How to Enhance Suicide Gatekeeper Trainings for Youth: Reducing Barriers to Help Seeking

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Background

Suicide is the third leading cause of death among Missouri youth ages 10-24 and for reasons that are not yet well understood, Missouri's suicide rate (for both lifespan and youth) has historically been higher than the national rate. During the five-year period from 2006 to 2010, the crude suicide rate for Missouri youth ages 10-24 was 8.7 per 100,000, while the rate for this age group nationally was 7.2 per 100,000 (Centers for Disease Control and Prevention, 2011). In the past decade (2001 – 2010), suicide has claimed the lives of an average of 100 young Missourians each year, ranging from 89 deaths in 2002 to 126 in 2008. Males account for 84% of these completed suicides. Eighty-seven percent of completers were White and 12% were African American. Suicides are most frequent among older youth, with 78% occurring among those 18 to 24 years old. The greatest *number* of deaths from 2001 through 2010 occurred in the St. Louis and Kansas City metropolitan areas (310 and 209 respectively), though the ten counties with the highest suicide *rates* are in rural Missouri, with rates over 20.0 per 100,000 (Missouri Department of Health and Senior Services (DHSS), 2012).

Program Description

Gatekeeper Training

- Since 2004, the SAMHSA Garrett Lee Smith Youth Suicide Prevention Initiative has provided funds to the Missouri Department of Mental Health to train individuals using a variety of gatekeeper programs including Question, Persuade, Refer (QPR), Applied Suicide Intervention Skills Training (ASIST,) SafeTalk, and Signs of Suicide (SOS).
- Gatekeeper trainings educate individuals on risk factors and warning signs of suicidal intention while also providing communication and referral strategies (Wyman et al., 2008). With the increased knowledge and skills learned in the training, it is hypothesized that the trained gatekeepers will more effectively recognize the warning signs of suicidal thinking, communicate with suicidal individuals and link them with appropriate resources.

Research Questions

1. Do gatekeeper training programs result in long-term improvements in knowledge?
2. Do gatekeeper training programs result in long-term improvements in self-efficacy?
3. Does gatekeeper training result in an increase in the number of individuals who provide assistance to suicidal youth?

Methods

Procedure and Measures

From August 2010 to November 2011, 3,765 adults participated in gatekeeper trainings statewide and completed pencil/paper pre- and post-tests assessing knowledge and self-efficacy related to suicide and interactions with youth thinking about suicide. Most trainings lasted between one and two hours and most were QPR trainings. Participants were asked if they would be willing to participate in a follow-up study and 619 individuals provided email addresses. A total of 178 individuals completed a 3-month follow-up on-line survey. Demographic items included age, sex, and ethnicity. Participants were also asked whether or not they had prior suicide prevention training.

Sample Characteristics				
		Pre	Post	Follow-up
Sex	Male	811 (24%)	743 (24%)	23 (14%)
	Female	2558 (76%)	2297 (76%)	142 (86%)
Ethnicity	White	3178 (84%)	2813 (87%)	168 (94%)
	African American	264 (7%)	225 (7%)	4 (2%)
	Other	323 (9%)	225 (7%)	6 (3%)
Age	Mean	39.5	39.0	40.2
Prior Training	Yes	2053 (56%)	1875(60%)	112 (65%)
	No	1268 (34%)	1117 (36%)	55 (32%)
	Not Sure	124 (3%)	114 (3.7%)	5 (3%)

Knowledge

- Knowledge was measured with four items related to facts about suicide and one item about knowledge of warning signs. Items ranged from 3 to 1, where Yes=3, Maybe=2 and No=1. For all items, "yes" was the correct response.

Self-Efficacy

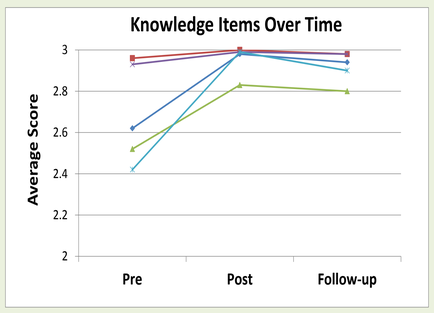
- Self-efficacy was measured with three items 1) "How comfortable are you asking them, "are you having thoughts or feelings of suicide?" 2) "How prepared are you to connect them to help?" and 3) "How confident are you that you know where to refer them for help?" Responses ranged from 1 (not very) to 4 (extremely). Across each time point, Cronbach's alpha ranged from .81 to .85. A composite self-efficacy score was computed by summing each item.

Helping Behaviors

- At pretest and follow-up, participants were asked whether or not they had talked with a youth about suicide within the last 3 months and if they had, what they did as a result of that talk.

Results

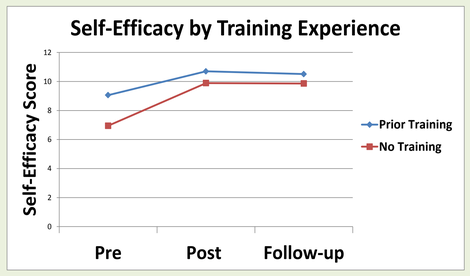
Research Question #1: Knowledge



- *1. Asking directly "Are you having thoughts or feelings of suicide?" is an important step in preventing suicide.*
- *2. Sometimes when people say 'I want to die' or make a suicide attempt, they might really want to help.*
- *3. Safely storing guns and ammunition can reduce a person's risk of dying by suicide.*
- *4. Even if a person makes a plan to kill themselves, it might still be possible to stop them.*
- *5. I can name 3 warnings signs of suicide.*

- A series of one-way repeated measures ANOVAs were conducted to compare scores on each knowledge item across time. A significant effect for time was indicated for each item. Pairwise comparisons were used to examine where differences occurred. For items 1, 3, and 5, there were significant improvements from pretest to posttest that were sustained at the three-month follow-up. Items 2 and 4, showed significant differences only between pretest and posttest. There was a significant increase in the ability to name three warning signs from pretest to posttest but a significant decrease between posttest and follow-up.

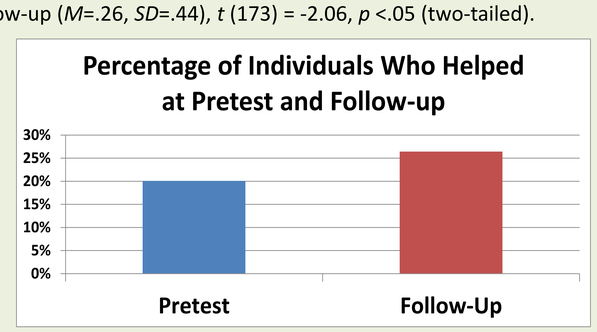
Research Question #2: Self-Efficacy



- A one-way repeated measures ANOVA was conducted to compare self-efficacy scores across time. Overall, there was a statistically significant effect for time, Wilks' Lambda = .48, F (2, 166) = 88.73, p < .0005, multivariate partial eta squared = .52. Pairwise comparisons (with Bonferroni adjustment for multiple comparisons) showed that change in self-efficacy was statistically significant from pretest to posttest, p <.0005 and pretest to 3-month follow-up , p <.0005. Results indicate that self-efficacy increased directly following the training and was sustained at the three month follow-up.
- To examine the effect of gatekeeper trainings on those with prior prevention training, an additional one-way repeated measures ANOVA was conducted. Similar results were observed with improvement to pretest to posttest and posttest to follow-up.

Research Question #3: Helping Behaviors

- A paired samples t-test was conducted to assess the proportion of participants who reported helping suicidal youth before the training and at the three-month follow-up. There was a statistically significant increase in the proportion of respondents who reported helping youth between pretest (M=.20, SD=.40) and follow-up (M=.26, SD=.44), t (173) = -2.06, p <.05 (two-tailed).



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Discussion

Summary

- Based on the evidence, gatekeeper programs have made a positive contribution to the goals of the MYSPP.
- Significant changes in knowledge were observed from pretest to posttest and were sustained over the course of three months on the following items:
  - *Asking directly, "Are you having thoughts or feelings of suicide?" is an important step in preventing suicide.*
  - *Safely storing guns and ammunition can reduce a person's risk of dying by suicide.*
  - *I can name three warning signs of suicide.*
- Self-efficacy increased from pretest to posttest and was sustained at the three month follow-up.
- There was a statistically significant increase in the proportion of respondents who reported helping youth from pretest to posttest.
- Although the direct impact on the incidence of suicide remains unmeasured, efforts clearly represent positive movement toward increased awareness and identification for youth at risk of suicide.

Recommendations

- Based on positive results for both those with and without prior training, it is recommended that gatekeeper trainings continue to be offered to those with and without prior training.
- Lower scores at the three month follow-up indicate that knowledge and self-efficacy scores fade somewhat over time. In order to strengthen effects, it is recommended that booster trainings be offered.

Limitations

- Though the sample size is adequate for longitudinal comparisons, substantial participant attrition weakens the ability to generalize findings.
- While the mean age of the study sample was 40 across all three time points, the follow-up sample included more females and Whites than the pre/post sample. Therefore the results more accurately demonstrate program effectiveness for these groups.
- Items used to assess knowledge were derived from previous research studies, but because reliability analysis revealed that items were not strongly correlated, each item was assessed individually. As a result, a series of significance tests were conducted, increasing the chance of Type I error.
- On two knowledge items, ceiling effects were observed. That is, scores were high at pretest leaving little room for improvement. Consequently, the ability to detect significance was greatly reduced. In addition to limiting sensitivity, measures of effect size were also confounded.

Future Research

- While this study suggests the effectiveness of gatekeeper trainings , analyses were conducted with a limited sample. Future research with a larger and more diverse sample will enable analyses of the effectiveness of these programs for disparate groups (e.g., males, young adults, elderly, veterans, etc.)
- Given the short follow-up period, the long-term effectiveness of these programs in unknown. A study with multiple follow-up points will strengthen the ability to assess whether these programs have lasting effects.
- This study confirms that gatekeeper trainings are beneficial to individuals participating in the trainings, increasing their ability to help those with suicidal thoughts. Less is known about the impact of these trainings on suicidal individuals. Future research should explore whether suicidal individuals who spoke with a trained gatekeeper received adequate help and barriers they faced in accessing services.

References

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