

# Advancing Training to Identify, Intervene, and Follow Up with Individuals at Risk for Suicide Through Research

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Research and training on suicide is critical given the fact that the majority of suicide deaths are preventable with accurate identification of risk and intervention by trained individuals. However, implementing and evaluating training is difficult because of the multiple factors involved, including, but not limited to, the heterogeneity of trainees, their diverse roles in suicide prevention, absence of clear guidelines for training content across settings, and limited methods for assessing outcomes. Here, three groups of trainees are discussed: community and professional gatekeepers and behavioral health providers. The roles each group plays in managing suicide risk and the training content it needs to be effective are addressed. A staged training approach is proposed, building on the core components of currently used suicide training: knowledge, attitudes, and skills/behaviors. Limitations of current assessment methods are identified and recommendations for alternative methods are provided. The article concludes with a discussion of next steps in moving the field forward, including overcoming challenges and identifying and engaging opportunities.

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## Introduction

According to the National Action Alliance for Suicide Prevention (Action Alliance) Research Prioritization Task Force (RPTF), there has been no significant reduction in the number of suicides in the U.S. over the past 50 years.<sup>1</sup> In 2010, there were more than 650,000 hospital visits for suicide attempts, and more than 38,000 suicide deaths. The majority of suicide deaths are preventable with accurate identification and assessment of risk and intervention by trained individuals.<sup>1</sup> Increasing the number of people with skills necessary for suicide assessment and risk management has been identified as one of the methods “most likely to rapidly reduce the burden of suicide attempts and deaths”.<sup>1</sup> The Action Alliance RPTF stakeholder survey recognized training in identifying and treating at-risk individuals as one of the top four research goals.<sup>1</sup> The importance of developing, evaluating, and implementing effective, evidence-based trainings to reduce suicide deaths cannot be overstated.

Understanding and making recommendations about suicide training is a difficult and complex task, in part because of

the heterogeneous groups needing training, including school teachers, emergency department staff, and licensed social workers and psychologists; diverse populations of at-risk individuals such as sexual minority youth, incarcerated adults, and veterans; diverse settings in which suicide prevention services occur, including community, primary care, and outpatient behavioral health settings; different tasks that providers perform such as identifying risk, assessing and managing risk, and treatment; lack of standardized measures of training effectiveness; and limited data linking training outcomes to reductions in suicide deaths.

It is not clear from existing research which training programs are best suited for the different providers who come into contact with individuals at risk for suicide. Training content and delivery methods often change based on provider needs, available resources, and time constraints. Researchers need to identify the critical elements of training that support best practices, with a concerted focus on those elements that transcend settings and populations. This article reviews the evidence base for suicide training for community and professional gatekeepers (GKs) and behavioral health providers (BHPs), as well as needed training content and methods for assessing training effectiveness.

## Who Should Be Trained?

It is important to consider who has the most opportunities to come in contact with a person at risk for

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suicide,<sup>1</sup> but first, who is a “person at risk for suicide?” The authors’ working definition is individuals exhibiting warning signs, acute risk factors, or chronic risk factors associated with suicidal behavior,<sup>1</sup> or who are members of groups with higher rates of suicide than the general public. The authors refer to individuals meeting this definition as *at-risk individuals*.

The Action Alliance RPTF identified six bounded settings where at-risk individuals are most likely to be found: high schools, outpatient mental health services, emergency departments, probation/parole, colleges/universities, and substance use treatment facilities,<sup>1</sup> which are logical settings to concentrate GK and BHP training. To ensure that training is completed, some states have mandated training for GKs and BHPs who are most likely to have contact with at-risk individuals. For example, four states (Alabama, Kentucky, Louisiana, and Tennessee) require annual training on suicide prevention for school personnel under the Jason Flatt Act. Washington requires 6 hours of suicide training for BHPs under the 2012 Matt Adler Suicide Assessment, Treatment, and Management Act. Although this is not an inclusive move to train all people who have contact with at-risk individuals, it is a noteworthy step in increasing the number of people trained in suicide prevention.

## Gatekeepers

The general label *GKs* refers to a heterogeneous group of non-BHPs who are likely to come into contact with at-risk individuals.<sup>2</sup> The philosophy behind GK training is that at-risk individuals may exhibit identifiable risk factors and warning signs but not seek help or treatment from a BHP; therefore, GKs can assist in connecting at-risk individuals in the community with additional resources. Basic GK training prepares people to identify at-risk individuals, assess the risk level, and make referrals to mental health services.<sup>2</sup>

The review conducted by Isaac et al.<sup>2</sup> of 13 GK training studies showed that, overall, training positively impacted knowledge, attitudes, and skills in the short term but with limited stability over time. The systematic review of Mann and colleagues<sup>3</sup> suggests that GK programs can reduce suicidal behavior in situations where the roles of GKs are formalized and access to treatment is readily available (e.g., military settings). GK training was also rated highly by Beautrais et al.<sup>4</sup> in their review of evidence for suicide prevention in New Zealand based on the findings of “strong evidence for effectiveness” for improving identification and referral of at-risk individuals.

A challenge of GK training research is the lack of clarity on who is considered a GK, and how differences between GK (e.g., social/professional roles, education,

and population served) and training components affect generalizability of results. In the absence of a standardized GK training curriculum, providers must search for relevant and empirically supported programs. The Suicide Prevention Resource Center (sprc.org) provides a comparison of 31 different GK training programs listed in the Best Practices Registry. Information includes requirements for the training, target audiences, and program highlights and objectives. Trainings range from 30 minutes to 3 days and targeted GKs include diverse groups such as clergy, law enforcement, teachers and students, emergency department staff, foster parents, physicians, and veterans. Training objectives also vary but are focused on increasing suicide knowledge, understanding, or awareness (62%), compared to attitudes (8%) and skills (30%).

Training literature has established that knowledge does not always translate into practice behaviors, and the development of skills through training may be minimized from the weighted attention on knowledge. For example, knowing the warning signs of suicide is vital for GKs, but if the training does not also address GKs’ ability to ask questions in response to warning signs, then the training is ultimately ineffective. The authors suggest reviewing Isaac and colleagues’ key components of GK training<sup>2</sup> as a framework for mapping the content of current GK programs.

**Community gatekeepers.** Community GKs are individuals who are likely to come into contact with at-risk individuals,<sup>4</sup> but are not typically educated or trained in suicide prevention. Community GKs include formal groups such as teachers, clergy, veterans, and law enforcement officers and informal groups like family, peers, and coworkers. Despite the variability among community GKs, they all share basic training needs in recognizing suicide warning signs, developing effective communication skills to engage at-risk individuals, improving self-efficacy to carry out their roles, and knowledge of community resources.<sup>1</sup> Community GK training improves knowledge, attitudes such as self-efficacy and reduced stigma, and engagement skills, although results seem contingent on training methods with less positive outcomes for didactic training compared to training with experiential components.<sup>5–7</sup>

**Professional gatekeepers.** Professional GKs are providers who work in various community and health settings. They do not need to provide the same level of mental health intervention as BHPs, but their responsibilities are more advanced than most community GKs. Professional GKs should be trained in the identification of at-risk individuals, screening for risk level, provision of brief interventions, immediate risk management such as

safety planning, and referral to BHPs.<sup>8,9</sup> Two types of professional GKs are reviewed here: crisis line staff and healthcare workers.

**Crisis line staff.** Crisis call centers serve an important function in suicide prevention as they often provide a front-line response during times when traditional mental health services may not be available or tenable to an at-risk individual.<sup>10,11</sup> Crisis line staff need to be prepared to answer calls on any topic, including suicide, and must be trained in suicide risk identification, risk assessment and management, and making referrals.<sup>12</sup> In 2007, standards for assessing suicide risk among callers to the National Suicide Prevention Lifeline were published<sup>12</sup>; these standards can serve as a foundation for training crisis line call center staff.

Additional training needs include knowledge about suicide risk and protective factors, confidence to conduct assessments over the phone, effective listening and communication skills, and use of suicide risk screening tools.<sup>13</sup> Although studies have demonstrated positive short-term outcomes for generating referrals for high-risk callers,<sup>10,11</sup> the majority of callers are not using referrals to services.<sup>11</sup> To improve client outcomes, Gould et al.<sup>11</sup> advocate training crisis line staff in motivational interviewing, an evidence-based practice easily replicated across many settings.

**Healthcare providers.** Healthcare providers such as primary care physicians and emergency department staff are professional GKs whose role in suicide prevention is focused on screening and immediate risk management. GK training with healthcare professionals in primary care and emergency department settings has led to improved awareness and recognition of suicide warning signs and willingness to refer patients for additional mental health services.<sup>8,14</sup> Evidence also suggests that physician education impacts suicide through increased diagnosis and treatment of depression.<sup>4</sup> These results support the importance and feasibility of integrating brief screening interventions in emergency departments and other primary care settings as a means to quickly identify at-risk individuals and use screening results to prompt healthcare professionals to make referrals.<sup>9,14</sup>

Suggestions for improving skills-based training among professional GKs include providing advanced reading material and periodic skills checks with booster training.<sup>15,16</sup> Wintersteen<sup>8</sup> found that the inclusion of two standardized suicide screening questions into existing pediatric primary care practice assessments resulted in a 392% increase in case detection of suicide risks and increased referrals of youth to BHPs. However, the predictive validity and effectiveness of brief screening tools

require greater attention, as do rates of follow through on referral and results of subsequent evaluations.<sup>17</sup>

## Behavioral Health Providers

Behavioral health integrates mental health and substance abuse treatment, both of which are associated with increased suicide risk.<sup>18</sup> Despite the regularity with which BHPs see suicidal individuals,<sup>1,19</sup> research suggests that prior training of BHPs in assessment and risk management is inadequate.<sup>19</sup> Without adequately trained BHPs, at-risk individuals will not receive competent care and can in fact be at greater risk for suicide.<sup>19</sup> BHP training should begin in graduate school with continued evaluation of suicide knowledge questions on licensure exams and required training for license renewal.<sup>19</sup> Training should be developed to meet BHP roles, which include comprehensive biopsychosocial assessment, with a strong emphasis on suicide, developing a risk formulation plan for immediate risk management, and ongoing re-evaluation of risk and mental health services.<sup>19</sup>

Training for BHPs should be competency-based.<sup>6,20</sup> There are many risk assessment competency frameworks in the literature, and competencies range from as few as two<sup>21</sup> to as many as 24.<sup>22</sup> Even with a high degree of agreement among experts, there are too many identified competencies for training and practice purposes, but general consistency in overall content suggests the possibility of establishing a universal list of competencies.<sup>6</sup> Cramer and colleagues provide an excellent comparison of competency frameworks<sup>20,22–24</sup> before merging them into their own “ten core competencies”<sup>6</sup> that can serve as a framework for clinical trainings.<sup>6</sup>

All training for BHPs must include knowledge of suicide warning signs, risk, and protective factors, and skills for effective risk assessment and documentation. Additionally, BHPs need decision-making skills for ongoing risk management and advanced training on evidence-based practices for minimizing risk with longer term treatment (e.g., psychotherapy, means restriction, safety plans).<sup>4</sup> Required training for licensure renewal is one method to ensure that BHPs continue to receive updated knowledge and skills as new interventions are developed. Finally, identification of effective training methods for BHPs is needed. For example, prior research demonstrates that BHPs may learn better from skills-based training that includes role-playing and standardized patients as compared to purely didactic learning.<sup>6,7</sup>

To sustain new skills, experts recommend the use of booster sessions, as single-exposure training models are not optimal for producing changes in clinical behavior, owing in part to the time needed to practice and develop skills.<sup>26</sup> Possible approaches include scheduled contacts

(e.g., annual training) or “point-of-contact” support when encountering an individual at imminent risk for self-harm. A more cost-effective method for providing ongoing contact may be through ongoing, targeted online sessions or webinars.<sup>25</sup>

### **Specification and Assessment of Core Training Components**

Knowledge, attitudes, and skills/practice behaviors are the core components of suicide training,<sup>1,2,27,28</sup> and although provider groups provide varied services, the foundation level of preparation to manage suicide risk is consistent.

A basic level of knowledge about warning signs, risk and protective factors, and referral resources is necessary for GK and BHP. Knowing how to identify an at-risk individual is the essential first step in preventing suicide, followed by familiarity with local resources such as crisis hotlines, emergency departments, and outpatient behavioral health clinics. As intervention techniques move from identification of risk to assessment and management of risk up to treatment, the need for more advanced knowledge increases.

Many studies have demonstrated the effectiveness of training in increasing knowledge among community and professional GKs and BHPs,<sup>15,27,28</sup> but linking increased knowledge to improved practice behaviors and reduced deaths is difficult. The assessment of knowledge is often specific to individual training curricula, limiting generalizability.<sup>29</sup> Instead, the authors recommend the use of a standardized knowledge measure with warning signs, risk and protective factors, and locale-specific referral resources.

In relationship to risk management, *attitudes* have been defined in multiple ways, including providers' views towards at-risk individuals, the effectiveness of prevention efforts, and a provider's sense of self-efficacy to work with at-risk individuals.<sup>4,16</sup> Research shows that training can yield more positive attitudes,<sup>30–32</sup> but changes are often not consistent across studies or sustained over time, indicating the need for ongoing training.<sup>12,28,33</sup> Given the limited number of existing attitude scales, efforts to create more standardized measures that can be cross-validated should continue.

Foundation skills and practice behaviors include identification of at-risk individuals, assessment of risk level, and referral for additional mental health services. Professional GKs require additional training to engage patients in risk management, including standardized screening tools and possible brief intervention such as safety planning. BHPs need to be trained to deliver the most advanced services including comprehensive assessment and suicide risk screening, short- and long-term risk management and treatment,<sup>29</sup> and implementation

of evidence-based interventions to prevent death.<sup>6</sup> Assessing skill-based outcomes is a challenging task, especially in the absence of observable client data. Assessment measures such as role-plays,<sup>34</sup> vignettes,<sup>29</sup> and videotaped interviews<sup>35</sup> are superior to self-report but lack sufficient evidence of validity and effectiveness.

Cramer et al.<sup>6</sup> propose using an Objective Structured Clinical Evaluation or Examination (OSCE), a method commonly used in medical competency training. The OSCE training method relies on observed practice behaviors using standardized patients or actors under the supervision of a trained clinician. Although this method is time consuming and costly, Cramer and colleagues<sup>6</sup> suggest that the time and cost associated with such comprehensive training are justified as a means to improving life-saving skills.

### **Discussion**

Although the field has made great strides in developing suicide training for various key groups, many challenges exist. In addition to standardizing training as an intervention to reduce suicide deaths, researchers need to identify methods for improving the overall adoption of training methods and fidelity of implementation over time to sustain the skills and practice behaviors emphasized during training.

The lack of a methodologically sound evidence base requires attention. Incorporating specific methods into future research will significantly advance the field. Recommendations include (1) implementing experimental or quasi-experimental designs, as the absence of control or comparison groups has made it difficult to evaluate training impact<sup>1,4,7</sup>; (2) implementing longitudinal research designs, as the majority of studies employ pre/post designs without follow-up assessments; (3) using larger, more diverse trainee and client samples; and (4) using standardized measures to assess training outcomes, with public dissemination of psychometric evaluations of assessment tools.

Additional training research is also recommended for several key factors: (1) the need for more GK and BHP trainings is questionable, and replicating existing trainings with promising evidence of effectiveness across different provider and at-risk groups may be more informative and lead to faster advancements<sup>18</sup>; (2) training modalities need to be compared, and thus feasibility of implementation, equivalency of outcomes, and cost-benefit analyses of different modalities should be studied using evidence-supported trainings,<sup>16,37</sup> providers should be surveyed on suicide training received in their degree programs, and licensing bodies should be surveyed on which skills for assessment and management of suicidal behavior are required<sup>1</sup>; (3) researchers should investigate

the long-term impact of supervision and ongoing training on training outcomes; and (4) the broader context of the organization should be evaluated in concert with training evaluations. The Organizational Social Context model of Glisson et al<sup>36</sup> can be used to evaluate organizational factors that support or inhibit the use of training skills and evidence-based interventions.

On the basis of the currently available evidence, the following recommendations are made regarding training practices: (1) concentrating trainings on staff working in boundaried settings where at-risk individuals are found; (2) implementing a “developmental” or staged approach to training by creating a universal foundation-level training in knowledge, attitudes, and skills with the ability to add advanced modules tailored to the specific needs of different provider groups or the populations they interact with; (3) avoiding didactic-only training formats, as evidence-based teaching and training methods for interactive learning such as practicing and role-playing skills, small and large group discussions, training cases, and expert demonstrations should be integrated<sup>6,7</sup> and pre-training strategies (e.g., sending self-assessments and research and practice literature in advance) should be implemented; and (4) integrating methods of providing post-training support such as booster sessions.

This article describes best practices and necessary next steps for research in training on suicide. To accomplish the Action Alliance’s goal of reducing suicide deaths by 40% in the next 10 years, training of community and professional GKs and BHPs is critical to ensure effective assessment of and immediate provision to suicidal individuals. The timing is ripe for research institutions and foundations to invest in studies that support the development of evidence-based training practices designed to improve provider practices that will ultimately result in improved suicide case finding, minimization of suicide risk, and prevention of suicide death.

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