Effectiveness of a Brief Suicide Intervention Training

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ABSTRACT. Suicide is a leading cause of death in the United States that is preventable. Intervention training is a way to increase the likelihood that peers will reach out and help each other to increase safety and decrease suicide risk. Brief Suicide Intervention Training (BSIT) ’s design maximizes impact with each element in the training suggested by prior research to increase confidence and willingness to intervene. More than 500 trainees took the training from 14 different trainers across multiple settings. Posttraining evaluation results show significant gains in confidence for the five confidence items: recognize when someone might be at risk of suicide, \( t(603) = -28.77, p \leq .001 \), ask directly about suicide, \( t(606) = -26.99, p \leq .001 \), be with someone while they talk about suicide, \( t(599) = -22.70, p \leq .001 \), help someone at risk choose safety, \( t(600) = -11.02, p \leq .001 \), and know how to find more help using resources, \( t(604) = -28.91, p \leq .001 \).

Death by suicide is an increasing problem in the United States, particularly in the Midwest and Rocky Mountain regions (Suicide Prevention Resource Center, 2018). Among young people, the suicide death rate is lower than that of adults. However, reports on suicide attempts in college student samples suggest that suicide is a significant issue for the college population (Nadroff, Nazem, & Fiske, 2011), and college populations may be more vulnerable to a contagion effect, where one on-campus suicide may lead to several more. There is significant stigma in talking about suicide and seeking mental health care (Sudak, Maxim, & Carpenter, 2008), resulting in a strong reluctance in those at risk of suicide to seek help for themselves. Lewiecki and Miller (2013) reported that 55% of suicide attempts are impulsive and not preceded by a great deal of planning, so there may not be time to connect the person at risk of suicide to those considered most capable of treating the causes of suicide, namely mental health providers. People at risk of suicide also tend to be more likely to reach out to personal contacts and relationships before seeking help from a professional (Seward & Harris, 2016). This suggests that suicide intervention training needs to be in the hands of friends, family members, and other trusted individuals who can guide the person toward additional help in a caring way. Using a first-aid type model for suicide intervention training is a way to help everyday caregivers be prepared to help a friend or family member who is at risk. For a problem where stigma represents a significant barrier to self-help, having a caring partner in help-seeking is vital.

Research on the effectiveness of suicide intervention training tends to focus on proximal outcomes immediately after the training takes place. However, very few studies have examined longer term effects. Suicide intervention training has been found to have a positive impact on attitudes and knowledge about suicide in college and work environments (Cross, Matthieu, Cerel, & Knox, 2007). Confidence to intervene increased

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1Suicide intervention trainings for nonmental health professionals are often referred to as “gatekeeper” training. Because this term seems to imply that potential helpers should be a barrier to help-seeking, the authors prefer not to use this term.

*Faculty mentor
When the training included role-playing, although this was only with a small subset of a college sample (Quinn-Lee, 2017). The intervention training, Question, Persuade, Refer (QPR), has also demonstrated immediate and follow-up gains in knowledge about suicide risks and asking about suicide intent for college campus resident advisors (Tompkins & Witt, 2009). However, the follow-up gains were the same for the untrained comparison group. Because QPR does not typically include a role-playing element, both the trained and untrained RA group might have shown gains due to experience and practice. Many researchers have suggested that intervention trainings like QPR need to include a focus on communication skills (Pasco, Wallack, Sartin, & Dayton, 2012) and exercises to increase self-efficacy for asking about suicide directly (Herron, Patterson, Nugent, & Troyer, 2016).

Suicide intervention training may also include several elements that are potentially unnecessary when examined from a curriculum standpoint. To maximize effectiveness in the least amount of time, components of suicide intervention training should clearly identify benefits for each component of the training. Although QPR is listed in the best practices registry from the Substance Abuse and Mental Health Services Administration, there are a number of criticisms both for the rigor of the research demonstrating effectiveness (Herron et al., 2016) and from intervention specialists who find the QPR presentation somewhat cumbersome from a pedagogical and practical standpoint (Quinn-Lee, 2017).

We designed Brief Suicide Intervention Training (BSIT) to maximize the impact of each element in the training by examining prior research on effective pedagogy and existing effective suicide intervention programs. Any effective suicide intervention training program would (a) present specific information to increase awareness, (b) explore the common barriers preventing intervention, (c) inform participants about risk factors and warning signs, (d) increase behavioral intentions through role play, (e) discuss motivational strategies for increasing safety, and (f) provide local resources for further help.

Suicide awareness information may be a useful component of training so that participants understand the importance and need for the training (particularly important if it is a mandated training in a workplace, for example). Awareness of local community suicide “hotspots” facilitates intervention by those most likely to have an opportunity to intervene. Meta-analysis showed that restricting access to means, encouraging help-seeking, and increasing likelihood of intervention by a third-party is effective for reducing suicide at community hot-spots (Pirkis et al., 2015).

Stigma about mental illness and suicide behavior present a significant barrier to approaching someone to talk about suicide. Both those at risk and those who may care for them experience the negative impact of the stigma surrounding suicide as well as the negative attitudes about help-seeking. This presents both a barrier to asking for help from others and offering help to others who may need or want it. Research has suggested that, for those living in high suicide regions, the more self-stigma and shame people experience, the less likely they are to seek formal or informal help (Reynders, Kerkhof, Molenberghs, & Audenhove, 2015). It would be important for training to address the feelings of embarrassment and stigma that serve as barriers to talking to someone about suicide.

Informing caregivers about risk factors for suicide would seem to be intuitively valuable, but it is also important to discuss the possibility that risk factors may not be obvious or evident, and that people respond differently to life’s challenges. By focusing attention on those verbal and nonverbal behaviors that indicate emotional or psychological pain, intervention training can help validate trainees’ ideas that something is wrong and reduce another barrier to asking about suicide. Understanding what the less obvious signs of suicide are is important to prevent trainees from overlooking someone who does not display stereotypical or obvious risk factors. It is beneficial to remind trainees that directly asking about suicide, even when there may not be many clear risk factors present, is better than the potential consequences of not asking at all.

Asking directly about suicide is more effective than trying to lead indirectly up to it, but it is also very difficult to do initially for most people. Research has shown that even clinicians need training to ask directly about suicide in order to address immediate risk (Meerwijk et al., 2016). Clinicians and psychotherapists who tend to focus on long-term treatment addressing symptoms of depression or other mental health problems can miss signs of immediate suicide risk. Although therapy is vitally important for reducing suicide risk by treating depression and other sources of emotional distress, short-term risks are missed if therapists are not
prepared to directly ask about immediate suicide risk. This study also found that those who received only standard symptom care from clinicians were between one and five times more likely to die from suicide later.

Once trainees are prepared to ask about suicide through role-play, the next barrier is fear over what to do if suicide is the challenge they are facing with the person at risk. Most intervention trainings provide resources for further help, and although that is an essential component to increasing safety, we think the problem of what to do after is more profound. Many intervention trainees express concern about what to say and how to respond on a more personal level after discovering someone is at risk of suicide. Research on the clinical strategy of motivational interviewing may give some indication as to most helpful ways to proceed. Miller and Rollnick (2002) demonstrated the application of motivational interviewing to multiple mental health treatment scenarios where clients are ambivalent about change. The primary idea is to respect and maintain client autonomy while encouraging an atmosphere of collaboration, and encourage exploring the discrepancy between the competing desires of the client and supporting client self-efficacy in their ability to choose change. Zerler (2008) has clarified the application of motivational interviewing to suicidal ideation and suicide risk. He suggests that people considering suicide are experiencing a primary ambivalence about their life. The recommended approach is to continue discussing suicide with the person at risk without pushing toward life or fundamentally making the decision for them. Instead, trainees can stay more neutral and converse about both the suicide feelings and what is holding the person to life. To connect the person at risk to additional resources, trainees can ask if the person at risk is willing to stay safe while they get more help, thus increasing self-efficacy about safety and maintaining a collaborative relationship for safety.

Lastly, intervention training programs need to provide resources for additional assistance that are easily accessible for the relevant context of the trainee, both locally and nationally in scope. Providing resources has been shown to reduce suicidal behavior at long-term follow-up posttreatment (Meerwijk et al., 2016). The Brief Suicide Intervention Training (BSIT) was designed to cover these essential elements in an hour-long group format. There are two versions of the training in use: a standard version and a version designed specifically for use on a college campus.

Method

Participants
Six hundred forty-two participants voluntarily completed the anonymous evaluation given immediately after the training. Respondents ranged in age from 19 to 81 years with 65% women and 24% men. The ethnicity of respondents matched that of the surrounding community, apart from fewer Native American respondents. Fifteen different trainers presented the BSIT in multiple community contexts such as schools, churches, college campus settings, and other community facilities. The most typical training group size was under 10 participants, but training group size varied from five participants to 150 participants. The training occurred in multiple communities in western Colorado.

Measures and Procedure
Participants filled out a program evaluation survey at the end of every training in order to provide feedback to the trainers about the training and if it was helpful to the participants. Data analysis and presentation occurred after institutional review board approval (17-27) was given. The feedback survey was comprised of three sections.

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<thead>
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<th>TABLE 1</th>
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<tr>
<td>Ratings of Confidence Before and After Training</td>
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<td>Confidence Item</td>
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<td>Recognize when someone might be at risk of suicide</td>
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<td>Ask directly about suicide</td>
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<td>Be with someone while they talk about suicide</td>
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<td>Help someone at risk choose safety</td>
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<td>Know how to find more help using resources</td>
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Note. Comparison ratings of confidence made after training concluded.
Confidence rating. The trainers presented the outcome measure immediately following the training. Participants rated their confidence in five intervention behaviors before and after the training, for example, “How confident are you that you can ask directly about suicide.” The confidence items were rated on a 10-point scale from 1 (not at all confident) to 10 (100% confident). Reliability for this scale is $\alpha = .85$.

Beliefs about suicide. Eleven additional items were adapted from the Beliefs About Suicide Survey ($\alpha = .69$) used by Tompkins and Witt (2009). The adaptations included shortening the survey to accommodate the available time, creating some reversal items to ensure that respondents were reading each item carefully and clarified that each item was assessing only one belief. An example of a reversal item is, “I’m uncomfortable being responsible for discussing suicide with someone at risk.” Each item was rated for participant agreement on a scale from 1 (not at all) to 7 (agree completely). These questions cover two training content areas, beliefs relevant to training content (6 items), and beliefs about barriers to suicide intervention (5 items). Reliability for the revised survey used in this sample is $\alpha = .41$.

The survey concludes with four questions about trainer adherence to the content. Some demographic questions are also provided (age, gender, ethnicity, occupation, and zip code).

**Results**

We used paired-samples $t$ tests to assess changes in confidence for each intervention behavior from before to after the training. All comparisons showed statistically significant gains in confidence for the five confidence items. The before and after confidence ratings (as rated immediately after the training) demonstrated statistically significant positive increases; shown in Table 1.

To take a more meaningful look at the Beliefs About Suicide Survey, we examined four categories (quartiles) of average confidence ratings after the training. Participants were assigned to group by quartile so that the highest confidence quartile rated a 4, second quartile a 3, third quartile a 2, and lowest quartile a 1. The analysis demonstrated that participants who were more confident agreed more strongly with the training content items and agreed less with the barriers to intervention items. Table 2 presents the effect of confidence after the training on training content, $F(3, 500) = 26.21, p \leq .001, \eta^2 = .14$, and on barriers to intervention, $F(3, 500) = 37.15, p \leq .001, \eta^2 = .18$.

**Discussion**

Results of this study demonstrated immediate positive responses to BSIT training in the desired direction. Participants believed that the training increased their confidence to recognize when someone is at risk, ask directly about suicide, be with someone while they talk about suicide, help someone at risk choose safety, and find more help using resources.

The posttraining evaluation showed positive understanding of the content of the training and reduced agreement with attitudes that would be barriers to intervention. Scores on content knowledge were higher in those highest in confidence at the end of training. Likewise, those who were most confident at the end of training reported the lowest agreement with barriers to intervention. Effect sizes for the statistically significant results were strong, which suggests that the differences in confidence as rated immediately after the training are both robust and have clear practical implications for the training. These findings occurred in a large cross section of the populace, across multiple trainers, multiple settings, and multiple western Colorado communities.

These results showed a clear benefit to the 1-hour training, at least immediately following the training, where people were more likely to reach out and help someone in distress who may be at risk of suicide, and were willing to engage in behaviors (like asking directly about suicide) that could save a life. A key strength of the training was its adaptable nature, so that awareness information and information about signs of suicide can be adapted in the presentation to best match the group and community.

Although BSIT was not designed to increase self-help under conditions of suicide risk, it showed

<table>
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<tr>
<th>Confidence Category</th>
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<tr>
<td>1. Lowest Quartile</td>
<td>27.21</td>
<td>3.88</td>
<td>22.95</td>
<td>4.83</td>
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<tr>
<td>2. Second Quartile</td>
<td>28.42</td>
<td>4.14</td>
<td>19.65</td>
<td>5.72</td>
</tr>
<tr>
<td>3. Third Quartile</td>
<td>30.20</td>
<td>3.84</td>
<td>18.63</td>
<td>5.50</td>
</tr>
<tr>
<td>4. Highest Quartile</td>
<td>31.34</td>
<td>3.95</td>
<td>15.61</td>
<td>5.65</td>
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Note. Tukey’s LSD post-hoc testing was used for pairwise comparisons.
those at risk that there are caring people willing to hear about suicide and that there are resources and places that can help. The primary goal of BSIT was to provide enough information to everyday people so that they could connect someone at risk of suicide to further professional help. We also hope to increase help-seeking overall by increasing helpers’ willingness to talk about suicide and providing resources.

Essential future research should include long-term follow-up of the effects of the brief training. Although increasing confidence is important, it is even more important to show that the beneficial effects of training last over time and that confidence does not degrade. It would also be valuable to see if the training had beneficial effects on the likelihood of carrying out a suicide intervention over time. Future research could also explore how to reach those with the least confidence at the end of the training, for example, exploring the impact of a longer time spent for role-playing. Most of the existing suicide intervention programs could benefit from pedagogical research to demonstrate which components of the training will increase impact and efficiency. A prerequisite to any follow-up study would be to increase the reliability of the beliefs about suicide measure, by using more items, and refining existing items.

This study was limited by the brief nature of the posttraining survey, with both training content and barriers to intervention being assessed with only a few items, thus the low reliability. The need to keep the posttraining survey short so that respondents would have time to fill out the survey was felt to be important with the 1-hour time frame. Another key limitation was that respondents reported on their confidence before and after the training only after the training. In other words, we asked them to rate their increase in confidence with a before and after comparison. Although this is not ideal from a research point of view, this method was the most practical for training evaluation purposes where there were multiple trainers in multiple settings. By focusing the second part of the analysis on the after-training confidence measure, we were able to show clear positive benefits of the training aside from the pre-post comparison.

References

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Correspondence concerning this article, as well as requests for permission to give the Brief Suicide Intervention Training (BSIT) in a local community, should be addressed to Susan E. Becker, Colorado Mesa University, 1100 North Ave Grand Junction CO 81501.
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