The CALM Gatekeeper Training is Associated with Increased Confidence in Suicide

Prevention Skills Among a Sample of Resident Assistants

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Abstract

Suicide is a significant public health concern accounting for nearly 121 deaths per day. Many prevention programs focus on improving knowledge regarding suicide, yet most fail to address how individuals elect to harm themselves. In an attempt to address this gap in practice, the Counseling on Access to Lethal Means (CALM) program was developed to educate clinicians on the importance and impact of means restriction interventions. The purpose of the current study was to administer and evaluate a gatekeeper version of the CALM training delivered to a group of 167 resident assistants (RAs) at a university in the Southeastern United States. Confidence levels regarding suicide prevention (SP) and means restriction (MR) skills were assessed at baseline, post-training, and after a 4-6 week follow-up. Results were suggestive of medium to large training effects for SP and MR confidence levels among the sample of trained RAs. There was also a small decay of the training effects at follow-up possibly due to the passing of time. This might suggest that trainings should be provided more consistently to help sustain the impact. Additionally, if CALM becomes implemented more broadly, suicide rates should be studied to determine the impact of means restriction approaches.

Keywords: suicide, suicide prevention, means restriction, CALM, impulsivity, firearms, gatekeeper training, confidence

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Suicide is a vexing public health concern, accounting for 42,773 deaths and ranking as the tenth leading cause of mortality for Americans in 2014 (Centers for Disease Control and Prevention [CDC], 2014). Since then, suicide rates have risen, accounting for approximately 121 deaths per day (American Foundation for Suicide Prevention, 2017). While suicide might never be completely eradicated, suicide prevention programs attempt to identify and address factors that can decrease suicide rates.

Many existing suicide prevention programs (e.g., the popular Question, Persuade, Refer model [QPR]) emphasize the importance of improving knowledge, attitudes and perceptions regarding suicide within the general population and among clinicians (QPR Institute, 2017). Additionally, numerous programs focus on identifying observable risk factors, warning signs, and behaviors in order to quantify an individual's level of risk to help determine the appropriate treatment. Common risk factors of suicide include a history of previous suicide attempts, alcohol or substance abuse, a history of individual or parental psychopathology, low socio-economic status, residing in rural areas, low level of education, unemployment, limited social support, and demographic factors such as age, race and gender (Borges et al., 2006; Miller, Barber, White, & Azrael, 2013). While these common prevention programs illustrate the basics of suicide prevention, many do not account for the risk factors of impulsivity, method lethality and access to lethal means.

Impulsive Responding and Lethal Means

Impulsivity is a major issue among those at risk for suicide. In a recent study, 82 patients referred to a psychiatric hospital following a suicide attempt were interviewed within

three days of the attempt with the purpose of gaining information about the process of the attempts. Of the 82 participants, nearly 50% reported that only ten minutes had passed before the initial consideration to commit the act and the actual attempt itself (Deisenhammer et al., 2009). Furthermore, in an additional sample of those who had made an almost-lethal suicide attempt, one-fourth reported spending less than five minutes between the first thought to attempt and the actual attempt itself (Simon et al., 2001; Sorenson & Vittes, 2008).

Extant research suggests a correlation between certain personal characteristics and likelihood of an impulsive suicide attempt. Data suggest that males are more likely than females to attempt suicide impulsively, and individuals with severe depression are *less likely* to attempt suicide impulsively (Simon et al., 2001). These data parallel results from Deisenhammer et al. (2009), which found that individuals who reported taking longer than ten minutes to make a suicide attempt showed significantly higher intent to commit suicide. These findings are important because they signify that individuals who attempt suicide impulsively may not really want to die, but rather get overwhelmed by their emotions and seek an immediate escape from pain.

Another shortcoming of many prevention programs is the failure to account for method lethality. Of the nearly 121 deaths by suicide that occur daily, approximately half are due to the use of firearms. The rate of handgun deaths determined to be suicides are especially high in certain regions (e.g., 78% in rural northwest North Carolina; CDC, WONDER, 2016). More than three-fourths of suicide attempts with a firearm are gunshot wounds to the head, and 76.6% of all attempts with a firearm are fatal (Sorenson & Vittes, 2008). A recent study measuring the relationship between household firearm ownership rates and suicide mortality rates suggest that poorly restricted access to lethal means such as

firearms and opioid medications is associated with higher levels of completed suicides, regardless of underlying suicidal behavior or ideation (Miller et al., 2013; Sorenson & Vittes, 2008). Therefore, ready access to firearms or potentially lethal medications increases the rate at which it is likely to die by suicide. This poses particular challenges for suicide prevention in the United States given the accessibility of lethal means. In a sample of American adults, those with existing psychopathology and suicidal ideation reported that they were equally as likely to have access to a firearm within the home as those without such problems (Ilgen, Zivin, McCammon, & Valenstein, 2008).

Data also suggest a correlation between use of a highly lethal method of attempt and the likelihood of making an impulsive attempt (Simon et al., 2001). Therefore, the risk of death significantly increases when suicidal individuals show characteristics of impulsivity and also have access to lethal means. Even when accounting for non-impulsive individuals (such as those with a suicide plan), those who owned a firearm were significantly more likely to have a plan that involved using the firearm than those who did not, thus further increasing the likelihood of death due to the utter lethality of such weapons (Betz, Barber & Miller, 2011). These findings reveal the importance of accounting for impulsivity and access to lethal means when measuring patients' risk levels. Access to lethal means can determine whether a person who is suicidal lives or dies.

Implementation of Means Restriction Programs

In an attempt to address the issues of impulsivity, rapid progression of thought to action, and method lethality, several public health oriented programs have been created that emphasize the importance of restricting high-risk individuals' access to lethal means such as firearms, toxic pesticides and potentially lethal medications. These prevention programs are

referred to as lethal means restriction paradigms, and the implementation of these

interventions have been shown to be effective at reducing deaths by suicide, with several

international examples.

Until recently, self-poisoning by use of pesticides accounted for nearly 30% of

suicides around the world (Gunnell, Eddleston, Phillips, & Konradsen, 2007). In 1995, Sri

Lanka had considerably high rates of suicide, of which nearly two-thirds were due to the

ingestion of pesticides. Pesticides, like firearms, are considered highly lethal methods of

suicide due to the high toxicity of such products. Similar to access to firearms in the U.S.,

toxic pesticides were readily available for purchase in certain countries (Gunnell et al., 2007).

In order to combat the increasing rates of suicide by pesticide ingestion, the World Health

Organization (WHO) administered a series of bans on class I pesticides starting in 1984. Data

collected from the Department of Police, Division of Statistics, Sri Lanka in the year 2005,

showed a nearly 50% decrease in suicide rates since the early 1990's, with no significant

evidence suggesting the use of alternative methods (Knipe et al., 2014).

Similarly, Lubin et al. (2010) reported that suicide rates in the Israeli Defense Force

(IDF) were alarmingly high and prior to means restriction interventions, approximately 90%

of suicide completions in the IDF were due to firearms. At the time, soldiers were permitted

to take their weapons everywhere, including home on the weekend. In response to the

substantially high rates of suicide, the IDF administered a policy change in 2006, which

required that military personnel leave their weapons at their bases when they went home for

the weekends. According to data compared from the years 2003-2005 and 2007-2008, suicide

rates within the IDF decreased by as much as 40% on the weekends after the policy change,

with no significant changes in rates of suicide during weekdays when soldiers had typical

access to their weapons (Lubin et al., 2010). Thus, straightforward policy changes regarding

access to lethal means impact suicide deaths. While there have been relatively few scaled up

programs to reduce access to lethal means in the U.S., the Counseling on Access to Lethal

Means (CALM) training program is an exception (Johnson, Frank, Ciocca, & Barber, 2011).

Counseling on Access to Lethal Means and the Benefits of Gatekeeper Training

The purpose of the CALM program is to train helping professionals such as

psychologists, social workers, and counselors on the importance of reducing access to lethal

means among those that are at risk for suicide (Johnson et al., 2011). The New Hampshire

based program created by Elaine Frank and Mark Ciocca appropriately targets reducing

access to firearms, as such weapons are the leading method of suicide and the method with

the highest rates of fatality in the United States (Sorenson & Vittes, 2008). The clinical

training program lasts approximately two to three hours and consists of various modules that

teach clinicians about how reducing access to lethal means can prevent suicide. In addition,

the program focuses on training mental health care providers on how to effectively

communicate with at-risk clients and their family members on the importance of temporarily

reducing access to lethal means if there is evidence the client is at risk for suicide.

Furthermore, clinicians are shown video re-enactments of proper lethal means assessments

and are encouraged to role-play with their colleagues so that they may practice their learned

skills. Overall, after an initial trial of the program, 65% of clinicians reported having actually

used CALM techniques six months after the training. In addition, they reported greater

knowledge and confidence regarding counseling clients about restricting access (Johnson et

al., 2011). While the results of CALM clinical trainings have shown promise, these results

have not been replicated broadly and there is little empirical evidence available regarding the gatekeeper version of CALM.

Gatekeeper training is a key component of universal suicide prevention that consists of educating non-mental health professionals such as police officers, paramedics, first responders, teachers, coworkers, and peers on the basics of suicide prevention. The fundamental idea behind gatekeeper training is that non-mental health professionals and paraprofessionals may be the first to come in contact with high-risk individuals and can intervene when clinicians are not present or available. Gatekeeper training is typically less intense than clinical training in that sessions are shorter and put fewer demands on the trainees. Nevertheless, various gatekeeper programs have demonstrated improvements in knowledge, attitudes, and self-perceived confidence regarding suicide prevention skills. For example, in a study conducted in the United Kingdom, a recently developed gatekeeper training program directed toward police officers was evaluated to determine its impact on trainee confidence in conducting suicide prevention interventions (Marzano, Smith, Long, Kisby, & Hawton, 2016). The program consisted of a training module that was designed to be delivered during a four-hour session, with the aid of a training manual and a PowerPoint presentation, as well as case vignettes and reflective questions to encourage group discussions and learning. Questionnaires evaluating knowledge and confidence regarding suicide prevention were administered before and after the training, which revealed statistically significant increases in both components. Although gatekeeper training has proven to be a useful and necessary element of suicide prevention, many programs focus on improving knowledge and attitudes regarding suicide prevention overall, rather than on the importance of lethal means restriction.

The Present Study

Given this gap in the literature, the primary aim of the present study was to evaluate whether a gatekeeper version of the CALM training would have an effect on resident assistants' confidence in delivering suicide prevention and means restriction interventions as part of their roles at the university. The effectiveness of this training was measured by assessing self-reported knowledge and confidence levels regarding two constructs: 1) conducting suicide prevention overall; and 2) conducting means restriction counseling, specifically. We modeled the methodology used in the Marzano et al. (2016) study and utilized four suicide prevention items from their questionnaire in the current study and added an additional follow-up interval as part of the investigation. We used three items from the original Johnson et al. (2011) CALM questionnaire regarding confidence in conducting means restriction counseling as an attempt to replicate the findings in our study. We also measured confidence in suicide prevention and means restriction interventions at three different time points instead of two as it was implemented in the Johnson et al. (2011) study, where they measured pre-and post-training effects as part of the same questionnaire simultaneously.

Given the empirical evidence that suggests lethal means restriction interventions are effective internationally (e.g., Sri Lanka and the IDF) as well as the success of various gatekeeper programs and a clinical means restriction program in the U.S., we sought to assess the training effects of a gatekeeper version of the CALM program. We hypothesized that in accordance with other lethal means gatekeeper-training studies cited above, our program would be associated with increased confidence in conducting suicide prevention and

means restriction interventions after the training when compared to baseline levels of confidence among a sample of university resident assistants.

Method

Participants

The participants were 167 resident assistants (RAs) from a university located in the Southeastern United States. Participants attended a gatekeeper version of the CALM training and learned skills regarding suicide prevention and means restriction to partially fulfill their requirements for RA orientation. Resident assistants are undergraduate students who are responsible for maintaining order and safety within on-campus dormitories, in addition to providing various resources for their residents. Among the 167 participants who attended the training, 141 (48 males and 93 females) consented to participate in the current study and all participants were over the age of 18 ($M = 20.24$ years, $SD = 1.07$ years). No compensation was offered for participation and while RAs were required to attend training for their orientation, participants had the opportunity to opt out of involvement in the current study via a full informed consent procedure that was completed prior to data collection (see Appendix 1). Appalachian State University's Institutional Review Board determined this study to be exempt from IRB oversight on December 12, 2016 (Study number 17-0167).

Measures

Participants responded to a modified version of the *Confidence in Suicide Prevention Measure*, which was created primarily by Lisa Marzano, the lead psychologist behind the Police and Suicide Prevention study conducted in the United Kingdom (Marzano et al., 2016). Once we obtained permission from Prof. Marzano to use her instrument, we revised the measure to include three additional items regarding means restriction counseling from the

Johnson et al. (2011) study. The revised measure was titled *Suicide Prevention Training: Learning & Development Evaluation Form* (see Appendix 2). The updated measure accounted for demographic information by requesting age, gender, number of years of experience as an RA, and major at Appalachian State University. Furthermore, the measure accounted for previous involvement in suicide prevention and other mental health training by asking about relevant experience. Following the demographics portion, confidence and knowledge in suicide prevention and means restriction counseling were evaluated via a 5-point continuous Likert Scale (1 = "strongly agree", 5 = "strongly disagree"), with lower scores suggestive of higher perceived confidence.

Procedure

Approximately ten minutes prior to the suicide prevention and CALM gatekeeper training session, participants were given the opportunity to either give their consent to participate in the current study, or opt out of involvement. Participants who chose to proceed were then asked to provide their email address on the consent document so that a follow-up evaluation could be sent one month after the initial training session via a Qualtrics survey. Once informed consent was given, participants responded to the *Suicide Prevention Training: Learning & Development Evaluation Form* for the first time in order to measure confidence and knowledge levels at baseline. Once all of the consent and baseline questionnaires were collected, the training session began.

The gatekeeper training session, which took place in an on-campus auditorium, lasted approximately one hour and consisted of a PowerPoint presentation wherein the trainers (KDM, JPJ) discussed the principles of CALM and the importance of reducing access to lethal means, which also included a brief video demonstration. Approximately five minutes

after the training session had ended, we administered the *Suicide Prevention Training: Learning & Development Evaluation Form* to participants for the second time in order to assess for training effects. Following the collection of all materials after the training session had ended, participants were debriefed and thanked for their time and attention.

Data was coded to ensure participants' confidentiality (e.g., ASU RA1 T1, ASU RA1 T2, etc.). All consenting individuals received a follow-up evaluation via Qualtrics approximately 4-6 weeks after the initial training on February 13, 2017, in order to measure changes in knowledge and confidence levels regarding suicide prevention (SP) and means restriction (MR) interventions. The Qualtrics survey was modeled precisely after the original questionnaire administered baseline and post-training. Data was stored in a locked filing cabinet in the Psychology building on Appalachian State University's campus for the duration of the study, and the consent form containing participants' signatures and email addresses were shredded once all responses were recorded through the final Qualtrics survey. We measured the mean response score for each SP and MR item at each interval (baseline, post-training and 4-6 week follow-up) and measured the change in mean SP and MR scores over time (in the aggregate).

Planned Analyses

All analyses were performed using IBM SPSS statistics version 24 (IBM Corp., 2016). We ran basic descriptive and frequency analyses regarding the demographics of our sample. We also assessed internal reliability (Chronbach's alpha) for SP and MR items separately. After computing composite SP (4 items) and MR (3 items) scores, a repeated measures ANOVA was conducted to determine whether there was a main effect for time. Following that, six paired samples post-hoc t-tests were conducted to assess the effects

between the various intervals for the two constructs (baseline vs. post-training, post-training vs. follow-up, baseline vs. follow-up). The critical p value was .008 after adjusting for Bonferroni corrections. Using these results, Cohen's d effect sizes were computed (95% confidence intervals), while utilizing Cohen's (1988) suggested interpretive guidelines for effect sizes (.2 = small; .5 = medium; .8 = large).

Results

Frequency analyses of demographic and descriptive variables such as age, sex, and major are presented in Table 1. Means and standard deviations regarding each individual questionnaire item are presented in Table 2. The number of participants varied at each time point, such that: baseline (n = 141), post-training (n = 131), and follow-up (n = 88). Overall, there was a 92.9% response rate from baseline to post-training, and a 66.4% response rate from post-training to follow-up.

In order to assess the internal consistency for each construct we conducted a reliability analysis for SP and MR constructs at each time point. The SP item internal consistency coefficients were moderate to high: (α = .822, baseline; α = .850, post-training; α = .918, follow-up), whereas the MR item internal consistency coefficients were somewhat lower to moderate: (α = .662, baseline; α = .673, post-training; α = .828, follow-up).

We computed overall mean composites for our two constructs and found a similar pattern for SP and MR (see Fig. 1; wherein lower scores are suggestive of higher levels of confidence). On average, RAs felt moderately confident in suicide prevention skills at baseline (M = 8.23, SD = 2.39), and their confidence increased at post-training (M = 6.73, SD = 1.90), while confidence levels evidenced a slight decay after a 4-6 week follow-up (M = 7.38, SD = 3.10). Similar to SP confidence levels, RAs felt relatively confident regarding MR

interventions at baseline ($M = 8.35$, $SD = 2.16$), and improved post-training ($M = 5.10$, $SD =$ 1.60), while confidence levels once again displayed a slight decay after a 4-6 week follow-up ($M = 5.90$, $SD = 2.51$). These patterns illustrate the phenomenon that confidence levels increased at post-training and revealed a slight regression towards baseline approximately 4-6 weeks after the training. However, the amount of decay did not return to baseline levels of confidence.

Repeated measures ANOVAs (with Greenhouse-Geisser corrections) were completed for the composites and in both instances, there was a statistically significant main effect for time: SP, $F(1.448,115.814) = 14.047$, $p = .001$, $\eta^2 = .149$; MR, $F(1.592,128.924) = 86.527$, $p = .001$, $\eta^2 = .516$. Post-hoc paired samples t-tests and Cohen's d effect sizes were computed for comparisons between intervals (Bonferroni correction: $p = .008$; see Table 3). The SP baseline to post-training comparison was statistically significant ($p = .000$) with a medium effect ($d = .654$, 95% CI = .405 – .902); the MR baseline to post-training was also statistically significant ($p = .000$) resulting in a large effect ($d = 1.509$, 95% CI = 1.232 – 1.785). In contrast, the SP post-training to follow-up revealed a non-statistically significant and small decay in the training effect ($p = .037$, $d = ^-.253$, 95% CI = $^-.562 − .056$), whereas the MR post-training to follow-up comparison showed a statistically significant decay ($p = .001$) but small effect ($d = ^-.38$, 95% CI = $^-.689 – ^-.071$). The SP baseline to follow-up comparison was statistically significant ($p = .008$) but the effect size was small ($d = .326$, 95% CI = .025 – .627), whereas the MR baseline to follow-up comparison ($p = .000$) was large ($d = 1.035$, 95% CI = .72 – 1.35).

Discussion

The results were suggestive of modest to large training effects for suicide prevention and means restriction confidence levels among a sample of college resident assistants following a brief, gatekeeper CALM training. The improvements in confidence were larger for the means restriction items, which might be due to the fact that participants were learning new material for the first time. That is, compared to typical suicide prevention concepts, they were less familiar with means restriction interventions and therefore had more room for growth. Although lethal means restriction programs are certainly not new to some groups such as public health professionals, who have frequently adopted community or population-based interventions with success, gatekeepers and clinicians accustomed to individual interventions do not typically approach suicide prevention in such a systemic manner (Lancet, 2012). Therefore, it would make sense that confidence levels increased following a training session during which individuals learned novel material. Basic suicide prevention education is typically required for RA training, which is indicative of the possibility that this population has had some prior experience dealing with suicide prevention techniques. This might explain why confidence levels were relatively high during baseline.

A similar and consistent pattern was evident for both suicide prevention and means restriction composites, suggesting that RAs felt more confident immediately after the CALM training. Nonetheless, there was a small decay of the training effects at follow-up. These results could be attributable to the mere passage of time, but confidence appraisals did not return to baseline levels. Essentially, confidence levels increased directly after the CALM training and decreased slightly over time. Yet overall, there was an increase in confidence for both SP and MR from baseline to follow-up, and the larger effects for MR were observed just

like they were between baseline and post-training. These findings might suggest that trainings should be provided on a consistent basis to help sustain the impact.

There were some notable limitations in the current study. For example, the sample was restricted to resident assistants and it is unclear how these results might be generalized to other gatekeeper groups (e.g., firefighters, emergency personnel). In addition, although there was an effect on RA confidence levels, we had no way of determining whether the training had an effect on real behavior in practice. Future research should include larger, more diverse samples and attempts to replicate the training effect over longer intervals. In addition, empirical inquiries should be conducted to determine the association between gatekeeper trainings on future suicide prevention behaviors among those who attend the CALM trainings. Furthermore, if CALM becomes implemented more broadly, rates of suicide should be studied in order to determine the impact of lethal means restriction approaches for suicide prevention.

Overall, the findings from the current study supported our hypothesis that the CALM gatekeeper training would be associated with higher confidence levels regarding suicide prevention and means restriction interventions among a sample of resident assistants. Moreover, these data mirror some of the training effects from previous lethal means restriction studies (e.g., Johnson et al., 2011). It is vital to continue studying the benefits of lethal means restriction programs given its documented history of preventing death by suicide. While it is unlikely that any prevention program or intervention will completely eradicate suicide, there is strong evidence to suggest that means restriction interventions can prevent devastating consequences and create better opportunities for intervention. To this end, broadening the exposure of community members to potentially life saving training is

equally important, especially if the benefits of trainings like CALM that have been shown to increase confidence, also impact actual behavior. While additional research is still needed, the implications of the current study suggest that the CALM gatekeeper program had a positive effect on suicide prevention confidence levels among a sample of RAs.

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Appendix 1

CALM WORKSHOP: EVALUATION AND INFORMED CONSENT

Your feedback is important to us. The purpose of the research is to evaluate whether the CALM training has an effect on participants' knowledge or perceptions regarding suicide prevention interventions. We do not foresee obvious risks to you if you opt to participate beyond revealing your attitudes or beliefs about suicide prevention training programs. The benefits of participation are improving our generalized knowledge about suicide prevention programs but there will be no direct compensation given to you as a participant. Although we hope you will take a few minutes to complete the surveys, participation is voluntary, refusal to participate will involve no penalty/loss of benefits, and you may discontinue participation at any time.

☐ *I prefer not to participate in the study*

If you agree and sign below, you are providing your informed consent to participate in the study.

Signature: _____ Date: _____

We are asking for a mailing address so we can send you a follow-up evaluation form in one month.

Email address: _____

To ensure everyone's confidentiality, after you complete this form we will detach your name and email address from the completed surveys. Once you complete the email survey, we will shred the sheet containing your signature and email address. Do not write your name or initials on any pages other than the cover page.

Appalachian State University's Institutional Review Board has determined this study to be exempt from IRB oversight. Please contact the Principal Investigator, Dr. Kurt Michael, if you have any questions or concerns about this project. He can be reached by phone at (828) 262-2272, ext. 432 or by email at michaelkd@appstate.edu.

THANK YOU!

Appendix 2

Suicide Prevention Training Learning & Development Evaluation Form	Age: Gender: M F Number of years as RA: Major at ASU:

Have you previously received training in suicide prevention?   Circle one: Yes   No

If yes, please provide details (name of course and date undertaken):

Have you received any other relevant mental health training?   Circle one: Yes   No

If yes, please provide an approximate number of hours of training:
1. _____   1 – 5 hours
2. _____   6 – 10 hours
3. _____ 11 – 15 hours
4. _____ 16 – 20 hours
5. _____ 20 or more hours

Please indicate how much you agree or disagree with each statement by ticking the box provided	1 Strongly agree	2 Agree	3 Neither agree nor disagree	4 Disagree	5 Strongly disagree
I feel I can accurately identify situations where a person is at risk of suicide					
I know how to approach and question people at risk of suicide					
I feel comfortable assessing someone for suicide risk					
I know how to refer people at risk of suicide to the services most appropriate to their needs and level of risk					
I am familiar with means restriction approaches to suicide prevention					
Suicide can be prevented by restricting access to lethal means					
I am confident in my ability to talk to people about reducing access to lethal means					

Table 1

Demographics: Age, Sex, Top 3 Majors

Demographics	*n*	Percent (%)
Participant Age		
19	35	25.0%
20	58	41.4%
21	34	24.3%
22	6	4.3%
23	5	3.6%
24	2	1.4%
Participant Sex		
Male	48	34.0%
Female	93	66.0%
Top 3 Majors		
Psychology	11	7.9%
Biology	8	5.8%
Exercise Science	8	5.8%

Table 2

Item Means and Standard Deviations

Items	Baseline	Post-Training	Follow-Up
Suicide Prevention Composite			
"I feel I can accurately identify situations where a person is at risk of suicide."	1.96 (0.559)	1.67 (0.504)	1.76 (0758)
"I know how to approach and question people at risk of suicide."	2.17 (0.870)	1.71 (0.636)	1.85 (0.870)
"I feel comfortable assessing someone for suicide risk."	2.36 (0.951)	1.85 (0.786)	2.03 (0.954)
"I know how to refer people at risk of suicide to the services most appropriate to their needs and level of risk."	1.84 (0.816)	1.56 (0.570)	1.61 (0.812)
Means Restriction Composite			
"I am familiar with means restriction approaches to suicide prevention."	2.70 (0.985)	1.63 (0.545)	1.86 (0.899)
"Suicide can be prevented by restricting access to lethal means."	2.75 (0.990)	1.73 (0.814)	1.99 (1.056)
"I am confident in my ability to talk to people about reducing access to lethal means."	2.62 (0.930)	1.83 (0.712)	2.00 (0.871)

Note: All items were presented on a Likert Scale with lower scores suggestive of more confidence (1 = Strongly Agree, 5 = Strongly Disagree)

Table 3

Post-Hoc Paired Samples T-Tests

Composite	Interval Means (*SD*)		*p**	Cohen's *d***	95% CI
	Baseline	Post-Training			
Suicide Prevention	8.36 (2.67)	6.79 (2.10)	.000*	0.65	0.405 - 0.902
Means Restriction	8.16 (2.25)	5.19 (1.64)	.000*	1.50	1.232 – 1.785
	Post-Training	Follow-Up			
Suicide Prevention	6.73 (1.90)	7.38 (3.10)	.037	-0.253	-0.562 – 0.056
Means Restriction	5.10 (1.60)	5.90 (2.51)	.001*	-0.38	-0.689 - -0.071
	Baseline	Follow-Up			
Suicide Prevention	8.19 (2.36)	7.30 (3.06)	.008*	0.326	0.025 – 0.627
Means Restriction	8.26 (2.20)	5.85 (2.45)	.000*	1.035	0.72 – 1.35

Note: SD = Standard Deviation
*Significant levels based on Bonferroni corrections (*p*=.008)
**Small effect size (.2), medium effect size (.5), large effect size (.8)

Figure 1

Composite Means for Change in Confidence Over Time (lower scores reflect more confidence)