Q-a1: Sustainability Strategies Survey Results

	Effectiveness		Compatibility		Complexity		Intentions to Use	
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Gatekeeper Refresher	5.78	1.11	5.17	1.12	2.73	1.10	5.02	1.49
Monthly Newsletter	5.53	1.18	5.73	1.13	2.25	1.21	5.30	1.49
1-800 Debriefing Line	5.48	1.30	4.93	1.31	2.80	1.26	4.58	1.65
Gatekeeper Social Networking Site	4.35	1.53	4.15	1.89	3.23	1.48	3.30	1.88
Colorado Suicide Prevention Website	5.60	1.08	5.48	1.30	2.30	1.14	4.95	1.71
Support Group	4.78	1.46	3.40	1.43	4.08	1.46	3.05	1.65

Appendices

Appendix A: Community Fact Sheets

Appendix B: Conference Presentations and Manuscripts

Appendix C: ASIST Evaluation Materials

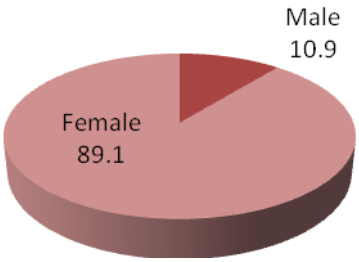
Appendix D: QPR Evaluation Materials

Appendix A: Community Fact Sheets

Colorado Project Safety Net: Boulder Fact Sheet

Applied Suicide Intervention Skills Training (ASIST)

Trainees



Race	Number	Percent (%)
Hispanic/Latino	6	8.70
American Indian/Alaska Native	2	2.90
Asian	4	5.80
Black or African American	1	1.45
White	52	75.36
Other/Missing	4	5.80
Total	69	

Age

Range of Ages	20-67
Average Age	40.52

Trainees' comments about the training

A total of 69 members of the Boulder county community participated in the ASIST training. Of these 69 trainees, over 90% of participants were satisfied with the ASIST training. About 43% reported that the training failed to address the needs cultural differences in the youth they intended to serve.

Number of Interventions after the ASIST Training

The following tables illustrate how the ASIST training was used by the trainees in Boulder County. Of the 69 trainees, 17 completed the 3-month follow-up and 26 completed the 6-month follow-up.

	Total Reported Number of Interventions
3 months after the training	3
6 months after the training	30

Participants were asked the following questions in both their 3-month and 6-month follow-ups regarding their use of the ASIST training.

In how many of instances did you …	Total reported 3 months after training	Total reported 6 months after training
Ask directly about intent to harm?	1	29
Encourage talking about reasons for dying?	1	26

This research was made possible by the Substance Abuse and Mental Health Services Administration (SM057849-02). The research is solely the responsibility of the authors and does not primarily represent the official views of SAMHSA.

Encourage talking about reasons for living?	2	26
Ask questions concerning suicide plan?	2	25
Ask questions concerning how/why they felt alone?	2	28
Ask if they have attempted suicide before?	1	24
Contract a safeplan with individual?	2	19
Make a referral to another agency or resource?	2	23
Follow-up with the person after the referral?	2	27

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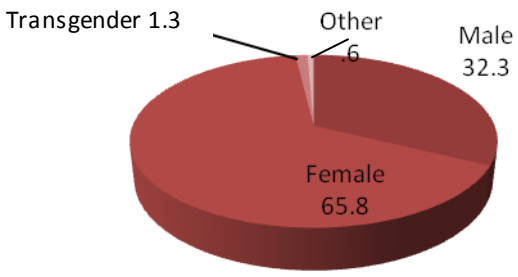
Colorado Project Safety Net: Boulder Fact Sheet

Question, Persuade, Refer (QPR)

Trainees



Race	Number	Percent (%)
Hispanic/Latino	11	6.3%
American Indian/Alaska Native	1	0.6%
Asian	10	5.7%
Black or African American	9	5.2%
Native Hawaiian or Pacific Islander	9	5.2%
White	133	76.4%
Other/Missing	1	0.6%
Total	174	

Age

Range of Ages	20-71
Average Age	36.28

Trainees' comments about the training

A total of 174 members of the Boulder county community participated in the QPR training. Of these 69 trainees, over 90% of participants were satisfied with the QPR training. About 36% reported that the training failed to address the needs cultural differences in the youth they intended to serve.

Cases of Reported Usage of the QPR Training

The following tables illustrate how the QPR training was used by the trainees in Boulder County. Of the 174 trainees, 42 completed the 6-month follow-up.

- 9.5% of follow-up trainee's reported having used the QPR training often.
- 33% agree that they increased others' general awareness and knowledge about suicide.

How many times in the last six months have you…	Total Reported
Screened individuals using QPR screening tools?	44
Discussed QPR training with others?	72
Recognize suicidal thoughts?	227
Asked if someone was considering suicide?	169
Personally referred someone?	18
Provided mental health services to potentially suicidal individuals and/or their families?	111

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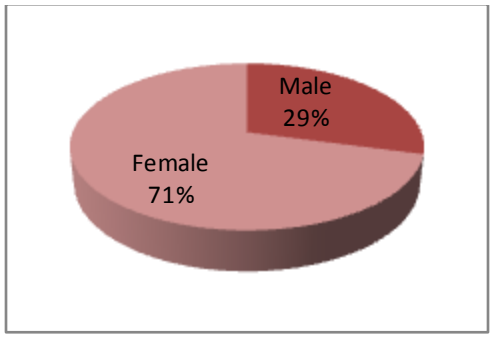
Colorado Project Safety Net: El Paso Fact Sheet

Applied Suicide Intervention Skills Training (ASIST)

Trainees



Race	Number	Percent
Hispanic/Latino	9	11.69
American Indian/Alaska Native	2	2.60
Asian	2	2.60
Black or African American	7	9.09
White	56	72.73
Other/Missing	1	1.30
Total	77	

Age

Range of Ages	21-68
Average Age	39.23

Trainees' comments about the training

A total of 77 members of the El Paso County community participated in the ASIST training. Of these 77 trainees, over 90% were satisfied with the ASIST training. About 49% reported that the training failed to address the cultural differences in the youth they intended to serve.

Number of Interventions after the ASIST Training

The following tables illustrate how the ASIST training was used by the trainees in El Paso County. Of the 77 trainees, 11 completed the 3-month follow-up and 15 completed the 6-month follow-up.

	Total Reported Number of Interventions
3 months after the training	10
6 months after the training	21

Participants were asked the following questions in both their 3-month and 6-month follow-ups regarding their use of the ASIST training.

In how many of instances did you …	Total reported 3 months after training	Total reported 6 months after training
Ask directly about intent to harm?	10	22
Encourage talking about reasons for dying?	10	21

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Encourage talking about reasons for living?	5	21
Ask questions concerning suicide plan?	10	21
Ask questions concerning how/why they felt alone?	9	21
Ask if they have attempted suicide before?	10	22
Contract a safeplan with individual?	6	21
Make a referral to another agency or resource?	9	20
Follow-up with the person after the referral?	7	8

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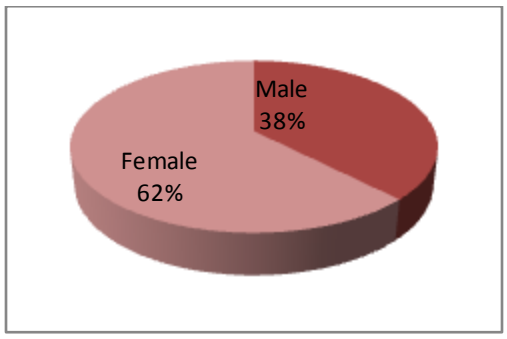
Colorado Project Safety Net: El Paso Fact Sheet

Question, Persuade, Refer (QPR)

Trainees



Race	Number	Percent (%)
Hispanic/Latino	34	13.82%
American Indian/Alaska Native	3	1.22%
Asian	8	3.25%
Black or African American	26	10.57%
Native Hawaiian or Pacific Islander	2	0.81%
White	150	60.98%
Other/Missing	23	9.35%
Total	246	

Age

Range of Ages	15-85
Average Age	44.59

Trainees' comments about the training

A total of 246 members of the El Paso County community participated in the QPR training. Of these 249 trainees, over 90% were satisfied with the QPR training. About 41% reported that the training failed to address the cultural differences in the youth they intended to serve.

Cases of Reported Usage of the QPR Training

The following tables illustrate how the QPR training was used by the trainees in El Paso County. Of the 246 trainees, 44 completed the 6-month follow-up.

20% of follow-up trainee's reported having used the QPR training often; 36% agree that they increased others' general awareness and knowledge about suicide.

How many times in the last six months have you…	Total Reported
Screened individuals using QPR screening tools?	234
Discussed QPR training with others?	115
Recognized suicidal thoughts?	105
Asked if someone was considering suicide?	324
Personally referred someone?	110
Provided mental health services to potentially suicidal individuals and/or their families?	84

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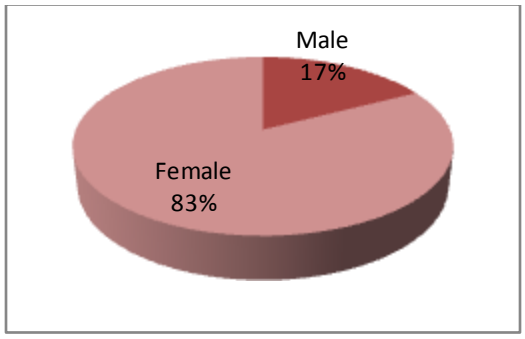
Colorado Project Safety Net: Larimer Fact Sheet

Applied Suicide Intervention Skills Training (ASIST)

Trainees



Race	Number	Percent
Hispanic/Latino	4	5.26%
American Indian/Alaska Native	1	1.32%
Asian	1	1.32%
Black or African American	1	1.32%
White	64	84.21%
Other/Missing	5	6.58%
Total	76	

Age

Range of Ages	22-65
Average Age	41.87

Trainees' comments about the training

A total of 76 members of the Larimer County community participated in the ASIST training. Of these 76 trainees, over 90% were satisfied with the ASIST training. About 33% reported that the training failed to address the cultural differences in the youth they intended to serve.

Number of Interventions after the ASIST Training

The following tables illustrate how the ASIST training was used by the trainees in Larimer County. Of the 76 trainees, 19 completed the 3-month follow-up and 22 completed the 6-month follow-up.

	Total Reported Number of Interventions
3 months after the training	6
6 months after the training	19

Participants were asked the following questions in both their 3-month and 6-month follow-ups regarding their use of the ASIST training.

In how many of instances did you …	Total Reported 3 months after training	Total reported 6 months after training
Ask directly about intent to harm?	6	16
Encourage talking about reasons for dying?	4	13

This research was made possible by the Substance Abuse and Mental Health Services Administration (SM057849-02). The research is solely the responsibility of the authors and does not primarily represent the official views of SAMHSA.

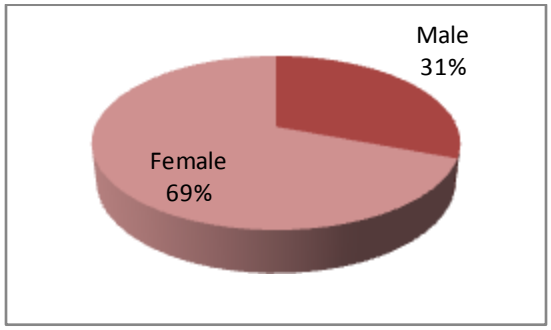
Encourage talking about reasons for living?	6	15
Ask questions concerning suicide plan?	5	15
Ask questions concerning how/why they felt alone?	6	15
Ask if they have attempted suicide before?	6	16
Contract a safeplan with individual?	4	15
Make a referral to another agency or resource?	5	15
Follow-up with the person after the referral?	6	16

This research was made possible by the Substance Abuse and Mental Health Services Administration (SM057849-02). The research is solely the responsibility of the authors and does not primarily represent the official views of SAMHSA.

Colorado Project Safety Net: Larimer Fact Sheet

Question, Persuade, Refer (QPR)

Trainees



Race	Number	Percent (%)
Hispanic/Latino	39	12.83%
American Indian/Alaska Native	5	1.64%
Asian	6	1.97%
Black or African American	8	2.63%
Native Hawaiian or Pacific Islander	1	0.33%
White	233	76.64%
Other/Missing	12	3.95%
Total	304	

Age

Range of Ages	16-78
Average Age	40.21

Trainees' comments about the training

A total of 304 members of the Larimer County community participated in the QPR training. Of these 304 trainees, over 90% were satisfied with the QPR training. About 57% reported that the training addressed the cultural differences in the youth they intended to serve.

Cases of Reported Usage of the QPR Training

The following tables illustrate how the QPR training was used by the trainees in Larimer County. Of the 304 trainees, 69 completed the 6-month follow-up.

13% of follow-up trainee's reported having used the QPR training often; 52.1% agree that they increased others' general awareness and knowledge about suicide.

How many times in the last six months have you…	Total Reported
Screened individuals using QPR screening tools?	552
Discussed QPR training with others?	150
Recognize suicidal thoughts?	179
Asked if someone was considering suicide?	309
Personally referred someone?	139
Provided mental health services to potentially suicidal individuals and/or their families?	192

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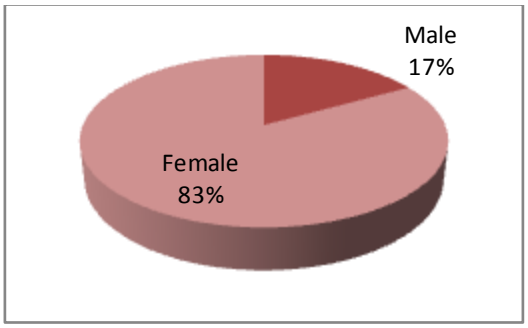
Colorado Project Safety Net: Mesa Fact Sheet

Applied Suicide Intervention Skills Training (ASIST)

Trainees



Race	Number	Percent
Hispanic/Latino	5	4.55%
American Indian/Alaska Native	1	0.91%
White	95	86.36%
Other/Missing	9	8.18%
Total	110	

Age

Range of Ages	21-84
Average Age	36.28

Trainees' comments about the training

A total of 110 members of the Mesa County community participated in the ASIST training. Of these 106 trainees, over 90% were satisfied with the ASIST training. About 58% reported that the training failed to address the cultural differences in the youth they intended to serve.

Number of Interventions after the ASIST Training

The following tables illustrate how the ASIST training was used by the trainees in Mesa County. Of the 110 trainees, 30 completed the 3-month follow-up and 30 completed the 6-month follow-up.

	Total Reported Number of Interventions
3 months after the training	10
6 months after the training	2

Participants were asked the following questions in both their 3-month and 6-month follow-ups regarding their use of the ASIST training.

In how many of instances did you …	Total Reported 3 months after training	Total reported 6 months after training
Ask directly about intent to harm?	10	2
Encourage talking about reasons for dying?	10	2

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Encourage talking about reasons for living?	10	2
Ask questions concerning suicide plan?	10	2
Ask questions concerning how/why they felt alone?	10	2
Ask if they have attempted suicide before?	10	2
Contract a safeplan with individual?	7	2
Make a referral to another agency or resource?	10	2
Follow-up with the person after the referral?	8	2

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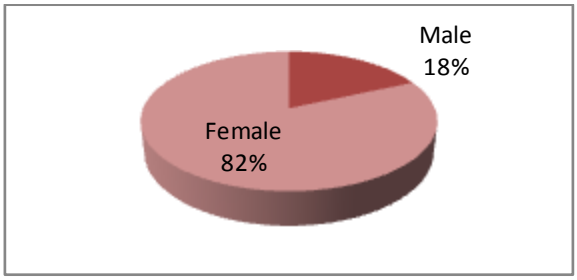
Colorado Project Safety Net: Mesa Fact Sheet

Question, Persuade, Refer (QPR)

Trainees



Race	Number	Percent (%)
Hispanic/Latino	14	8.19%
American Indian/Alaska Native	6	3.51%
Asian	1	0.58%
Black or African American	1	0.58%
Native Hawaiian or Pacific Islander	0	0.00%
White	150	87.72%
Other/Missing	0	0.00%
Total	172	

Age

Range of Ages	18-83
Average Age	45.27

Trainees' comments about the training

A total of 171 members of the Mesa County community participated in the QPR training. Of these 171 trainees, over 90% were satisfied with the QPR training. About 24% reported that the training addressed the cultural differences in the youth they intended to serve.

Cases of Reported Usage of the QPR Training

The following tables illustrate how the QPR training was used by the trainees in Mesa County. Of the 171 trainees, 39 completed the 6-month follow-up.

4.8% of follow-up trainee's reported having used the QPR training often; 51.3% agree that they increased others' general awareness and knowledge about suicide.

How many times in the last six months have you…	Total Reported
Screened individuals using QPR screening tools?	30
Discussed QPR training with others?	103
Recognize suicidal thoughts?	54
Asked if someone was considering suicide?	53
Personally referred someone?	47
Provided mental health services to potentially suicidal individuals and/or their families?	45

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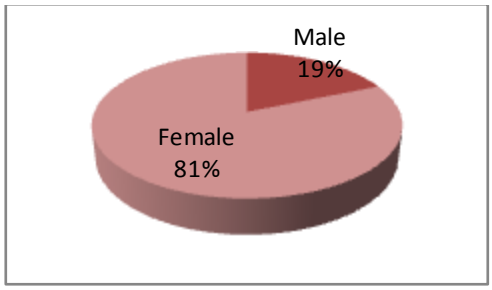
Colorado Project Safety Net: Pueblo Fact Sheet

Applied Suicide Intervention Skills Training (ASIST)

Trainees



Race	Number	Percent
Hispanic/Latino	34	39.08%
American Indian/Alaska Native	1	1.15%
White	46	52.87%
Other/Missing	6	6.90%
Total	87	

Age

Range of Ages	22-67
Average Age	38.84

Trainees' comments about the training

A total of 87 members of the Pueblo County community participated in the ASIST training. Of these 87 trainees, over 90% were satisfied with the ASIST training. About 68% reported that the training failed to address the cultural differences in the youth they intended to serve.

Number of Interventions after the ASIST Training

The following tables illustrate how the ASIST training was used by the trainees in Pueblo County. Of the 87 trainees, 23 completed the 3-month follow-up and 27 completed the 6-month follow-up.

	Total Reported Number of Interventions
3 months after the training	51
6 months after the training	172

Participants were asked the following questions in both their 3-month and 6-month follow-ups regarding their use of the ASIST training.

In how many of instances did you …	Total Reported 3 months after training	Total reported 6 months after training
Ask directly about intent to harm?	51	86
Encourage talking about reasons for dying?	49	73
Encourage talking about reasons for living?	48	85

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Ask questions concerning suicide plan?	51	83
Ask questions concerning how/why they felt alone?	51	82
Ask if they have attempted suicide before?	49	79
Contract a safeplan with individual?	47	77
Make a referral to another agency or resource?	43	71
Follow-up with the person after the referral?	18	53

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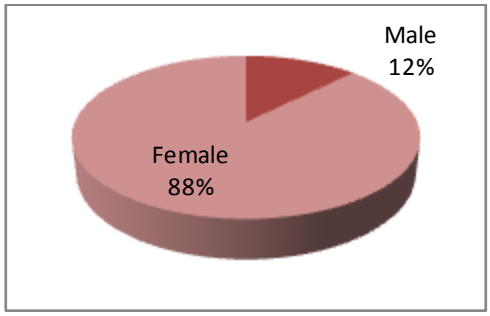
Colorado Project Safety Net: Pueblo Fact Sheet

Question, Persuade, Refer (QPR)

Trainees



Race	Number	Percent (%)
Hispanic/Latino	14	36.84%
American Indian/Alaska Native	3	7.89%
Black or African American	2	5.26%
White	19	50.00%
Other/Missing	0	0.00%
Total	38	

Age

Range of Ages	19-65
Average Age	32.38

Trainees' comments about the training

A total of 38 members of the Pueblo County community participated in the QPR training. Of these 38 trainees, over 90% were satisfied with the QPR training. About 48% reported that the training addressed the cultural differences in the youth they intended to serve.

Cases of Reported Usage of the QPR Training

The following tables illustrate how the QPR training was used by the trainees in Pueblo County. Of the 38 trainees, 9 completed the 6-month follow-up.

44.4% of follow-up trainee's reported having used the QPR training often; 66.6% agree that they increased others' general awareness and knowledge about suicide.

How many times in the last six months have you…	Total Reported
Screened individuals using QPR screening tools?	6
Discussed QPR training with others?	47
Recognize suicidal thoughts?	14
Asked if someone was considering suicide?	12
Personally referred someone?	10
Provided mental health services to potentially suicidal individuals and/or their families?	19

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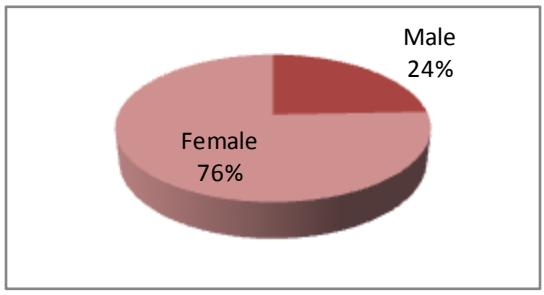
Colorado Project Safety Net: Weld Fact Sheet

Applied Suicide Intervention Skills Training (ASIST)

Trainees



Race	Number	Percent
Hispanic/Latino	12	23.53%
American Indian/Alaska Native	1	1.96%
White	33	64.71%
Other/Missing	5	6.90%
Total	51	

Age

Range of Ages	22-60
Average Age	36.41

Trainees' comments about the training

A total of 51 members of the Weld County community participated in the ASIST training. Of these 51 trainees, over 90% were satisfied with the ASIST training. About 43% reported that the training failed to address the cultural differences in the youth they intended to serve.

Number of Interventions after the ASIST Training

The following tables illustrate how the ASIST training was used by the trainees in Weld County. Of the 51 trainees, 5 completed the 3-month follow-up and 12 completed the 6-month follow-up.

	Total Reported Number of Interventions
3 months after the training	25
6 months after the training	11

Participants were asked the following questions in both their 3-month and 6-month follow-ups regarding their use of the ASIST training.

In how many of instances did you …	Total Reported 3 months after training	Total reported 6 months after training
Ask directly about intent to harm?	25	11
Encourage talking about reasons for dying?	16	4

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Encourage talking about reasons for living?	22	8
Ask questions concerning suicide plan?	24	10
Ask questions concerning how/why they felt alone?	25	7
Ask if they have attempted suicide before?	25	11
Contract a safeplan with individual?	24	9
Make a referral to another agency or resource?	25	11
Follow-up with the person after the referral?	14	8

This research was made possible by the Substance Abuse and Mental Health Services Administration (SM057849-02). The research is solely the responsibility of the authors and does not primarily represent the official views of SAMHSA.

Appendix B: Conference Presentations and Manuscripts

Title:
Evaluation of a Community Gatekeeper Training: QPR

Authors:
J. Taylor Moore, B.A., Konstantin P. Cigularov, M.S., Krista K. Hoffmeister, Peter Y. Chen, Ph.D., Sarah Rohr, B.S., & Jeremy M. Martinez, B.A.

Educational Objective:
At the conclusion of this presentation, the participants should have knowledge and understanding of approaches to evaluating a community gatekeeper training program.

Abstract:
Suicidal behavior remains a significant public health problem, especially among adolescents and young adults, spurring suicide prevention efforts. One of these efforts has entailed the development and implementation of suicide prevention gatekeeper training programs to target individuals who are in a position to recognize the warning signs that someone may be thinking about suicide and to intervene in order to prevent a suicide attempt. The current study evaluates a gatekeeper training program, Question, Persuade, and Refer (QPR), based on a pre-post with control and comparison groups design. Results and implications are discussed.

Presentation Description:

Approximately 11 young people, ages 15 through 24, die every day by suicide in the United States (American Association of Suicidology [AAS], 2006). Even more alarming is the estimate that there are 100 to 200 attempts for every suicide completion (AAS, 2006). Furthermore, the latest statistics confirm that suicide remains the third leading cause of death among young people between the ages of 15 and 24 nationally (Anderson & Smith, 2003). Therefore many endeavors have been initiated to prevent suicide.

One of these endeavors has been the development and implementation of suicide prevention gatekeeper training programs. These programs target community members who interact on a regular basis with youth who may be at risk for suicide. Initial research has found support for the effectiveness of such programs (e.g., Tierney, 1994), however more research is needed to validate prior findings.

The current study evaluates a gatekeeper training program, Question, Persuade, and Refer (QPR), based on a pre-post with control and comparison groups design. QPR is a 90-minute training program, which aims to teach "lay and professional gatekeepers how to recognize a mental health/suicide emergency, how to Question the validity of suicidal communications, and how to Persuade and Refer someone at-risk to the next level of intervention" (Quinnett, 2007, p. 4).

Method

Participants and Procedure

Two hundred and twenty-five individuals who attended 17 QPR trainings as part of Project Safety Net were evaluated across the state of Colorado and were included in the treatment group. Participants' ages ranged from 18-78 years old, with a mean age of

43.2. A majority of the participants were female (82.9%) and Caucasian (88.4 %). Evaluation surveys were administered immediately before and after the training.

The control group consisted of 25 undergraduate students in an upper level psychology course, who received a 90-minute lecture on a measurement topic, unrelated to mental health/suicide. Their ages ranged from 20-40 years old, with a mean age of 23. A majority of the participants were female (70.8%) and Caucasian (79.2%). The evaluation surveys were administered immediately before and after the lecture.

The comparison group consisted of 21 individuals who participated in a similar but different gatekeeper training program. Their ages ranged from 24-60 years old, with a mean age of 41.33. A majority of the participants were female (55.6%) and Caucasian (77.8%). Similarly to the other two groups, these participants were administered the evaluation surveys before and after the training.

Measures

Five training outcome variables were measured in this study, which include affective reactions, utility reactions, self-efficacy, behavioral intentions, and knowledge. Trainees' affective and utility reactions to the training were each assessed by 5-item and 6-item scales, respectively, with response categories ranging from 1 "Very Dissatisfied" to 4 "Very Satisfied." Self-efficacy, or confidence to intervene, was measured by a 2-item scale and behavioral intentions to ask about suicidal thoughts were measured by a 2-item scale. Trainees were asked to respond to the above two scales with 5 response categories, ranging from 1 "Strongly Disagree" to 5 "Strongly Agree." Finally, eight multiple-choice questions tested trainees' knowledge about the QPR.

Results

Overall, both the affective and utility reaction measures indicated that trainees were satisfied with their training experience in both treatment and comparison groups. Reactions on the affective items ranged from 97% to 98.5% of participants being satisfied or very satisfied. Utility reaction items ranged from87.5% to 99% of participants being satisfied or very satisfied with the utility of the training.

A series of 2 × 3 ANOVAs were conducted to test the within factor Time (pre-post), within factor Condition (training, control, and comparison groups), and interaction Time× Condition on knowledge, self-efficacy, and intentions to ask. For the knowledge variable, the results indicated a significant main effect for Time, $F(1, 202) = 24.22$, $p < .01$, partial $\eta^2 = 0.11$ and a significant interaction effect between Time and Condition, $F(2, 202) = 15.03$, $p < .01$, partial $\eta^2 = 0.13$. Further analyses indicated that participants in the treatment ($t(161)=12.94$, $p < .01$) and comparison ($t(17)=2.37$, $p <.05$) groups improved their knowledge after attending the trainings. With regard to self-efficacy, the results indicated a significant main effect for Time, $F(1, 196) = 22.91$, $p < .01$, partial $\eta^2 = 0.11$, and a significant interaction effect between Time and Condition, $F(2, 196) = 11.73$, $p < .01$, partial $\eta^2 = 0.11$. The follow-up analyses also showed the hypothesized trend with treatment ($t(158)=11.44$, $p < .01$) and comparison ($t(14)=2.83$, $p = .01$) group participants improving their self-efficacy to intervene. Similar results were found for intentions to ask, showing a significant main effect for Time, $F(1, 193) = 17.67$, $p < .01$, partial $\eta^2 = 0.08$, and a significant interaction effect between Time and Condition, $F(1, 193) = 6.67$, $p < .01$, partial $\eta^2 = 0.07$. The additional analyses revealed that treatment ($t(158)=8.98$, $p < .01$) and comparison group ($t(11)=2.76$, $p = .02$) participants reported

more willingness to directly question the thoughts and intentions of persons at risk for suicide compared to before the training.

Discussion

Our results provide initial support for the effectiveness of QPR as a community-based gatekeeper training program, using the first two levels of Kirkpatrick's (1994) taxonomy of training evaluation outcomes – reactions and learning outcomes. The majority of the QPR participants reported positive utility and affective reactions to the training program. Our findings also suggest that the QPR training program was effective in improving participants' knowledge, self-efficacy, and behavioral intentions related to suicide prevention and intervention.

Although the results of the present study are promising, the study also has limitations that suggest directions for future research. In the current study, we only evaluated the effects of the QPR training program in terms of reactions and learning outcomes immediately after its completion. Future research should examine the long-term impact of the training program and how the knowledge, self-efficacy, and skills acquired in the training are applied to the natural environment. To address this, the authors are currently collecting 6-month follow-up data to assess long-term behavior outcomes, such as referrals.

Title of Presentation:
Two Approaches to Evaluate a Gatekeeper Training

Authors:
J. Taylor Moore, B.A., Konstantin P. Cigularov, M.S., Krista K. Hoffmeister, Peter Y. Chen, Ph.D., Sarah Rohr, B.S., & Jeremy M. Martinez, B.A.

Educational Objective:
At the conclusion of this presentation, the participants should have knowledge and understanding of two innovative approaches to evaluating a community gatekeeper training program.

Abstract:
Suicidal behavior remains a significant public health problem, especially among adolescents and young adults spurring suicide prevention efforts. One of these efforts has entailed the development and implementation of suicide prevention gatekeeper training programs to target individuals who are in a position to recognize the warning signs that someone may be thinking about suicide and to intervene in order to prevent a suicide attempt. Evaluating gatekeeper training programs by means of rigorous experimental designs may be quite challenging for evaluators because of ethical, legal, and practical constraints. In the current study, we use two practical yet rigorous evaluation approaches to demonstrate the process of evaluating a community-based gatekeeper training program, Applied Suicide Intervention Skills Training (ASIST). The two approaches we used were the minimum competency approach (MC, Sackett & Mullen, 1993) and the internal referencing strategy (IRS, Haccoun & Hamtiaux, 1994). Results and implications are discussed.

Presentation Description:

Suicidal behavior remains a significant public health problem, especially among adolescents and young adults. According to a nationwide survey of high school students, on average, 16.9% of them had seriously contemplating suicide and 8.4% have attempted suicide during the last 12 months (Centers for Disease Control and Prevention [CDC], 2006). Therefore, it is not surprising that many suicide prevention efforts have been initiated to prevent youth suicide.

One of these efforts has entailed the development and implementation of suicide prevention gatekeeper training programs (CDC, 1992). These programs target individuals who are in a position to recognize the warning signs that someone may be thinking about suicide and to intervene in order to prevent a suicide attempt. These individuals are known as gatekeepers and include teachers, school personnel, police officers, social workers, clergy, primary health care providers, and many others (Quinnett, 2007). Although initial evaluation studies show support for the effectiveness of such training programs (e.g., King & Smith, 2000; Tierney, 1994), further research is clearly needed. However, evaluating gatekeeper training programs by means of rigorous experimental designs may be quite challenging for evaluators because of ethical, legal, and practical constraints (see Cigularov, Chen, Thurber, & Stallones, (under review).

In the current study, we use two practical yet rigorous evaluation approaches to demonstrate the process of evaluating a community-based gatekeeper training program, Applied Suicide Intervention Skills Training (ASIST). ASIST is a two-day interactive, practice-oriented training program, which aims to teach individuals to feel more comfortable, confident, and competent in helping to prevent suicide. The two approaches we used were the minimum competency approach (MC, Sackett & Mullen, 1993) and the internal referencing strategy (IRS, Haccoun & Hamtiaux, 1994). The former approach assesses if trainees gain a minimum level of competency on a particular trained attribute. In the present study, a minimum of 70 percent of ASIST participants should correctly answer each of the six multiple-choice knowledge questions upon completion of the training. The IRS approach is used to determine whether change has occurred as a result of the training. It entails the inclusion of two sets of questions in the pre- and post-test evaluation surveys. The first set of questions covers relevant material that is trained, while the second set consists of also training-relevant questions, which, however, are not covered in the training. The latter questions could be conceptually considered as control questions. Consequently, training effectiveness is inferred when participants improve from pre-test to post-test on the trained questions, but show little or no change on the untrained questions.

Method

As part of Colorado Project Safety Net, 165 individuals, who attended 11 ASIST trainings in 6 different counties in Colorado, participated in the current evaluation study. Their ages ranged from 21-67 years old, with a mean age of 37.71. A majority of the participants were female (84%) and Caucasian (83.8%). The evaluation surveys were administered at both the beginning and the end of the training.

The following three outcomes were examined in this study: (1) knowledge about ASIST, (2) self-efficacy to intervene, and (3) behavioral intentions to ask about suicide and suicidal thoughts. These outcome variables were chosen based on the content and objectives of the ASIST training program. Knowledge was measured by 10 multiple-choice knowledge questions - six of them covered in the training. Two knowledge scores were computed, for the trained and the untrained (IRS) questions. Self-efficacy was measured by 2 items which assessed the degree of confidence participants felt in intervening with a suicidal individual. An additional 2 IRS items assessed self-efficacy in relation to intervening with a homicidal individual. Finally, behavioral intentions were also measured with 2 items. Except for the knowledge test, all items were answered on a 5-point Likert type scale from 1=Strongly Disagree to 5=Strongly Agree.

Results

Results based on the IRS and MC approaches are presented below. First, a series of 2 × 2 ANOVAs were conducted to test the within factor Time (pre-post), between factor Items (trained vs. untrained), and interaction Time× Items. Interpretation of the results focused on the interaction effects because they revealed whether ASIST participants improved on the trained questions, while showing no or little improvement on the untrained questions across time.

For knowledge, the results indicated a significant main effect for Time, $F(1, 158) = 137.69$, $p < .01$, partial $\eta^2 = 0.47$, a significant main effect for Items, $F(1, 158) = 81.34$, $p < .01$, partial $\eta^2 = 0.34$, and a significant interaction effect between Time and Items, $F(1,158) = 157.02$, $p < .01$, partial $\eta^2 = 0.50$.

For self-efficacy, the results indicated a significant main effect for Time, $F(1, 153) = 153.98$, $p < .01$, partial $\eta^2 = 0.50$, a significant main effect for Items, $F(1, 153) = 236.62$, $p < .01$, partial $\eta^2 = 0.61$, and a significant interaction effect between Time and Items, $F(1,153) = 86.58$, $p < .01$, partial $\eta^2 = 0.36$.

In addition, behavioral intentions improved significantly after the training ($t(113) = 10.25$, $p < .01$).

Results based on the minimum competency approach showed the percent of participants who responded correctly to the six trained knowledge items, were 64, 74, 99, 88, 57, and 70, respectively.

Discussion

This study demonstrated the usefulness of two methodological approaches for evaluating ASIST. Results based on the internal referencing strategy and the minimum competency approaches converged to support the effectiveness of the program. Specifically, the results from the IRS approach demonstrated that trained variables improved while untrained variables remained relatively unchanged. The MC approach demonstrated that participants achieved a level of mastery of knowledge in the training. Although these results demonstrate initial support for the effectiveness of ASIST, this study also has limitations. This paper only presents results from data collected immediately following the training. Data is currently being collected at 3 months and 6 months following the training in order to measure the longer-term effects of ASIST in terms of knowledge retention and self-efficacy maintenance, as well as changes in specific suicide intervention behaviors.

Title of Presentation:
Gatekeeper training: What constitutes success?

Authors:
Paige C. Gardner, B.A., Stefanie E. Putter, B.A., Peter Y. Chen, Ph.D., Jeffrey T. Moore, B.A., Konstantin P. Cigularov, M.S., Krista K. Hoffmeister, & Jeremy M. Martinez, B.A.

Educational Objective:
At the conclusion of this presentation, the participants should have knowledge and understanding of different training success outcomes that are relevant to community suicide prevention efforts.

Abstract:
What do we mean when we say that a gatekeeper training is successful? Success may be indicated by an increase in knowledge about suicide, beliefs that the training was useful, or greater willingness to engage a suicidal person in conversation; however, there are numerous other factors that could also be considered. The choices of success criteria have important implications when drawing conclusions about the success of any gatekeeper training program. Thus, there is a need to take into account how our stakeholders define success. As part of this ongoing project, suicide prevention staff took part in focus group interviews with the goal of identifying what success means to them. The success criteria generated by these individuals were then organized into a framework based on two dimensions. The next stage of our project will consist of creating a needs assessment survey for our stakeholders. By identifying the training outcomes that matter most to the stakeholders, we aim to improve our evaluation and adapt the training programs to best meet these objectives.

Presentation Description:

What do we mean when we say that a gatekeeper training is successful? Success may be indicated by an increase in knowledge about suicide, beliefs that the training was useful, or greater willingness to engage a suicidal person in conversation. Improvements on any one of these factors could lead program evaluators to conclude that a training program is successful; however, there are numerous other factors that could also be considered. The way in which success is conceptualized and measured is a critical issue in program evaluation.

The choices of success criteria have important implications when drawing conclusions about the success of any gatekeeper training program. Arguably, the success criteria are value-laden and can be driven by stakeholders within a community or culture. This implies that there is a need to take into account how stakeholders define success of a gatekeeper training. Specifically, what matters most to them after implementing a gatekeeper training? Input from communities is paramount, and an understanding of their

goals for training programs has been missing from evaluation research in the area of suicide prevention.

Method

Participants include twelve gatekeeper trainers and suicide prevention staff members from six communities in the state of Colorado. These individuals took part in focus group interviews with the goal of identifying what success means to them.

Results

The success criteria generated by these individuals were then organized into a framework based on two dimensions: system and types. One can conceptualize success of a gatekeeper training from different levels of a system which include the individual gatekeepers, the organization, and the community. On the other hand, success can also be conceptualized by its types. According to Kirkpatrick's (1959) evaluation model, success criteria include reaction, knowledge, behavior, and results. By using both of these dimensions, we were able to create a 3 x 4 grid to categorize success criteria.

At the individual level, the reaction is defined as immediate, basic impressions of the training, which may include whether the gatekeepers enjoy the training or think the training is useful. The knowledge criterion refers to knowledge gain directly after the training as well as knowledge retention at a later point. The behavior criterion is defined as the gatekeeper using the intervention skills, such as intervening with a suicidal person and providing a referral. We define individual results as long-term outcomes which indicate a gatekeeper "going above and beyond" what is required. This would include following up with a suicidal person after the initial intervention.

At the organization level, we define organizational reaction as immediate, basic impressions of the training, such as whether supervisors and company leadership view the training as useful. Organizational knowledge refers to an organizational climate that promotes continuous learning and enhances the suicide prevention knowledge of the employees. Examples include making the employees aware of organizational policies for dealing with suicidal individuals and creating a written guidebook as a reference tool for employees. This guidebook may include suicide intervention scenarios where employees decide which strategies and solutions are most appropriate in hypothetical situations. The organizational behavior level is defined as behaviors that encourage transfer of skills learned in training to the work setting. For example, supervisors can provide opportunities for their employees to role-play and practice their skills, or supervisors can hold group sessions to discuss problems that have occurred during interactions with a suicidal person. Organizational results refer to outcomes that reflect recognition of the significance of suicide intervention training and indicate that the organization is "going above and beyond" to support the training of its employees. This category includes the organization providing additional resources to their employees or making suicide intervention a priority by allowing flexibility with job tasks if the employee needs to intervene with a suicidal person.

At the community level, we define reaction as a community's attitudes of suicide prevention and intervention. Community knowledge refers to the community as a whole becoming better educated about suicide and suicide intervention techniques. We define community behavior as gatekeepers transferring their skills to others in the community. Finally, community results refer to greater societal outcomes, such as reducing the

incidence of suicide, promoting the visibility of intervention programs, or advocating for funding future intervention programs.

Discussion

In the next phase of this project, and prior to the AAS conference, we will replicate the above categorization of success criteria by means of the Q-sort approach. Subject matter experts who have no previous involvement in the project will be asked to sort each criterion into one cell of this 3 x 4 grid. This sorting procedure will be guided by our definitions of each category. These individuals will also be asked to generate additional criteria and provide feedback about this categorization model.

After establishing our conceptual framework for success criteria, the next stage of our project will consist of creating a survey for our stakeholders, including gatekeepers, community advocates, and trainers. On this survey, these stakeholders will be asked to indicate the relative importance of each criterion within the various categories. These results will provide comprehensive data on training outcomes that matter most to our stakeholders. We will then be able to use this information to modify our evaluation measures to better reflect their training priorities, which will help us determine whether the training programs are successful as defined by these community members. If we can identify goals that have not been achieved, we can adapt the training programs to focus on these unmet objectives. In doing so, we hope to improve the effectiveness of suicide intervention training programs and enhance the transfer of suicide intervention skills to real-world settings.

Title:
Barriers to Suicide Prevention Training Transfer

Authors:
Krista K. Hoffmeister, Konstantin P. Cigularov, M.S., Ava Carey, Sarah Rohr, B.S., Paige C. Gardner, B.A., Stefanie E. Putter, B.A., Julie Gibbs-Long, B.A., Peter Y. Chen, Ph.D., J. Taylor Moore, B.A., & Jeremy M. Martinez, B.A.

Educational Objective:
At the conclusion of this presentation, the participants should have knowledge and understanding of barriers that may prevent participants in suicide intervention trainings from utilizing the skills they learn.

Abstract:
Suicide continues to be a major public health concern, and despite many attempts at alleviating this problem, suicide remains the third leading cause of death among adolescents aged 15 to 24 years in the US (Anderson & Smith, 2003). As a result, recent suicide prevention efforts have focused on training individuals, or gatekeepers, who are in regular contact with at-risk youth (Quinnett, 2007). According to Kirkpatrick (1975), training success relies largely on whether gatekeepers are able to utilize the skills they learn in real-life situations. This study attempts to address this critical issue by identifying and comparing barriers they might face. Gatekeepers in Colorado communities who participated in an ASIST training were contacted via phone three months after completing the training to assess possible barriers to using the skills. Fifteen barriers were identified and grouped into three main categories; individual, organizational, and community barriers. The realization of these barriers will aid in the improvement of suicide intervention trainings by suggesting solutions to overcoming typical barriers encountered while using the skills.

Presentation Description:

Suicide and suicide behaviors among youth and young adults continue to be a major public health concern. Despite many attempts at alleviating this problem, suicide remains the third leading cause of death among adolescents and young adults aged 15 to 24 years in the United States (Anderson & Smith, 2003). Furthermore, it has been estimated that there are 100 to 200 suicide attempts for every youth suicide completion (American Association of Suicidology [AAS], 2006). These astounding statistics continue to plague schools, families, workplaces, and communities throughout the nation. Research shows that many adolescents, who experience significant psychological distress including suicidal thoughts, do not seek help for their problems (Zwaanswijk, Van der Ende, Verhaak, Bensing, & Verhulst, 2003). As a result, recent suicide prevention efforts have focused on training individuals, who are in regular contact with at-risk youth, to recognize a crisis and the warning signs that someone may be contemplating suicide and to refer that person for assessment and care (Quinnett, 2007). These individuals are referred to as gatekeepers. Although gatekeeper training programs have gained popularity as a prevention tool and their effectiveness in improving knowledge, attitudes, and referral practices has been documented (e.g., Tierney, 1994), the problem of youth suicide still lingers.

An important criterion for training success that has received no attention in published gatekeeper training evaluation studies is the extent to which adult gatekeepers are able and

willing to utilize the skills they learn in training to real-life situations (i.e., transfer of training; see Kirkpatrick, 1975). Transfer of training can be affected by numerous variables such as individual characteristics, work environment, or training design (Wexley & Baldwin, 1986). In addition, trained adult gatekeepers may face a number of barriers to using their newly gained skills after they complete the training, including work overload, concerns of making the wrong judgment, and liability concerns. Initial research with adolescent gatekeepers has identified a number of barriers that may prevent adolescents from seeking help for a suicidal friend (see Cigularov, Chen, Thurber, & Stallones, in press). The present study attempts to address this critical issue by systematically identifying, classifying, and comparing specific barriers adult gatekeepers would likely face. Research of this kind will allow for improvement of gatekeeper training programs by suggesting solutions to overcoming typical barriers encountered while using the trained skills.

Method

Thirty-eight gatekeepers in Colorado communities, who participated in a 2-day ASIST training, agreed to take part in this study and were contacted via phone three months after completing the training. Their mean age was 38.84 years and 81.8% were females. They held a wide variety of positions (e.g. firefighters, counselors, suicide hotline workers). As part of a larger phone interview, three open-ended questions were used to assess whether individuals had encountered any barriers or obstacles to using the skills they gained during the training and if yes, what were these. In order to obtain more in-depth information about barriers, the researchers contacted four additional individuals who had also completed the ASIST training and conducted extensive phone interviews focusing solely on perceived barriers to transfer of the ASIST training.

Results

Overall, 23 barrier statements were generated from the 3-month follow-up interviews and 37 barrier statements were identified from the four in-depth barrier interviews. Based on the grounded theory approach (Strauss & Corbin, 1998), all phone interviews were transcribed and reviewed, and responses were combined and categorized into three main groups: individual, organizational, and community barriers. Within these groups, statements were placed into categories encompassing all of the related barriers under that main topic. These are reported below in order of frequency. Six categories emerged from the “individual” barriers group: personal stigma, difficulties with identifying warning signs; difficulties with recognizing when to intervene, relationship conflicts and emotional detachment of youth, insufficient practice or training, and feeling uncomfortable using the trained skills. The “organizational” group of barriers included logistical issues, (e.g., unavailability of resources, information, or partners with which to collaborate), stigma at work, non-supportive organizational climate, referral problems (e.g., limited access or treatment costs), as well as access to suicidal individuals (e.g., receiving notice of the suicidal behavior too late, after the suicide had been completed). The last one was also identified as a “community” barrier. Other barriers classified in the “community” group were lack of opportunity to use the training, stigma in the community, and negative reactions to intervention (e.g. anger, denial, refusal to get help).

Discussion

This study identified fifteen barriers to using what was learned in a suicide intervention skills training, which were grouped into three main categories; individual, organizational, and community barriers. Overall, logistical, referral, and access issues were most commonly reported. Another barrier that often emerged was stigma related to suicide and suicidal individuals. It is important to note that similar types of barriers were also identified among

adolescent gatekeepers (see Cigularov et al., in press) and in the general adolescent help-seeking literature (see Kuhl, Jarkon-Horlick, & Morrissey, 1997), ascertaining the importance of these factors and the need to consider them when training suicide prevention gatekeepers.

Some of the barriers (e.g., low self-efficacy) can be addressed in a gatekeeper training program, for example through simulation exercises and feedback. However, other barriers (e.g., resources) cannot be addressed solely by a training program. This suggests that professionals need to view suicide prevention efforts from a systems perspective, which would require a comprehensive approach, targeting the multiple contexts in which adult gatekeepers work and interact (Kalafat, 2003). Poactive strategies could be developed to remove or counter the effects of some of these barriers. For example, improving networking within and between organizations as well as between people on an individual level could reduce certain logistical, referral, and access issues by creating a more transparent, collaborative, and resourceful work environment. Networking could also alleviate some of the individual barriers by allowing co-workers to practice and interact with each other to become more comfortable using the trained skills and to perceive less stigma. Effective information dissemination campaigns (e.g., media campaigns, awareness programs) regarding suicide, depression, and other mental health issues, could be used to reduce stigma in communities, schools, and workplaces. Appropriate organizational level interventions (e.g., management training) may also be needed to engender and promote a supportive work climate for gatekeepers. Identifying the barriers to using suicide intervention skills is an important step to improving suicide prevention efforts. Future research should empirically validate our initial findings and extend them to different populations of gatekeepers and different training programs.

Title of Presentation:
Who are suicide prevention gatekeepers?

Authors:
Konstantin P. Cigularov, M. S. (moderator), David A. Litts, O.D. (panelist), Richard McKeon, Ph.D. (panelist), Paul G. Quinnett, Ph.D. (panelist), Morton M. Silverman, M.D. (panelist), Bryan Tanney, M.D., Ph.D. (panelist)

Educational Objectives:
At the conclusion of this panel, the audience should be able to: (1) understand the roles, responsibilities, and qualifications of suicide prevention gatekeepers, (2) identify different types and levels of gatekeepers, and (3) recognize some of the challenges to training gatekeepers, as well as the challenges for gatekeepers to transfer the training to real life.

Abstract:
The Surgeon General's Call to Action to Prevent Suicide (U.S. Public Health Service, 1999) and the National Strategy for Suicide Prevention (U.S. Department of Health and Human Services, 2001) have identified gatekeeper training as a promising prevention strategy and initial research results have been encouraging with regard to its effectiveness (e.g. King & Smith, 2000; Knox, Litts, Talcott, Feig, & Caine, 2003; Tierney, 1994). Despite the increased use of gatekeeper trainings in recent years and the growing popularity of the term "gatekeeper," clarifications are still needed on several issues, including: (1) what exactly constitutes a gatekeeper, (2) what should be the roles, responsibilities, and qualifications of gatekeepers, (3) what are the different types and levels of gatekeepers, and (4) what are the challenges to training gatekeepers and the challenges for gatekeepers to utilize and transfer the training. This expert panel has been convened to address these and other questions related to suicide prevention gatekeepers.

Presentation Description:
The Surgeon General's Call to Action to Prevent Suicide (U.S. Public Health Service, 1999) and the National Strategy for Suicide Prevention (U.S. Department of Health and Human Services, 2001) have identified gatekeeper training as a promising prevention strategy and initial research results have been encouraging with regard to its effectiveness (e.g. King & Smith, 2000; Knox, Litts, Talcott, Feig, & Caine, 2003; Tierney, 1994). Despite the increased use of gatekeeper trainings in recent years and the growing popularity of the term "gatekeeper," clarifications are still needed on several issues, including: (1) what exactly constitutes a gatekeeper, (2) what should be the roles, responsibilities, and qualifications of gatekeepers, (3) what are the different types and levels of gatekeepers, and (4) what are the challenges to training gatekeepers and the challenges for gatekeepers to utilize and transfer the training. This expert panel has been convened to address these and other questions related to suicide prevention gatekeepers. The next sections include a list of panel members and their affiliations, followed by summaries of the perspectives taken by each of the panel members on the above-stated issues.

The following suicide prevention experts have accepted the invitation to participate in this panel, as listed in alphabetical order: Col. David A. Litts (Suicide Prevention Resource Center), Dr. Richard McKeon (Substance Abuse and Mental Health Services Administration), Dr. Paul G. Quinnett (The QPR Institute), Dr. Morton M. Silverman (University of Chicago), and Dr. Bryan Tanney (LivingWorks Education).

Summaries of panel members' perspectives:

Col. David A. Litts: The roles and responsibilities of gatekeepers are frequently too narrowly defined, being limited primarily to identifying those who may be at risk for suicide and referring them to mental health services. Higher performing gatekeepers could convey more protection to their communities if they functioned as informal care givers themselves, working "upstream" from the crisis of suicidality. In this role they would provide emotional support to the one showing signs of distress, help them clarify the issues and identify options, help them connect with a wide variety of available informal and formal resources, and, if mental health services might be needed and are accessible and acceptable, make that referral, as well.

Dr. Richard McKeon: The Substance Abuse and Mental Health Services Administration, through its Garrett Lee Smith Memorial Act suicide prevention grants that currently reach 31 states, 7 tribes or tribal organizations, and 55 college campuses, is supporting gatekeeper training programs across the country. The cross site evaluation of these activities , as well as information being gained through evaluations in the Adolescents At Risk program, is helping us gain a deeper understanding of the impact of gatekeeper training. Results of these evaluations relevant to gatekeeper training will be presented and their relevance explored for informing future gatekeeper training efforts.

Dr. Paul G. Quinnett: We use the definition of gatekeeper similar to that used in the SG's National Strategy, but are much more inclusive as to who may be a gatekeeper; butcher, baker, candlestick maker. Preventing suicide requires a "big tent" inclusive approach. Because suicidal communications (warning signs) are transmitted and responded to between intimates, typically not strangers, the CPR equivalent of a "bystander" rescuer does not apply. Rather, the person most likely to recognize suicide warning signs and refer is someone already known to the suicidal communicate, e.g., a friend, co-worker, colleague or family member. We believe that professional gatekeepers (vs. lay family members) should be defined and trained to a level of intervention competence that corresponds to their level of perceived authority and duty to the public(s) they serve. We expect police officers to know CPR, likewise university resident advisors. Eight hours of training makes sense to these groups, whereas two-hours for a lay gatekeeper is sufficient, i.e., the more responsibility the gatekeeper has, the more training is required. The greatest challenge to lay gatekeepers is whether or not a professional gatekeeper, e.g., a mental health professional, responds quickly and positively to their call of concern. Any response to a potentially life-threatening crisis needs to be smooth, cohesive, free of referral friction and comprehensive until the crisis is fully assessed and responded to with the best evidence-based interventions available.

Dr. Morton M. Silverman: Before we can start a serious discussion of who should be community suicide prevention gatekeepers, we must first look at the evidence-based approaches to community suicide prevention and answer some fundamental questions:
1. What are we trying to prevent - ideations? Threats? Planning? Attempts? Completions?
2. Who is at most risk for each of these behaviors and/or outcomes?

3. What are the identifiable factors that are associated with these behaviors?
4. How do we know if we prevented it?
5. Which interventions seem to be most closely linked to the reduction we are seeking?
6. Where is the most likely place to deliver those interventions?

Only when we have a clear understanding of the pathways that lead an individual to engage in suicidal behaviors can we then begin to identify the settings or contexts in which those behaviors are expressed. Then we can begin to identify community resources and personnel who might be in the best position to identify the at-risk individuals and undertake the first steps in ensuring that they receive the attention they need.

Dr. Bryan Tanney: The original term was useful to delineate a particular role in helping persons at risk. In suicide prevention it evolved to recognize and refer for help. Today, it hinders the understanding of a helping process as the historical context of community mental health-- and mental health--- are recognized as elitist, territorial, restricted in scope and mirroring the 'tunnel vision' of suicidal thoughts. Modern helpers are able to undertake complete suicide interventions. They do this by defining their role as cooperating with a person at risk to work with life and/or death choices and not by the futility of seeking/guarding mental health resources that are unavailable, inaccessible, irrelevant or incompetent. This new role of accepting 'invitations' to help a person at risk is fraught with its own issues of boundaries and competencies personally, organizationally and legally.

Carpenter, C., Demmler, J., Hamm, E., Linwood, S. K., & Martinez, J. (2008, April). How to connect the dots to prevent suicide? In K. P. Cigularov (Chair), *How to connect the dots to prevent suicide?* Panel discussion presented at the 41st AAS Annual Conference, Boston, MA.

Title of Presentation:
How to connect the dots to prevent suicide?

Authors:
Konstantin P. Cigularov, M. S. (moderator), Colleen Carpenter, M.P.H., M.A. (panelist), Jean Demmler, Ph.D. (panelist), Eleanor Hamm, M.A. (panelist), Sheila K. Linwood, M.B.A. (panelist), Jeremy M. Martinez, B.A. (panelist)

Educational Objectives:
At the conclusion of this panel, the audience should be able to: (1) understand community safety nets and how to build them, (2) identify some of the challenges and strategies in building and sustaining community safety nets, (3) understand different types of success outcomes of gatekeeper training, and (4) identify some of the challenges and strategies in implementing and evaluating gatekeeper trainings.

Abstract:
Suicide remains a serious public health problem. Consequently, a number of recommendations for suicide prevention have been outlined in the Surgeon General's Call to Action to Prevent Suicide (U.S. Public Health Service, 1999) and the National Strategy for Suicide Prevention (U.S. Department of Health and Human Services, 2001). These are consistent with the call for comprehensive suicide prevention programs (Kalafat, 1997, 2003) and include steps to improve public awareness about suicide, community involvement in suicide prevention, cross-system referrals, suicide prevention/intervention training programs, and suicide prevention research. However, the development, implementation, and evaluation of comprehensive suicide prevention programs aiming to build community safety nets for at-risk individuals could be challenging. Therefore, this expert panel aims to address the following questions: (1) what are community safety nets, (2) what are the challenges to building and sustaining community safety nets, (3) what is considered a successful gatekeeper training program at the individual, organizational, and community level, (4) what are the challenges in recruiting training participants and evaluating the effectiveness of gatekeeper training programs.

Presentation Description:

Suicide remains a serious public health problem. Consequently, a number of recommendations for suicide prevention have been outlined in the Surgeon General's Call to Action to Prevent Suicide (U.S. Public Health Service, 1999) and the National Strategy for Suicide Prevention (U.S. Department of Health and Human Services, 2001). These are consistent with the call for comprehensive suicide prevention programs (Kalafat, 1997, 2003) and include steps to improve public awareness about suicide, community involvement in suicide prevention, cross-system referrals, suicide prevention/intervention training programs, and suicide prevention research. However, the development, implementation, and evaluation of comprehensive suicide prevention

programs aiming to build community safety nets for at-risk individuals could be challenging. Therefore, this expert panel aims to address some of the issues related to building community safety nets and specifically answer the following questions: (1) what are community safety nets, (2) what are the challenges to building and sustaining community safety nets, (3) what is considered a successful gatekeeper training program at the individual, organizational, and community level, (4) what are the challenges in recruiting training participants and evaluating the effectiveness of gatekeeper training programs.

The following suicide prevention specialists have accepted the invitation to participate in this panel, as listed in alphabetical order: Colleen Carpenter (Indiana Suicide Prevention Coalition), Jean Demmler (Heartland Network for Social Research), Eleanor Hamm (Pueblo Suicide Prevention Center), Sheila K. Linwood (Western Colorado Suicide Prevention Foundation), Jeremy M. Martinez, (Colorado Department of Public Health and Environment).

Summaries of panel members' perspectives:

Colleen Carpenter: A safety net from a suicide prevention perspective entails making sure that all systems that work with people are aware and trained to identify those exhibiting warning signs and are skilled enough to intervene. Those systems also need plans/protocols for how to deal with the aftermath of a suicide. Getting these systems working together is difficult, though working with each one individually is feasible, but very resource intensive. On an individual level, program success is knowledge acquisition, skill building, and confidence to directly approach and intervene with someone exhibiting suicide warning signs. On an organizational level, successful outcomes would be to have all staff trained and utilizing the skills. From a state coalition perspective, having the myriad of systems (schools, mental health, law enforcement, Hospital ERs, physicians, corrections, faith-based leaders) trained and utilizing the skills. This is also what community level success would entail. The Frameworks Project model has been successful in accomplishing this—it brings together the entire community to work toward [youth] suicide prevention in a comprehensive way (prevention, intervention, and postvention).

Jean Demmler: Ten communities have been funded by the Colorado Trust in the Preventing Suicide in Colorado Initiative (PSIC) to build community safety nets through implementation of community-based suicide prevention plans. These safety nets are founded on a logic model that connects the dots of education/awareness, screening, risk assessment, referral, therapy/counseling, follow-up and postvention.

Success outcomes of gatekeeper training are individuals performing the role of identifying the signs and symptoms of persons at-risk of suicide and connecting these individuals with appropriate informal and professional support/treatment. Organizational success outcomes include unbarred access to risk assessment, therapy/counseling follow-up and postvention services. Successful gatekeeping is only possible if mental health care organizations provide timely and culturally appropriate services to individuals who seek help. Community-level success outcomes would include reduction in rates of suicide deaths and attempts, rates of hotline calls used by potential suicide attempters and completers and rates of gatekeeper trainees and interventions within a defined community. PSIC evaluation results provide findings that a key component in the community-based plans have been ASIST and QPR gatekeeper trainings and, most

important, persons who are trained as gatekeepers are likely to perform this important role.

One challenge to building community safety nets revealed in the evaluation is recruiting persons for gatekeeper training who are not already employed in human services or education. Another challenge is crafting gatekeeper training curricula that are most relevant and effective for trainees of specific racial/ethnic groups, geographic areas or ages.

Eleanor Hamm: Building a community safety network involves all significant crisis agencies working from the same page in emergency intervention and having an agreement or plan on how they work together, so that an intervention is handled as quickly and smoothly as possible. The individual gatekeeper should have an awareness and confidence in their ability to identify and refer high risk individual. The organization should have the same awareness & confidence on how to handle the referral of high risk individuals and a commitment as an agency to be actively involved in helping to make sure that their gatekeeper staff have the proper training and support. The organization should see itself as being an important element in the Community Safety Network Plan. The community (being the collective group of significant agencies), along with the significant community powers, have a commitment to work at making sure the Community Safety Network Plan works and is significant enough to require a full community commitment and involvement. This group should include mental health and human service agencies, law enforcement, hospitals, corrections, city & county government, schools, ministers and the general public.

Sheila K. Linwood: I believe suicide is a multi factorial problem. My many years in law enforcement taught me that it is completely individual to each person. However, there are a number of pre-cursers we are familiar with that help us to tune into what might be going on with the individual. I have found that it is rarely something catastrophic in nature that has bent someone on suicide. Most times it is a very "minor" (to us) event that is all encompassing for the person. For instance, an elderly gentleman's mail had stopped without reason. He was going to complete suicide because that made him feel unvalued and uncared for. It turned out to be a gliche by the Post Master. People need to know that the solution to suicide is rarely as climactic as "grabbing a gun out of someone's hands,", it is mostly having the mail turned back on. Truly, anyone can save a life, if they just get involved.

Jeremy M. Martinez: A Community Safety Net includes all adults who are knowledgeable about the issue of suicide, knowledgeable about the resources for suicidal people and understand the responsibility of follow up with a person identified as suicidal. This community also understands that suicide prevention starts far before ideation and attempts occur. The Safety Net is built by a common knowledge. That knowledge is used to build expected behaviors. The community members hold each other accountable for those expectations. A success of a suicide prevention program at the individual level is a level of knowledge and behavior expectation that leads to people not only noticing the signs of suicide, but having the confidence to step up and act upon it. This includes the understanding that he/she will have to lose some personal and professional time, but the safety of the other is more important. At the organizational level success includes understanding and organizational support to ensure a proper handling. The community

level success will be a realized necessity to accept a “hand off” of the person in need and continue the work from there.

Title:
Comparison of Online and Face-to-Face Gatekeeper Training

Authors:
Paige C. Gardner, B.A., J. Taylor Moore, B.A., Konstantin P. Cigularov, Ph.D., Stefanie E. Putter, B.A., Julie M. Sampson, B.A., Julie Maertens, M.S., Peter Y. Chen, Ph.D., Paul Quinnett, Ph.D., Aaron Baker, Psy.D.

Educational Objective:
At the conclusion of this presentation, participants should have knowledge and understanding of the results and implications of a comparison of the online and face-to-face versions of the QPR gatekeeper training.

Abstract:
The need for suicide prevention gatekeeper training, as an effective suicide prevention strategy, has been well-recognized. To address this need, a new consideration is being given to using the Internet as an effective and efficient medium for conducting gatekeeper trainings. The goal of the current study was to compare the online version of the QPR gatekeeper training with its traditional face-to-face counterpart. Our results indicated that participants in both online and face-to-face QPR demonstrated similar post-test gains in knowledge, self-efficacy, and intentions to question a potentially suicidal individual. These gains tended to decline at a follow-up six months later. However, online participants showed less declines in their gains in self-efficacy and intentions after six months compared to their face-to-face counterparts. Overall, the findings of this initial study are promising for the utility of the online QPR training. If future evaluations replicate and extend these initial findings, then online gatekeeper training may have an advantage over face-to-face training due to decreased training costs and increased administration flexibility.

Presentation Description:
Over the last several decades, ardent efforts have been made to address the fact that suicidal behavior remains a significant public health problem (AAS, 2006; Anderson & Smith, 2003; Apter & Wasserman, 2003). One such endeavor has been the development of suicide prevention gatekeeper training programs, such as Question, Persuade, and Refer (QPR: Quinnett, 2007). Initial research has provided support for the effectiveness of such programs (e.g., Tierney, 1994), and specific evaluations of QPR have also shown promising results (e.g., Moore et al., 2008; Wyman et al., 2008).

These training programs are typically conducted via face-to-face format; however, new consideration is being given to online formats (Stone et al., 2005). Research suggests that the online format of training could be as effective as the traditional face-to-face, classroom format (Sitzmann, Kraiger, Stewart, & Wisher, 2006). In terms of suicide prevention, online training represents a viable option to address the well-recognized need for gatekeeper training (Quinnett, 2007; U.S. Department of Health and Human Services, 2001). The use of the flexible, cheaper, and easy-to-use internet technology (Long, DuBois & Faley, 2008) has the potential to make gatekeeper training more available, and accessible to both individuals and organizations. Thus, the current study is a first effort to

evaluate the effectiveness of the online QPR gatekeeper training compared to its traditional, face-to-face version. Based on past training research (Sitzmann et al., 2006), it is expected that the online and face-to-face QPR training versions will be equally effective in terms of improvements in knowledge, self-efficacy, and intentions to engage in suicide intervention.

Method

Participants and Procedure

QPR training participants included 107 individuals who participated in the online training and 853 individuals who participated in face-to-face training sessions. The majority of training participants were female (72% of online participants, 70% of face-to-face participants). Trainees completed surveys before and after the training. A follow-up survey was completed six months later by 50.5% of the online participants and 13.5% of the face-to-face participants.

Measures

Training outcomes included knowledge, self-efficacy, and intentions to engage in suicide intervention. Knowledge was assessed with seven multiple-choice questions. Self-efficacy to intervene with a suicidal individual was measured by a 3-item scale and behavioral intentions to ask a potentially suicidal individual if he/she is contemplating suicide were measured by a 2-item scale. Response categories for both self-efficacy and behavioral intentions ranged from 1 “Strongly Disagree” to 5 “Strongly Agree.”

Training Program

QPR is a 90-minute training program which aims to teach community members how to recognize a suicide emergency. Following the training, such ‘gatekeepers’ should know how to effectively Question the validity of suicidal communications, as well as how to Persuade and Refer someone at-risk to the next level of intervention (Quinnett, 2007).

Results

A series of 2 × 3 ANOVAs were conducted to test the effect of training medium (face-to-face, online), the effect of time (pre, post, and 6-month follow-up), and the training medium by time interaction on knowledge, self-efficacy, and behavioral intentions to question a suicidal individual.

For knowledge, a significant main effect was found for time, $F(2, 152) = 81.41$, $p < .001$, but the main effect for training medium and the interaction between time and training medium were not significant. Additional analyses revealed that post-test scores were significantly higher than pre-test scores, but scores declined from post-test to 6-month follow-up for both types of training.

For self-efficacy, a significant main effect was found for time, $F(2, 152) = 130.96$, $p < .01$, but the main effect for training medium was not significant. A significant interaction was found for self-efficacy by training medium, $F(2, 152) = 8.75$, $p < .01$. Self-efficacy at post-test was significantly higher for online training participants as compared to face-to-face participants. Post-test scores were significantly higher than pre-test scores for both face-to-face and online training participants. Six-month follow-up scores were significantly lower than post-test scores for both face-to-face and online training participants.

For behavioral intentions, the main effect for time was significant $F(2, 152) = 31.10$, $p < .01$, but the main effect for training medium and the interaction of time by

training medium were not significant. Further analyses indicated that post-test scores were significantly higher than pre-test scores. For the face-to-face training participants, 6-month follow-up scores were significantly lower than post-test scores. For the online participants, follow-up scores did not differ from post-test scores.

Discussion

The results of the current study indicated that the participants in both face-to-face and online QPR trainings followed similar patterns of change in knowledge related to suicide intervention. We found some differences in terms of self-efficacy and behavioral intentions which warrant further exploration. Immediately following the training, participants demonstrated gains on all of these dimensions, but these gains tended to decline after six months. These declines were more pronounced in the self-efficacy and intentions of face-to-face QPR participants. Future research should examine ways of maintaining these effects over time, as well as other important training outcomes.

Overall, the results of this study are promising for the utility of the online QPR training. If future evaluations replicate and extend these initial findings, then online gatekeeper training may have an advantage over face-to-face training due to decreased training costs and increased administration flexibility (Long et al., 2008).

Title: A Longitudinal Evaluation of Gatekeeper Training

Authors:
J. Taylor Moore, B.A., Konstantin P. Cigularov, Ph.D., Peter Y. Chen, Ph.D., Jeremy M. Martinez, B.A., Jarrod Hindman, M.S., & Shannon Breitzman, M. A.

Abstract:
Suicide prevention gatekeeper training programs have demonstrated their effectiveness in improving knowledge, attitudes, and referral practices following the completion of training (e.g., Cross, Matthieu, Cerel, & Knox, 2007). However, many of these evaluations only measure outcomes immediately after training and do not follow-up with participants. In the current study, we demonstrate the process of conducting a longitudinal evaluation of a community-based gatekeeper training program and discuss the value of measuring the effects of training longitudinally. In our evaluation we employ the internal referencing strategy (IRS, Haccoun & Hamtiaux, 1994). This approach overcomes some of the ethical, legal, and practical constraints that have be challenges in conducting a practical yet rigorous evaluation. Our evaluation results demonstrates that a significant amount of knowledge is retained and high behavioral intentions are maintained 3-months following training. However, high levels of self-efficacy that are achieved upon completion of training are not maintained 6-months following training. Therefore future research should investigate strategies to support gatekeepers after they have completed the training in order to help them maintain high levels of confidence.

Presentation Description:
Suicide prevention gatekeeper training programs have demonstrated their effectiveness in improving knowledge, attitudes, and referral practices following the completion of training (e.g., Cross, Matthieu, Cerel, & Knox, 2007). However, many of these evaluations only measure outcomes immediately after training and do not follow-up with participants. However, we know that only about 10 percent of what is learned in training is transferred into behavior on the job (Georgenson, 1982). Thus a longitudinal evaluation of suicide prevention gatekeeper training programs will determine whether participants are able to retain the knowledge learned in training and maintain high levels of self-efficacy and behavioral intentions.
In the current study, we conduct a longitudinal evaluation of a community-based gatekeeper training program, Applied Suicide Intervention Skills Training (ASIST) and discuss the value of measuring the effects of training longitudinally. In this evaluation we employ the internal referencing strategy (IRS, Haccoun & Hamtiaux, 1994) as a practical yet rigorous evaluation approach. The IRS approach is used to determine whether change has occurred as a result of the training. It entails the inclusion of two sets of questions in the evaluation surveys. The first set of questions covers relevant material that is trained, while the second set consists of also training-relevant questions, which, however, are not covered in the training. The latter questions could be conceptually considered as control questions. Consequently, training effectiveness is inferred when participants improve from pre-test to post-test on the trained questions, but show little or no change on the untrained questions.
Method

As part of Colorado Project Safety Net, 513 individuals, who attended 30 ASIST trainings in 6 different counties in Colorado, participated in the current evaluation study. Their ages ranged from 21-67 years old, with a mean age of 38.8. A majority of the participants were female (81%) and Caucasian (76%). The evaluation surveys were administered at the beginning

of the training, at the end of the training, and at two follow-ups: three and six months following training.

The following three outcomes were examined in this study: (1) knowledge about suicide and suicide intervention, (2) self-efficacy to intervene, and (3) behavioral intentions to ask about suicide and suicidal thoughts. These outcome variables were chosen based on the content and objectives of the ASIST training program. Knowledge was measured by 10 multiple-choice knowledge questions - six of them covered in the training. Two knowledge scores were computed, for the trained and the untrained (IRS) questions. Self-efficacy was measured by 2 items, which assessed the degree of confidence participants felt in intervening with a suicidal individual. An additional 2 IRS items assessed self-efficacy in relation to intervening with a homicidal individual. Finally, behavioral intentions were also measured with 2 items. Except for the knowledge test, all items were answered on a 5-point Likert scale from 1=Strongly Disagree to 5=Strongly Agree.

Results

First, a series of 4 × 2 ANOVAs were conducted to test the within factor Time (pre, post, 3-mo follow-up, 6-mo follow-up), within factor Items (trained vs. untrained), and interaction Time× Items. Interpretation of the results focused on the interaction effects because they revealed whether ASIST participants improved on the trained questions, while showing no or little improvement on the untrained questions across time.

For knowledge, the results indicated a significant main effect for Time, $F(2, 274) = 45.30$, $p < .01$, partial $\eta^2 = 0.25$, a significant main effect for Items, $F(1, 137) = 102.94$, $p < .01$, partial $\eta^2 = 0.43$, and a significant interaction effect between Time and Items, $F(2,274) = 51.73$, $p < .01$, partial $\eta^2 = 0.27$. Post hoc analyses revealed that for the trained items there was a significant increase from pre-test to post-test ($t(408) = -29.22$, $p < .01$), but a significant decrease from post-test to 3-mo follow-up ($t(141) = 6.30$, $p < .01$). However, the 3-mo follow-up knowledge score was still significantly higher than the pre-test level of knowledge ($t(142) = -7.30$, $p < .01$).

For self-efficacy, the results indicated a significant main effect for Time, $F(3, 204) = 48.01$, $p < .01$, partial $\eta^2 = 0.41$, a significant main effect for Items, $F(1, 68) = 173.32$, $p < .01$, partial $\eta^2 = 0.72$, and a significant interaction effect between Time and Items, $F(3, 204) = 43.16$, $p < .01$, partial $\eta^2 = 0.39$. Post hoc analyses revealed that for the trained items there was a significant increase from pre-test to post-test ($t(398) = -22.34$, $p < .01$). Self efficacy was maintained from pre-test to the 3-mo follow-up, but a significant decrease from 3-mo to 6-mo follow-up ($t(78) = 19.40$, $p<.01$). In fact, self-efficacy level at 6-mo follow-up was significantly lower than pre-test levels of self-efficacy ($t(115) = 3.46$, $p < .01$).

In addition, for behavioral intentions the results indicated a significant main effect for Time, $F(3, 156) = 43.55$, $p < .01$, partial $\eta^2 = 0.46$, meaning that trainees' intentions to ask increased from pre-training to post-training ($t(358) = -16.89$, $p<.01$) and were maintained through the six month follow-up ($t(78) = -1.19$, *n.s.*)

Discussion

This longitudinal evaluation of a suicide prevention gatekeeper training program demonstrates the need to look at the long-term effects of the program. This evaluation demonstrates that a significant amount of knowledge is retained 3-months following training. Behavioral intentions are also maintained 3- and 6-months following training. However, high levels of self-efficacy that are achieved upon completion of training are not maintained 6-months following training. Because self-efficacy is a key predictor of intervention behavior, it is

necessary to investigate strategies to support and encourage gatekeepers after they have completed the training.

Title: Is it my job to prevent suicide? Perspectives of health care professionals

Authors:
J. Taylor Moore, B.A., Konstantin P. Cigularov, Ph.D., Peter Y. Chen, Ph.D., & Sheila Linwood, MBA

Abstract:

A number of researchers have acknowledged that health care professionals are in a prime position to identify persons who are at risk for suicide (e.g., Conwell et al., 2000). While a number of studies have examined the attitudes of health care professionals about suicide (e.g., Domino, Shen, & Su, 2000), few have assessed health care professionals' perceptions specifically about intervening with a potentially suicidal individual. In the current study, we examined health care professionals' perceptions of their role in suicide intervention. Overall, our results revealed positive reactions of the participants to the training. Furthermore, the majority of health care professionals believed that they had responsibility for suicide intervention; felt confident about identifying and intervening with individuals at risk of suicide; and were not concerned about time conflict and legal consequences. In addition, almost half of the respondents thought that other professionals should be more active in the prevention of suicide. The findings indicate that suicide intervention is seen as part of health care professionals' work and that gatekeeper trainings may be well received by them.

Presentation Description:

Suicide completions and suicide attempts in the US continue to be a major public health concern. Despite many attempts at alleviating this problem, suicide remains the eleventh leading cause of death in the United States, resulting in an average of 31,100 deaths annually (Suicide Prevention Resource Center, 2007). Many of those individuals who complete a suicide have been in contact with a primary care physician within the last 30 days before the suicide (Luoma, Martin, & Pearson, 2002). Therefore, a number of researchers have acknowledged that health care professionals are in a prime position to identify persons who are at risk for suicide (Conwell et al., 2000; Montano, 1999; Pearson et al., 1999; Rihmer, 1996; Rihmer et al., 1995). The US Public Health Service (1999) has even highlighted suicide interventions in primary care settings as a priority. Consequently, a number of studies have examined the attitudes of health care professionals about suicide (e.g., Domino, Shen, & Su, 2000), but few have assessed health care professionals' perceptions specifically about intervening with a potentially suicidal individual.

In the current study, we examined the perceptions of health care professionals who had attended a QPR training (Quinnett, 1995) tailored to the primary care setting. We were interested in health care professionals' perceptions of their role in suicide intervention. Specifically, we were interested in their perceptions of the utility of the QPR training, perceptions of responsibility for suicide intervention, time constraints and liability concerns for intervention, and confidence for intervening.

Method

Fifty health care professionals attended an hour long QPR that had been tailored for the primary care setting. Upon completing the training, half (n = 25) of the attendees chose to complete a brief 10-item survey to assess their perceptions of the training and of suicide intervention more generally. The health care professionals who completed the survey represented primarily Staff Physicians (n = 19). There were also two residents, one nurse, and three participants who endorsed the "other" category.

The participants rated their level of agreement on the ten items on a Likert scale ranging from 1 ("Strongly disagree") to 6 ("Strongly agree"). 'Perceived usefulness of the training' and 'perceived responsibility for suicide intervention' were each assessed with three items; 'time constraints for suicide intervention' and 'liability of suicide intervention' were each assessed with one item. Two items were used to assess confidence to intervene with a potentially suicidal individual.

Results

For perceived usefulness of the training, 92% of the participants believed the training had practical value and was relevant to their work. However, only 76% of the participants believed that the training would influence their ability to perform their job.

For perceived responsibility for suicide intervention, 96% of the participants believed that they were in a position to identify and refer potentially suicidal individuals and 88% believed that suicide prevention was part of their job. However, 44% of participants believed that it should be the responsibility of other professionals to get involved in preventing their patient from committing suicide.

Seventy-two percent of participants did not believe that a time constraint would prevent them from intervening with a suicidal patient. Only 12% of participants were concerned about legal consequences for intervening with a suicidal patient.

The majority of participants also felt confident about recognizing warning signs (88%) and intervening with a potentially suicidal individual (83%).

Discussion

This study assessed the perceptions of 25 health care professionals about the utility of a brief gatekeeper training program, which they attended, as well as their perceptions about suicide intervention. Overall, our results revealed positive reactions of the participants to the training. Furthermore, the majority of health care professionals believed that they had responsibility for suicide intervention; felt confident about identifying and intervening with individuals at risk of suicide; and were not concerned about time conflict and legal consequences. In addition, almost half of the respondents thought that other professionals should be more active in the prevention of suicide. The findings indicate that suicide intervention is seen as part of health care professionals' work and that gatekeeper trainings may be well received by them. In light of the recognition that health care professionals are key gatekeepers, who are in need for training in the identification and management of suicide and depression (Sudak et al., 2007; U.S. Department of Health and Human Services, 2001), these results have important implications for suicide

prevention efforts. However, future research should extend this study's findings with larger and more representative samples before drawing conclusions.

Running Head: SITUATIONAL OBSTACLES

Roles of Situational Obstacles and Support in Suicide Prevention

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ABSTRACT

This study investigated situational obstacles at work that prevent suicide prevention gatekeepers from engaging in suicide prevention behavior. It also examined the role of support at work in predicting the relationship between situational obstacles and suicide prevention behaviors. The results indicated that situational obstacles were negatively related to suicide prevention behavior, and that support was positively related to suicide prevention behavior. There was also a trend that support from supervisors and the organization may alleviate the adverse effect of situational obstacles on suicide prevention behavior. The implications for suicide prevention and future research direction are discussed.

Roles of Situational Obstacles and Support in Suicide Prevention

Recent suicide prevention efforts have focused on training individuals, known as gatekeepers, to recognize a crisis and the warning signs that a person may be contemplating suicide and to refer that person for assessment and care (Quinnett, 2007). While gatekeeper suicide prevention trainings (e.g., Applied Suicide Intervention Skills Training and Question, Persuade, Refer) come in different formats, the common purpose of these trainings is to teach gatekeepers to recognize suicide warning signs, discuss suicidal intent, offer hope, and refer the person in crisis to appropriate services.

Although effectiveness of these trainings in improving knowledge, attitudes, and referral practices has been documented (e.g., Cross, Matthieu, Cerel, & Knox, 2007; Stuart, Waalen, & Haelstromm, 2003), their effects do not seem to be lasting. For instance, it has been shown that gatekeeper training showed a decline in knowledge of suicide intervention skills six months after the training (Moore, 2008). These findings have been consistently found in the job training literature that recognize the failure of trainees' applying what they learned in training to real world situations, known as training transfer (Baldwin & Ford, 1988). It has been estimated that only about 10 percent of what is learned in training has been transferred into behavioral changes on the job (Georgenson, 1982). Thus, it is imperative to investigate the factors that prevent gatekeepers from applying the learned knowledge and skills after the training to intervene with potentially suicidal individuals.

The extent to which a gatekeeper transfers learned knowledge and skills after training is likely influenced by factors encountered outside the training setting. Arguably, even motivated trainees who intend to apply the skills they learned during training may sometimes be discouraged, inhibited, or prevented from doing so by external factors encountered outside of the

training settings (Mathieu & Martineau, 1997; Tannenbaum & Yukl, 1992). Furthermore, most gatekeepers are employed within organizations that provide some sort of social service (e.g., counselor, social worker, probation officer). However, suicide prevention tends to be a secondary "job" for most gatekeepers. Therefore there is a need to understand to what extent situational obstacles at work would impede gatekeepers' suicide prevention behaviors. While situational obstacles at work likely prevent gatekeepers from playing their role, not all gatekeepers are failing to act. One potential factor that may alleviate the adverse impacts of situational obstacles may be support from co-workers, supervisors, and the organization.

The present study attempted to achieve three goals: (1) examine the adverse effects of situational obstacles on gatekeepers' suicide prevention behaviors, (2) examine the positive effect of support on suicide prevention behaviors, and (3) examine the buffering role of support to reduce the adverse effect of situational obstacles on suicide prevention behavior.

Situational Obstacles for Gatekeepers

Situational obstacles are workplace factors that directly or indirectly hinder the application of gatekeepers' knowledge and skills acquired in the gatekeeper training to real world situations. These obstacles are beyond the control of the gatekeepers and lie within workplace in which the gatekeepers must perform preventive behaviors (e.g., persuade suicidal individuals and refer them to receive adequate mental health services). Arguably, even motivated gatekeepers who intend to perform suicide prevention behaviors may be discouraged, inhibited, or prevented from doing so by these situational obstacles (Mathieu & Martineau, 1997; Tannenbaum & Yukl, 1992).

According to a recent meta-analysis, situational obstacles at work are negatively related to job performance (Gilboa, Shirom, Fried, & Cooper, 2008). Extending from the above

findings, it is likely that situational obstacles, such as a lack of resources for suicide prevention in an organization, arising from the work environment may inhibit or prevent gatekeepers from identifying or referring suicidal individuals at work. Thus, I propose the following hypothesis:

Hypothesis 1: Situational obstacles at work will be negatively related to gatekeepers' suicide prevention behavior.

Support from Co-workers, Supervisors, and Organization

Support is defined here as the encouragement by co-workers, supervisors, and the organization to apply the knowledge and skills learned in gatekeeper training to the real world. Thus, support from co-workers, supervisors, and the organization can facilitate performance of suicide prevention behaviors by encouraging gatekeepers for applying skills learned in training. In fact, the training transfer literature has demonstrated a positive relationship between support and training transfer (Quinones, Ford, Sego, & Smith, 1995; Cromwell & Kolb, 2004). Therefore, we expect that support from co-workers, supervisors, and the organization will encourage gatekeepers to apply what they learned in training in order to identify and refer suicidal individuals. Thus, I propose the following hypothesis:

Hypothesis 2: Support from co-workers, supervisors, and organization will be positively related to suicide prevention behaviors.

Support may also play a protective role against the negative effects of situational obstacles. Cohen and Wills (1985) posit that support works as a buffer by preventing stressors (i.e., stressful events such as situational obstacles) from developing into strains (psychological, physiological, or behavioral responses to stressors) or by mitigating the adverse effects of stressful events. Thus, it is expected that there is a strong stressor-strain relationship when support is low, and a weak or no stressor-strain relationship when support is high. In their meta-

analysis of the social support literature, Viswesvaran, Sanchez, and Fisher (1999) found evidence for the moderating effect of social support on the stressor-strain relationship. Furthermore, social support has been shown to impact work performance by buffering the negative effects of high strains (Karasek, 1979; Karasek, Triantis, & Chaudry, 1982). Therefore, for gatekeepers we expect that support will buffer the deleterious effects of situational obstacles, resulting in performance of suicide prevention behaviors. Following the above reasoning, support from coworkers, supervisors, or organizations would likely buffer impacts of situational obstacles that are faced by gatekeepers. Thus, I propose the following buffering hypothesis:

> *Hypothesis 3*: Support from coworkers, supervisors, or organizations will moderate the relationship between situational obstacles and suicide prevention behavior. Specifically, the strength of the negative relationship between situational obstacles and suicide prevention behaviors will be stronger when support from coworkers, supervisors, or organizations is low compared to when support is high.

Method

Participants & Procedure

Eight hundred sixty-eight gatekeepers who had previously completed a gatekeeper training (ASIST or QPR) were invited to participate in an on-line survey about situational obstacles they have encountered in the workplace. After receiving two reminder emails, each a week apart, a total of 226 participants had completed the survey. However, 33 participants did not provide their job title, and were dropped from further analyses leaving 193 participants with complete data. The final response rate for participants with complete data out of those participants who received the recruitment email was 22%. Participants were primarily female

(67.4%) and Caucasian (74.1%), with an average age of 39.5. A majority of participants were employed as counselors, probation officers, social workers, and teachers.

The participants in the current study were selected from a database of gatekeepers in a larger evaluation study of the effectiveness of gatekeeper trainings. Using a unique code number, the data collected in this study was linked to the previously collected variables, self-efficacy for suicide prevention, intentions to intervene with a suicidal individual, and usefulness of training. These variables were chosen because past research has shown the association between these variables and behaviors after training (e.g., Cheng & Ho, 2001).

There was a significant difference in the distribution of genders between non-respondents and respondents, χ^2 (1, N =158) = 4.82, with the ratio of women-to-men responders greater than the ratio of women-to-men non-responders. No mean differences were found on self-efficacy for suicide prevention and intentions to intervene with a suicidal individual between respondents and non-respondents. Respondents, however, significantly rated the training as more useful (M = 3.60) than non-respondents (M = 3.47).

Measures

Situational Obstacles. Situational obstacles were measured with a modified version of the Organizational Constraints Scale (OCS; Spector & Jex, 1998). Five of the items were modified from the OCS and a sixth item was derived based on feedback from focus groups during survey development. The final scale contained six items with six response categories ranging from 1 (*strongly disagree*) to 6 (*strongly* agree). These obstacles are: "Information about how to appropriately identify and refer suicidal individuals is not available in my organization," "There is a lack of resources for suicide prevention in my organization," "Co-workers would not 'cover for me' when I am dealing with a person in crisis," "There is not enough time at work to

adequately perform the role of gatekeeper," "There is not enough privacy at work to talk with an individual who may be at risk of suicide," and "My job does not allow me to use the knowledge and skills that I learned during gatekeeper training ". Internal consistency reliability was .71.

Support from Co-workers, Supervisors, and the Organization

Co-worker and supervisor support were measured with five items adapted from a training transfer climate scale (Krauss, 2005), with six response categories ranging from 1 (*strongly disagree*) to 6 (*strongly* agree). An example item for co-worker support is: "My co-workers would not appreciate if I displayed knowledge and skills on the job that I learned during gatekeeper training." An example item for supervisor support is: "My supervisor and I never discuss specific ideas about how to apply my knowledge and skills from the gatekeeper training to my current job." All items were reverse scored so that a higher score indicated greater support from co-workers or supervisors. Internal consistency reliabilities were .56 and .57, for co-worker and supervisor support, respectively.

Organizational support was measured using six items modified from the 36-item survey of perceived organizational support (Eisenberger, Huntington, Huntington, & Sowa, 1986). Three additional items developed specifically for this study were added. The nine items had six response categories ranging from 1 (*strongly disagree*) to 6 (*strongly* agree). An example item is: "The organization does not value my contribution to suicide prevention efforts." Higher scores indicated greater social support. Internal consistency reliability was .90.

Suicide Prevention Behavior. Suicide prevention behavior was measured with four items developed for the purposes of this study. These four items represented four types of suicide prevention behaviors that gatekeepers may perform following training. Each behavioral outcome was more distal from what is taught in training, but more representative of application of skills.

Participants were asked to indicate the number of times that they performed each of the four suicide prevention behaviors, which were (1) “Using the knowledge and skills learned in training,” (2) “Sharing knowledge with others,” (3) “Screening individuals,” and (4) “Providing mental health services.”

Results

Descriptive statistics, including means, standard deviations, possible ranges, and actual ranges are presented in Table 1. Situational obstacles were positively skewed such that participants in this study tended to experience moderate to low levels of situational obstacles. The distributions for co-worker, supervisor, and organizational support were all negatively skewed such that most participants perceived high support from co-workers, supervisors, and the organization.

The number of participants, means, standard deviations, percentage of agreement, and mean differences for each of the six situational obstacles are presented in Table 2. The situational obstacles that participants agreed occurred in their workplace most frequently were “There is not enough time at work to adequately perform the role of gatekeeper” (25.39%), “There is a lack of resources for suicide prevention in my organization” (21.24%), and “There is not enough privacy at work to talk with an individual who may be at risk of suicide” (21.76%). The results of pairwise comparisons (controlling the experimentwise alpha at the .05 level) demonstrate that the situational obstacle, “There is not enough time at work to adequately perform the role of gatekeeper” occurred significantly more often than the other 5 situational obstacles.

Relationship between Situational Obstacles and Suicide Prevention Behavior

The correlations between situational obstacles, support (co-worker, supervisor, and organization), and the four suicide prevention behaviors are also presented in Table 1. Overall,

situational obstacles were negatively related to all four of the suicide prevention behaviors, providing support for Hypothesis 1.

Relationship between Support and Suicide Prevention Behavior

Among the three types of social support, social support from supervisors and the organization were significantly related to all four suicide prevention behaviors, as predicted, which partially supports Hypothesis 2. There were no significant relationships between co-worker support and suicide prevention behaviors. Therefore co-worker support will be dropped from the subsequent moderated regression analyses.

Interaction of Support with Situational Obstacles

To investigate whether support moderates the relationship between situational obstacles and suicide prevention behaviors, the hierarchical regression procedures outlined by Cohen, Cohen, West, and Aiken (2003) were followed. One of four suicide prevention behaviors was, in turn, regressed on situational obstacles and one of two supports (supervisor and organization). At the second step, an interaction term of situational obstacles by either supervisor or organizational support was entered. The predictor variables were centered at their means for ease of interpretation. Of the eight analyses conducted, three significant interactions were found (Table 3). However, the interaction patterns were opposite of what was predicted in Hypothesis 3.

These unexpected results may be attributed to the suppression effect (Cohen, et al., 2003) indicated by increase of regression coefficients for support from Step 1 to Step 2. To further examine the proposed pattern, situational obstacles-suicide prevention behaviors relationships varied under different levels of support, a sub-group comparison approach was conducted. Specifically, if the negative correlation between situational obstacles and suicide prevention behaviors is stronger under low level of support than under high level of support, there is

evidence of an interaction. First, high support and low support sub-groups were created based on the median scores of supervisor and organization support. Participants with support scores above the median were placed in the high support group, and vice versa.

Differences in the correlations between situational obstacles and each of the four suicide prevention behaviors for participants with low social support (supervisor and organization) and high social support were tested. None of these sub-group comparisons were statistically significant. However, the expected pattern of correlations was found. Specifically, the negative correlations between situational obstacles and suicide prevention behaviors were stronger (more negative) for the low support group compared to the high support sub-group. For example, the negative correlation between situational obstacles and "used knowledge and skills from training" was stronger for the low support group (r = -.16) compared to the high support group (r = -.08).

Discussion

The goal of the current study was to investigate whether situational obstacles at work and support from co-workers, supervisors, and the organization were related to gatekeepers' suicide prevention behaviors, and if support moderates the relationship between situational obstacles and suicide prevention behaviors. These results showed negative relationships between situational obstacles and suicide prevention behaviors, suggesting that situational obstacles may play an important role to impede gatekeepers to perform suicide prevention behaviors. In addition, the results revealed positive relationships between social support from supervisor and organization and suicide prevention behaviors, which further suggests that supervisors and organizations would play an important role in fostering suicide prevention efforts. Finally, the sub-group comparisons showed the expected trend, although non-significant, between situational obstacles and suicide prevention behavior for high versus low levels of support.

Although co-worker support was not significantly related to suicide prevention behaviors in this study, it was significantly and negatively related to five of the six situational obstacles. These results suggest that co-worker support may be in good positions to reduce some of the obstacles, which may lead to an increase of suicide prevention behaviors. However, it is also possible that an increase in situational obstacles would lead to a decrease in support from co-workers because there is little that a co-worker can do to control the situational obstacles. Therefore, co-worker support may have little impact on suicide prevention behaviors. Given the non-significant relationships between coworker support and suicide prevention behaviors were found in the present study, the latter explanation seems plausible. Whatever the reason may be, there is a need to untangle the relationship between co-worker support and suicide prevention behaviors in future research.

Implications

Given that the primary goal of the gatekeeper training programs is to strengthen the referral process through improvement of suicide prevention skills, this study attempted to investigate what factors might be detrimental to suicide prevention behaviors. Our findings suggest that the desired effects of a gatekeeper training program may be attenuated if gatekeepers encounter situational obstacles at work. Therefore, efforts should also be made to remove or reduce situational obstacles. One potential strategy to strengthen gatekeeper training programs is to discuss how to deal with expected situational obstacles beyond gatekeepers' control. Acknowledgement that situational obstacles will likely be encountered after training will give gatekeepers a forewarning and likely decrease their impact on suicide prevention behavior. Furthermore, the gatekeeper training could minimize the impact of situational obstacles by allowing participants to generate practical solutions to prepare for the potential challenges and

rehearse strategies for overcoming these obstacles. However, removal of some situational obstacles is often beyond their control, and other strategies will be necessary to reduce the impact.

Our findings that support from supervisors is related to suicide prevention behaviors suggest a second potential avenue for intervention. Improving the support from supervisors may result in more suicide prevention behaviors. One way to achieve this outcome is through increased interactions among workers and their supervisors. Zohar (2002) found that an increase in the number of verbal exchanges daily between supervisor and worker resulted in improved safety performance. Simply by interacting with workers, these supervisors send messages to workers that they care for them. Using this approach for gatekeepers may have the effect of increasing suicide prevention behaviors.

A third potential place to intervene is at the organizational level by reshaping the organizational climate (i.e., the shared perceptions of employees within an organization regarding the policies and procedures and what types of behaviors are supported in the work setting, Reichers & Schneider, 1990). While organizational climate was not measured in this study, our conceptualization of organizational support is related to the concept of organizational climate. One mechanism to change organizational climate is that management commits to remove situational obstacles.

Limitations

Although the current study contributes to the understanding of factors that may impede suicide prevention behaviors at work, several limitations of the research must be considered. First, the results of this study may not be generalized to all suicide prevention gatekeepers because participants tend to be female and satisfied with the training. In addition, the response

rate (22%) obtained in this internet-based survey was lower than the average (34.6%) based on a recent meta-analysis (Cook, Heath, & Thompson, 2000). According to Cook et al., factors associated with higher response rates were the number of times participants are contacted, personalizing the letters used to contact participants, and sending out a letter before sending the actual survey to let participants know that it will be coming. In the present study participants were contacted 3 times with personalized recruitment letter (e.g., with the participants name in the greeting line such as Dear John Smith). It has been suggested that making the survey relevant to the participant is an important factor that impacts response rate (Heberlein & Baumgartner, 1978). In the future studies, it will be important to emphasize more about the importance of their responses to strengthen suicide prevention efforts in their communities.

Second, this study used cross-sectional, self-report data to assess situational obstacles, social support, and suicide prevention behavior. Future studies should consider using different approaches to assess these constructs. Situational obstacles, for example, might be measured through subjective reports from supervisors, co-workers, and gatekeepers. This would allow for a triangulation of measurement strategies that would give a clearer picture of the actual obstacles present. Additional measure of support or interactions can be assessed by observing or recording number of interactions between worker and supervisor (Zohar, 2003). Suicide prevention behaviors can also be assessed by supervisors, or recorded across time. In sum, the above limitations may inflate or deflate the associations found in the present study, and need to be replicated in the future research with a strong design such as utilizing a longitudinal design that would help to untangle the observed relationship between situational obstacles, social support, and suicide prevention behavior.

Future Research

The measurement issues in the current study, noted above, along with the mixed support for the buffering hypothesis suggest a need for further investigation of situational obstacles for gatekeepers with improved measurement techniques. While this study demonstrates a link between supervisor/organizational support and suicide prevention behavior, co-worker support was not related. The lack of a positive relationship is not consistent with previous research, which indicates that co-worker support facilitates performance (e.g., Rouiller & Goldstein, 1993). Future research should investigate specific providers that gatekeepers' seek out for support to determine the importance of support from different sources (i.e., co-worker, supervisor). Social network analysis may be applied to understand the web of ties or structure of a social network among support providers and recipients. This approach would answer questions such as how many connections between a gatekeeper and his/her support providers, how frequently do they use each of their connections (i.e., how strong each connection is), or which support providers a gatekeeper is most likely to seek out for support.

The focus of this study has been on the situational factors that impede the performance of gatekeepers. However, situational obstacles were only able to explain a small portion of the variance in performance, at best 13%. Thus, future research should investigate other barriers of gatekeeper performance. For instance, social cognition models such as the theory of planned behavior (Ajzen, 1991) and the health promotion model (Pender, 1975, have identified key factors that could shed lights on the changes of suicide prevention behaviors .

According to the theory of planned behavior (TPB; Ajzen, 1988), intentions are the most immediate and strongest predictor of behavior, especially when the behavior is under volitional control (Sheppard, Hartwick, & Warshaw, 1988). Intentions in turn are jointly affected by the individuals' attitudes toward the behavior, by their perceptions of the existent attitudes toward

the behavior and/or pressures to perform the behavior of people close to the individual (i.e., subjective norms), as well as by the extent of perceived control over the successful performance of the behavior (i.e., perceived behavioral control). More favorable attitudes, subjective norms, and the greater the perceived behavioral control result in stronger intentions to perform the desired behavior, which in turn increase the likelihood of performing the behavior (Ajzen, 1991). In the context of predicting suicide prevention behaviors, gatekeepers' favorable attitudes about suicide prevention, their perceived pressures to perform suicide prevention from those close to them and their confidence in their ability to perform suicide prevention behaviors will likely result in stronger intentions to perform suicide prevention behaviors. There is considerable support for the usefulness of the TPB model in predicting behavior. A meta-analytical review of the literature found that the TPB variables accounted for 27% of the variance in behavior (Armitage & Conner, 2001). However the predictive validity of the TPB varies greatly depending on the nature of the focal behavior.

In addition to the TPB, the Health Promotion Model (HPM; Pender, 1975) provides an additional venue to examine factors that may facilitate or hinder suicide prevention behaviors. Similar to the TPB, the HPM includes perceived behavioral control, attitudes, and subjective norms as predictors of behavioral intentions. Perceived behavioral control is broken down into perceived control of behavior and perceived self-efficacy. Subjective norms are broken down into interpersonal influences and situational factors. The situational factors of the HPM are similar to the situational obstacles investigated in current study and interpersonal influences could be social support, also investigated in the current study. However, there are two notable additions to the TPB framework: cognitive appraisal of the benefits and barriers. Benefits and barriers are essentially a cost/benefit analysis of the pros and cons for performing a behavior.

According to HPM, intentions to perform suicide prevention behavior as well as actual behaviors are expected to be predicted by favorable attitudes about suicide prevention, along with favorable social norms about suicide prevention and favorable perceptions that suicide prevention is under one's own control, plus there is a cognitive appraisal of the benefits and barriers to performing the behavior. In sum, a multi-factor suicide prevention model which combines the factors outlined in these two models would provide fruitful research directions to investigate why and how suicide prevention behaviors can be improved. In addition, this line of research will help to determine the relative importance of each factor, which then points to specific target areas for intervention.

An additional factor to consider in the future research is to understand the decision making process for a gatekeeper. According to Latane and Darley (1970), a person must make five decisions before they will engage in an act of helping another person. The five decisions are: 1) notice the situation, 2) interpret the situation as an emergency, 3) decide to take personal responsibility, 4) decide how to help, and 5) decide to implement decision. In the context of suicide prevention, the situation to be noticed would be a distressed person who is sending out signs of suicide. One factor that may affect whether the sign is noticed by gatekeepers is the physical environment in which the potential suicidal person is encountered. For example, people in urban environments are less helpful than people in rural settings (Hedge, & Yousif, 1992; Yousif & Korte, 1995) because of stimulus overload (Milgram, 1970). People in urban environments are more focused on personally relevant events in order to avoid being inundated with irrelevant environmental cues. Following this line of thought, gatekeepers in an urban environment may be less likely to notice a suicidal person in need of help. Another factor that

may impact whether an event is noticed is mood. Strong evidence suggests that individuals in a good mood are more attentive (McMillen, Sanders, & Solomon, 1977).

The second stage in the decision process, interpreting the situation as an emergency, is dependent on characteristics of the event. When a victim makes their need for help clear with overt distress cues, such as screams, people are more likely to help than when no such cues are present (Piliavin & Callero, 1991). This finding is particularly important in the context of suicide prevention because suicidal individuals may not display overt distress cues such as screams, but are more likely to display relatively subtle cues. Thus a suicide prevention gatekeeper's ability to interpret more subtle distress cues is imperative to interpreting the situation as an emergency (crisis). Another factor that will determine whether the situation is interpreted as an emergency is the reactions of other bystanders. Typically the presence of other people will result in inhibition of helping (Latane, Nida, & Wilson, 1981). When reacting to and interpreting an emergency situation, people will first react in a calm manner in order to not appear foolish. However, when others are present people will then look to each other to interpret the situation and everyone else seems calm and collected. This resulting state of pluralistic ignorance means that everyone decides the event is not an emergency based on the calm reactions of everyone else. However, when the expressions of others show alarm or concern, pluralistic ignorance is avoided and helping behavior occurs (Wilson, 1976).

Deciding to take responsibility to help is the third step in the decision process. The presence of others, as with the previous step, can also affect whether an individual accepts responsibility to help. Diffusion of responsibility occurs when a group of people witness an event and each individual believes that another person in the group will help (Darley & Latane, 1968). In a classic experiment (Darley & Latane, 1968), participants hear another participant (actually a

confederate) having what sounds like a seizure. Some of the participants believe that they are participating with only one other person, the person having the seizure. Others believe that they are participating with two other participants and therefore one other person knows about the participant having a seizure. A third group of participants believe that they are participating with five others, four of which knew about the seizure. As hypothesized, participants were less likely to help with the greater number of bystanders. In the context of suicide prevention, potentially suicidal individual may be recognized as such, but the gatekeeper may diffuse the responsibility to help when he or she believes that there are other gatekeepers present to intervene or help.

The final two steps in Latane and Darley's decision model have not been as extensively researched as the first three. The fourth step, knowledge of appropriate form of assistance, has been supported with findings that people trained in first aid give more medically effective help than those not trained (Shotland & Heinold, 1985). Gatekeeper trainings such as ASIST and QPR provide gatekeepers with the appropriate knowledge to help a suicidal individual. However, whether or not that knowledge is accessible to the individual at the time of crisis or is displayed as an appropriate skill will depend partly on whether positive transfer of gatekeeper training has occurred

The final step in the decision model is to implement the decision, or to perform the helping behavior. Latane & Darley (1970) suggest that danger to self, legal concerns, and embarrassment may prevent bystanders from acting in an emergency situation. However no research has singled out the effects of these barriers on implementing the decision directly. This decision model described above provides a broad framework that is valuable in understanding the process that a suicide prevention gatekeeper undergoes when identifying and referring potentially suicidal individuals. Investigating the barriers at each stage of the decision making

process for gatekeepers will shed light on potential areas for improvement to existent suicide prevention gatekeeper models as well as suicide prevention programs.

In sum, based on our findings, implications of the TPB and HP models, as well as Latane and Darley's (1970) decision model, it is extremely important to recognize that obstacles of suicide prevention exist at individual, family, organizational, as well as community levels. Thus, taking a systems approach to understand various obstacles at multiple levels that impact gatekeepers' ability to perform suicide prevention behaviors will give us a better opportunity to assist gatekeepers in performing their role, and with the goal to reduce suicides.

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Table 1

Descriptive Statistics and Correlations for All Variables

	Mean	SD	Possible Range	Actual Range	Correlations							
					1	2	3	4	5	6	7	8
1. Situational Obstacles	12.92	4.58	8.00 - 48.00	6.00 - 25.00	(.71)							
2. Co-Worker Support	4.94	1.01	1.00 - 6.00	1.00 - 6.00	-.30*	(.56)						
3. Supervisor Support	4.64	0.95	1.00 - 6.00	1.67 - 6.00	-.53*	.40*	(.57)					
4. Organization Support	4.29	1.01	1.00 - 6.00	1.67 - 6.00	-.58*	.31*	.63*	(.90)				
5. Used Knowledge & Skills from Training	2.26	1.18	1.00 - 6.00	1.00 - 6.00	-.21*	.14*	.30*	.17*	NA			
6. Shared Knowledge with Others	3.23	1.05	1.00 - 5.00	1.00 - 5.00	-.24*	.07	.39*	.22*	.54*	NA		
7. Screened Individuals	3.63	12.02	any whole number	0 - 100	-.16*	-.05	.20*	.15*	.49*	.25*	NA	
8. Provided Mental Health Services	5.24	13.88	any whole number	0 - 100	-.22*	-.05	.22*	.21*	.54*	.32*	.61*	NA

Note: Values on diagonal in parentheses contain coefficient alphas.

* $p < .05$

Table 2.

Sample Size, Mean, Standard Deviation, and Pair Comparisons for Individual Situational Obstacle Items

Situational Obstacle	N	Mean	SD	% Agree*
There is not enough time at work to adequately perform the role of a gatekeeper.	193	2.52	1.30	25.39
There is a lack of resources for suicide prevention in my organization.	193	2.49 [a]	1.28	21.24
There is not enough privacy at work to talk with an individual who may be at risk of suicide.	193	2.24 [a]	1.33	21.76
Information about how to appropriately identify and refer suicidal individuals is not available in my organization.	193	2.22 [a]	1.22	15.03
My job does not allow me to use the knowledge and skills that I learned during gatekeeper training.	193	1.82 [a,b,c,d]	1.01	6.74
Co-workers would not "cover for me" when I am dealing with a person in crisis.	193	1.63 [a,b,c,d]	0.97	6.74

Note. Alpha was controlled for all pairwise comparisons at .05, two-tailed according to the Dunn critical values.
* % Agree was calculated by collapsing the response categories “strongly agree”, “agree”, and “slightly agree” into one category indicating agreement.
[a] Mean difference from “There is not enough time at work to adequately perform the role of a gatekeeper.”
[b] Mean difference from “There is a lack of resources for suicide prevention in my organization.”
[c] Mean difference from “There is not enough privacy at work to talk with an individual who may be at risk of suicide.”
[d] Mean difference from “Information about how to appropriately identify and refer suicidal individuals is not available in my organization.”

Table 3

Moderated Regression Results

Dependent Variable	Independent Variable	Step 1 *B*	Overall *B*	ΔR^2	Total R^2
Used knowledge and skills from training	Situational Obstacles	-0.45	-0.44	0.03*	0.12*
	Supervisor Support	1.71	1.94		
	Situational Obstacles X Supervisor Support		-0.56		
Used knowledge and skills from training	Situational Obstacles	-0.04	-0.04	0.03*	0.08*
	Organization Support	0.09	0.11		
	Situational Obstacles X Organization Support		-0.04		
Provided Mental Health Services	Situational Obstacles	-0.02	-0.02	0.04*	0.10*
	Organization Support	0.33	0.34		
	Situational Obstacles X Organization Support		-0.04		

* $p < 0.05$

Appendix C: ASIST Evaluation Materials

COLORADO STATE PROJECT SAFETY NET
ASIST Training Workshop Survey - Baseline

The Colorado State Project Safety Net is interested in collecting information from individuals who participate in different suicide prevention training activities. The intent of this survey is to collect information that will assist the Project in addressing issues associated with suicide prevention in Colorado communities. Your participation is voluntary and all of your responses will be kept confidential. Thank you for your participation and cooperation!

CODE NUMBER: (The code number is used to track surveys and assures the confidentiality of the respondents.)

What are the **two digits of the month of your birth date**? ____ ____

What are the **two digits of the day of your birth date**? ____ ____

What is the **last digit of your Social Security Number**? ____

SECTION 1. This first section contains a list of multiple-choice questions intended to assess your knowledge about suicide and suicide prevention. Please select the best response by circling the appropriate letter. Please circle only ONE response. If uncertain, feel free to guess.

1. Key caregiver tasks in the first phase of the Suicide Intervention Model are:

   (a) engaging and identifying

   (b) asking and assessing

   (c) exploring and asking

   (d) listening and contracting

2. The most important component reviewing a person's current suicide plan is:

   (a) stated seriousness

   (b) age

   (c) degree of preparation

   (d) apparent distress

3. One of the factors that is believed to account for differences in the suicide rates of different countries is:

   (a) climate

   (b) religious affiliation and beliefs

   (c) prevalence of mental disorders

   (d) governmental regulation regarding suicide

4. Which of the following is NOT a core task of a caregiver trained in the Suicide Intervention Model?
   (a) asking about suicide
   (b) following-up on commitments
   (c) providing psychological counseling
   (d) listening to reasons for dying and living

5. The most common suicide method in Australia is:
   (a) firearms
   (b) hanging
   (c) overdose
   (d) cutting

6. Which of the following phases comprise the Suicide Intervention Model?
   (a) recognizing, diagnosing, treating
   (b) connecting, understanding, assisting
   (c) prevention, intervention, postvention
   (d) primary, secondary, tertiary

7. Which of the following provides the more important information in reviewing the risk of suicide?
   (a) symptoms
   (b) stress
   (c) resources
   (d) physical health

8. About what percentage of people who die by suicide use alcohol just prior to the act?
   (a) 10%
   (b) 20%
   (c) 35%
   (d) 60%

9. Among teenagers who attempt suicide:
   (a) about 3% die the first time, and about half will try again
   (b) about 3% die the first time, and about 10% will try again
   (c) less than 1% die the first time, and about half will try again
   (d) less than 1% die the first time, and about 10% will try again

10. If someone admits to feeling suicidal, a caregiver should next:

    (a) calmly inquire about what is happening in their life

    (b) listen to their reasons for dying

    (c) inform significant others

    (d) arrange for immediate referral

SECTION 2. This section contains a list of statements of what you may think or believe about suicide prevention. Please read each statement and use the rating scale below to indicate the degree to which you agree or disagree with it. <u>There are no right or wrong answers.</u> It is important that you answer all statements according to your beliefs and not what you think others may want you to believe.

Please circle the letter(s) that best describe(s) your response	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
11. If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.	SD	D	N	A	SA
12. If a person's words and/or behavior suggest the possibility of suicide, I would ask the person directly if he/she is thinking about suicide.	SD	D	N	A	SA
13. If someone told me they were thinking of suicide, I would intervene.	SD	D	N	A	SA
14. If I became aware that somebody had suicidal thoughts and feelings over the next few months, I would try to find help for this person.	SD	D	N	A	SA
15. I feel confident in my ability to help a suicidal person.	SD	D	N	A	SA
16. I don't think I can prevent someone from suicide.	SD	D	N	A	SA
17. I don’t feel competent to help a person at risk of suicide.	SD	D	N	A	SA
The next three statements refer to your beliefs about <u>homicide</u> prevention.					
18. I feel confident in my ability to intervene with a homicidal person.	SD	D	N	A	SA
19. I don't think I can prevent someone from committing homicide.	SD	D	N	A	SA
20. I don’t feel competent to intervene with a homicidal person.	SD	D	N	A	SA

COLORADO STATE PROJECT SAFETY NET
ASIST Training Workshop Survey - Post

The Colorado State Project Safety Net is interested in collecting information from individuals who participate in different suicide prevention training activities. The intent of this survey is to collect information that will assist the Project in addressing issues associated with suicide prevention in Colorado communities. Your participation is voluntary and all of your responses will be kept confidential. Thank you for your participation and cooperation!

CODE NUMBER: (The code number is used to track surveys and assures the confidentiality of the respondents.)

What are the **two digits of the month of your birth date**? ____ ____

What are the **two digits of the day of your birth date**? ____ ____

What is the **last digit of your Social Security Number**? ____

SECTION 1. This first section contains a list of multiple-choice questions intended to assess your knowledge about suicide and suicide prevention. Please select the best response by circling the appropriate letter. Please circle only ONE response. If uncertain, feel free to guess.

1. Key caregiver tasks in the first phase of the Suicide Intervention Model are:

   (a) engaging and identifying

   (b) asking and assessing

   (c) exploring and asking

   (d) listening and contracting

2. The most important component reviewing a person's current suicide plan is:

   (a) stated seriousness

   (b) age

   (c) degree of preparation

   (d) apparent distress

3. One of the factors that is believed to account for differences in the suicide rates of different countries is:

   (a) climate

   (b) religious affiliation and beliefs

   (c) prevalence of mental disorders

   (d) governmental regulation regarding suicide

4. Which of the following is NOT a core task of a caregiver trained in the Suicide Intervention Model?
   (a) asking about suicide
   (b) following-up on commitments
   (c) providing psychological counseling
   (d) listening to reasons for dying and living

5. The most common suicide method in Australia is:
   (a) firearms
   (b) hanging
   (c) overdose
   (d) cutting

6. Which of the following phases comprise the Suicide Intervention Model?
   (a) recognizing, diagnosing, treating
   (b) connecting, understanding, assisting
   (c) prevention, intervention, postvention
   (d) primary, secondary, tertiary

7. Which of the following provides the more important information in reviewing the risk of suicide?
   (a) symptoms
   (b) stress
   (c) resources
   (d) physical health

8. About what percentage of people who die by suicide use alcohol just prior to the act?
   (a) 10%
   (b) 20%
   (c) 35%
   (d) 60%

9. Among teenagers who attempt suicide:
   (a) about 3% die the first time, and about half will try again
   (b) about 3% die the first time, and about 10% will try again
   (c) less than 1% die the first time, and about half will try again
   (d) less than 1% die the first time, and about 10% will try again

10. If someone admits to feeling suicidal, a caregiver should next:

    (a) calmly inquire about what is happening in their life

    (b) listen to their reasons for dying

    (c) inform significant others

    (d) arrange for immediate referral

SECTION2. This section contains a list of statements of what you may think or believe about suicide prevention. Please read each statement and use the rating scale below to indicate the degree to which you agree or disagree with it. <u>There are no right or wrong answers.</u> It is important that you answer all statements according to your beliefs and not what you think others may want you to believe.

Please circle the letter(s) that best describe(s) your response	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
11. If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.	SD	D	N	A	SA
12. If a person's words and/or behavior suggest the possibility of suicide, I would ask the person directly if he/she is thinking about suicide.	SD	D	N	A	SA
13. If someone told me they were thinking of suicide, I would intervene.	SD	D	N	A	SA
14. If I became aware that somebody had suicidal thoughts and feelings over the next few months, I would try to find help for this person.	SD	D	N	A	SA
15. I feel confident in my ability to help a suicidal person.	SD	D	N	A	SA
16. I don't think I can prevent someone from suicide.	SD	D	N	A	SA
17. I don’t feel competent to help a person at risk of suicide.	SD	D	N	A	SA
The next three statements refer to your beliefs about <u>homicide</u> prevention.					
18. I feel confident in my ability to intervene with a homicidal person.	SD	D	N	A	SA
19. I don't think I can prevent someone from committing homicide.	SD	D	N	A	SA
20. I don’t feel competent to intervene with a homicidal person.	SD	D	N	A	SA

SECTION 3. This last section includes questions related to your background and opinions about the training program you just completed. Please mark your responses with an "X."

21. Have you participated in suicide prevention/intervention trainings before? ____ Yes ____ No

Please answer the next two questions only if you marked "Yes" above.

22. In how many suicide prevention/intervention trainings have you participated before? ____

23. In which of the following topics have you received training? (select all that apply)
- ____ suicide risk alerts/warning signs
- ____ suicide statistics
- ____ suicide risk/protective factors
- ____ suicide intervention skills

24. Which of the following roles do you represent? (select all that apply)
- ____ Parent/ Foster Parent/ Caregiver
- ____ Direct mental health service provider
- ____ Teacher or other secondary school staff
- ____ Child welfare staff
- ____ Probation officer or other juvenile justice staff
- ____ Primary care provider (i.e., doctor, nurse)
- ____ University faculty
- ____ University student
- ____ Police officer or other law enforcement staff
- ____ Trainer (i.e., train-the-trainer)
- ____ Other (please describe: _____)

25. How long have you served in this role? *(If you selected more than one role for Question 19, please indicate the number of years for the role that led you to this training.)*

____ years ____ months

26. How did you learn of this training? (select all that apply)
- ____ Supervisor or Administrator of the agency I work for
- ____ Co-worker
- ____ My child's school
- ____ My child
- ____ Media
- ____ Other (please describe: _____)

27. Were you required to participate in this training? ____ Yes ____ No ____ Don't know

28. How do you intend to use what you learned during this training (select all that apply)?
- ____ Screen youth for suicide behaviors (i.e., using a screening tool)
- ____ Increase the general awareness and knowledge of suicide for myself and others
- ____ Identify youth who might be at risk of suicide
- ____ Provide direct services to youth at risk for suicide and/or their families
- ____ Train other staff members

____ Make referrals to mental health services for at risk youth
____ Other (please describe: _____)
____ Don't intend to use what I learned

29. Will the materials you received as part of this training be helpful to you (i.e., manuals, reference materials, etc.)? (select one)

____ Yes ____ No ____ Don't know ____ Didn't receive any materials

30. How would you rate the training? (select one)
____ Below my skill level
____ At my skill level
____ Above my skill level
____ Don't know

Please indicate your agreement with the following statements about the training.

Please circle the letter(s) that best describe(s) your response	**Strongly Disagree**	**Disagree**	**Agree**	**Strongly Agree**	**N/A**
31. The training increased my knowledge about suicide prevention	SD	D	A	SA	NA
32. The training met my needs	SD	D	A	SA	NA
33. The training addressed cultural differences in the youth I intend to serve (i.e., provided different cultural examples, identified different cultures, etc.)	SD	D	A	SA	NA
34. The training was practical to my work and/or my daily life	SD	D	A	SA	NA
35. I fully understand why I attended the training	SD	D	A	SA	NA
36. I am now more ready to help with youth suicide prevention in my community	SD	D	A	SA	NA
37. I will use what I learned from this training	SD	D	A	SA	NA
38. The things I learned will help youth seek help for issues that might lead to suicide (i.e., depression, substance use, etc.)	SD	D	A	SA	NA
39. The things I learned will help prevent youth suicide or reduce the problems that might lead to suicide (i.e., depression, substance use, etc.)	SD	D	A	SA	NA

How satisfied were you with:

Please circle the letter(s) that best describe(s) your response	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	N/A
40. The trainers' knowledge of the training topics?	VD	D	S	VS	NA
41. The trainers' presentation of the training topics?	VD	D	S	VS	NA
42. The building where the training was held?	VD	D	S	VS	NA
43. The location of the training?	VD	D	S	VS	NA
44. Your overall training experience?	VD	D	S	VS	NA

45. Who do you think will benefit from what you learned during this training? (select all that apply)
____ Youth
____ Parents/ Foster Parents/ Caregivers
____ Co-workers
____ Community members
____ Other (please describe: _____)

46. How often do you expect to use what you learned? (select one)
____ Daily
____ One time a month or more
____ At least once per year
____ Less than once per year or never

47. What did you like most about the training?

48. What did you like least about the training?

Background Information

49. What is your gender?
____ Male ____ Female ____ Transgender ____ Other

50. What is your age? ____

51. Are you Hispanic or Latino (select one)? ____ Yes ____ No

51a. If Yes, which group represents you? Are you … (select one or more)
____ Mexican, Mexican-American, or Chicano
____ Puerto Rican
____ Cuban
____ Dominican
____ Central American
____ South American

52. What is your race (select one or more)?
____ American Indian or Alaska Native
____ Asian
____ Black or African American
____ Native Hawaiian or Other Pacific Islander
____ White

Protocol for 3-month Follow-up Survey

NOTE: The 3-month follow-up script should be read word-for-word to the ASIST participants you call. The only way we can ensure all participants are exposed to the same conditions is for you to follow the instructions carefully, especially when interacting with participants. Remember, standardization is critical to conducting this evaluation, so it is extremely important that you follow these instructions.

Three Month Follow-up Script Starts Here:
Before making the phone call have the email ready to send. When you reach the participant, click the send button.

If you do not reach participant and get their voicemail turn to last page and follow Protocol for Leaving a Message.

Hello (name of interviewee), my name is (your name) and I am working with the Colorado State Project Safety Net Team. You completed the ASIST training program approximately 3 months ago, in which you learned about suicide intervention and prevention skills.

Because you agreed to participate in follow-up surveys 3 and 6 months after the training, would you please spend 10 minutes to answer a few follow-up questions?

IF NO: When would be a better time to reach you?
IF YES: Thank them and continue with script.

Just to remind you a little bit about the project, the Colorado State Project Safety Net Team is interested in collecting information from individuals who participate in different suicide prevention training activities. Your participation in this survey will help us to validate the training program you participated in, which in turn will allow your community to continue to receive funding in the future for suicide prevention efforts. Your participation is voluntary and all of your responses will be kept confidential.

We would like to thank you in advance for your participation and cooperation. Do you have any questions for me before we begin?

IF NO: Continue with the script.
IF YES: Answer question and then continue with the script.

So you know what to expect, there is both a phone portion and an online portion to this survey. Both portions will take less than 10 minutes to complete. I will stay on the phone with you while you access the online survey just to make sure you are able to.

Let’s get started with the phone portion of the survey. There are ten multiple choice questions and you just need to tell me the letter of the response you choose. Feel free to ask me to repeat a question.

First question,
1. Key caregiver tasks in the first phase of the Suicide Intervention Model are:

(a) engaging and identifying
(b) asking and assessing
(c) exploring and asking
(d) listening and contracting

The next question is,
The most important component reviewing a person's current suicide plan is:
(a) stated seriousness
(b) age
(c) degree of preparation
(d) apparent distress

The third question is,
One of the factors that is believed to account for differences in the suicide rates of different countries is:
(a) climate
(b) religious affiliation and beliefs
(c) prevalence of mental disorders
(d) governmental regulation regarding suicide

Next question,
Which of the following is NOT a core task of a caregiver trained in the Suicide Intervention Model?
(a) asking about suicide
(b) following-up on commitments
(c) providing psychological counseling
(d) listening to reasons for dying and living

You are already halfway through! The next question is,
The most common suicide method in Australia is:
(a) firearms
(b) hanging
(c) overdose
(d) cutting

Next question,
Which of the following phases comprise the Suicide Intervention Model?
(a) recognizing, diagnosing, treating
(b) connecting, understanding, assisting
(c) prevention, intervention, postvention
(d) primary, secondary, tertiary

Next question,
Which of the following provides the most important information in reviewing the risk of suicide?
(a) symptoms

(b) stress
(c) resources
(d) physical health

Question 8,
About what percentage of people who die by suicide use alcohol just prior to the act?
(a) 10%
(b) 20%
(c) 35%
(d) 60%

Second to last question. Complete this sentence.
Among teenagers who attempt suicide:
(a) about 3% die the first time, and about half will try again
(b) about 3% die the first time, and about 10% will try again
(c) less than 1% die the first time, and about half will try again
(d) less than 1% die the first time, and about 10% will try again

Last question!
If someone admits to feeling suicidal, a caregiver should next:
(a) calmly inquire about what is happening in their life
(b) listen to their reasons for dying
(c) inform significant others
(d) arrange for immediate referral

Thanks! That completes the multiple-choice portion. Before doing the online portion of the follow-up I have a few additional questions for you about using the ASIST training.

First, have you used what you learned in ASIST to intervene with a suicidal person since training?

Yes

What was most difficult when using ASIST to help this person?

No

Imagine you have had to intervene with a suicidal person, what would prevent you from using what you learned in ASIST?

Thank you for this information. This is the end of the phone portion of the follow-up survey. Please access the email I sent to you earlier; it contains the link to the online portion of the survey. If you don’t have it, I can send it to you right now.

Troubleshooting: If they did not receive the email: verify email address and send email again if necessary.
Troubleshooting: If they do not have access to a computer: Ask them: Well, would you please complete the online portion in the next 24 hours.
I will wait on the phone while you access the survey, just to make sure you are able to access it. (We have had compatibility issues in the past.)

What do you see on the screen? (Participant: “Colorado Project Safety Net”…or Code Number)

Once participant says they have accessed the survey, say: Go ahead and complete it. Thank you again for your time today. While your responses will be kept confidential, they are of great help to this worthwhile project! We will try to contact you in another 3 months for the last follow-up survey. Thanks again and have a great day! Bye.

COLORADO STATE PROJECT SAFETY NET
ASIST Training Workshop Survey – 3 Month Follow-Up

The Colorado State Project Safety Net is interested in collecting information from individuals who participated in ASIST training. The intent of this survey is to collect information that will assist the Project in addressing issues associated with suicide prevention in Colorado communities. Your participation is voluntary and all of your responses will be kept confidential. Thank you for your participation and cooperation!

CODE NUMBER: (The code number is used to track surveys and assures the confidentiality of the respondents.)

What are the **two digits of the month of your birth date**? ____ ____

What are the **two digits of the day of your birth date**? ____ ____

What is the **last digit of your Social Security Number**? ____

SECTION I. This section contains a list of statements of what you may think or believe about suicide prevention. Please read each statement and use the rating scale below to indicate the degree to which you agree or disagree with it. <u>There are no right or wrong answers.</u> It is important that you answer all statements according to your beliefs and not what you think others may want you to believe.

Please circle the letter(s) that best describe(s) your response	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
11. If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.	SD	D	N	A	SA
12. If a person's words and/or behavior suggest the possibility of suicide, I would ask the person directly if he/she is thinking about suicide.	SD	D	N	A	SA
13. If someone told me they were thinking of suicide, I would intervene.	SD	D	N	A	SA
14. If I became aware that somebody had suicidal thoughts and feelings over the next few months, I would try to find help for this person.	SD	D	N	A	SA
15. I feel confident in my ability to help a suicidal person.	SD	D	N	A	SA
16. I don't think I can prevent someone from suicide.	SD	D	N	A	SA
17. I don’t feel competent to help a person at risk of suicide.	SD	D	N	A	SA

The next three statements refer to your beliefs about homicide prevention.					
18. I feel confident in my ability to intervene with a homicidal person.	SD	D	N	A	SA
19. I don't think I can prevent someone from committing homicide.	SD	D	N	A	SA
20. I don't feel competent to intervene with a homicidal person.	SD	D	N	A	SA

SECTION II. In this last section we would like to know about your experiences helping young people. For this evaluation, young person is considered someone who is 22-year-old or younger.

21. Have you directly intervened with a young person who showed signs of being suicidal in the last three months?

• Yes • No

Please answer the remaining questions only if you circled "Yes" above.

22. How many young people, who showed signs of being suicidal, did you directly intervene with in the last three months? _____

In how many of these instances did you … (please write actual number, e.g., 0, 1, 2):

23. … ask them directly if they were thinking about harming themselves or attempting suicide? _____

24. … encourage them to talk about their reasons for dying? _____

25. … encourage them to talk about their reasons for living? _____

26. … ask them questions to find out about their suicide plan? _____

27. … ask them questions to find out if they felt alone and what resources were (un)available to them (e.g., family and friends)? _____

28. … ask them if they had attempted suicide before? _____

29. … contract a safeplan with them? _____

30. … refer them to get further help? _____

31. … follow-up with them later? _____

THANK YOU FOR YOUR HELP!

COLORADO STATE PROJECT SAFETY NET
ASIST Workshop Survey – 6 Month Follow-Up

The Colorado State Project Safety Net is interested in collecting information from individuals who participated in ASIST training. The result of this survey will assist the Project in addressing suicide prevention issues in Colorado communities. Your participation is voluntary and all of your responses will be kept confidential. Thank you again for your consistent participation and support!

CODE NUMBER: (The code number is used to connect your prior surveys and assures your confidentiality)

What are the **two digits of the month of your birth date**? ____ ____

What are the **two digits of the day of your birth date**? ____ ____

What is the **last digit of your Social Security Number**? ____

In what county was the training you participated in?

• CU-Boulder • El Paso County • Larimer County • Mesa County • Pueblo County • Weld County

What is your age (in years)? ___

SECTION I. This section contains a list of statements of what you may think or believe about suicide prevention. Please read each statement and use the rating scale below to indicate the degree to which you agree or disagree with it. <u>There are no right or wrong answers.</u> It is important that you answer all statements according to your beliefs and not what you think others may want you to believe.

Please circle the letter(s) that best describe(s) your response	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1. If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.	SD	D	N	A	SA
2. If a person's words and/or behavior suggest the possibility of suicide, I would ask the person directly if he/she is thinking about suicide.	SD	D	N	A	SA
3. If someone told me they were thinking of suicide, I would intervene.	SD	D	N	A	SA
4. If I became aware that somebody had suicidal thoughts and feelings over the next few months, I would try to find help for this person.	SD	D	N	A	SA
5. I feel confident in my ability to help a suicidal person.	SD	D	N	A	SA

6. I don't think I can prevent someone from suicide.	SD	D	N	A	SA
7. I don't feel competent to help a person at risk of suicide.	SD	D	N	A	SA
The next three statements refer to your beliefs about <u>homicide</u> prevention.					
8. I feel confident in my ability to intervene with a homicidal person.	SD	D	N	A	SA
9. I don't think I can prevent someone from committing homicide.	SD	D	N	A	SA
10. I don't feel competent to intervene with a homicidal person.	SD	D	N	A	SA

SECTION II. In this section we ask about your experiences with using and applying the ASIST-related knowledge and skills after you completed the training.

11. How often did you use the knowledge and skills that you obtained in ASIST since you completed it approximately 6 months ago?

Never *Once in a while* *Sometimes* *Quite often* *Frequently, if not always* *Extremely often*

12. Over the last six months I have increased others' general awareness and knowledge of suicide.

Strongly Disagree *Disagree* *Neutral* *Agree* *Strongly Agree*

13. How many times in the last six months have you screened individuals for suicide behaviors with a screening tool (please write actual number, e.g., 0, 1, 2)

14. How many times in the last six months have you provided mental health services to individuals at risk for suicide and/or their families (please write actual number, e.g., 0, 1, 2)

15. How many times in the last six months have you discussed the ASIST training with others (please write actual number, e.g., 0, 1, 2) [If 0, skip to 15*c*.]
    a. With whom did you discuss the training? (check all that apply)

    Coworker who attended *Spouse, significant other, partner* *Friend, non-coworker*
    Family member *Coworker who did not attend* *Children*
    *Other (please specify):*_____

    b. Through which means of communication did you discuss the training? (check all that apply)

    Phone/text messages *Email/internet* *Face-to-Face*

        i. If you check face-to-face above, where did the discussion take place? (check all that apply)

        Home
        Work/office
        Outside work (excluding home) (please specify): _____
        School

Other (please specify): _____

c. What factors make it difficult to discuss the training with others? Please list. (open-ended question)

16. How many times in the last six months have you shared training materials with others (please write actual number, e.g., 0, 1, 2) [If 0, skip to 16*c*.]
    a. With whom did you share the training materials? (check all that apply)

Coworker who attended *Spouse, significant other, partner* *Friend, non-coworker*
Family member *Coworker who did not attend* *Children*
*Other (please specify):*_____

    b. Through which means of communication did you share the training materials with others? (check all that apply)

Email/internet *Regular Mail* *Face-to-Face*

i. Where did it take place? _____

Home
Work/office
Outside work (excluding home) (please specify): _____
School
Other (please specify): _____

    c. What factors make it difficult to share the training materials with others?

17. How many times in the last six months have you suggested to someone else that they may benefit from attending the training? (please write actual number, e.g., 0, 1, 2) [If 0, skip to 18.]
    a. To whom did you suggest the training? (check all that apply)

Coworker who attended *Spouse, significant other, partner* *Friend, non-coworker*
Family member *Coworker who did not attend* *Children*
*Other (please specify):*_____

    b. Through which means of communication did you suggest the training? (check all that apply)

Phone/text messages *Email/internet* *Face-to-Face*

SECTION III. In this last section we would like to know about your experiences helping young people specifically. For the following questions, young person is considered someone who is 22-year-old or younger.

18. Have you directly intervened with a young person who showed signs of being suicidal <u>in the last three months</u>?

• Yes • No

Please answer the remaining questions only if you circled "Yes" above.

19. How many young people, who showed signs of being suicidal, did you directly intervene with <u>in the last three months</u>? (please write actual number, e.g., 0, 1, 2)

In how many of these instances did you … (please write actual number, e.g., 0, 1, 2):

20. . … ask them directly if they were thinking about harming themselves or attempting suicide? _____

21. . … encourage them to talk about their reasons for dying? _____

22. . … encourage them to talk about their reasons for living? _____

23. . … ask them questions to find out about their suicide plan? _____

24. . … ask them questions to find out if they felt alone and what resources were (un)available to them (e.g., family and friends)? _____

25. . … ask them if they had attempted suicide before? _____

26. . … contract a safeplan with them? _____

27. . … refer them to get further help? _____

28. . … follow-up with them later? _____

THANK YOU FOR YOUR HELP!

Appendix D: QPR Evaluation Materials

COLORADO STATE PROJECT SAFETY NET
QPR Survey - Baseline

CODE NUMBER: (The code number is used to track surveys and assures the confidentiality of the respondents)

What are the **two digits of the month of your birth date**? ____ ____

What are the **two digits of the day of your birth date**? ____ ____

What is the **last digit of your Social Security Number**? ____

SECTION 1. This first section contains eight questions intended to assess your knowledge about suicide and suicide prevention. Please select the best response by circling the appropriate letter. Please circle only ONE response. If uncertain, feel free to guess.

1. The number one contributing cause of suicide is:

(a) untreated major depressive disorder (a medical illness)

(b) acute and severe stress

(c) rejection by a loved one

(d) alcoholism, especially if the person has recently been diagnosed with terminal cancer

2. Since persons in an acute suicidal crisis often feel bad and cannot sleep, 3 to 5 ounces of an alcoholic drink is recommended.

(a) True (b) False

3. Suicide affects mostly poor people and those having financial difficulties.

(a) True (b) False

4. If you intercept a suspected suicidal communication (clue, warning sign, suspicious statement or threat), which of the following questions should be avoided:

(a) You're not thinking of killing yourself, are you?

(b) Are you thinking about suicide?

(c) Are you feeling so bad you'd like to go to sleep and never wake up?

(d) Have you ever wished you were dead?

5. The most commonly identified psychological state of those who take their own lives has been found to be:

(a) hallucinations (b) sadness (c) anger (d) humiliation (e) hopelessness

6. Asking a distressed person if he or she is having thoughts of death or suicide:

(a) should never be done, as it may put the idea of suicide in the person's mind

(b) should only be done by professionally trained persons

(c) may lower the risk of suicide

(d) should have no effect on the risk for suicide

7. Which of the following statements is most true?

(a) removal of the means of suicide is an important suicide prevention measure

(b) suicide prevention is best left to the experts

(c) only doctors should discuss suicide with people who may be thinking about ending their own lives

(d) drugs and alcohol play only a minor role in suicidal behavior

8. Which of the following is not a possible warning sign of suicide?

(a) giving away prized possessions

(b) a sudden interest or disinterest in religion

(c) talking about suicide

(d) spending lots of money one doesn't have

SECTION 2. This section contains a list of statements of what you may think or believe about suicide prevention. Please read each statement and indicate the degree to which you agree or disagree with it by circling one of the responses on the rating scale below. <u>There are no right or wrong answers.</u> It is important that you answer all statements according to your beliefs and not what you think others may want you to believe.

Please circle the letter(s) that best describe(s) your response	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
9. If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.	SD	D	N	A	SA
10. If a person's words and/or behavior suggest the possibility of suicide, I would ask the person directly if he/she is thinking about suicide.	SD	D	N	A	SA
11. If someone told me they were thinking of suicide, I would intervene.	SD	D	N	A	SA
12. If I became aware that somebody had suicidal thoughts and feelings over the next few months, I would try to find help for this person.	SD	D	N	A	SA
13. I feel confident in my ability to help a suicidal person.	SD	D	N	A	SA
14. I don't think I can prevent someone from suicide.	SD	D	N	A	SA
15. I don't feel competent to help a person at risk of suicide.	SD	D	N	A	SA

SECTION 3. This last section includes questions related to your background. Please mark your responses with an "X."

16. Have you participated in suicide prevention/intervention trainings before? ____ Yes ____ No

Please answer the next three questions only if you marked "Yes" above.

17. In how many suicide prevention/intervention trainings have you participated before? ____

17a. How many hours of suicide prevention/intervention training have you completed prior to this training? ____

18. In which of the following topics have you received training? (select all that apply)

____ suicide risk alerts/warning signs

____ suicide statistics

____ suicide risk/protective factors

____ suicide intervention skills

Background Information

19. What is your gender?

____ Male ____ Female ____ Transgender ____ Other

20. What is your age? ____

21. Are you Hispanic or Latino (select one)? ____ Yes ____ No

21a. If Yes, which group represents you? Are you … (select one or more)

____ Mexican, Mexican-American, or Chicano

____ Puerto Rican

____ Cuban

____ Dominican

____ Central American

____ South American

22. What is your race (select one or more)?
____ American Indian or Alaska Native

____ Asian

____ Black or African American

____ Native Hawaiian or Other Pacific Islander

____ White

THANK YOU FOR YOUR HELP!

COLORADO STATE PROJECT SAFETY NET
QPR Survey - Post

CODE NUMBER: (The code number is used to track surveys and assures the confidentiality of the respondents)

What are the **two digits of the month of your birth date**? ____ ____

What are the **two digits of the day of your birth date**? ____ ____

What is the **last digit of your Social Security Number**? ____

SECTION 1. This first section contains eight questions intended to assess your knowledge about suicide and suicide prevention. Please select the best response by circling the appropriate letter. Please circle only ONE response. If uncertain, feel free to guess.

1. The number one contributing cause of suicide is:

(a) untreated major depressive disorder (a medical illness)

(b) acute and severe stress

(c) rejection by a loved one

(d) alcoholism, especially if the person has recently been diagnosed with terminal cancer

2. Since persons in an acute suicidal crisis often feel bad and cannot sleep, 3 to 5 ounces of an alcoholic drink is recommended.

(a) True (b) False

3. Suicide affects mostly poor people and those having financial difficulties.

(a) True (b) False

4. If you intercept a suspected suicidal communication (clue, warning sign, suspicious statement or threat), which of the following questions should be avoided:

(a) You're not thinking of killing yourself, are you?

(b) Are you thinking about suicide?

(c) Are you feeling so bad you'd like to go to sleep and never wake up?

(d) Have you ever wished you were dead?

5. The most commonly identified psychological state of those who take their own lives has been found to be:

(a) hallucinations (b) sadness (c) anger (d) humiliation (e) hopelessness

6. Asking a distressed person if he or she is having thoughts of death or suicide:

(a) should never be done, as it may put the idea of suicide in the person's mind

(b) should only be done by professionally trained persons

(c) may lower the risk of suicide

(d) should have no effect on the risk for suicide

7. Which of the following statements is most true?

(a) removal of the means of suicide is an important suicide prevention measure

(b) suicide prevention is best left to the experts

(c) only doctors should discuss suicide with people who may be thinking about ending their own lives

(d) drugs and alcohol play only a minor role in suicidal behavior

8. Which of the following is not a possible warning sign of suicide?

(a) giving away prized possessions

(b) a sudden interest or disinterest in religion

(c) talking about suicide

(d) spending lots of money one doesn't have

SECTION 2. This section contains a list of statements of what you may think or believe about suicide prevention. Please read each statement and indicate the degree to which you agree or disagree with it by circling one of the responses on the rating scale below. <u>There are no right or wrong answers.</u> It is important that you answer all statements according to your beliefs and not what you think others may want you to believe.

Please circle the letter(s) that best describe(s) your response	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
9. If someone I knew was showing signs of suicide, I would directly raise the question of suicide with them.	SD	D	N	A	SA
10. If a person's words and/or behavior suggest the possibility of suicide, I would ask the person directly if he/she is thinking about suicide.	SD	D	N	A	SA
11. If someone told me they were thinking of suicide, I would intervene.	SD	D	N	A	SA
12. If I became aware that somebody had suicidal thoughts and feelings over the next few months, I would try to find help for this person.	SD	D	N	A	SA
13. I feel confident in my ability to help a suicidal person.	SD	D	N	A	SA
14. I don't think I can prevent someone from suicide.	SD	D	N	A	SA
15. I don't feel competent to help a person at risk of suicide.	SD	D	N	A	SA

SECTION 3. This last section includes questions related to your background and opinions about the training program you just completed. Please mark your responses with an "X."

16. Which of the following roles do you represent? (select all that apply)
- ____ Parent/ Foster Parent/ Caregiver
- ____ Direct mental health service provider
- ____ Teacher or other secondary school staff
- ____ Child welfare staff
- ____ Probation officer or other juvenile justice staff
- ____ Primary care provider (i.e., doctor, nurse)
- ____ University faculty
- ____ University student
- ____ Police officer or other law enforcement staff
- ____ Trainer (i.e., train-the-trainer)
- ____ Other (please describe: _____)

17. How long have you served in this role? *(If you selected more than one role for Question 19, please indicate the number of years for the role that led you to this training.)*

____ years ____ months

18. How did you learn of this training? (select all that apply)
- ____ Supervisor or Administrator of the agency I work for
- ____ Co-worker
- ____ My child's school
- ____ My child
- ____ Media
- ____ Other (please describe: _____)

19. Were you required to participate in this training? ____ Yes ____ No ____ Don't know

20. How do you intend to use what you learned during this training (select all that apply)?
- ____ Screen youth for suicide behaviors (i.e., using a screening tool)
- ____ Increase the general awareness and knowledge of suicide for myself and others
- ____ Identify youth who might be at risk of suicide
- ____ Provide direct services to youth at risk for suicide and/or their families
- ____ Train other staff members
- ____ Make referrals to mental health services for at risk youth
- ____ Other (please describe: _____)
- ____ Don't intend to use what I learned

21. Will the materials you received as part of this training be helpful to you (i.e., manuals, reference materials, etc.)? (select one)

____ Yes ____ No ____ Don't know ____ Didn't receive any materials

Please indicate your agreement with the following statements about the training.

Please circle the letter(s) that best describe(s) your response	Strongly Disagree	Disagree	Agree	Strongly Agree	N/A
22. The training increased my knowledge about suicide prevention	SD	D	A	SA	NA
23. The training met my needs	SD	D	A	SA	NA
24. The training addressed cultural differences in the youth I intend to serve (i.e., provided different cultural examples, identified different cultures, etc.)	SD	D	A	SA	NA
25. The training was practical to my work and/or my daily life	SD	D	A	SA	NA
26. I fully understand why I attended the training	SD	D	A	SA	NA
27. I am now more ready to help with youth suicide prevention in my community	SD	D	A	SA	NA
28. I will use what I learned from this training	SD	D	A	SA	NA
29. The things I learned will help youth seek help for issues that might lead to suicide (i.e., depression, substance use, etc.)	SD	D	A	SA	NA
30. The things I learned will help prevent youth suicide or reduce the problems that might lead to suicide (i.e., depression, substance use, etc.)	SD	D	A	SA	NA

How satisfied were you with:

Please circle the letter(s) that best describe(s) your response	Very Dissatisfied	Dissatisfied	Satisfied	Very Satisfied	N/A
31. The trainers' knowledge of the training topics?	VD	D	S	VS	NA
32. The trainers' presentation of the training topics?	VD	D	S	VS	NA
33. The building where the training was held?	VD	D	S	VS	NA
34. The location of the training?	VD	D	S	VS	NA
35. Your overall training experience?	VD	D	S	VS	NA

36. How would you rate the training? (select one)
____ Below my skill level
____ At my skill level

____ Above my skill level
____ Don't know

37. Who do you think will benefit from what you learned during this training? (select all that apply)
____ Youth
____ Parents/ Foster Parents/ Caregivers
____ Co-workers
____ Community members
____ Other (please describe: _____)

38. How often do you expect to use what you learned? (select one)
____ Daily
____ One time a month or more
____ At least once per year
____ Less than once per year or never

39. What did you like most about the training?

40. What did you like least about the training?

COLORADO STATE PROJECT SAFETY NET
QPR Survey – 6-Month Follow-Up

The Colorado State Project Safety Net is interested in collecting information from individuals who participated in QPR training. The result of this survey will assist the Project in addressing suicide prevention issues in Colorado communities. Your participation is voluntary and all of your responses will be kept confidential. Thank you again for your consistent participation and support!

CODE NUMBER: (The code number is used to connect your prior surveys and assures your confidentiality)

What are the **two digits of the month of your birth date**? ____ ____

What are the **two digits of the day of your birth date**? ____ ____

What is the **last digit of your Social Security Number**? ____

In what county was the training you participated in?

• CU-Boulder • El Paso County • Larimer County • Mesa County • Pueblo County • Weld County

What is your age (in years)? ___

SECTION I: The following statements refer to conditions you may encounter at your workplace. Please read each statement carefully and indicate how much you agree or disagree with it using the scale below.

Please circle the numbers(s) that best describe(s) your response	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1. Information about how to appropriately identify and refer suicidal individuals is not available in my organization.	1	2	3	4	5	6
2. There is a lack of resources for suicide prevention in my organization.	1	2	3	4	5	6
3. Co-workers would not “cover for me” when I am dealing with a person in crisis.	1	2	3	4	5	6
4. There is not enough time at work to adequately perform the role of gatekeeper as trained by QPR.	1	2	3	4	5	6
5. There is not enough privacy at work to talk with an individual who may be at risk of suicide.	1	2	3	4	5	6
6. There are possible legal consequences if I intervene with a suicidal person at work.	1	2	3	4	5	6

7. The information from ASIST/QPR training is presented in a manner that makes it easy to apply at work.	1	2	3	4	5	6
8. My job does not allow me to use the knowledge and skills that I learned during gatekeeper training.	1	2	3	4	5	6
9. At work, my supervisor does not encourage me to use what I learned during the gatekeeper training.	1	2	3	4	5	6
10. My supervisor would not appreciate it if I displayed knowledge and skills on the job that I learned during gatekeeper training.	1	2	3	4	5	6
11. My supervisor and I never discuss specific ideas about how to apply my knowledge and skills from the gatekeeper training to my current job.	1	2	3	4	5	6
12. My co-workers are not interested in whether I apply my knowledge and skills from gatekeeper training to my work on the job.	1	2	3	4	5	6
13. My co-workers would not appreciate if I displayed knowledge and skills on the job that I learned during gatekeeper training.	1	2	3	4	5	6
14. Employees in my organization are neither recognized nor rewarded when they apply their knowledge and skills from gatekeeper training on the job.	1	2	3	4	5	6
15. The management in my organization makes no visible efforts to make gatekeeper training a high priority.	1	2	3	4	5	6
16. When it gets busy at work, applying the knowledge and skills from gatekeeper training is viewed as less important by management than getting the job done.	1	2	3	4	5	6
17. Performing the role of a gatekeeper at work conflicts with my job duties.	1	2	3	4	5	6
18. My organization does not insist on employees completing gatekeeper training.	1	2	3	4	5	6
19. My organization does not invest enough time and money into gatekeeper training for workers.	1	2	3	4	5	6
20. The organization does not value my contribution to suicide prevention efforts.	1	2	3	4	5	6
21. The organization fails to appreciate the extra effort it takes for me to perform the role of gatekeeper.	1	2	3	4	5	6
22. The organization would ignore my efforts in suicide prevention.	1	2	3	4	5	6
23. Even if I applied all the knowledge and skills from gatekeeper	1	2	3	4	5	6

training, the management in my organization would fail to notice.						

SECTION II. In this section we ask about your experiences with using and applying the QPR-related knowledge and skills after you completed the training.

24. How often did you use the knowledge and skills that you obtained in QPR since you completed it approximately 6 months ago?

Never *Once in a while* *Sometimes* *Quite often* *Frequently, if not always* *Extremely often*

25. Over the last six months I have increased others' general awareness and knowledge of suicide.

Strongly Disagree *Disagree* *Neutral* *Agree* *Strongly Agree*

26. How many times in the last six months have you screened individuals for suicide behaviors with a screening tool (please write actual number, e.g., 0, 1, 2)

27. How many times in the last six months have you provided mental health services to individuals at risk for suicide and/or their families (please write actual number, e.g., 0, 1, 2)

28. How many times in the last six months have you discussed the training with others (please write actual number, e.g., 0, 1, 2) [If 0, skip to 20*c*.]
    a. With whom did you discuss the training? (check all that apply)
    Coworker who attended *Spouse, significant other, partner* *Friend, non-coworker*
    Family member *Coworker who did not attend* *Children*
    *Other (please specify):*_____
    b. Through which means of communication did you discuss the training? (check all that apply)
    Phone/text messages *Email/internet* *Face-to-Face*
        i. *(If check face-to-face on b.)* Where did the discussion take place? (check all that apply)
        Home
        Work/office
        Outside work (excluding home) (please specify): _____
        School
        Other (please specify): _____
    c. What factors make it difficult to discuss the training with others? Please list. (open-ended question)
29. How many times in the last six months have you shared training materials with others (please write actual number, e.g., 0, 1, 2) [If 0, skip to 21*c*.]
    a. With whom did you share the training materials? (check all that apply)
    Coworker who attended *Spouse, significant other, partner* *Friend, non-coworker*
    Family member *Coworker who did not attend* *Children*
    *Other (please specify):*_____
    b. Through which means of communication did you share the training materials with others? (check all that apply)
    Email/internet *Regular Mail* *Face-to-Face*
        i. Where did it take place? _____
        Home

Work/office
Outside work (excluding home) (please specify): _____
School
Other (please specify): _____

c. What factors make it difficult to share the training materials with others? Please list. (open-ended question)

30. How many times in the last six months have you suggested to someone else that they may benefit from attending the training (please write actual number, e.g., 0, 1, 2) [If 0, skip to 23.]

a. To whom did you suggest the training (check all that apply)

Coworker who attended *Spouse, significant other, partner* *Friend, non-coworker*
Family member *Coworker who did not attend* *Children*
Other (please specify):_____

b. Through which means of communication did you suggest the training? (check all that apply)

Phone/text messages *Email/internet* *Face-to-Face*

SECTION III. In this last section we ask you three questions about your experiences helping people. Please write in the actual numbers (e.g., 0, 1, 2).

31. How many times in the last 6 months have you thought a person's behavior might indicate he/she was considering suicide? _____

32. How many times in the last 6 months have you asked a person whether he/she was considering suicide? _____

33. In the last 6 months, how many people did you personally refer to appropriate professional services because you were concerned that they might be suicidal? _____

THANK YOU FOR YOUR HELP!