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EFFECTS OF A SUICIDE ASSESSMENT AND INTERVENTION TRAINING ON PARTICIPANT PREPAREDNESS, COMFORT, AND COMPETENCE

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Effects of a Suicide Assessment and Intervention Training on Participant Preparedness,

Comfort, and Competence

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Abstract Content:
This study evaluated the effects of a six-hour strength-based suicide assessment and treatment workshop on participants knowledge, feelings of comfort and preparedness, skills and confidence, and self-reported suicide competence. Participants included school and mental health counselors, as well as other professions in related fields who completed one of the three workshops in Billings, Bozeman, or Victor, Montana. Participants completed a pretest before engaging in the six-hour workshop, and then completed a posttest packet immediately following the workshop. Participants were assessed using the SCAF (Cramer et al., 2013), and three unpublished measures: Suicide Knowledge Quiz (SKQ), Suicide Skills Survey (SF-SSS), and workshop reflection tool. This study focused on whether previous training in graduate school or post graduate school predicted higher pretest scores on all measures. This study also evaluated treatment effects by analyzing pretest and posttest scores on all measures. Generally, significance was found across all measures. Conclusions and recommendations for research are provided.

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CHAPTER 1: INTRODUCTION

According to the Centers for Disease Control and Prevention (CDC, 2020), compared to 1999, suicide rates in the United States have increased over 35%, from 10.5 deaths per 100,000 people in 1999, to 14.2 deaths per 100,000 people in 2018. Overall, 44,344 individuals died by suicide in 2018 in the United States (https://afsp.org/about-suicide/suicide-statistics/)). To put U.S. suicide rates into perspective, an average of 129 people dies by suicide each day.

There seems to be a widespread misconception that those who die by suicide have a diagnosed mental disorder, but in a *Vital Signs* (CDC, 2018) report over 54% of individuals who died by suicide did not have a known mental health condition. Many factors contribute to suicide among individuals with and without mental health conditions including, but not limited to: problematic substance use, relationship problems, job/financial problems, criminal legal problems, loss of housing, physical health problems, and crisis in the past or upcoming two weeks (CDC, 2018).

Suicide is a complex universal public health problem that leaves no age group or demographic unaffected. Death by suicide was the tenth leading cause of death in the United States in 2017, second leading cause of death of individuals 10 to 34 years-old, and the fourth leading cause of death for individuals 35 to 54 years-old, and eighth leading cause of death for individuals 55-64 years-old (CDC, 2018). According to

Hedegaard, Curtin, and Warner (2018), there has been an annual increase in death by suicide rates for both males and females from 2006 through 2017.

The CDC recently released the *Youth Risk Behavior Surveillance System* (YRBSS) national school-based survey data summary and trends report; the ten-year trend from 2007-2017 for suicide ideation and actions is discouraging, as the following trends illustrate (https://www.cdc.gov/healthyyouth/data/yrbs/pdf/trendsreport.pdf). Findings among high school students included:

- Persistent feelings of sadness or hopelessness increased from 28.5% in 2007 to 31.5% in 2017
- Students seriously considering attempting suicide rose from 14.5% in 2007 to 17.2% in 2017.
- Students reporting that they have made a suicide plan has risen from 11.3% in 2007 to 13.6% in 2017.
- Suicide attempt rates rose from 6.9% in 2007 to 7.4% in 2017.
- Suicide attempt related injury rates rose from 2.0% in 2007 to 2.4% in 2017.

These numbers imply that suicide prevention, assessment and intervention efforts are not reducing suicide-related behaviors.

Due to the prevalence of suicide ideation across the lifespan, counseling professionals and counselors-in-training in a variety of settings frequently encounter individuals who are contemplating suicide (Barrio, 2007; Binkley & Liebert, 2015; Lund, Schultz, Nardorff, Galbaith, & Thomas, 2017). Continued and growing problems regarding suicide in school-age youth is a primary reason why schools need to be vigilant

about improving and reforming suicide prevention, assessment, and intervention efforts (YRBSS, 2017). Client suicide is often referred to an "occupational hazard" in the counseling and mental health treatment literature. Client suicide is one of the most distressing aspects of being a helping professional and can have lasting effects both personally and professionally (Chemtob, Bauer, Hamada, Pelowski, & Mraoka, 1989; Feldman & Freedenthal, 2006; Knox, Burkard, Jackson, Schaak, & Hess, 2006). In order to be competent and ethical, all helping professionals must be adequately trained in evidence-based suicide assessment, intervention, and management (Cramer, Johnson, McLaughlin, Rausch, & Conroy, 2013); this mandate also exists to facilitate health and well-being among counselors and other mental health professionals.

Increasing suicide rates have led to numerous calls for increased suicide prevention resources, more research, and improvement in suicide-specific training and education, with the goal of reducing the numbers of death by suicide each year (Binkley & Liebert, 2015; Cramer & Long, 2018; Granello, 2010). Mental health and health professionals need formal, systematic, and evidence-based trainings that address core competencies and skill acquisition in suicide assessment and intervention. Although the American Association of Suicidology (AAS) has made recommendations for improving professional training, the implementation and standardization of these recommendations varies across disciplines, university training programs, and from state to state (Cramer et al., 2013).

Unfortunately, numerous research studies have found that many graduate level counselor education programs do not adequately prepare graduates to work with individuals experiencing suicidal crises (Binkley & Liebert, 2015; Schmitz, Allen,

Feldman, Gutin, Jahn, Kleespies, Quinnett, & Simpson, 2012). Inadequate preparation in suicide assessment, intervention and management is also a problem for other helping professional groups who routinely work with suicidal clients and patients, such as social work, clinical psychology, psychiatry, emergency medicine, and public health (Feldman & Freedenthal, 2006; Liebling-Boccio & Jennings, 2013).

Binkley and Leibert (2015) reported that accredited graduate programs that require suicide specific training are often ambiguous about the content, timing, and approach that should be used. According to Oordt et al. (2009), when professionals do not receive curriculum-based training on suicide assessment and intervention during their education they are likely to receive training within the context of direct clinical supervision. The problem with this approach is that the training may or may not include exposure to current empirical literature, and may emphasize outdated or ineffective practices such as the use of "no-suicide" contracts (Oordt et al., 2009).

In an effort to update and clarify training objectives in suicide assessment and intervention, Cramer and colleagues (2013) reviewed numerous published training competencies and distilled them into 10 core competencies for training mental health professionals in suicide assessment and treatment. These competencies provide a focus for training that can be adapted for a variety of mental health professional training programs. The 10 core competencies were created to facilitate research on evidence-based approaches to suicide risk training in mental health programs (Cramer et al., 2013). The 10 core competencies in suicide risk assessment are:

1. Know and manage your attitude and reactions toward suicide when with a client (AAS, 2010; Joiner, 2005; Rudd, 2006; Cramer et al., 2013).

2. Develop and maintain a collaborative, empathic stance toward the client (AAS, 2010; Joiner, 2005; Rudd, 2006; Ellis et al., 2012; Cramer et al., 2013).
3. Know and elicit evidence-based risk and protective factors (AAS, 2010; Joiner, 2005; Rudd, 2006; Kleespies et al., 1993; Kleespies, Hough & Romeo, 2009; Sullivan & Bongar, 2009; Kleespies et al., 2009; Bryan & Rudd, 2006; Cramer et al., 2013).
4. Focus on current plan and intent of suicidal ideation (AAS, 2010; Joiner, 2005; Rudd, 2006; Sullivan & Bongar, 2009; Bryan & Rudd, 2006; Cramer et al., 2013).
5. Determine level of risk (AAS, 2010; Joiner, 2005; Rudd, 2006; Sullivan & Bongar, 2009; Bryan & Rudd, 2006; Van Orden et al., 2010; Cramer et al., 2013).
6. Develop and enact a collaborative evidence-based treatment plan (AAS, 2010; Joiner, 2005; Rudd, 2006; Sullivan & Bongar, 2009; Cramer et al., 2013).
7. Notify and involve other persons (AAS, 2010; Rudd, 2006; Sullivan & Bongar, 2009; Cramer et al., 2013).
8. Document risk, plan, and reason for clinical decisions (AAS, 2010; Rudd, 2006; Cramer et al., 2013).
9. Know the law concerning suicide (AAS, 2010; Joiner, 2005; Rudd, 2006; Cramer et al., 2013).
10. Engage in debriefing and self-care (Joiner, 2005; Kleespies et al., 2009; Kleespies et al., 1993; Cramer et al., 2013).

Problems and Potential Solutions

Suicide is a ubiquitous human experience; school and mental health professionals are likely to encounter suicidal clients in a variety of settings. Unfortunately, graduate training programs in the field of counseling are lacking a systematic way to effectively teach counselors in training how to assess and provide evidence-based interventions for individuals experiencing suicidal crises. Common problems noted in the literature include, but are not limited to:

- Graduate programs have had a piecemeal approach to teaching suicide assessment and intervention.
- Not all programs have dedicated enough time and attention to this important topic and related skills; inadequate training can lead to issues with self-efficacy (counselors not asking about suicide, fears, etc.), use of old models (medical model, judgment, no harm contracts).
- Delivery methods for suicide trainings are variable. They include: one to two-day trainings, semester long courses, role-plays, videos, computer simulated clients, online courses, but there's little systematic research comparing the efficacy of these various training models.
- Without the existence of a systematic and comprehensive counselor training program for suicide assessment and treatment, by default, counseling students and professionals often receive introductory-level gatekeeper trainings like ASIST and QPR. These trainings are intended for everyone, and mental health professionals need and deserve to have a greater depth of knowledge and understanding of risk

assessment and evidence-based interventions when working closely with suicidal clients.

A potential solution to these issues would be to organize and evaluate a competency-based suicide assessment and treatment training protocol for training future counselors and counseling professionals. Cramer and colleagues (2013) proposed 10 Core Competencies that could potentially guide a promising standardized model for graduate programs. By obtaining training consistent with the competencies, all counselors in training could be exposed to up to date suicide risk assessment and intervention content. Using a competency-based model could also help nudge the Council for Accreditation of Counseling and Related Programs (CACREP, 2016) to integrate clearer CACREP standards regarding adequate suicide assessment and intervention training across all CACREP programs. The adoption of this competency model by other helping professions would likely improve client care across settings, and collaborative care would be more fluid and comprehensive.

Research Question and Hypotheses

This study examined the effects of a six-hour strength-based suicide assessment and treatment workshop on the knowledge, comfort, confidence, perceived skills, and self-rated competence of mental health and school professionals. I also evaluated whether there were differences in how participants scored on pretest and posttest measures based on professional discipline, previous practitioner experience, and previous hours of graduate level and post-graduate suicide training. The results of this study inform program development regarding suicide assessment and treatment training in graduate programs (e.g., counselor education), as well as professional post-graduate training.

Dependent variables included (a) participant's suicide knowledge, (b) self-ratings of comfort conducting suicide assessments, (c) self-ratings of confidence when working with suicidal clients or students, (d) perceived self-efficacy in suicide assessment and treatment, and (e) self-rated competence. Pre- and post-workshop ratings of suicide competence were also compared with benchmark scores from previous research using the Suicide Competence Assessment Form (Cramer et al., 2013).

I tested the following hypotheses:

Hypothesis 1a: Participants with previous training in suicide assessment and treatment in graduate school will have significantly higher pretest scores in self-perceived suicide risk assessment competence as compared with participants with no previous training, as measured by the SCAF (Cramer et al., 2013).

Null hypothesis 1a: Participants with previous training in suicide assessment and treatment in graduate school will have no significant difference in self-perceived suicide risk assessment competence as compared with participants with no previous training, as measured by the SCAF (Cramer et al., 2013).

Hypothesis 1b: Participants with previous training hours in suicide assessment and treatment in graduate school will have significantly higher pretest scores in self-perceived suicide risk assessment competence as compared with participants with no previous training, as measured by the SCAF (Cramer et al., 2013).

Null hypothesis 1b: Participants with previous training hours in suicide assessment and treatment in graduate school will have no significant difference in self-perceived suicide risk assessment competence as compared with participants with no previous training, as measured by the SCAF (Cramer et al., 2013).

Hypothesis 1c: Participants with previous training in suicide assessment and treatment in graduate school will be significantly related to higher pretest scores in self-perceived suicide risk assessment competence as compared with participants with no previous training, as measured by the SCAF (Cramer et al., 2013).

Null hypothesis 1c: Participants with previous training in suicide assessment and treatment in graduate school will not be significantly related to higher scores in self-perceived suicide risk assessment competence as compared with participants with no previous training, as measured by the SCAF (Cramer et al., 2013).

Hypothesis 2a: Participants with previous training in suicide assessment and treatment in graduate school will have significantly higher pretest scores on the suicide knowledge quiz as compared with participants with no previous training.

Null hypothesis 2a: Participants with previous training in suicide assessment and treatment in graduate school will have no significant initial difference in pretest knowledge as compared with participants with no previous training, as measured by the suicide risk knowledge quiz.

Hypothesis 2b: Participants with previous training hours in suicide assessment and treatment will have significantly higher pretest scores on the suicide knowledge quiz as compared with participants with no previous training.

Null hypothesis 2b: Participants with previous training hours in suicide assessment and treatment will have no significant initial difference in pretest knowledge as compared with participants with no previous training, as measured by the suicide risk knowledge quiz.

Hypothesis 2c: Participants with previous training in suicide assessment and treatment in graduate school will be significantly related to higher pretest scores on the Suicide Knowledge Quiz (SKQ) as compared with participants with no previous training.

Null hypothesis 2c: Participants with previous training in suicide assessment and treatment in graduate school will not be significantly related to higher scores on the pretest Suicide Knowledge Quiz (SKQ).

Hypothesis 2d: Participants with previous training in suicide assessment and treatment in graduate school will have significantly higher self-rated feelings of comfort scores from pretest to posttest, as measured by item 13 on the Suicide Knowledge Quiz (SKQ).

Null hypothesis 2d: Participants with previous training in suicide assessment and treatment in graduate school will not have significantly higher self-rated feelings of comfort scores from pretest to posttest, as measured by item 13 on the Suicide Knowledge Quiz (SKQ).

Hypothesis 2e: Participants with previous training in suicide assessment and treatment in graduate school will have significantly higher self-rated feelings of preparedness scores from pretest to posttest, as measured by item 14 on the Suicide Knowledge Quiz (SKQ).

Null hypothesis 2e: Participants with previous training in suicide assessment and treatment in graduate school will not have significantly higher self-rated feelings of preparedness scores from pretest to posttest, as measured by item 14 on the Suicide Knowledge Quiz (SKQ).

Hypothesis 3a: Participants who complete the 6-hour workshop will show a significant increase in self-perceived suicide assessment competence from pretest to posttest, as measured by the Suicide Competency Assessment Form (SCAF) (Cramer et al., 2013; adapted from Hung et al., 2012).

Null hypothesis 3a: Participants who complete the 6-hour workshop will show no significant difference in self-perceived suicide assessment competence from pretest to posttest, as measured by the Suicide Competency Assessment Form (SCAF) (Cramer et al., 2013; adapted from Hung et al., 2012).

Hypothesis 3b: Participants who complete the 6-hour workshop will show a significant increase in scores on the SCAF that are consistent with or greater than previous outcome studies using this measure from pretest to posttest.

Null Hypothesis 3b: Participants who complete the 6-hour workshop will not show a significant increase in scores on the SCAF that are consistent with or greater than previous outcome studies using this measure.

Hypothesis 4a: Participants who complete the 6-hour workshop will show a significant increase in their SF Suicide Skills Survey (SF-SSS) from pretest to posttest.

Null Hypothesis 4a: Participants who complete the 6-hour workshop will show no significant difference in their SF Suicide Skills Survey (SF-SSS) score from pretest to posttest.

Hypothesis 4b: Participants pretest and posttest scores on the SCAF and SF-SSS will show a positive correlation.

Null hypothesis 4b: There will be no correlation between participants pretest and posttest scores on the SCAF and SF-SSS.

Hypothesis 5: Participants who complete the 6-hour workshop will demonstrate a significant increase in suicide knowledge from pretest to posttest, as measured by the Suicide Knowledge Quiz (SKQ).

Null hypothesis 5: Participants who complete the 6-hour workshop will not demonstrate a significant increase in suicide knowledge from pretest to posttest, as measured by the Suicide Knowledge Quiz (SKQ).

Assumptions of the Study

For the purpose of this study, the following assumptions were made:

1. The SCAF is a reliable and valid measure of self-perceived suicide assessment and treatment competence.
2. The pre-post suicide knowledge quiz and suicide skills survey are face valid instruments that should be sensitive to learning that occurs during suicide assessment and treatment workshops and may correlate with the SCAF.
3. Suicide risk assessment and treatment competence is essential to the process of assessing and treating individuals at risk for suicide.
4. Counselors in a variety of settings are likely to work with individuals who are at risk for suicide.
5. Counselor education students are likely to work with individuals who are at risk for suicide.
6. Suicide assessment and intervention skills are critical competencies for counseling professionals and counselors in training who are likely to work with individuals at risk for suicide.
7. Participants will respond honestly to questionnaire used in this study.

Limitations of the Study

1. This study is used a convenience sample from participants enrolled in several separate sessions of the "Advances in Suicide Assessment and Treatment Planning" workshop for professionals, and thus, generalizable to other populations is limited.
2. This study relied on self-report data from pre- and post-test measures of knowledge, competency/skill and attitudes, and level of education and training. These measures are unpublished and lack psychometrics.
3. Although the SCAF is a published questionnaire, its psychometric properties are still in development, especially with regard to its reliability, validity, and sensitivity for detecting changes in counselor suicide assessment and treatment competence before and after suicide training workshops.
4. The data for this study was collected from multiple trainings, and the training is not manualized yet. So, there might have been minor variations in topics that were brought up and discussed during each workshop. However, the content of each training was consistent and each training was led by the same trainer. Also, having multiple sites may provide broader sample of graduate students and professionals seeking knowledge and skills in suicide assessment and treatment.
5. This study utilized a non-experimental design, and lacked a control group for comparison. Consequently, statements about cause and effect are speculative.

Delimitations of the Study

1. This study included participants who were above the age of 18 and enrolled in the "Advances in Suicide Assessment and Treatment Planning" workshop for professionals.
2. Participants were limited to school and mental health professionals living and working in Montana.

Definition of Terms

Table 1

Definition of Terms for Study

Term	Definition
Suicidal behavior	any action that could cause a person to die (i.e., self-inflicted injury, poisoning, or suffocation) with the intent to die (Rudd, 2006).
Self-efficacy	"the degree to which an individual feels confident in performing a particular task" (Bandura, 1986, p. 391).
Gatekeeper	individuals trained to identify individuals at risk of suicide and to refer them to appropriate community resources and supportive services (Burnette, Ramchand & Ayer, 2015).
Risk factor	is a "measurable demographic, trait, behavior, or situation that has a positive correlation with suicide attempts and/or death by suicide" (Sommers-Flanagan & Sommers-Flanagan, 2017, p. 348).
Protective factor	"personal or contextual factors that have been shown to decrease suicide risk or aid in resisting suicide impulses" (Sommers-Flanagan & Sommers-Flanagan, 2017, p. 352).

Warning signs	empirically researched signals of immediate suicide risk that cannot be used as predictors for suicide attempts or completion. Example: IS PATH WARM: I = ideation; S= substance use; P = purposelessness; A = anxiety; T = trapped; H = hopelessness; W = withdrawal; A = anger; R = recklessness; and M = mood changes (Sommers-Flanagan & Sommers-Flanagan, 2017).

Chapter Summary

Mental health and school professionals commonly assess and intervene when individuals are experiencing suicide ideation. Suicide rates have been on the rise for decades; this suggests that recent and current prevention and intervention efforts are not adequately addressing the issue. Although the literature often includes descriptions of how to prepare mental health professionals to be comfortable, competent, and skilled in suicide assessment and intervention, inconsistency in training is a major problem that needs to be addressed in graduate programs and for practicing mental health and school professionals. The significance of this study was to establish the utility of locally developed the six-hour workshop format and content for improving participant knowledge, skills, and competence. This study will help determine the viability of a locally developed strength-based suicide assessment and treatment training workshop and inform future research on the timing, content, and measurement of education and training in suicide assessment and treatment.

CHAPTER 2: REVIEW OF THE LITERATURE

A Public Health Issue

Suicide rates have continued to increase despite national, state, and local prevention efforts. Mental health and school professionals often work with individuals experiencing suicide ideation, and working with students, clients, and patients is typically described as one of the most stressful issues that mental health professionals encounter (Kleespies & Dettmer, 2000). It has been noted often in the literature that graduate training for suicide risk assessment and intervention varies across programs and disciplines. Many health, school, and mental health professionals have noted that they did not have adequate training to deal with this critical issue (Schmitz et al., 2012). In an effort to address this public health crisis, many national, state and local agencies are turning to a variety of suicide training programs.

Theories of Suicide

Suicide is a complex and infrequent phenomenon. Consequently, to provide foundational knowledge about suicide as a human phenomenon, this section includes a brief overview of suicide theories. Theory gives clinicians the knowledge and tools to competently assess and treat individuals experiencing suicidal ideation. Having this foundational knowledge is important from an academic perspective, but also can help clinicians have a better understanding of their clients' experiences. This section includes content derived from the works of Durkheim, Baumeister, Shneidman, Leenaars, Joiner, Beck, and Linehan. The work of these theorists and practitioners have heavily influenced the 10 core competencies outlined by Cramer et al. (2013).

Sociological Theory: Emile Durkheim

Emile Durkheim (1897) well known for being one of the French founders of sociology as an academic discipline (Peyre, 2020). Durkheim was an early suicidologist whose theory focused on the role of social causes for individual suicide. In his theory he incorporated the roles of social integration and social regulation. Durkheim identified four different types of suicide: egotistic, altruistic, anomic, and fatalistic. According to Durkheim, 'egotistic' suicide occurs when individuals do not feel socially integrated in their community. These individuals have low integration and feel like they do not belong or they are isolated or detached from their community. The next type of suicide identified by Durkheim is 'altruistic', which is caused by excessive integration into the community. These individuals have high integration and believe that their death would somehow benefit society (i.e. perceived burdensomeness). Durkheim's next type, 'anomic' suicide, occurs when individuals live in communities with minimal social regulation. This lack of social regulation leads to a lack of a moral framework or sense of meaning for individuals. Finally, the fourth and final type identified by Durkheim is 'fatalistic' suicide. In this type individuals live in communities where social regulation is extreme and individuals are oppressed and controlled (i.e. arranged marriage in patriarchal society). Durkheim's work has been extremely influential because he emphasized the idea that social disconnection and perceived burdensomeness can be major sources that influence a individuals' desires to end their lives. Durkheim tried to examine the reasons why individuals died by suicide without incorporating morality or judgment into his theory (Selby, Joiner & Ribeiro, 2014).

Escape Theory: Roy Baumeister

Roy Baumeister's (1990) 'escape theory' explains suicide as a sequential six-step process. In the first step, individuals fail to meet standards because of setting unrealistically high life expectations, experiences negative life experiences or setbacks, or both. Second, individuals make internal attributions so that these failures are internalized as being the individuals' fault and helps to cause low self-esteem. Third, individuals start to view themselves as inadequate, incompetent, unattractive or guilty in relation to recent failures. Fourth a negative affect arises from comparing unfavorable selves with standards, which can manifest as depression, anxiety or anger. In the fifth step, individuals try to respond to this unhappy state by avoiding or rejecting meaningful thought. Individuals go relatively numb and cognitive deconstruction begins to take place, and relatively narrowed thinking or cognitive constriction occurs. And finally, the sixth step stems from the consequences of the deconstructed mental state. This results in a reduction in inhibitions, which may contribute to engagement in reckless behaviors, absence of emotions, and irrational thoughts. This may come in the form of substance abuse, self-harm, risk taking behaviors, and/or social withdrawal. Thus, through this escalation of a wish to escape, suicide emerges as a solution to current life problems and beliefs about the self (Baumeister, 1990).

Psychache: Edwin Shneidman

Edwin Shneidman, a pioneer in suicidology, believed that there was one central factor in all suicides. Shneidman referred to this factor as the 'psychache', which he defined as the "hurt, anguish, soreness, and aching psychological pain in the mind" (Shneidman, 1993, p. 51). Shneidman believed that psychache occurred when an

individual's needs were not met or were frustrated. In Shneidman's theory, frustrated needs might be experienced as thwarted belonging, excessive helplessness, damaged self-image, and damaged relationships. According to Shneidman, each person has a different threshold for enduring psychache. Once an individual's threshold is reached, suicide emerges as an answer to end the psychological pain (Shneidman, 1993b).

Antoon Leenaars: Multidimensional Model of Suicide

Antoon Leenaars is a suicidologist who investigates suicides retrospectively, drawing on resources such as personal documents, interviews with survivors, official government reports, suicide notes, and any other available sources. This process is often referred to as conducting a psychological autopsy in order to understand why an individual died by suicide. In Leenaars' (1996) research he examined intrapsychic and interpersonal elements that drive individuals towards suicide. Intrapsychic elements include things like: unbearable psychological pain; cognitive constriction or tunnel vision; feelings of ambivalence towards living; and, difficulty coping with problems and losses. Interpersonal elements include things like: frustrated relationships; rejection or abandonment and aggressions that is turned inward; and a strong attachment to another that is not met, or egression. By looking at an individual's lived experiences, researchers can get a better idea of the 'why' underlying the choice to die by suicide (Leenaars, 1996).

Interpersonal Theory of Suicide: Thomas Joiner

Thomas Joiner's (2005) interpersonal theory of suicide includes three factors that must be present in order for an individual to die by suicide. These factors are thwarted belongingness, perceived burdensomeness, and an acquired capability for suicide.

Thwarted belongingness is similar to Durkheim's egotistic suicide, and is the lack of meaningful connection or a loss of a previously strong relationship. Perceived burdensomeness is similar to Durkheim's altruistic suicide. Perceived burdensomeness is a belief by an individual that they are a burden on others, have failed to make a meaningful contribution to society, or that they are a liability. Once an individual has experienced thwarted belongingness and perceived burdensomeness, they are likely to have a desire for suicide. This is where the acquired capability for suicide comes into play. A person may no longer fear pain and become desensitized to the idea of suicide by repeated or chronic exposure to painful events or self-injury behavior.

Hopelessness Theory: Aaron Beck

Aaron Beck proposed a hopelessness theory of suicide in which hopelessness is the 'catalytic agent' that drives a person towards suicide (Beck, Kovacs, Weissman, 1975). Beck has noted that hopelessness is a stronger indicator of suicidal intent than depression. Beck identified hopelessness as a treatment target for clinicians working with individuals experiencing suicide ideation. Beck has also created measurements to help aid clinical assessment of suicidality, including: The Beck Depression Inventory (BDI), the Suicide Intent Scale (SIS), and the Beck Hopelessness Scale (BHS) (Beck, Kovacs, & Weismann, 1974).

Emotion Dysregulation Theory: Marsha Linehan

Marsha Linehan's theory of emotional dysregulation focuses on an individual's response to stress and emotional regulation from a 'bio-social' perspective. Individuals experiencing suicide ideation often experience extreme emotional states that are intense and aversive in nature. Often individuals in these sensitive states attempt to cope or

regulate the pain by engaging in self-injury, and in more extreme cases, a suicide can result. Linehan is also known for the development of Dialectical Behavior Therapy (DBT). DBT is a treatment approach designed to help clients who meet the diagnostic criteria for Borderline Personality Disorder (BPD) develop greater skills for managing emotional dysregulation. DBT targets behavioral skill deficits within a problem-solving and skill-building framework:

> Standard DBT addresses the following 5 functions: (1) increasing behavioral capabilities, (2) improving motivation for skillful behavior (through contingency management and re- duction of interfering emotions and cognitions), (3) assuring generalization of gains to the natural environment, (4) structuring the treatment environment so that it reinforces functional rather than dysfunctional behaviors, and (5) enhancing therapist capabilities and motivation to treat patients effectively. These functions are divided among the following 4 modes of service delivery: (1) weekly individual psychotherapy (1 h/wk), (2) group skills training (2½ h/wk), (3) telephone consultation (as needed within the therapist's limits to ensure generalization), and (4) weekly therapist consultation team meetings (to enhance therapist motivation and skills and to provide therapy for the therapists) (Linehan et al., 2006, p. 759).

Current Suicide Prevention and Intervention Training Models

Currently there are a variety of suicide assessment and intervention models available to the general public, and there are some that are geared specifically towards mental health professionals. Each of these models and training programs incorporate

pieces and parts of various suicide theories, as well as empirical research. In this section I review frequently used prevention and intervention programs. Many of these programs are selected for use by counseling programs and researchers because no other alternative, evidenced-based programs for counseling students exist at this time (Shannonhouse, 2017).

Question Persuade Refer (QPR).

Program Description.

Question, Persuade, Refer (QPR) is a one to two-hour gatekeeper training for suicide prevention that can be taught face-to-face, online, or in a blended format. QPR was created by Dr. Paul Quinnett in 1995, and since then has become very popular as a training for teachers, parents, and interested community members. The QPR Institute was created and several QPR presentations and publications are included on its website.

QPR trainers can be any adult who is 18 years of age and older who have completed a minimum of eight hours of formal certification training. Certification is good for up to three years. Booster sessions for trainers are recommended, but not required (Quinnett, 2013). QPR training focuses on (a) the epidemiology of suicide and current statistics; (b) myths and misconceptions about suicide and prevention; (c) general suicide warning signs; and (d) the three targeted gatekeeper skills: Question, Persuade, and Refer (QPR). QPR is meant to be used as an emergency mental health intervention much like cardio pulmonary resuscitation (CPR) is used as an emergency medical intervention. Like CPR, early detection and action via QPR is framed as potentially meaning the difference between life and death (Quinnett, 2013).

Empirical Research.

Wyman, Brown, Inman, Cross, Schmeelk-Cone, Guo, & Pena (2008) conducted a randomized control trial looking at the impact of QPR training on secondary school staff. Participants included a sample of 122 trained and 127 untrained staff. Participants included teachers, administrators, health and social service staff, and support staff. Wyman and colleagues (2008) reported that baseline knowledge, appraisals, and behaviors related to suicide assessment and intervention were related to individual's job roles. Specifically, support staff had the lowest baseline scores and highest gains in knowledge appraisals, but, when compared to trained staff, were less likely to ask directly about suicide. In contrast, trained staff who were already engaging in identification behaviors prior to the training showed increases in staff to student communications (i.e., engaged in conversations where student disclosed suicide ideation or asked students directly about suspected suicide ideation) with individuals in distress (Wyman et al., 2008).

Tompkins and Witt (2009) reported an outcome similar to Wyman et al (2008) in a research study with residence life advisers (RAs). Thompkins and Witt sought to (a) examine the changes in knowledge about suicide and suicide intervention techniques; (b) self-efficacy in relation to intervention with a suicidal person; and (c) self-reported experiences with identifying and referring suicidal students following QPR training. A quasi-experimental nonequivalent control group design was used to compare measurement questionnaires between RAs who went through the QPR training *(n = 122)* and RAs from other schools who did not receive training but completed the baseline measures *(n = 118)*. For RAs who completed the training, measurement questionnaires

were administered before and after the training. Researchers conducted follow-up measures with both groups at intervals of four to six months and gathered responses from 60 of the QPR trained RAs and 82 of the control group RAs. Tompkins and Witt (2009) found that QPR trained resident advisers reported increases in baseline knowledge, appraisals, and intentions to perform a gatekeeping role, but did not report a significant increase of engagement in gatekeeping behaviors (i.e., they did not show an increase in asking directly about suicide ideation, persuading peer to seek help, and taking individuals to see a counselor). Interestingly, even though the control group received no training, gains were shown at follow-up in the areas of self-evaluation of knowledge, gatekeeper efficacy, and general self-efficacy. (Tompkins & Witt, 2009).

Consistent with other gatekeeping studies, such as the Wyman et al. (2008) study, Thompkins and Witt (2009) reported that individuals with little prior suicide prevention training or contact with suicidal individuals sustained the greatest gains in knowledge, self-efficacy and intention to intervene (not to be confused with actual intervention behaviors). In contrast, individuals with prior training or contact with suicidal individuals began with and maintained higher scores in knowledge, self-efficacy, intention to intervene, and reported more frequent post-training suicide intervention behaviors (Tomkins & Witt, 2009). Researchers noted that individuals with more suicide prevention knowledge might benefit more from an experiential skill development component of QPR rather than the didactic portion of QPR training (Wyman, 2008; Tomkins & Witt, 2009).

Applied Suicide Intervention Skills Training (ASIST).

Program Description.

ASIST is a 14-hour, two-day, gatekeeping training. ASIST has been classified as a "promising" suicide prevention program, due to several meta-analyses and reviews showing good outcomes by the Substance Abuse and Mental Health Service Administration's (SAMHAS) National Registry of Evidence-based Programs and Practices (Gould, Cross, Pisani, Munfakh & Kleinman, 2013). The Suicide Prevention Resource Center (SPRC) lists ASIST as an empirically-supported prevention program. However, ASIST does not hold an evidenced-based "effective" rating due to lack of randomized control trials and other research methodology issues (e.g., several studies relied solely on self-reports for outcomes measures).

ASIST-trainers utilize a manualized three-phase, six-step Pathway for Assisting Life (PAL) approach; PAL includes developing a co-constructed safety plan that reflects present and future risk, resources, and the needs of the individual (Shannonhouse, Lin, Shaw, & Porter, 2017). The goal of ASIST is to provide "suicide first aid" skills to participants. ASIST training is open to anyone over age 16 years; no previous education or experience is required. Trainers utilize audiovisual aids, whole group and small group discussion, and behavioral rehearsal for skill practice and development.

Empirical Research.

Gould, Cross, Pisani, Munfakh and Klieman (2013) conducted a strong methodological study that showed positive outcomes for suicide prevention call centers. The National Suicide Prevention Lifeline national network of crisis hotlines was used in randomized controlled trial that utilized silent monitoring by observers who were blind to

counselors' ASIST-training status (i.e., double-blind study; Gould, Cross, Pisani, Munfakh, & Klienman, 2013). The study included over 1,500 calls, and silent monitoring was done over two years. Gould et al. (2013) found that ASIST-trained counselors generated longer calls and demonstrated increased positive counselor behaviors. Positive counselor behaviors included exploring suicidal thoughts, reasons for living and ambivalence about dying, and developed safety plans that included informal supports in callers' lives as compared with the non-ASIST-trained counselors. ASIST-trained counselors were observed to have callers who appeared less depressed, suicidal, and overwhelmed after calling when compared to the non-ASIST-trained group. However, ASSIST-trained counselors were not more likely to explore suicide plans, preparation behaviors and actions, intent, or prior suicide ideation or attempts than non-ASIST-trained counselors (Gould et al., 2013).

Shannonhouse, Lin, Shaw, and Porter (2017) noted that there is little empirical data on the effectiveness of ASIST in K-12 settings. Similar to critiques of the QPR training, Shannonhouse et al. (2013) found that individuals who had previous training in suicide prevention and intervention benefited less from the ASIST training than those individuals without previous training. Individuals with previous training experiences began with stronger intervention skills, more helpful attitudes, more accurate knowledge, and were more competent, confident, and comfortable providing suicide assessment and intervention at baseline (i.e., pretest scores). Consequently, they made smaller gains than participants with less previous experience (Shannonhouse et al., 2017). Although school counselors are less likely to benefit from an ASIST or similar gatekeeper training when compared to their non-mental health colleagues, Shannonhouse et al. (2017) still

concluded that it is helpful to have a school community with many staff members trained in suicide intervention so that school counselors and staff can reach and provide comprehensive care to more at-risk youth.

A 2016 ASIST training study examined the use of the gatekeeping program with a primarily American Indian population (Cwik, Tingey, Wilkinson, Goklish, Larzelere-Hinton, & Barlow, 2016). Consistent with previous studies, participants showed increases in knowledge and self-efficacy. However, this study yielded an important cultural finding. Cwik and colleagues noted that further adaptation is needed to address cultural differences when implementing programs like ASIST in American Indian or Alaskan Native communities. Further, trainers should be cautious about implementing trainings like ASIST without giving attention to the local history, context, and values of the community (Cwik et al., 2016).

Signs of Suicide (SOS).

Program Description.

The National Registry of Evidence-based Programs and Practices (NREPP) listed Signs of Suicide (SOS) as a promising universal, school-based gatekeeping program aimed at middle school and high school populations. SOS has several main goals: (a) to increase student knowledge and adaptive attitudes about depression and suicide; (b) to encourage help-seeking behavior for self or a friend through the Acknowledge, Care, Tell technique (ACT); (c) to reduce stigma around mental health and highlight the importance of seeking help or treatment when needed; (d) to encourage engagement of parents and school staff as partners in prevention with the use of gatekeeper education; and (e) to encourage schools to develop community-based partnerships to support student mental

health. SOS uses an anonymous screening tool for depression and suicide related behaviors, and response cards for students who would like to talk to a trusted adult about themselves or a friend upon completion of the SOS program.

The SOS program also utilizes age-appropriate videos that are shown by school staff to students. The middle school video is called Time to ACT and high school video is called Friends for Life, both videos include the ACT message, ways to respond to individuals exhibiting symptoms of depression, a student interview with a school counselor and discussion of mental health topics. The high school video also includes interviews with teens who are in treatment for depression and previous suicide attempts. A training video called *Training Trusted Adults* is also included for staff; it discusses how to engage parents, staff, and other community members in the programs' objectives and prevention efforts.

Empirical Research.

Schilling et al. (2016) found that participation in the SOS program with a sample of ninth-grade students resulted in significantly lower self-reported suicide attempts at three-month follow up, and greater participant knowledge of depression and suicide. Interestingly, however, the findings were not statistically significant and it was difficult to determine whether there was clinical significance. Schilling and colleagues (2016) also reported that participants showed more favorable attitudes towards intervening with friends showing signs of suicidal intent; they also indicated they would be more likely to get help for themselves if they were depressed or suicidal (Schilling et al., 2016). Although positive changes in student attitudes is a desirable outcome, the study offers no

distinct support for whether or not changes in attitudes were related to similar positive changes in student behaviors.

The Schilling et al. (2016) results are also limited due to participant attrition. Specifically, participants who reported planning or attempting suicide in the past three months or who had lifetime attempt(s) were more likely to drop out of the study. Overall, the SOS program has been described as promising for improving student knowledge, attitudes, and beliefs about mental health (Aseltine, James, Schilling, & Glanovsky, 2007; Schilling, Lawless, Buchanan, & Aseltine, 2014; Schilling, Aseltine, & James, 2016). Whether SOS has positive effects on student behaviors remains an open question for future research.

Columbia-Suicide Severity Rating Scale (C-SSRS).

Instrument Background.

The Columbia-Suicide Severity Rating Scale (C-SSRS) has been identified as the gold standard for measuring suicidal ideation and behavior in clinical trials by the United States Food and Drug Administration (FDA, 2012). The instrument was first developed for a study conducted by the National Institute of Mental Health (NIMH) in 2007 where researchers were examining adolescents who had previous suicide attempts in hopes of finding treatments to decrease suicide risk amongst adolescents with depression (Brent, Greenhill & Compton et al., 2009). Definitions for the C-SSRS have been developed from the Columbia History Form (CSHF) and the Columbia Classification Algorithm of Suicide Assessment (C-CASA) (Oquendo, Halberstam, & Mann, 2008; Posner, Oquendo & Gould, 2007). The C-SSRS is currently used in clinical trials, public setting, schools, hospitals, military and faith communities as a means to identify individuals who need

help. The C-SSRS has been endorsed, recommended or adopted by the United States of America Department of Defense, CDC, FDA, NIH, WHO, SAMHSA, and the National Action Alliance for Suicide Prevention. The C-SSRS includes a series of simple questions developed to help users determine if individuals are at risk, determine severity and immediacy of that risk, and determine the level of support needed by the individual (Columbia Lighthouse Project, 2016).

Empirical Research.

Training with evidence-based screeners such as the Columbia Suicide Severity Rating Scale (C-SSRS) (Posner et al., 2011) could be useful for school counselors to gain information about students' suicide risk potential and warning signs. However, screeners should not be used without an intervention plan in place and risk assessment results should be reported to caregivers, as stated in the American School Counselor Association Ethical Standards (A.9.a., A.9.b., 2016).

The C-SSRS is currently used by many schools and hospitals in Montana, as noted by the authors of Montana's Crisis Action School Toolkit on Suicide (CAST-S) book Dr. Scott Poland and Dr. Donna Poland:

> A thorough interview with a suicidal student with excellent rapport established is essential, and standardized assessment scales can be a valuable addition to the interview as they have been published and validated by research. One nationally recommended scale, the Columbia-Suicide Severity Rating Scale **(C-SSRS; Tools 14A and 14 B)**, is already being utilized by school and hospital personnel in Montana with favorable reviews, and it is recommended by the 2016 MSMRT report. The brief version (14A) consists of six direct questions and is most

applicable when a Montana administrator or teacher is making the assessment (if a school counselor is unavailable). The longer version (14B) includes the SAFE-T protocol and includes more questions and the identification of protective factors (CAST-S, 2017, p. 36).

In a critique of the C-SSRS, Giddens, Sheehan and Sheehan (2014) noted that this instrument does not address the full spectrum of suicide ideation or behavior. This may result in clinicians missing many combinations of suicide ideation and behavior, resulting in type two error, or the potential for a misclassification causing type one or type two error. This misclassification could lead to the conclusion that a client is not suicidal when in fact they are at risk. Authors of this critique suggest that the C-SSRS may be flawed and that a new gold standard for assessment is needed. This potential for missed risk or misclassification of risk highlights the importance not using assessment tools in the absence of a clinical interview.

Collaborative Assessment and Management of Suicidality (CAMS).

Intervention Background.

The Collaborative Assessment and Management of Suicidality (CAMS) is an evidence-based clinical intervention for the treatment of individuals experiencing suicidality (Jobes, 2012). The CAMS framework utilizes the collaborative use of the Suicide Status Form (SSF), a clinical tool that can be used to assess risk, develop a treatment plan, as a risk tracking tool, and as an outcome tool. The SSF was developed based on the work of many suicidologists (Baumeister, 1990; Beck, Rush, Shaw and Emery, 1979; Jobes, 1995, 2000, 2006; Linehan, Goodstein, Nielsen, and Chiles, 1983; Schneidman, 1993) and includes both quantitative and qualitative assessment items.

The SSF Core Assessment consists of six constructs: Psychological Pain, Stress, Agitation, Hopelessness, Self-Hate and Overall Risk of Suicide with a 1-5 rating scale (Jobes, 2012). The SSF also includes qualitative questions in the form of incomplete sentence prompts. For example, the psychological pain rating scale is followed by the incomplete sentence prompt "What I find most painful is: _____." Included with the stress rating scale is the prompt: "What I find most stressful is: _____." Included with the agitation rating is the prompt: "I most need to take action when: _____." Included with the hopelessness rating is the prompt: "I am most hopeless about: _____." And finally, following the self-hate rating is the prompt: "What I hate most about myself is: _____." These responses are then micro-coded. Next on the SFF is another qualitative assessment called the Reasons for living (RFL) versus Reasons for Dying (RFD) Assessment. In this qualitative section, the patient can list up to five RFL and RFD and rank item in order of importance from 1 to 5. These responses then go through a highly reliable coding system (Jobes & Mann, 1999; Jobes, 2012).

According to Jobes (2012), "All CAMS-based assessments emphasize empathy, respect, a shared curiosity with the patient, and the importance of carefully and sensitively unpacking the patient's inner suicide struggle in a collaborative and supportive manner" (p.641). The CAMS framework provides documentation of targeted interventions and treatment planning for the beginning, middle and end of patient suicide-specific clinical care. The end of suicide-specific care is met when a patient has three consecutive sessions where suicide coping is essentially eliminated or other clinical outcomes occur (Jobes, 2012).

To be trained in the CAMS, clinicians must complete the following steps. Trainees must read the CAMS book, Managing Suicidal Risk, A Collaborative Approach, 2nd Edition by David A. Jobes. Then trainees can take a three-hour online video course that is an overview of the CAMS Model presented by the creator of CAMS, David A. Jobes, Ph.D. This is a prerequisite course recommended before attending the practical one day in person role-play training. Finally, it is recommended that clinicians set up one-hour CAMS consultation calls after completing the trainings above.

Empirical Research.

Many correlational studies show evidence of the effectiveness CAMS in a variety of settings with different populations. CAMS has been an effective treatment for college students experiencing suicide crisis reflected in significant pre/post within group differences using the SSF (Jobes et al., 1997), and significant reductions in symptoms of distress and suicide ideation (Jobes, Kahn-Greene et al., 2009). There have been two studies using within-group pre/post-test designs in Danish mental health outpatient populations which points to the potential cross-cultural impact of CAMS (Arkov, Rosenbaum, Christiansen, Jonsson, & Munchow, 2008; Nielsen, Alberdi, & Rosenbaum, 2011). CAMS has demonstrated efficacy in the inpatient setting as well (Ellis, Green, et al., 2012), as well as within a U.S. Air Force outpatient mental health clinic (Jobes, Wong, Conrad, Drozd, & Neal-Walden, 2005).

CAMS has also been used in multiple randomized clinical trials in multiple settings. Comtois et al. (2011) compared CAMS to enhanced care as usual in a community outpatient sample of suicidal patients in a large urban medical center. Comtois et al. (2011) found that there were statistically significant differences in suicidal

ideation, overall symptom distress, and optimism/hope measures between groups, even 12 months after treatment. Comtois et al. (2011) also found that participants in the CAMS group had higher patient satisfaction scores than those in the control group.

Advanced Training Programs

In addition to the CAMS, there are several other advanced suicide assessment and intervention training programs that have empirical support for reducing suicidality in clients. These include: (a) dialectical behavior therapy (Linehan, 1993), (b) brief cognitive-behavioral therapy for suicide prevention (Bryan & Rudd, 2018), (c) cognitive therapy for suicidal patients (Wenzel, Brown, & Beck, 2009), and (d) the safety planning intervention (Stanley & Brown, 2012). These trainings are generally obtained by counseling and other mental health professionals after they complete their respective graduate training programs in counseling, psychology, or social work.

Measurement Issues, Problems and Advances

Measurement issues are always central to empirical research and established evidence-based trainings and treatments. Within the domain of trainings for suicide assessment and treatment, measurement issues have been especially problematic. Specifically, researchers have used a wide variety of instruments designed to evaluate the effects of suicide workshop trainings. Many of these instruments are self-report, but some include supervisor ratings and/or behavioral observations. Some instruments focus on practitioner knowledge, while others focus on competence, and still others on practitioner skill acquisition. In the current study, newly developed face valid measures were used alongside the SCAF, an emerging instrument in the evidence-based suicide training

movement. Consequently, this section includes a review and critique of several specific questionnaires and instruments that have been used in previous research.

Suicide Intervention Response Inventory (SIRI and SIRI-2).

The Suicide Intervention Response Inventory was originally developed by Neimeyer and MacInnes (1981) as a measure to assess paraprofessional counselors' ability to recognize appropriate responses to suicidal clients. This measure is a 25-item self-report questionnaire that consists of a series of hypothetical client remarks followed by two possible helper responses. One response is considered facilitative of suicide prevention and the other is either neutral or deleterious to effective intervention. Respondents are instructed to select what they think is the more appropriate response. The total SIRI score simply reflects the number of correct responses (Neimeyer & MacInnes, 1981). However, this measure was found to have ceiling effects when used with experienced trainees, so it was found of little value when using with professional helpers (Niemeyer & Bonnelle, 1997).

The SIRI-2 was a scoring revision of the SIRI, undertaken in an effort to develop a measure that would be helpful when measuring skill development with more skilled counselors. The SIRI-2 adopted a seven-point Likert scale ranging from +3, which signifies a highly appropriate response through 0, which is neutral, to -3, which is considered a highly inappropriate response (Niemeyer & Bonnelle, 1997). The SIRI-2 was a more sensitive measure between appropriate and inappropriate responses, and was compared to the mean rating of experts in the field of suicidology. The SIRI-2 was found to be more reliable than the original, and appears to mitigate the ceiling effects of the original measure. (Niemeyer & Bonnelle, 1997). Neimeyer and Bonnell (1997)

concluded that the SIRI-2 would be the better choice when assessing suicide response skills among more highly trained groups, such as graduate trainees and mental health professionals.

Mackelprang, Karle, Reihl and Cash (2014) looked at suicide intervention skills with a sample of doctoral trainees in the field of clinical psychology (n = 59). Researchers utilized the SIRI-2 to assess their suicide intervention skills. Interestingly, researchers found no significant difference in SIRI-2 scores between trainees with and without formal suicide assessment and intervention training. There were no significant differences in scores for individuals who received both formal training and supervision, those who only had formal training or only supervision, and those that had neither.

Rigsbee and Goodrich (2018) used an experimental design to examine the efficacy of an online suicide assessment training in comparison with a control group who received multicultural skills training. Both groups completed the SIRI-2 before and after trainings. Interestingly, both groups showed statistically significant differences from pretest to posttest, but no significant difference was found between groups in suicide intervention skills as measured by the SIRI-2.

Last year I assisted in collecting pilot data on the effects of an abbreviated (2.5 hour) version of this 6-hour workshop. Participants for the pilot study included undergraduate and graduate students in psychology, counseling and social work who were enrolled in a course titled: Counseling and Psychotherapy Theories (COUN 511). Participants were students who elected to attend a workshop titled, “Suicide Assessment and Intervention.” Participants were offered extra credit in their COUN 511 course for

attending the workshop. The study was approved by the university IRB; informed consent was discussed and signed prior to participation.

All participants were given research packets that included materials presented in the following order: (a) informed consent form, (b) demographics questionnaire, (c) 24 question suicide knowledge quiz (pre-test), (d) SIRI-2 (pre-test), (e) a sheet instructing them to stop and wait for the intervention, (f) 25 question suicide knowledge (post-test) (question 25 was an open-ended question asking participants what they found most helpful from the workshop), (g) SIRI-2 (post-test). This study helped guide the inclusion and exclusion of testing instruments and procedures for the six-hour workshop.

Suicide Competency Assessment Form (SCAF).

Cramer and colleagues (2013) reviewed five different suicide prevention competency models in the suicide literature and distilled principles (and skills) from these models into 10 suicide prevention core competencies. The purpose of their review was to establish a clear and universal framework for training mental health professionals to conduct suicide assessment and treatment.

As a part of their review, Cramer and colleagues developed a 10-item questionnaire (i.e., the Suicide Competence Assessment Form; SCAF). The SCAF was designed to measure the 10 suicide training competencies; each item is based on one of the 10 competencies. The SCAF can be used as a self-evaluation training tool or as a tool for observers to rate the skills of others (Cramer et al., 2019). The SCAF is designed to be useful in supervision as well as for self-reflection practices (Cramer et al., 2019). The SCAF has been used in five studies to evaluate suicide training outcomes (Lund et al.,

2016; Cramer et al., 2016; Cramer et al., 2017; Cramer & Long, 2018; La Guardia et al., 2019).

When completing the SCAF, each of the 10 core competencies is rated on the following 4-point Likert-type scale: 1 = Incapable, 2 = Working Towards Competency, 3 = Competent, and 4 = Advanced. These 10 items are then summed for a total score ranging from 10 to 40, with higher total scores representing higher self-perceived or observer-rater competency. Participants are also asked to rate their overall suicide rating competency based on the following 8-point scale: (1-2) = Unacceptable, (3-4) = Working Towards Competency, (5-6) = Competent, and (7-8) = Advanced (Cramer et al., 2019).

Cramer, Bryson, Stroud and Ridge (2016) conducted a pilot study to examine outcomes of a semester-long graduate course covering suicide theory, risk assessment and management. The researchers covered the following topics: (a) key suicide terms in the field of suicidology and Cramer's 10 core competencies (Cramer et al., 2013), (b) the prominent theories of suicide were reviewed (Durkheim, 1897; Shneidman, 1981; Abramson et al., 1998; Joiner, 2005), (c) student self-assessment of attitudes towards suicide (Botega et al., 2005), and (d) practical issues, such as, ethical and legal issues in suicide risk assessment, (e) an overview of research on risk and protective factors, and (f) practice issues, such as phrasing and content of questions, documentation standards, and empirically supported treatments for suicide risk management (Cramer et al., 2016). This initial pilot study included a small sample of five graduate students in clinical psychology. Researchers used the following measures in a pretest/posttest format for this study: suicide attitude questions, Suicide Intervention Response Inventory-2 (SIRI-2), Suicide Behavior Attitude Questionnaire (SBAQ), Attitudes Toward Prevention Scale

(ASP), Suicide Competency Assessment Form (SCAF), Suicide risk assessment knowledge quiz, case vignettes and risk management estimations, and post class evaluations. Participants SCAF total scores were summed for all 10 core competencies, and considerable positive gains were observed in the total self-perceived suicide risk assessment competencies.

Lund, Schultz, and Nadorff (2017a) conducted a study on the psychometric properties of two published self-report suicide assessment competency rating scales, the Suicide Competency Inventory (SCI) and the Suicide Competency Assessment Form (SCAF). Prior to this study, reliability and validity data for the SCAF had not been published. Participants included a sample of 223 public-sector vocational rehabilitation counselors from multiple states. Measures included in the study were: suicide knowledge, Suicide Competency Inventory (SCI, Graham et al., 2011), and the SCAF (Cramer et al., 2013). Researchers conducted an exploratory factor analysis (EFA) using principal-axis factor analysis and varimax factor rotation. The EFA explored internal consistency for both total measures and their subscales using Cronbach's alpha. The results indicated that the SCI loaded on a three-factor model and the SCAF loaded on a single factor model. Internal consistency for the SCAF in this study was excellent (α = .93). Lund et al. (2017a) also found the SCAF and SCI to be significantly correlated (r = .584, $p < .001$), which indicates adequate initial construct validity. The researchers concluded that both measures can be used as reliable and valid instruments for assessing perceived suicide assessment competency in vocational rehabilitation counselors working in the public sector (Lund et al., 2017).

Lund et al. (2017b) published another article focusing on vocational rehabilitation counselors. They reported key findings on factors associated with perceived suicide knowledge, comfort with suicide assessment, and suicide-related competency. First, they noted that participants who had prior training on suicide had significantly higher scores on all suicide competency measures compared to participants who had not received prior training.

> The mean total score on the SCAF was *26.99 (SD = 6.09)* for those who had received training versus *20.26 (SD = 5.40)* for those who had not; this difference was significant, $t_{(221)} = 8.03, p < .000, d = 1.17$. Similarly, the mean self-perceived overall competency score was *4.27 (SD = 1.60)* for those who had received training versus *2.57 (SD = 1.23)* for those who had not. Those who had received training scored significantly higher, $t_{(216)} = 7.91, p < .000, d = 1.19$. Finally, those who reported having received training on suicide *(M = 44.16; SD = 7.07)* had higher total scores on the SCI, $t(221) = 6.47, p < .000, d = .91$, than those who did not report having received such training *(M = 37.47; SD = 7.62)* (Lund et al., 2017b, p. 5).

Second, results indicated that participants who worked more frequently with clients experiencing suicide ideation were more likely to have higher total scores on the SCAF and SCI.

> More frequent experience working with suicidal clients was positively correlated with the SCAF total score *(r = .264, p < .000)*, SCAF overall competency score *(r = .232, p = .001)*, and SCI total score *(r = .307, p < .000)* (Lund et al., 2017b, p. 6).

Results from this study indicated that both experience working with suicidal individuals and suicide training promote comfort and competency when working with clients experiencing suicide ideation.

The SCAF was also used in a pilot research study examining competency-based training in suicide risk assessment and management in a four-hour workshop format (Cramer et al., 2017). Participants consisted of seven counseling center clinicians and ten students who attended the workshops *(n = 17)*. Researchers used the *Suicide Behavior Attitude Questionnaire* (SBAQ), *Attitudes Toward Suicide Prevention Scale* (ASP), Suicide attitude questions, *Suicide Intervention Response Inventory-2* (SIRI-2), *Suicide Competency Assessment Form* (SCAF), and a suicide assessment knowledge quiz. The four-hour workshop directly addressed each of the 10 core competencies. Results indicated that the workshop increased overall SCAF scores from pretest *(M = 24.5, SD = 8.09)* to posttest *(M = 26.87, SD = 5.82)*, however, these scores were not significant *(p = .06)*. Participants demonstrated gains on each of the measures, however, only the SBAQ, SAQ, and knowledge quiz pretest/posttest scores yielded significant gains.

La Guardia, Cramer, Brubaker, and Long (2019) assessed a competency-based suicide risk assessment and prevention training and interprofessional education (IEP) socialization for a sample of community mental healthcare providers *(n = 29)*. This training utilized a suicide risk assessment and management quiz, SCAF, SBAQ, *Attitudes toward Self-Harm Patients* (ASHP; Gibb et al., 2010), and *Interprofessional Socialization and Valuing Scale* (ISVS; King et al., 2016). The content of the workshop included "factual, research-based content for each core competency, supplemented by a series of

case studies, discussion points, and self-reflective exercises to allow for feasible and accessible practitioner training in the community" (La Guardia et al., 2019, p. 261).

Cramer et al. (2019) examined the SCAF psychometric properties with a sample of behavioral health staff *(n = 170).* In reflection on their results and previous studies with the SCAF the authors highlighted some key findings from the previously mentioned studies above.

> Across studies, the SCAF has been used as a single-factor total score. Internal consistency values have been high (*.94 - .96*; La Guardia et al., 2019). Correlational and between groups analyses with the SCAF are largely lacking to date. However, the total and global scores have demonstrated meaningfully sensitivity a range of training formats (Cramer et al., 2016, 2017; Cramer & Long, 2018; La Guardia et al., 2019) (Cramer et al., 2019, p. 3).

Cramer et al. (2019) utilized the following measures for this study: SCAF, English version of the Spanish Burnout Inventory (SBI; Gil-Monte & Manzano-Garcia, 2015; Gil-Monte & Olivares, 2011), and the ASHP.

Cramer et al.'s (2019) data analysis yielded many meaningful results. They found that the SCAF had good internal consistency ($\propto = .88$); exploratory factor analysis confirmed that all 10 items loaded positively on one factor; and the SCAF global and total scores demonstrated a significant positive correlation ($r = 0.62, p < .001$). Results from this study support the use of the SCAF in future educational trainings, research, and clinical supervision settings. Data (i.e., means and standard deviations) from these studies will be used as benchmarks for comparing outcomes from the proposed study.

Summary of Outcome Measures Used in Suicide Training Studies

The training models reviewed often address suicide theory, knowledge, and clinician attitudes (i.e., skills and ability to accurately assess risk and awareness and monitoring of attitudes and reactions to suicide). For the advanced training models, research has focused on whether using the particular approaches with clients (e.g., CAMS) reduced client suicide ideation, attempts, or completions. In contrast, the generic training models (e.g., ASIST) are less oriented toward client outcomes and more focused on helping counseling students or professionals become more prepared, comfortable, competent, and skilled when working with suicidal students or clients. Unfortunately, measuring how well training programs achieve their goals of counselor preparation, comfort, competence, and skills development, has proven challenging. In the list below are measures commonly used in empirical studies of suicide trainings.

- Burnout and Job Satisfaction: Cramer, Ireland, Long, Hartley & Lamis (2019) used the *Spanish Burnout Inventory* and developed a mental health job-specific satisfaction survey that they developed for their study.
- *Attitudes toward Self-Harm Patients (ASHP)*: Cramer, Ireland, Long, Hartley & Lamis, 2019; La Guardia et al., 2019.
- Suicide Risk Assessment and Management Knowledge: La Guardia (2019) made quiz based on training content: Cramer et al (2017) made a 12-item multiple choice quiz to assess participant knowledge; Cramer et al. (2016) made a 20-item multiple choice quiz on overall course content; Lund et al., (2017a, 2017b) used an 8-item myth and facts measure.

- *Suicide Behavior Questionnaire (SBAQ):* La Guardia et al., 2019; Cramer et al., 2017; Cramer et al., 2016
- *Interprofessional Socialization and Valuing Scale*: La Guardia et al., 2019
- *Attitudes Toward Suicide Prevention Scale (ASP):* Cramer et al., 2017; Cramer et al., 2016
- *Suicide Intervention Response Inventory-2* (SIRI-2): Cramer et al., 2017; Cramer et al., 2016: Shannonhouse et al., 2017
- Case vignettes and risk estimation: Cramer et al., 2016
- *Suicide Competency Inventory (SCI):* Lund et al., 2017a; Lund et al., 2017b
- *Suicide Competency Assessment Form (SCAF):* Cramer 2016, 2017, 2019: La Guardia et al., 2019; Lund et al., 2017a; Lund et al., 2017b

Rationale for Study

It was clear from the literature that there is an ongoing need for evidenced-based suicide assessment and intervention training, especially in the field of counseling. There appears to be consensus that all healthcare, mental health, and school-based professionals need formal training in suicide assessment and treatment. Beyond that general consensus statement, many questions linger about when and how to provide suicide training. One broad question is: What constitutes an effective suicide assessment and treatment training for professionals? This study is an effort to evaluate the effectiveness of a new, locally developed, strength-based training model on professionals' suicide knowledge, comfort, preparedness, skills, and competency. In addition, this study was designed to compare local, Montana-based suicide training outcomes with previous research studies that have also used a competency assessment approach to evaluating outcomes. Beyond directly

evaluating the effectiveness of a suicide workshop and comparing the results with previous research, this study is exploratory with regard to the following important key gaps in suicide training, especially among counseling students and professionals:

- Graduate students in counseling and counseling professionals often want and need more than gatekeeper training—partly because gatekeeper training is designed for the general public and is not really professional level training.
- Although suicide questionnaires can provide useful information, they cannot replace clinical interviewing and collaborative care. Questionnaires only point to potential problems, relationship engagement and developing a working alliance are key to positive client and student outcomes.
- CAMS is an excellent suicide training, but it is not appropriate for all settings and situations and may be more appropriate for specific clinical settings.
- Workshops that are more skills-oriented, strengths-based, and that include video-clips of counselor-client interactions hold promise in general, and for the field of counseling in particular. Gathering data on a locally-developed strength-based model will provide information that builds on previous research on how to best provide training to the wide array of professionals who want systematic training in this important area.

Statement of Hypotheses

Participants in this study will show significant increases in their Suicide Knowledge Quiz scores, suicide competency scores (SCAF), and SF Suicide Skills Survey scores from pretest to posttest after completing this six-hour training. As demonstrated in previous studies, researchers predict that participants with previous

suicide assessment and intervention training will have higher pretest scores on the assessments listed above than those without previous training. Researchers predict that the pretest and posttest scores on the SCAF and SF-SSS will be positively correlated.

Chapter Summary

Many mental health and school counselor training programs use gatekeeper trainings to prepare counselors-in-training to work with people who are suicidal. However, based on the literature, it appears that individuals with little prior suicide training and contact with individuals experiencing suicide ideation benefit the most from the gatekeeper trainings. In contrast, counselors-in-training or professionals don't experience significant gains from gatekeeper trainings. Overall, mental health professionals would likely benefit from something more experiential, with time to practice techniques and dive deeper into the theory and practice of suicide risk assessment and intervention.

It is also clear from the literature that mental health professionals want to improve their comfort and competence in this area and have noticed gaps in their training. Having a competency-based training model based on what experts in suicidology have identified as key to assessment and intervention is a possible solution to addressing these gaps in training. This study targeted these gaps with a strength-based focus that has not been included in previous suicide training models.

CHAPTER 3: METHOD

Participants and Setting

This study was a quantitative, non-experimental pretest posttest design that utilized archival data. Participants were recruited through the Big Sky Youth Empowerment Program's advertising for a series of workshops throughout the state. Participants included mental health professionals, school counselors, professionals in related fields, and counselors-in-training who registered for an in-person six-hour training on suicide risk assessment and intervention methods at three different locations in Montana: Victor, Bozeman and Billings. The cost to attend this training was $100 per person, although some participants who registered through their agency or place of employment had reduced rates.

The sample population was a convenience sample. Participants volunteered to participate in the pretest posttest study. A total of 93 participants were involved in this study. No incentive beyond the educational experience was offered for participation.

Descriptive Statistics

Table 2

Demographics of Participants

Features	N	%
Gender		
Male	12	13%
Female	81	87%
Ethnicity		

White	80	86%
Native American	2	2%
Hispanic/Latino	4	4%
Other	4	4%
Discipline		
Mental Health Counselor	16	17%
Clinical Psychologist	5	5%
Social work	17	18%
Nursing	2	2%
School Psychologist	5	5%
School Counselor	14	15%
Other	32	34%

Workshop Description

Participants engaged in a six-hour strength-based workshop on suicide assessment and treatment. Content of the six-hour training included: (a) attitudes and beliefs about suicide and suicide assessment; (b) updated research-based knowledge about suicide myths, risk factors, counselor and mental health professional roles and responsibilities, and the meaning of suicide ideation; and (c) skills, tools and strategies for suicide assessment, treatment planning and intervention. The workshop was interactive with opportunities for participants to watch suicide assessment and treatment skills on video and practice evidence-based techniques and strategies during the 6-hour time frame. At

the end of the workshop, participants were given the opportunity to reflect on the following content presented in the workshop:

- *Managing your attitude and anxiety when working with individuals experiencing suicide ideation.* Clinician anxiety, personal beliefs and responses to client suicide ideation can negatively influence client outcomes (Jobes, 2000; Geltner, 2006*;* Large & Ryan, 2014). Since working with clients experiencing suicide ideation is naturally stressful, it is important for clinicians to become aware of and examine their own attitudes and beliefs towards suicide (Kleespies & Dettmer, 2000; Smitz et al., 2012; Sommers-Flanagan, 2018).
- *Using mood scaling with a suicide floor.* This technique is adapted from procedures used to evaluate mood (on a 0-10 scale) in mental status examinations; the procedure can be individualized to clients without using a zero to ten scale. This technique explores client's current mood, worst mood, and best mood while also linking each mood rating to external events or experiences that may be useful when later creating a collaborative safety plan (Sommers-Flanagan, 2018).
- *Normalizing suicidal thoughts when asking directly about suicide.* It is important for clinicians and clients to understand that thoughts of suicide are normal (National Action Alliance for Suicide Prevention, 2018, p. 1). If clinicians make statements that lead clients to feel judged or stigmatized they are less likely to open up about their suicide ideation (Ganzini et al., 2013; Linehan, Comtois, & Ward-Ciesielski, 2012). Clinicians should ask questions in ways that make clients feel normal about disclosing suicide ideation (Wollersheim, 1974).

- *Using the gentle assumption technique.* This technique involves assuming that thoughts of suicide are present, which may illicit more exploration of suicide contextual and situational factors when combined with the normative frame (Shea, 2004: Sommers-Flanagan, 2018).
- *Keeping your questions balanced by exploring strengths and solutions as well as questions about problems and symptoms.* It is important that clinicians balance diagnostic and risk factor questions with questions about strengths and protective factors. In other words, it is helpful to explore both sadness and happiness to deepen your understanding of your client's experience (Seligman, Rashid, & Parks, 2006).
- *Building hope from the bottom up.* When clients are experiencing hopelessness, it can be helpful to start with what makes things worse and build a continuum from the bottom up in order to validate, reflect and match their feelings of hopelessness (Sommers-Flanagan, 2018).
- *Dealing with client irritability.* Individuals who are depressed are often irritable, and thus clinicians need strategies to work with irritability. Sommers-Flanagan (2018) offers a three-part response strategy that includes: reflective listening, the use of the gentle interpretation, and a statement of commitment to keep working with the individual. Irritability may also be caused by a relationship rupture, which would require relationship repair strategies.
- *Ask the existential "six months to live" question.* A technique that involves asking clients to partner with the clinician to identify meaningful activities if clients only had six months to live (Yalom, 1980).

- *Dealing with cultural issues in a sensitive manner.* It is important to recognize and respect the role of culture in the client's experience (Sue & Sue, 2016).
- *The use of the social universe drawing.* A technique that helps clients identify a continuum of social supports in their life that moves from the least supportive towards the least bad or most supportive people they can go to for social connection (Sommers-Flanagan, 2018). The goal of this technique is to help clients cultivate and strengthen meaningful, supportive, and positive social relationships.
- *Using S-L-A-P to assess client suicide plans.* SLAP stands for: specific, lethal, available, and proximity. Clinicians should note that the more specific the plan, the more lethal the means, access to means, and the greater proximity to helping resources and social support all elevate the degree of risk (Miller, 1985).
- *Engaging in collaborative problem-solving or generating alternatives to suicide.* This technique helps clients identify methods for coping with suicide impulses and collaboratively identify alternatives to suicide. This can be done by making a list and ranking the options; it is important to note that suicide can be an option on the list (Shneidman, 1980; Sommers-Flanagan & Sommers-Flanagan, 2017).
- *Separating the pain from the person.* A technique that helps clients externalize their pain in order to change their narrative from wanting to die to wanting to eradicate their unbearable pain. The goal is to help clients recognize pain and suicide ideation as separate issues; focusing on reducing pain and distress might lead to a reduction or presence of suicide ideation (Rosenberg, 1999; Sommers-Flanagan, 2018).

- *Use of neodissociation: "*This technique works with the healthy, dissenting parts of the self by asking, "What would that healthy part of you that wants to live do in this situation?" (Sommers-Flanagan & Sommers-Flanagan, 2017).
- *Use of collaborative safety planning.* Clinicians work collaboratively with clients to identify unique individual warning signs, internal coping responses, social distractions, support networks, and environmental safety (Stanley & Brown, 2012).
- *Talking directly about lethal means restriction.* Access to firearms is a unique risk factor that should be addressed in any prevention effort (Anestis & Houstma, 2017). In general, access to lethal means is a situational dimension that significantly contributes to suicide risk.
- *Decision-making and initiating hospitalization.* Decision-making is multifaceted and requires clinicians to consult and document everything since there is no predictive formula for calculating suicide risk. Clinicians must rely on current practice standards and use collaborative safety plans whenever possible. When considering hospitalization clinicians must evaluate client's level of distress, problem-solving impairment, hopelessness, agitation, behavioral intent (i.e., SLAP), and consider history of previous attempts (Sommers-Flanagan, 2018).
- *Strength-based suicide assessment.* Strength-based suicide assessment focuses on the idea that humans are complex, and thus, it is important to view them in a balanced way. Consequently, clinicians should explore client strengths along with weaknesses (Peterson & Seligman, 2004). This idea stems from positive psychology, social constructivism theories, and solution-focused brief therapy.

When working with clients, clinicians should keep questions balanced, and look for opportunities to amplify their positive resources (i.e., positive emotions, relationships, meaning, etc.). This approach involves, in part, collaboratively focusing on clients' preferred futures, rather than their problems and histories (Zhang et al., 2018).

- *Six Life Domains:* To help organize the assessment and intervention process when working with individuals experiencing suicide ideation, the six life domains were created. These six domains likely overlap often, and can help by collaboratively identifying client problems, current goals and strengths, and targeted interventions within each life domain. These six domains include: emotional, cognitive, interpersonal, physical, spiritual/cultural, and behavioral. Having specific problems, strengths and goals identified through the assessment process can be helpful when creating safety and treatment plans.

Instruments

Before each suicide assessment and intervention training, participants were administered a packet of assessments including, (a) participant demographics, (b) a suicide knowledge quiz pre-test, (c) a suicide skills survey, and (d) the Suicide Competency Assessment Form (SCAF; Cramer, 2013). At the end of the workshop, participants were asked to re-take the pre-test questionnaires (but not the demographic questionnaire). Participants were given an additional questionnaire to assess their learning outcomes from the workshop content, as well as a final qualitative reflection question (See Appendix A).

Demographic Questionnaire.

Demographic information collected included participant ethnic/racial identity, sex, highest degree and discipline, current position, years of experience working in their field, previous training on suicide assessment and treatment planning in undergraduate or graduate training, hours of suicide assessment and treatment planning training in their undergraduate or graduate program, and total hours of post-degree suicide assessment and treatment planning continuing education training.

Suicide Competence Assessment Form (SCAF, Cramer et al., 2013).

The SCAF is a 10-item competency rating assessment form that can be used as a self-evaluation tool or as an observational tool (Cramer et al., 2013). Each of the ten competencies are rated on a four-point scale, and can be summed for a total score. Total scores range from 10-40 with higher scores indicating higher self-perceived or observer-rater competency. The rating scale is as follows: 1 is 'incapable', 2 'working towards competency', 3 'competent', and 4 'advanced'. A global rating of competency score is based on an eight-point scale. The global competency score is as follows: (1-2) is 'unacceptable, (3-4) is 'working towards competency', (5-6) is 'competent', and a (7-8) is 'advanced'.

The SCAF is still early in development, but has promising psychometric properties, as demonstrated in the data below.

> Across studies, the SCAF has been used as a single-factor total score. Internal consistency values have been high (*.94* - *.96*; La Guardia et al., 2019). Correlational and between groups analyses with the SCAF are largely lacking to date. However, the total and global scores have

> demonstrated meaningfully sensitivity a range of training formats (Cramer et al., 2016, 2017; Cramer & Long, 2018; La Guardia et al., 2019) (Cramer et al., 2019, p. 3).

Suicide Knowledge Quiz.

The Suicide Knowledge Quiz is an unpublished questionnaire designed to measure what professionals learn from the suicide assessment and treatment workshops evaluated in this study (Sommers-Flanagan, 2018). The suicide knowledge quiz is a 14-item face-valid measure that does not have established psychometrics. Participants earn a point for every correct answer for questions 1-12 with a possible score ranging from 0-12. The SKQ also includes two five-point Likert scale questions targeting participants feelings of comfort (SKQ #13) and preparedness (SKQ #14) when working with an individual experiencing suicide ideation. The instrument is likely to be sensitive to content that participants learn in the suicide workshops. As Cramer and Long (2018) noted about using knowledge quizzes in suicide research, "Although the knowledge quiz content is limited to that contained in the course, use of tailored quiz questions is consistent with prior suicide prevention education research (p. 859). Mental health training programs in general, and counselor training programs in particular, focus on student self-awareness, knowledge acquisition, and counseling skill development. The knowledge quiz was developed as a measure of the knowledge acquisition component of suicide assessment training. Like many knowledge quizzes, participants with less formal and continuing education training in suicide assessment and treatment planning are likely to have lower pre-test scores and show more knowledge acquisition at post-test.

SF Suicide Skills Survey – v. 2019.0.

The SF Suicide Skills Survey (SF-SSS) is another unpublished assessment instrument with no psychometrics (Sommers-Flanagan, 2019). This instrument was developed after I conducted a pilot study using the Suicide Intervention Response Inventory-2 (SIRI-2, Neimeyer & Bonelle, 1997; Neimeyer & Pfeiffer, 1994). In the pilot study, and consistent with previous studies (Neimeyer & Bonelle, 1997; Neimeyer & Pfeiffer, 1994), the SIRI-2 displayed extreme ceiling effects that made it unhelpful for detecting skills acquisition. Despite the SIRI's poor track record as a skills-oriented questionnaire, it continues to be used in research studies (Shannonhouse, 2017). The SF-SSS was designed, as an alternative to the SIRI-2, to evaluate participants' ability to select the most appropriate skill to use for suicide assessment and intervention based on brief case scenarios. The SF-SSS is a 16-item measure that yields a skills score ranging from 0-8 and a confidence score ranging from 0-32. Participants receive one point for every correct skills question response. Participants then rank their confidence in using the skill in the question before with a four-point range of scores possible for each confidence question. The scores are: very confident = 4 points, confident = 3 points, some confidence, but not sure I can do it well = 2 points, and not confident = 1 point. If participants answer a skills question incorrectly and then indicate that they are confident or very confident they receive a zero for that question.

Workshop Content Reflection Tool.

The workshop content reflection tool was developed to gather participants' subjective appraisal of the utility of what they learned during the workshop (Sommers-Flanagan, 2019). The instrument focuses on 17 concepts, strategies, and tools presented

during the six-and-a-half-hour workshop. The purpose of the workshop content reflection tool was to gather information about how practical participants viewed various workshop components, to inform potential changes for future workshops, and to obtain data about content for future trainings. Participants self-rate how useful they found each concept or tool on a three-point Likert-type scale: 0 = Not useful, 1 = It's okay. I might use it, and 2 = It's great. I want to use it. Participants were also asked to reflect on whether they needed or wanted more training and practice with each tool or strategy (i.e., Yes, Maybe, or No).

Open-Ended Question.

For the final post-workshop questionnaire item, participants were asked to reflect on and list the most important things they learned in the workshop. This open-ended question aimed to give researchers a richer understanding of each participants learning outcomes. This item will be used to look at content and themes that may point to future research questions. It may also provide a richer understanding of the quantitative findings if outcomes are significant or if there is a lack of significant findings.

Procedure

Participants who registered for the *Suicide Assessment and Intervention Training for Helping Professionals* workshop were offered the option of participating in the research study as to continue learning about suicide assessment and treatment planning. The study was approved by the university IRB. All participants signed an informed consent form prior to participation. Those who agreed to participate completed the pre-test packet prior to the workshop. Once the six-hour training was completed, participants were given time to complete the post-test segment of their packets. To protect

anonymity, participants were asked to provide a code so that their names would not be attached in any way to their research packets.

Description of Variables

The independent variable (IV) for this study was the six-hour strength-based suicide assessment and treatment workshop. Most competency models and suicide trainings include a focus on: clinician's attitudes and approaches towards suicidal individuals; understanding the phenomenon of suicide; collecting accurate information from individuals in distress, specifically risk and protective factors; developing treatment and safety plans; and legal and ethical issues. One major difference with this workshop that sets it apart from others was the focus on client strengths and inclusion of evidence-based interventions and techniques.

The dependent variables (DV) for this study are scores from the suicide knowledge quiz, SCAF, and the SF Suicide Skills Survey (SF-SSS). Comfort and competence outcomes were measured on a Likert self-rating scale on the suicide knowledge quiz, questions 13 and 14. Self-perceived skills were measured using the SF-SSS. And competence was measured using the self-measured SCAF scores.

Data Analysis

For this quantitative, non-experimental research design, all significance levels were set at $p < .01$. Paired sample t-tests were used to compare pretest and posttest scores on the SCAF, SF-SSS, and suicide knowledge quiz (hypotheses 3a, 4a, 5). To observe if there were any differences in relation to previous experience (i.e., hours of previous suicide training, and training in graduate school; hypotheses 1a - 2e), and years of experience in the field, independent samples t-tests, ANOVA and Pearson's *r* correlation

was used. To determine if the SCAF and the SF-SSS are correlated, the Pearson's *r* was used (hypothesis 4b). SPSS was used to code and analyze the data for this study. Benchmark pre-post SCAF scores were used to calculate paired sample t-tests to test for significant differences between benchmark SCAF scores and pre-post SCAF scores in the present study (hypothesis 3b).

Statistical Assumptions

The statistical assumptions for this study included the following. Pearson correlation assumptions: levels of measurement, related pairs, absence of outliers and linearity. Paired sample t-test assumptions: the dependent variable must be continuous (interval/ratio), the observations are independent of one another, the dependent variable is normally distributed, and the dependent variable does not contain any outliers. The assumptions for the ANOVA are: independence of scores, normality of scores, and homogeneity of variance. And finally, the assumptions for the independent sample t-test: the dependent variable is normally distributed, the observations are sampled independently, the dependent variable is continuous (ratio/interval), the variance of the data is the same (homoscedasticity), and the independent variables consist of two independent groups.

Chapter Summary

This IRB approved quantitative, non-experimental pretest posttest design utilized archival data from three six-hour workshops located in Victor, Bozeman, and Billings, Montana. The workshops were open to mental health professionals working in a variety of settings (i.e., schools, outpatient settings, counselors in training, etc.). Participants paid $100 to attend the workshops and participation in the study was completely voluntary

with no incentives offered. The independent variable for this study was the six-hour strength-based suicide assessment and treatment workshop. The dependent variable (DV) for this study were scores from the suicide knowledge quiz, SCAF, and the SF Suicide Skills Survey (SF-SSS).

CHAPTER 4: RESULTS

The purpose of this study was to explore the effects of a six-hour suicide assessment and treatment workshop on participants' knowledge (SKQ), self-rated comfort and preparedness (SKQ #13-14), skill and confidence (SF-SSS), and self-rated suicide competence as measured by the Suicide Competence Assessment Form (SCAF). I also examined the relationship of demographic and previous training experiences on pre-test measures of knowledge, comfort, preparedness, skill, and confidence. To understand the results in comparison to other recent research on suicide training outcomes, I conducted post-hoc analyses comparing pre-post outcomes from previous research using the SCAF and the SCAF results obtained in this study. In this chapter an evaluation of the hypotheses are presented using paired-samples t-tests, independent samples t-tests, correlational analysis, ANOVA and Pearson's r.

Suicide Competency Assessment Form (SCAF)

The first hypothesis (1a) in this study predicted that participants with previous training in suicide assessment and treatment in graduate school would have significantly higher pretest scores in self-perceived suicide risk assessment competence as compared with participants with no previous training, as measured by the SCAF. An independent-samples t-test was conducted to compare the self-perceived suicide risk assessment competence scores for participants with previous suicide training and those without previous training. There was a significant difference in scores for those with no previous experience *(M = 23.54, SD = 7.06)* and those with previous experience *(M = 28.5, SD = 5.02; $t_{(45.54)} = 3.20$, p = .003, one-tailed), d = .81*. The magnitude of the differences in means (mean difference = *4.96, 95% CI: 8.09* to *1.84*) was large. Cohen's (1988) *d*

estimated a large effect size. In this statistical analysis, Levene's Test for Equality of Variances was violated. Consequently, when reporting the preceding t-test and significance scores, I used the alternative or adjusted t-score that SPSS generates for when the assumption for equality of variance is not met.

For hypothesis 1b a one-way between groups analysis of variance was conducted to explore the impact of previous hours of training on SCAF total scores. Participants were divided into two groups based on their total hours of previous training (Group 1: 0-11 hours; Group 2: 12-120 hours). There was a statistically significant difference at the $p < .05$ level in SCAF total scores for the two groups: $F(1, 66) = 11.51, p = .001$. The effect size, calculated using eta squared, was *.42*, which is a large effect according to Cohen (1988). There was a statistically significant difference at the $p < .05$ level in SCAF overall scores for the two groups: $F(1, 57) = 2.25, p = .011$. The effect size, calculated using eta squared, was *.35*, which indicates a small to medium effect size according to Cohen (1988).

For hypothesis 1c, the relationship between having instruction on suicide assessment and treatment in graduate school and suicide knowledge SCAF total scores was investigated using Pearson product moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a significant correlation between the two variables, $r = .39, n = 68, p = .001$. The relationship between having instruction on suicide assessment and treatment in graduate school and suicide knowledge SCAF overall scores was investigated using Pearson product moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and

homoscedasticity. There was a significant correlation between the two variables, $r = .33$, $n = 59$, $p = .011$.

Hypothesis (3a) in this study predicted that participants who engaged in the 6-hour workshop would show a significant increase in self-perceived suicide assessment competence from pretest to posttest, as measured by the Suicide Competency Assessment Form (SCAF) (Cramer et al., 2013; adapted from Hung et al., 2012). A paired-samples t-test was conducted to compare participants' self-evaluation score on the SCAF total score and overall rating score before and after the workshop. There was a statistically significant increase in SCAF total score from pre *(M = 26.33, SD = 6.00)* to post *(M = 29.06, SD = 6.01)*, $t_{(54)} = 6.09$, $p = .001$ *(one-tailed)*, $d = .82$. Cohen's (1988) *d* estimated a large effect size. The mean increase in SCAF total scores was *2.73* with a 95% confidence interval ranging from *3.63 to 1.83*. There also was a statistically significant increase in SCAF overall scores from pre *(M = 4.24, SD = 1.53)* to post *(M = 5.03, SD = 1.42)*, $t_{(49)} = 5.83$, $p = .001$ *(one-tailed)*, $d = .82$. The mean increase in Suicide Knowledge Overall Scores was *.79* with a 95% confidence interval ranging from *1.06 to .52*. Cohen's (1988) *d* estimated a medium effect size.

Hypothesis 3b predicted that participants in this study would show a significant increase of scores on the SCAF that were consistent with previous outcome studies using this measure from pretest to posttest. In this study, the mean total score on the SCAF was *28.5 (SD = 5.02)* for those who had received training versus *23.54 (SD = 7.06*) for those who had not; this difference was significant, $t_{(45.54)} = 3.20$, $p = .003$, $d = .81$. Cohen's (1988) d estimated a large effect size. Similarly, the mean self-perceived overall competency score was *4.71 (SD = 1.45)* for those who had received training versus *3.67*

(SD = 1.58) for those who had not. Those who had received training scored significantly higher, $t_{(57)} = 2.63, p = .011, d = .69$. Cohen's (1988) *d* estimated a medium to large effect size. This is similar to previous studies that have used the SCAF to measure training outcomes. For example, Lund et al. (2017) looked at outcomes for rehabilitation counselors *(n = 221)* who had previous training versus those who had not. Those with previous training (SCAF total *M = 26.99, SD = 6.09,* SCAF overall *M = 4.27, SD = 1.6)* versus those without *(*SCAF total *M = 20.26, SD = 5.4,* SCAF overall *M = 2.57, SD = 1.23)*. The difference was significant for SCAF total scores *p = .000, Cohen's d = 1.17* and SCAF overall scores *p = .000*, Cohen's *d = 1.19*. Similarly, Cramer et al. (2016) used the SCAF to measure a graduate level course with clinical psychology students (*n = 5*). Before taking the course, students had pretest scores (*M = 15.4, SD = 5.13*) and posttest (*M = 28.6, SD = 3.91*) which was statistically significant *p = .002,* Cohen's *d = 2.89*. Cramer et al. (2019) used the SCAF to evaluate a 20-hour online training course for mental health professionals (*n = 43*). Participants' scores from pretest (SCAF total *M = 31.3, SD = 5.28, SCAF overall M = 5.09, SD = 1.09*) to posttest (SCAF total *M = 36.11, SD = 6.6,* SCAF overall *M = 6, SD 1.21)* were significant SCAF total *p = .001*, Cohen's *d = .78* and SCAF overall *p = .001*, Cohen's *d = .77*. La Guardia et al. (2019) used the SCAF to evaluate a half day workshop with community mental heal providers (*n = 29*). Participants at pretest (SCAF total *M = 25.46, SD = 6.93,* SCAF overall *M = 4.42, SD = 1.81)* posttest *(*SCAF total *M = 29.83, SD = 5.92,* SCAF overall *M = 5.46, SD 1.46)* were significant SCAF total *p = .001*, Cohen's *d* = 1 and SCAF overall *p = .001*, Cohen's *d = .63*.

Suicide Knowledge Quiz (SKQ)

Hypothesis 2a predicted that participants with previous training in suicide assessment and treatment during graduate school would have significantly higher pretest scores in knowledge as compared with participants with no previous training, as measured by the Suicide Knowledge Quiz (SKQ). An independent-samples t-test was conducted to compare the suicide knowledge quiz scores for participants with previous suicide training and those without previous training. There was a significant difference in scores for those with no previous training *(M = 9.26, SD = 1.80)* and those with previous training *(M = 10.48, SD = 1.52; $t_{(86)}$ = .3.44, p = .001, one-tailed), Cohen's d = .73*. The magnitude of the differences in means (mean difference *= 1.22, 95% CI: -4.96 to 1.55*) was medium to large.

For hypothesis 2b, I conducted an ANOVA, however, there were unequal sample sizes (most participants had some training, but only a small number had no training*). To address this sampling problem, I used the mean score for participants previous training as a cut-up and then divided participants into two groups (with an equal number in each group) based on their total hours of previous training (Group 1: 0-11 hours; Group 2: 12-120 hours). A one-way between groups analysis of variance was conducted to explore the impact of previous hours of training on Suicide Knowledge quiz scores. There was a statistically significant difference in SKQ scores for the two groups: *F(1, 86) = 11.86, p = .001* . The effect size, calculated using eta squared, was *.37*, which indicates a small to medium effect according to Cohen (1988). The relationship between having instruction on suicide assessment and treatment in graduate school and suicide knowledge quiz pretest scores was investigated using Pearson product moment correlation coefficient.

Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a significant correlation between the two variables, $r = .35$, $n = 88$, $p = .001$.

Table 3

Previous Training and Pretest Knowledge, Preparedness, Comfort, and Competence

	N	Minimum	Maximum	Mean SD
TotHours	83	0	120	11.44 17.46

Table 4

ANOVA Total Hours of Training

	SS	*df*	*MS*	*F*	*Sig.*
SKQ Total					
Between Groups	31.97	1	31.97	11.86	0.001
Within Groups	231.85	86	2.7		
Total	263.82	87			
SKQ Comfort					
Between Groups	6.83	1	6.83	8.33	0.005
Within Groups	65.61	80	0.82		
Total	72.43	81			
SKQ Preparedness					
Between Groups	9.8	1	9.8	11.67	0.001
Within Groups	67.17	80	0.84		

Total	76.98	81			
SCAF Total					
Between Groups	534.77	1	534.77	16.29	.000
Within Groups	2034.98	62	32.82		
Total	2569.75	63			
SCAF Overall					
Between Groups	22.46	1	22.46	10.89	0.002
Within Groups	113.47	55	2.06		
Total	135.93	56			

Hypothesis (2d) predicted that participants' self-rated feelings of comfort when working with an individual at risk for suicide would significantly increase from pretest to posttest. A paired-samples t-test was conducted to compare participants' pre-workshop feelings of comfort (SKQ item #13) when working with clients at risk for suicide to participants' post-workshop feelings of comfort when working with clients at risk for suicide. There was a statistically significant increase in comfort scores from pre *(M = 3.37, SD = .91)* to post *(M = 3.83, SD = .71), $t_{(89)} = 6.00$, p = .001 (one-tailed), d = .63.* The mean increase in comfort scores was *.47* with a 95% confidence interval ranging from *.62 to .31*. Cohen's (1988) *d* estimated a medium effect size.

Hypothesis (2e) predicted that participants self-rated feelings of preparedness when working with an individual at risk of suicide would significantly increase from pretest to posttest. A paired-samples t-test was conducted to compare participants' pre-workshop feelings of preparedness (SKQ item #14) when working with clients at risk for

suicide to participants post-workshop feelings of preparedness when working with clients at risk for suicide. There was a statistically significant increase in preparedness scores from pre *(M = 3.32, SD = .91)* to post *(M = 3.90, SD = .69), $t_{(89)}$ = -7.17, p = .001 (one-tailed), d = .76.* The mean increase in comfort scores was .58 with a 95% confidence interval ranging from *.74* to *.42*. Cohen's (1988) *d* estimated a small to medium effect size.

Hypothesis 5 predicted that participants would show a significant increase in suicide knowledge from pre-test to post-test, as measured by the Suicide Knowledge Quiz (SKQ). A paired-samples t-test was conducted to compare pre-workshop Suicide Knowledge Quiz scores with post-workshop Suicide Knowledge Quiz scores. There was a statistically significant difference between participants' pre-workshop SKQ scores *(M = 9.96, SD = 1.83)* and post-workshop SKQ scores *(M = 11.27, SD = 1.08); $t_{(91)}$ = 8.01, p = .001* (one-tailed), Cohen's *d = .83*. The mean increase in Suicide Knowledge Scores was *1.315* with a 95% confidence interval ranging from *1.64 to .99*. Cohen's (1988) *d* estimated a large effect size.

SF Suicide Skills Survey – v. 2019.0 (SF-SSS)

Hypothesis 4a predicted that participants in this study would show a significant increase in their SF Suicide Skills Survey (SF-SSS) from pretest to posttest. A paired-samples t-test was conducted to compare participants' skill and confidence scores on the SF Suicide Skills Survey before and after the workshop. There was a statistically significant increase in SF Suicide Skills Survey Skill scores from pre (*M = 6.02, SD = 1.42*) to post (*M = 6.74, SD = 1.57), $t_{(89)}$ = -4.53, p = .002 (one-tailed), d = .48*. Cohen's (1988) *d* estimated a medium effect size. The mean increase in Suicide Skill Scores was

.72 with a *95%* confidence interval ranging from *1.04* to *.41*. There was a statistically significant increase in SF Suicide Skills Survey Confidence scores from pre *(M = 18.32, SD = 4.81*) to post (*M = 21.87, SD = 4.40), $t_{(89)} = 7.37$, p = .001 (one-tailed), d = .78*. The mean increase in the SF-SSS Confidence Scores was *3.54* with a *95%* confidence interval ranging from *4.5* to *2.59*. Cohen's (1988) *d* estimated a large effect size.

SCAF and SF-SSS

Hypothesis 4b in this study predicted that participants pretest and posttest scores on the SCAF and SF-SSS would show a positive correlation. The relationship between the SCAF total score on the pretest and the skill score on the SF-SSS pretest was investigated using Pearson product moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a positive correlation between the two variables, *r = .23, n = 72, p = .05*, with high scores on the SCAF total pretest score associated with high scores on the SF-SSS skill pretest score.

The relationship between the SCAF overall score on the pretest and the skill score on the SF-SSS pretest was also investigated using Pearson product moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was no correlation between the two variables, *r = .18, n = 63, p = .17.*

The relationship between the SCAF total score on the posttest and the skill score on the SF-SSS posttest was investigated using Pearson product moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the

assumptions of normality, linearity and homoscedasticity. There was no correlation between the two variables, $r = .09, n = 64, p = .47$.

The relationship between the SCAF total score on the pretest and the confidence score on the SF-SSS pretest was investigated using Pearson product moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a positive correlation between the two variables, $r = .29, n = 72, p = .05$, with high scores on the SCAF total pretest score associated with high scores on the SF-SSS confidence pretest score.

The relationship between the SCAF overall score on the pretest and the confidence score on the SF-SSS pretest was investigated using Pearson product moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a positive correlation between the two variables, $r = .35, n = 63, p = .005$, with high scores on the SCAF overall pretest score associated with high scores on the SF-SSS confidence pretest score.

The relationship between the SCAF total score on the posttest and the confidence score on the SF-SSS posttest was investigated using Pearson product moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a positive correlation between the two variables, $r = .61, n = 64, p = .001$, with high scores on the SCAF total posttest score associated with high scores on the SF-SSS confidence posttest score.

The relationship between the SCAF overall score on the posttest and the skill score on the SF-SSS posttest was investigated using Pearson product moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was no correlation between the two variables, $r = .03, n = 59, p = .43$.

The relationship between the SCAF overall score on the posttest and the confidence score on the SF-SSS posttest was investigated using Pearson product moment correlation coefficient. Preliminary analyses were performed to ensure no violation of the assumptions of normality, linearity and homoscedasticity. There was a positive correlation between the two variables, $r = .37, n = 59, p = .003$, with high scores on the SCAF overall posttest score associated with high scores on the SF-SSS confidence posttest score.

Workshop Content Reflection Tool

In order to gain a richer understanding of the participants' workshop take-aways, I created two frequency tables (Table 5 and 6) to describe results from the workshop content reflection tool. I also transcribed all of the responses to the open-ended question in Appendix B. Table 5 includes each item on the workshop reflection tool and a count and percentage of how many participants found a tool or strategy useful or not (i.e., "Not Useful", "It's ok", or "It is great"). These results show that nearly all of the workshop content were rated very high, and six of the areas were rated as "great" by over 90% of participants and another five areas were rated as "great" by over 85% of participants.

Table 6 includes a count and percentage of participants who noted that they did or did not need more training (i.e., "Yes, I want more training," "Maybe want more

training," or "No more training"). On most items participants indicated that they wanted more training or that they might want more training.

Table 5

Review of Workshop Content

Tool/Strategy	Not useful	It's ok	It is great	Total
1. Manage your attitude and anxiety about working with people who are suicidal.	1/ 1.4%	8/ 10.8%	69/ 87.8%	74
2. Mood scaling with suicide floor.	1/ 1.4%	6/ 8.1%	67/ 90.5%	74
3. Normalizing suicidal thoughts when asking directly about suicide.	2/ 2.7%	5/ 6.8%	66/ 70.2%	73
4. Gentle Assumption.	2/ 2.8%	20/ 27.8%	50/ 69.4%	72
5. Balancing questions about strengths and solutions with questions about problems and symptoms.	0	4/ 5.4%	70/ 94.6%	74
6. Building hope from the bottom up.	1/ 1.4%	6/ 8.2%	66/ 90.4%	73
7. Deal effectively with client irritability.	0	11/ 14.9%	63/ 85.1%	74
8. Ask the existential 'six months to live' question.	0	18/ 24.3%	56/ 75.7%	74
9. Deal with cultural issues in a sensitive manner.	0	6/ 8.1%	68/ 91.9%	74
10. The social universe drawing.	2/ 2.7%	26/ 35.1%	46/ 62.2%	74
11. Use S-L-A-P to assess client suicide plans.	0	9/ 12.3%	64/ 87.7%	73
12. Engage in collaborative problem-solving or generate alternatives to suicide.	0	4/ 5.5%	69/ 94.5%	73

13. Separate the pain from the person.	0	13/18.1%	59/ 81.9%	72
14. Neodissociation: "There is a healthy part of you that wants to live…"	1/ 1.4%	14/ 20%	55/ 78.6%	70
15. Use of collaborative safety planning.	1/ 1.4%	1/ 1.4%	72/ 97.3%	74
16. Talking directly about lethal means restriction.	1/ 1.4%	7/ 9.5%	66/ 89.2%	74
17. Decision-making and initiating hospitalization.	1/ 1.4%	8/ 11%	64/ 87.7%	73

Table 6

Need for Additional Training

Tool/Strategy	Yes, more training.	Maybe more training	No more training.	Total
1. Manage your attitude and anxiety about working with people who are suicidal.	18/ 24.3%	18/ 24.3%	40.4/ 51.4%	74
2. Mood scaling with suicide floor.	20/ 27.4%	22/ 30.1%	31/ 42.5%	73
3. Normalizing suicidal thoughts when asking directly about suicide.	27/ 37%	14/ 19.2%	32/ 43.8%	73
4. Gentle Assumption.	21/ 29.2%	18/ 25%	33/ 45.8%	72

5. Balancing questions about strengths and solutions with questions about problems and symptoms.	25/ 34.2%	14/ 19.2%	34/ 46.6%	73
6. Building hope from the bottom up.	25/ 34.7%	13/ 18.1%	34/ 47.2%	72
7. Deal effectively with client irritability.	30/ 40.5%	14/ 18.9%	30/ 40.5%	74
8. Ask the existential 'six months to live' question.	22/ 29.7%	18/ 24.3%	34/ 45.9%	74
9. Deal with cultural issues in a sensitive manner.	31/ 41.9%	13/ 17.6%	30/ 40.5%	74
10. The social universe drawing.	17/ 23%	23/ 31.1%	34/ 45.9%	74
11. Use S-L-A-P to assess client suicide plans.	32/ 43.2%	11/ 14.9%	31/ 41.9%	74
12. Engage in collaborative problem-solving or generate alternatives to suicide.	26/ 35.6%	12/ 16.4%	35/ 47.9%	73
13. Separate the pain from the person.	31/ 42.5%	10/ 13.7%	32/ 43.8%	73

14. Neodissociation: "There is a healthy part of you that wants to live…"	28/ 38.4%	17/ 23.3%	28/ 38.4%	73
15. Use of collaborative safety planning.	34/ 45.9%	11/ 14.9%	29/ 39.2%	74
16. Talking directly about lethal means restriction.	24/ 32.4%	12/ 16.2%	38/ 51.4%	74
17. Decision-making and initiating hospitalization.	29/ 39.7%	9/ 12.3%	35/ 47.9%	73

Chapter Summary

To test the hypotheses in this study a variety of statistical tests were conducted. Results indicated that participants had significant positive training outcomes across the whole range of outcomes measures. Post-workshop scores on knowledge (SKQ), self-perceived level comfort (SKQ13) and preparedness (SKQ 14), confidence and skills (SF-SSS), and self-rated competence (SCAF) were all significantly increased at the post-workshop assessment. Correlational analyses on the relationship between the SCAF and SF-SSS measure showed mixed results. Correlation analyses also revealed that previous training in graduate school was significantly related to higher SKQ and SCAF pretest scores. The ANOVA in relation to previous training showed that participants with previous training had significantly higher SKQ scores, SKQ comfort and preparedness ratings, and SCAF total and overall scores.

CHAPTER 5: DISCUSSION

The primary purpose of this study was to examine the effects of a six-hour strength-based suicide assessment and treatment workshop on the knowledge, self-perceived comfort and preparedness, self-rated confidence and skills, and self-rated competence of mental health and school professionals. Overall, the results indicated that participants had significant positive training outcomes across all measures. Scores on suicide knowledge, comfort and preparedness, confidence and skills, and self-rated competence were all significantly increased from pre- to post-workshop assessment. Generally, these results are not particularly surprising given that participants were exposed to six hours of suicide education. However, as can be seen in Table 7, these results suggest that this locally-designed workshop likely meets or exceeds national benchmarks and is a suitable training for post-graduate professionals (Cramer et al., 2016; Cramer et al., 2017; Cramer, Ireland, et al., 2019; Cramer, Long, et al., 2019; La Guardia et al., 2019; Lund et al., 2016; Lund et al., 2017). Specifically, in the two most comparable studies (Cramer et al., 2017; La Guardia et al., 2019), the present results were at least equivalent to previous research using the SCAF as a competency-based measure of suicide training outcomes. I will return to this point toward the end of this discussion.

Table 7

SCAF Research Table

Study and Sample Size	SCAF pre	SCAF post	Significance	Population
Lund et al. (2017) *n = 221* Compared previous training and no previous	*M Total = 20.26 (5.40)*- No training. *M Overall = 2.57 (1.23)*	*M Total = 26.99 (6.09)* Yes, previous training *M Overall = 4.27 (1.6)*	Total $p < .000$ Cohen's $d = 1.17$ Overall $p < .000$ Cohen's $d =$	Rehab Counselors

training.			*1.19*	
Cramer, Ireland, et al. (2019) *n = 170* No intervention	*M Total = 26.38* *M Global = 4.33* *Total x Global r = 0.62*	N/A	N/A	Psychiatric Healthcare professionals from the U.K.
Cramer, Bryson, Shroud, & Ridge (2016) *n = 5* Graduate course	*M = 15.40 (5.13)*	*28.60 (3.91)*	*p = .002* Cohen's *d = 2.89*	Graduate Students in Clinical Psychology
Cramer, Long, Gordon, & Zapf (2019) *n = 43* (of 239) 20-hour Online CE Course	*M Total = 31.30 (5.28)* *M Global = 5.09 (1.09)*	*M Total = 36.11 (6.6)* *M Global = 6 (1.21)*	*p < .001* Cohen's *d = 0.78* *p < .001* Cohen's *d = 0.77*	Mental Health Professionals
La Guardia et al. (2019) *n = 29* Half Day Workshop	*M Total= 25.46 (6.93)* *M Global = 4.42 (1.81)*	*M Total = 29.83 (5.92)* *M Global = 5.46 (1.46)*	*p < .001* Cohen's *d = 1.00* *p < .001* Cohen's *d = 0.63*	Community Mental Healthcare Providers
Lund et al. (2016) *n = 93* No Intervention	*M = 18.3 (6.85)*	N/A	N/A	Vocational Rehab Counselors and Support Staff
Cramer, Bryson, et al. (2017) *n = 17* Four-hour Workshop	*M = 24.5 (8.09)*	*M = 26.87 (5.82)*	Not Significant *(p = .06)* Cohen's *d = 0.33*	Seasoned Clinicians and clinical psychology graduate students

Donisthorpe (2020) *n = 63* Six-hour strength-based workshop	*M = 26.33 (6.00)*	*M = 29.06 (6.01)*	*p < .001* Cohen's *d = 0.82*	Montana School and Mental Health Professionals

The ANOVA and correlational analyses related to hypotheses 1b, 1c, 2b and 2c showed previous training in suicide assessment was significantly associated with participants' suicide knowledge, comfort and preparedness, and self-perceived competence to work with individuals experiencing suicide ideation. Having had training in graduate school independently predicted higher pretest scores on the SCAF. This outcome implies that having suicide training in graduate school provides individuals with important foundational knowledge. In addition, as can be seen from Table 7, in the four previous comparable workshop training studies, longer training times were consistently associated with larger effect sizes. This pattern held in the present study (i.e., my effect size of *d = 0.82* was larger than effect sizes associated with three (*d = 0.63*) and four (*d = 0.33*) hour training experiences, and similar to or smaller than effect sizes associated with a 20-hour online training (*d = 0.78*) and a semester-long course (*d = 2.89*). Given that previous researchers have explicitly questioned when, how, and whether suicide training should be integrated into graduate education (Binkley & Liebert, 2015), the finding that graduate school training is a predictor of higher SCAF scores, provides additional support for including specific training experiences in graduate school. Furthermore, based on previous research and these current results, it appears that more training yields greater suicide assessment and treatment competence.

Although having suicide training in graduate school and training post graduate school were both associated with significantly higher knowledge, comfort and

preparedness, and SCAF pretest scores, years of experience in the field was not correlated with higher suicide knowledge, comfort and competence, or SCAF pretest scores. In combination, this pattern of results supports the proposition that early and ongoing education in suicide assessment and treatment is key to ethical and competent care in school and mental health settings. Clinical or counseling experience alone appears inadequate to support suicide assessment and treatment competency (Cramer, personal communication, October 22, 2020)

Limitations

Prior to engaging in more speculative interpretation of the current findings, it is important to describe the study's limitations. This study used a convenience sample from participants enrolled in three separate sessions of the "Advances in Suicide Assessment and Treatment Planning" workshop for professionals. Since a convenience sample was used, we will not be able to generalize results to other populations of interest. Also, because this study used a non-experimental design, and did not utilize a control group, no causal conclusions can be drawn from this study.

Another important limitation worth noting is that all of the measures relied on participant self-report. Using behavioral observations and ratings would be a more direct measurement of counselor preparedness and skills for addressing suicide. With the exception of the SCAF, the measures in this study are unpublished and lack psychometrics. Although the SCAF is a published questionnaire and has good initial psychometrics, it has only been used in a limited number of studies (see Table 7). More research with varying populations is needed to firmly establish the SCAF's reliability and validity. In particular, future research that uses both the SCAF and a behavioral outcome

measure would provide information pertaining to whether self-ratings of competence are consistent with observer ratings of competence.

Another limitation of this study is that it has not yet been manualized, and so there may have been some variation in topics that were brought up and discussed during each workshop. However, each session was led by the same trainer, so the content was likely consistent across sites and having multiple sites is recommended when evaluating psychoeducational interventions.

Hypothesis 2d looked at participants' feelings of comfort working with someone at risk for suicide from pretest to posttest. Similarly, this study predicted that participants feelings of preparedness would significantly increase from pretest to posttest (2e). The literature supports the idea that many clinicians have identified that they have not had training, did not have adequate training, or would still like more training to be more competent in this area (Binkley & Liebert, 2015; Schmitz, Allen, Feldman, Gutin, Jahn, Kleespies, Quinnett, & Simpson, 2012). The outcomes of this study support the idea that with more advanced training in this important topic, the more comfortable and prepared school and mental health professionals would feel about being responsible to provide competent suicide assessment and treatment. The more exposure to information and time to practice tools and techniques in this area increases feelings of comfort and preparedness.

Hypothesis 3a predicted that participants would have significant increases in SCAF scores from pretest to posttest. Results of this study support this hypothesis, which again is not surprising given that participants were exposed to six hours of suicide-focused training. However, it is worth noting that the training was not created based on

the SCAF, so the positive outcomes are another indication that this particular training provides critical suicide information and skills for counselors in training and those who are currently practicing in the field. Similarly, participants with previous training had significantly higher SCAF scores (1a). Just like the SKQ scores, participants who had previous training in graduate school had significantly higher SCAF scores than those without previous training. This supports the idea that participants who received some form of education in graduate school were provided with some foundational knowledge that led to them rating themselves higher in each area of suicide risk competence.

Participants showed positive changes on the second face valid measure, the SF-SSS from pretest to posttest (4a). This finding implies that the SF-SSS was a sensitive measure of participant learning. The SF-SSS included both measures of skill and confidence. More research is needed to determine whether the SF-SSS has adequate psychometrics and factor structure to be used in future research.

Next it was hypothesized (4b) that participants' pretest and posttest scores on the SCAF and SF-SSS would have a positive correlation. Results indicated that the SF-SSS confidence scores were related to SCAF total and overall scores. However, SF-SSS skill scores were not related to SCAF total and overall scores. One explanation for this could be that self-reported competence is related to confidence, but skills are something different. Further research is needed to understand the relationship between practitioner confidence, competence, and skill. Including a behavioral observation measure with specific behavioral criteria would contribute to understanding how these factors relate to one another.

It was hypothesized that participants would have significant increases in Suicide Knowledge Quiz (SKQ) scores from pretest to posttest (5). Results from this study support this hypothesis, but this is not surprising since they were provided with six hours of suicide education. However, it is meaningful since many gatekeeper trainings do not have significant outcomes for participants who have had previous training in suicide assessment or for those who are in a school counseling or mental health counseling role (Shannonhouse et al., 2017). One explanation for this is that the more advanced and specific training content in the strength-based suicide training included new material and therefore even participants with previous suicide assessment and intervention training were able to learn something new.

Participants Review of Workshop Content

To gain a richer perspective of what participants took away from this workshop, a workshop reflection tool was administered and analyzed. Overall, participant responses on the workshop reflection tool indicated that all of the tools and strategies used in the workshops were viewed as useful and potentially additive to the tools and strategies that school and mental health professionals currently use with individuals. Using a cut-off score to identify specific workshop-based strategies that were endorsed by 90% or more of participants revealed the following most highly rated workshop content:

- the use of collaborative safety planning
- balancing questions about strengths and solutions with problems and symptoms
- engaging in collaborative problem-solving or generating alternatives to suicide

- dealing with cultural issues in a sensitive manner; mood scaling with a suicide floor
- building hope from the bottom up.

Although these were the most highly rated content areas, it should be noted that the majority of participants found all 17 items to be potentially useful in their future practice, and 11 of the 17 items were rated as "great" by over 85% of participants. This outcome may speak to the need that professionals have for suicide trainings that employ a strength-based model and focus on concrete and specific skills and strategies to use with suicidal clients or students.

Another important part of the workshop reflection tool was whether participants indicated that they desired more training for working with these specific tools and strategies. As shown in Table 6, the majority of participants noted that they might want additional training in the future. These results are consistent with the proposition that generally, mental health and school professionals tend to want additional and ongoing training in the area of suicide assessment and treatment. Consistent with previous research, participants in this study increased their competence ratings, but these ratings were not so high as to approach ceiling effects. Even after the training, many participants not only desired more training, they also had significant room for improvement in their self-ratings (i.e., post-workshop SCAF ratings were $M = 29.06$ on a scale with a scoring range from 10-40).

What Ingredients are Likely to Contribute to an Effective Suicide Training Workshop?

There are many suicide training formats that are currently used for graduate and postgraduate training (i.e., one to two-day trainings, semester long courses, role-plays, videos, online courses, computer simulations, etc.). It is essential that school and mental health professionals are adequately trained in evidenced-based suicide assessment, intervention and management in order to be competent and ethical counselors (Cramer et al., 2013). However, finding adequate evidence-based training models designed for this population has been lacking (Shannonhouse et al., 2017). Without the existence of a systematic and comprehensive counselor training program for suicide assessment and treatment, by default, counseling students and professionals are often trained in gatekeeper trainings like ASIST and QPR.

So, what do school and mental health professionals need in suicide assessment and intervention training? What constitutes an effective suicide assessment and treatment training for professionals? It seems widely accepted that school and mental health professionals should understand and be familiar with the 10 core competencies outlined by Cramer et al. (2013). At the very least, trainings should be provided in graduate school and beyond that are likely to increase participants' self-rated competence on an instrument like the SCAF. In fact, based on this and other research, systematic use of a simple 10-item instrument like the SCAF might help keep suicide trainings for professionals focused on building competence. Additionally, school and mental health professionals should be familiar with suicide theory, current evidence-based practices,

and state-of-the-art tools and strategies to apply when working with individuals experiencing suicide ideation.

Exploring the question of what was unique and useful about this training and how it contributed to significant positive outcomes in suicide knowledge, comfort and preparedness, skill and confidence, and self-perceived suicide competence is speculative, but worthwhile. It is possible that the content of this workshop went beyond previous training models by providing time to process personal reactions to suicide; current suicide knowledge, such as statistics and myths; caution and information about suicide risk factors, warning signs and protective factors; building a current suicide theory and research foundation; and providing clinicians more nuanced strategies for suicide assessment interviewing and treatment planning. In six hours of training, school and mental health professionals were given a comprehensive view of suicide assessment and intervention. They also watched (on video) and practiced (via role play) new skills to take with them and apply in their work setting. Some previous research on suicide training has utilized active learning procedures and generally the present outcome implies that six-hour trainings should include experiential learning components and go beyond lectures and information sharing. It was clear from the workshop reflection tool and open-ended responses that participants were enthusiastic about having new tools and strategies to use in their work setting.

Participants were also taught how to practically and sensitively work with individuals in suicidal crisis using a strength-based model. It is also likely that the organization of the content was provided in a practical and useful manner. The trainer identified six life domains (i.e., emotional, cognitive, interpersonal, physical,

spiritual/cultural, and behavioral) that suicidality may manifest, provided examples, and demonstrated how school and mental health professionals can apply targeted interventions within each domain. This framework provided participants with a way to gather and organize current problems, strengths, and information for where to provide targeted interventions. Several participants commented on the six domains and the strength-based model in their responses to the final open-ended question.

Implications for Future Studies

Although there were many promising outcomes from this study, there were also substantial limitations and consequently a need for future research. In particular, future research should focus on the following issues:

1. Use of an experimental design. For example, implementing a strength-based intervention and comparing it to other training models, including ASIST, QPR, CAMS, is needed. To date, there is no research comparing one training approach with another or with a control group.
2. Collecting follow-up data to evaluate longer-term outcomes. At this point, although training in graduate school and post-graduate training appear to confer suicide competency benefits, it is difficult to know whether training benefits accumulate or sustain over time. It also may be true that repeated training is needed to maintain competence over time, but how much and when the trainings should be offered to obtain optimal training results is unknown.
3. It would be interesting for researchers to compare SCAF outcomes between participants in this training model versus individuals who had completed one of the training models from chapter two (i.e., ASIST, QPR, CAMS, etc.). It

would also be interesting to look at long-term outcomes by following up with clinicians after they have had the chance to utilize their training with clients at risk for suicide. This would potentially give some insight into how clinicians' knowledge, comfort and preparedness, skill and confidence, and feelings of competence change over time and with real life experience. Additionally, it would be valuable to get input about the experience of this model from the perspective of the client. The clients' voices are missing from this study and all studies of suicide training.

4. Future studies should also consider what delivery method would be most useful and practical given the population, setting, and time allotted for training. Delivery methods to consider include lecture, watching live or recorded role-plays, practice through the use of computer simulated clients or in-person role-plays, online, or blended formats.
5. To address the limitations of self-report measures, future researchers should consider the use of observational behavior measures. Trainings could utilize the SCAF as an observational tool, or use computer simulated clients to help provide observational pre and posttest measures. Since this can be time intensive, it might be best to start with a single case design and small sample size. Other considerations for building a better training model include consideration of the targeted training population. The early needs of counselors in training in graduate programs may differ from those practicing in the field. This is another reason that systematic and comprehensive training is needed in counseling programs.

A better training model is needed for school and mental health professionals. Future studies that address these limitations could help contribute to the creation of a comprehensive suicide assessment and treatment training program. Clinicians need foundational knowledge to continue to build on throughout their careers, and it could be argued that suicide assessment and treatment may be the most important topic for mental health professionals to achieve competence.

Conclusion

Results from this study were discussed in the context of previous research. Overall, the six-hour strength-based suicide assessment and treatment workshop had positive effects on participant knowledge, comfort, preparedness, competence, and skills. In particular, the workshop model, delivery, and content appeared to be equivalent or superior to SCAF outcomes measuring the ten core competencies outlined by Cramer et al. (2013). Perhaps most importantly, this study is a first step towards a strength-based training model to address the relatively well-accepted suicide competencies in clinical mental health and school counseling graduate programs. This model shows promising outcomes that could be used to target the well noted gap in training in school counseling and mental health graduate programs, whether it is from lack of training (Dexter-Mazza & Freeman, 2003) or inadequate training (Rudd, Cukrowicz, & Bryan, 2008; Schmitz et al., 2012). The outcomes from this training indicate that it is also a helpful approach for clinicians who are already in the field, have had previous training, and years of experience in the field. It is recommended that school and mental health professionals are provided with comprehensive suicide training in graduate school. In order to continue accumulating

suicide knowledge and assessment skills, ongoing and career-long suicide assessment and education training is needed.

References

Abramson, L. Y., Alloy, L. B., Hogan, M. E., Whitehouse, W. G., Cornette, M., Akhavan, S., & Chiara, A. (1998). Suicidality and cognitive vulnerability to depression among college students: A prospective study. *Journal of Adolescence, 21*(4), 473-487.

American Association of Suicidology. (2010). *Some facts about suicide and depression.* Retrieved from http://www.suicidology.org/

American School Counselor Association (2016). Ethical standards for school counselors. Alexandria, VA: Author

Anestis, M. D., & Houtsma, C. (2017). The association between gun ownership and Statewide overall suicide rates. *Suicide and Life-Threatening Behavior,* 48(2), 204-217.

Arkov, K., Rosenbaum, B., Christiansen, L., Jonsson, H., & Munchow, M. (2008). Treatment of suicidal patients: The collaborative assessment and management of suicidality. *Ugeskrift for Laeger, 170,* 149-153.

Aseltine, R. H., James, A., Schilling, E. A, & Glanovsky, J. (2007). Evaluating the SOS suicide prevention program: A replication and extension. *BMC Public Health, 7*(1), 161.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Prentice Hall.

Barrio, C. A. (2007). Assessing suicide risk in children: Guidelines for developmentally appropriate interviewing. *Journal of Mental Health Counseling, 29*(1), 50-66.

Baumeister, R. F. (1990). Suicide as escape from self. *Psychological Review, 97*(1), 90

113.

Beck, A. T., Kovacs, M., & Weismann, A. (1974). The measurement of pessimism: The hopelessness scale. Journal of Consulting and Clinical Psychology, 42, (861-865).

Beck, A. T., Kovacs, M., & Weissman, A. (1975). Hopelessness and suicidal behavior: An overview. *Jama*, *234*(11), 1146-1149.

Beck, A. T. (Ed.). (1979). *Cognitive therapy of depression*. Guilford press.

Binkley, E. E., & Leibert, T. W. (2015). Prepracticum counseling students' perceived preparedness for suicide response. *Counselor Education and Supervision, 54*(2)

Botega, N. J., Reginato, D. G., da Silva, S. V., da Silva Cais, Carlos Filinto, Rapeli, C. B., Mauro, M. L. F., . . . Stefanello, S. (2005). Nursing personnel attitudes towards suicide: The development of a measure scale. *Revista Brasileira De Psiquiatria, 27*(4), 315-318.

Brent, D. A., Greenhill, L. L., Compton, S., Emslie, G., Wells, K., Walkup, J. T., . . . Turner, J. B. (2009). The treatment of adolescent suicide attempters study (TASA): Predictors of suicidal events in an open treatment trial. *Journal of the American Academy of Child & Adolescent Psychiatry, 48*(10), 987-996.

Bryan, C. J., & Rudd, M. D. (2006). Advances in the assessment of suicide risk. *Journal of Clinical Psychology, 62*(2), 185-200.

Bryan, C. J., & Rudd, M. D. (2018). *Brief cognitive-behavioral therapy for suicide Prevention.* Guilford Press.

Burnette, C., Ramchand, R., & Ayer, L. (2015). Gatekeeper Training for Suicide Prevention: A Theoretical Model and Review of the Empirical Literature. *Rand health quarterly*, *5*(1),

16. Centers for Disease Control and Prevention. 2017 Youth Risk Behavior Survey Data. Available at: www.cdc.gov/yrbs.

Centers for Disease Control and Prevention. (2017). *Web-based injury statistics query and reporting system* (WISQARS) (Fatal Injury Reports, 1999-2015, for National, Regional, and States [RESTRICTED]). National Center for Injury Prevention and Control.

Centers for Disease Control and Prevention. (2020). National Center for Health Statistics. Available at: https://www.cdc.gov/nchs/pressroom/sosmap/suicidemortality/suicide.htm

Chemtob, C. M., Bauer, G. B., Hamada, R. S., Pelowski, S. R., & Muraoka, M. Y. (1989). Patient suicide: Occupational hazard for psychologists and psychiatrists. *Professional Psychology: Research and Practice, 20*(5), 294-300.

Cohen J. (1988). Statistical power analysis for the behavioral sciences. New York, NY: Routledge Academic.

Comtois, K. A., Jobes, D. A., O'Connor, S., Atkins, D. C., Janis, K., Chessen, C., *et al.* (2011). Collaborative assessment and management of suicidality (CAMS): Feasibility trial for next day appointment services. *Depression and Anxiety, 28,* 963-972.

Council for Accreditation of Counseling and Related Programs. (2016). *2016 standards.*

Cramer, R. J., Johnson, S. M., McLaughlin, J., Rausch, E. M., & Conroy, M. A. (2013). Suicide risk assessment training for psychology doctoral programs: Core competencies and a framework for training. *Training and Education in Professional Psychology, 7*(1), 1-11.

Cramer, R. J., Bryson, C. N., Stroud, C. H., & Ridge, B. E. (2016). A pilot test of a graduate course in suicide theory, risk assessment, and management. *Teaching of Psychology, 43*(3), 238-242.

Cramer, R. J., Bryson, C. N., Eichorst, M. K., Keyes, L. N., & Ridge, B. E. (2017). Conceptualization and pilot testing of a core competency-based training workshop in suicide risk assessment and management: Notes from the field. *Journal of Clinical Psychology, 73*(3), 233-238.

Cramer, R. J., & Long, M. M. (2018). Competency-based suicide prevention education: Implementation of a pilot course for undergraduate health professions students. *Academic Psychiatry, 42*(6), 857-861.

Cramer, R. J., Long, M. M., Gordon, E., & Zapf, P. A. (2019). Preliminary effectiveness of an online-mediated competency-based suicide prevention training program. *Professional Psychology: Research and Practice, 50*(6), 395-406.

Cwik, M. F., Tingey, L., Wilkinson, R., Goklish, N., Larzelere-Hinton, F., & Barlow, A. (2016). Suicide prevention gatekeeper training: Can they advance prevention in Indian country? *Archives of Suicide Research, 20*(3), 402-411.

Dexter-Mazza, E. T., & Freeman, K. A. (2003). Graduate training and the treatment of Suicidal clients: The students' perspective. *Suicide and Life-Threatening Behavior*, *33*(2), 211- 218.

Durkheim, E., (1897). *Le Suicide.* Paris, France: Alcan.

Ellis, T. E., Green, K. L., Allen, J. G., Jobes, D. A., & Nadorff, M. R. (2012). Collaborative assessment and management of suicidality in an inpatient setting: Results of a pilot study. *Psychotherapy, 49*(1), 72-80.

Feldman, B. N., & Freedenthal, S. (2006). Social work education in suicide intervention and prevention: An unmet need? *Suicide and Life-Threatening Behavior, 36*(4), 467-480.

Ganzini, L., Denneson, L. M., Press, N., Bair, M. J., Helmer, D. A., Poat, J., & Dobscha, S. K. (2013). Trust is the basis for effective suicide risk screening and assessment in veterans. *Journal of General Internal Medicine*, *28*(9), 1215-1221.

Geltner, P. (2006). The concept of objective countertransference and its role in a two person psychology. *The American Journal of Psychoanalysis, 66*(1), 25-42.

Gibb, S. J., Beautrais, A. L., & Surgenor, L. J. (2010). Health-care staff attitudes towards self-harm patients. *Australian and New Zealand Journal of Psychiatry, 44*(8), 713-720.

Giddens, J. M., Sheehan, K. H., & Sheehan, D. V. (2014). The Columbia-suicide severity Rating scale (C–SSRS): Has the "gold standard" become a liability? *Innovations in Clinical Neuroscience, 11*(9-10), 66-80.

Gil-Monte, P., & Olivares Faúndez, V. E. (2011). Psychometric properties of the "Spanish burnout inventory" in Chilean professionals working to physical disabled people. *The Spanish Journal of Psychology, 14*(1), 441-451.

Gil-Monte, P. R., & Manzano-García, G. (2015). Psychometric properties of the Spanish Burnout inventory among staff nurses. *Journal of Psychiatric and Mental Health Nursing, 22*(10), 756-763.

Gould, M. S., Cross, W., Pisani, A. R., Munfakh, J. L., & Kleinman, M. (2013). Impact of applied suicide intervention skills training on the national suicide prevention lifeline. *Suicide and Life-Threatening Behavior, 43*(6), 676-691.

Graham, R. D., Rudd, M. D., & Bryan, C. J. (2011). Primary care providers' views Regarding assessing and treating suicidal patients. *Suicide and Life-Threatening Behavior, 41*(6), 614-623.

Granello, D. H. (2010). A suicide crisis intervention model with 25 practical strategies for implementation. *Journal of Mental Health Counseling, 32*(3), 218-235.

Hung, E. K., Binder, R. L., Fordwood, S. R., Hall, S. E., Cramer, R. J., & McNiel, D. E. (2012). A method for evaluating competency in assessment and management of suicide risk. *Academic Psychiatry, 36*(1), 23-28.

Jobes, D. A. (1995). Psychodynamic treatment of adolescent suicide attempters. In J. K. Zimmerman, & G. M. Asnis (Eds.), *Treatment approaches with suicidal adolescents; treatment approaches with suicidal adolescents* (pp. 137-154, Chapter xx, 296 Pages). Wiley.

Jobes, D. A., Jacoby, A. M., Cimbolic, P., & Hustead, L. A. T., (1997). The assessment and Treatment of suicidal clients in a university counseling center. *Journal of Counseling Psychology, 44,* 368-377.

Jobes, D. A., & Mann, R. E. (1999). Reasons for living versus reasons for dying: Examining the internal debate of suicide. *Suicide and Life-Threatening Behavior, 29*(2), 97-104.

Jobes, D. A. (2000). Collaborating to prevent suicide: A clinical-research perspective. *Suicide and Life-Threatening Behavior, 30*(1), 8-17.

Jobes, D. A., Wong, S., Conrad, A. K., Drozd, J. F., & Neal-Walden, T. (2005). The collaborative assessment and management of suicidality versus treatment as usual: A retrospective study with suicidal patients. *Suicide and Life-Threatening*

*Behavior, 35,*483-497.

Jobes, D. A. (2006). *Managing suicidal risk: A collaborative approach.* Guilford Press.

Jobes, D. A., Kahn-Greene, J., & Goeke-Morey, M. (2009). Clinical improvements of Suicidal outpatients: Examining suicide status form responses as predictors and moderators. *Archives of Suicide Research, 13,* 147-159.

Jobes, D. A. (2012). The collaborative assessment and management of suicidality (CAMS): An evolving evidence-based clinical approach to suicidal risk. *Suicide and Life-Threatening Behavior, 42*(6), 640-653.

Joiner, T. (2005). *Why people die by suicide.* Harvard University Press, Cambridge, MA.

King, G., Orchard, C., Khalili, H., & Avery, L. (2016). Refinement of the Interprofessional Socialization and Valuing Scale (ISVS-21) and development of 9-item equivalent versions. *Journal of Continuing Education in the Health Professions,* 36, 171-177.

Kleespies, P. M., Penk, W. E., & Forsyth, J. P. (1993). The stress of patient suicidal Behavior during clinical training: Incidence, impact, and recovery. *Professional Psychology: Research and Practice, 24*(3), 293-303.

Kleespies, P. M., & Dettmer, E. L. (2000). An evidence-based approach to evaluating and managing suicidal emergencies. *Journal of Clinical Psychology, 56*(9), 1109-1130.

Kleespies, P. M., Hough, S., & Romeo, A. M. (2009). Suicide risk in people with medical And terminal illness. In P. M. Kleespies (Ed.), *Behavioral emergencies: An evidence-based resource for evaluating and managing risk of suicide, violence, and victimization;* (pp. 103-121) American Psychological Association.

Knox, S., Burkard, A. W., Jackson, J. A., Schaack, A. M., & Hess, S. A. (2006).

Therapists-in training who experience a client suicide: Implications for supervision. *Professional Psychology: Research and Practice, 37*(5), 547-557.

La Guardia, A. C., Cramer, R. J., Brubaker, M., & Long, M. M. (2018). Community mental health provider responses to a competency-based training in suicide risk assessment and prevention. *Community Mental Health Journal, 55(2), 257-266.*

Large, M. M., & Ryan, C. J. (2014). Disturbing findings about the risk of suicide and psychiatric hospitals. *Social Psychiatry and Psychiatric Epidemiology: The International Journal for Research in Social and Genetic Epidemiology and Mental Health Services, 49*(9), 1353-1355.

Leenaars, A. (1996). Suicide: A multidimensional malaise. *Suicide and Life-Threatening Behaviour, 26(3), 221-236.*

Liebling-Boccio, D. E., & Jennings, H. R. (2013). The current status of graduate training In suicide risk assessment. *Psychology in the Schools, 50*(1), 72-86.

Linehan, M. M., Goodstein, J. L., Nielsen, S. L., & Chiles, J. A. (1983). Reasons for staying alive when you are thinking of killing yourself: The reasons for living inventory. *Journal of Consulting and Clinical Psychology, 51*(2), 276-286.

Linehan, M. M. (1993). *Cognitive-behavioral treatment of borderline personality Disorder.* Guilford Press.

Linehan, M. M., Comtois, K. A., Murray, A. M., Brown, M. Z., Gallop, R. J., Heard, H. L., . . .Lindenboim, N. (2006). Two-year randomized controlled trial and follow-up of dialectical behavior therapy vs therapy by experts for suicidal behaviors and borderline personality disorder. *Archives of General Psychiatry, 63*(7), 757-766.

Linehan, M. M., Comtois, K. A., & Ward-Ciesielski, E. (2012). Assessing and managing

risk with suicidal individuals. *Cognitive and Behavioral Practice, 19*(2), 218-232.

Lund, E. M., Schultz, J. C., & Nadorff, M. R. (2017a). The factor structure, internal consistency, and convergent validity of two suicide assessment competency measures in vocational rehabilitation counselors. *Rehabilitation Counseling Bulletin, 61*(1), 20-27.

Lund, E. M., Schultz, J. C., Nadorff, M. R., Galbraith, K., & Thomas, K. B. (2017b). Experience, knowledge, and perceived comfort and clinical competency in working with suicidal clients among vocational rehabilitation counselors. *Rehabilitation Counseling Bulletin*, *61*(1), 54-63.

Mackelprang, J. L., Karle, J., Reihl, K. M., & Cash, R. E. (. (2014). Suicide intervention skills: Graduate training and exposure to suicide among psychology trainees. *Training and Education in Professional Psychology, 8*(2), 136-142.

Miller, M. (1985). *Information center: Training workshop manual*. San Diego, CA: The Information Center.

National Action Alliance for Suicide Prevention: Transforming Health Systems Initiative Work Group. (2018). *Recommended standard care for people with suicide risk: Making health care suicide safe.* Education Department Center, Inc.

Neimeyer, R. A., & MacInnes, W. D. (1981). Assessing paraprofessional competence with the Suicide Intervention Response Inventory. *Journal of Counseling Psychology, 28*, 176-179.

Neimeyer, R. A., & Pfeiffer, A. M. (1994). *The ten most common errors of suicide*

interventionists. In A. A. Leenaars, J. T. Maltsberger, & R. A. Neimeyer (Eds.), *Series in death education, aging, and health care. Treatment of suicidal people* (p. 207–224). Taylor & Francis.

Neimeyer, R. A., & Bonnelle, K. (1997). The Suicide Intervention Response Inventory: a revision and validation. *Death studies*, *21*(1), 59–81.

Oordt, M. S., Jobes, D. A., Fonseca, V. P., & Schmidt, S. M. (2009). Training mental health professionals to assess and manage suicidal behavior: Can provider confidence and practice behaviors be altered? *Suicide and Life-Threatening Behavior, 39*(1), 21-32.

Oquendo, M. A., Halberstam, B., & Mann, J. J. (2003). Risk factors of suicidal behavior: The utility and limitations of research instruments. In M. B. First (Ed.), *Standardized evaluation in clinical practice; standardized evaluation in clinical practice* (pp. 103-130, Chapter xxiv, 167 Pages) American Psychiatric Publishing.

Peterson, C., & Seligman, M. E. P. (2004). *Character strengths and virtues; A handbook and classification*. Washington, DC, New York, NY and Oxford: American Psychological Association and Oxford University Press.

Peyre, Henri M. (2020). Emile Durkheim. *Encyclopedia Britannica*. Retrieved from: https://www.britannica.com/biography/Emile-Durkheim

Poland, S., & Poland, D. S. (2017). Montana's CAST-S: Crisis Action School Toolkit on Suicide 2017.

Posner, K., Oquendo, M. A., Gould, M., Stanley, B., & Davies, M. (2007). Columbia classification algorithm of suicide assessment (C-CASA): Classification of suicidal events in the FDA's pediatric suicidal risk analysis of antidepressants.

The American Journal of Psychiatry, 164(7), 1035-1043.

Posner, K., Brown, G. K., Stanley, B., Brent, D. A., Yershova, K. V., Oquendo, M. A., . . Mann, J. J. (2011). The Columbia-Suicide Severity Rating Scale: Initial validity and internal consistency findings from three multisite studies with adolescents and adults. *The American Journal of Psychiatry, 168*(12), 1266-1277.

Quinnett, P. (2013). *QPR gatekeeper training for suicide prevention: The model, theory, and research*. Unpublished manuscript.

Rigsbee, N. P., & Goodrich, K. M. (2018). Exploring the efficacy of online suicide assessment training in counselor education. *Counseling Outcome Research and Evaluation, 1-16.*

Rosenberg, J. I. (1999). Suicide prevention: An integrated training model using affective and action-based interventions. *Professional Psychology: Research and Practice*, *30*(1), 83.

Rudd, M. D., & Joiner, T. E., Jr. (1998). An integrative conceptual framework for assessing and treating suicidal behavior in adolescents. *Journal of Adolescence, 21*(4), 489-498.

Rudd, M. D. (2006). *The assessment and management of suicidality.* Professional Resource Press/Professional Resource Exchange.

Rudd, M. D., Cukrowicz, K. C., & Bryan, C. J. (2008). Core competencies in suicide risk assessment and management: Implications for supervision. *Training and Education in Professional Psychology*, *2*(4), 219.

Schilling, E. A., Lawless, M., Buchanan, L., & Aseltine, R. H., Jr. (2014). “Signs of

suicide" shows promise as a middle school suicide prevention program. *Suicide and Life-Threatening Behavior, 44*(6), 653-667.

Schilling, E. A., Aseltine, R. H., & James, A. (2016). The SOS suicide prevention program: Further evidence of efficacy and effectiveness. *Prevention Science, 17*(2), 157-166.

Schmitz, W. M., Jr., Allen, M. H., Feldman, B. N., Gutin, N. J., Jahn, D. R., Kleespies, P. M., . . . Simpson, S. (2012). Preventing suicide through improved training in suicide risk assessment and care: An American Association of Suicidology task force report addressing serious gaps in U. S. mental health training. *Suicide and Life-Threatening Behavior, 42*(3), 292-304.

Selby, E., Joiner, T. & Ribeiro, J. (2014). Comprehensive theories of suicidal behaviors. In Nock (Ed.), *The Oxford handbook of suicide and self-injury (286-305).* New York: Oxford University Press.

Shneidman, E. (1980). Psychotherapy with suicidal patients, in specialized techniques in individual psychotherapy. *Karasu & Bellak*, 304-310.

Schneidman, E. S. (1981). A psychological theory of suicide. *Suicide & Life-Threatening Behavior,* 11, 221-231.

Shneidman E. S. (1993a). Suicide as psychache. *The Journal of nervous and mental disease*, *181*(3), 145–147.

Shneidman, E. S. (1993b). *Suicide as psychache: A clinical approach to self-destructive behavior.* Northvale, NJ.: Jason Aronson, Inc.

Seligman, M. E. P., Rashid, T., & Parks, A. C. (2006). Positive psychotherapy. *American Psychologist, 61*(8), 774-788.

Shannonhouse, L., Lin, Y. D., Shaw, K., & Porter, M. (2017). Suicide intervention training for K–12 schools: A quasi-experimental study on ASIST. *Journal of Counseling & Development, 95*(1), 3-13.

Shea, S. C. (2004). The delicate art of eliciting suicidal ideation. *Psychiatric Annals*, *34*(5), 385-400.

Sommers-Flanagan, J., & Sommers-Flanagan, R. (2017). *Clinical interviewing* (6th ed.) Wiley.

Sommers-Flanagan, J. (2018). Conversations about suicide: Strategies for detecting and assessing suicide risk. *Journal of Health Service Psychology*, 44, 33-45.

Stanley, B., & Brown, G. K. (2012). Safety planning intervention: A brief intervention to mitigate suicide risk. *Cognitive and Behavioral Practice, 19*(2), 256-264.

Sue D.W. & Sue D. (2016). *Counseling the Culturally Diverse: Theory and Practice* (7th ed.). Wiley.

Sullivan, G. R., & Bongar, B. (2009). Assessing suicide risk in the adult patient. In P. M. Kleespies (Ed.), *Behavioral emergencies: An evidence-based resource for evaluating and managing risk of suicide, violence, and victimization* (pp. 59-78) American Psychological Association.

Tompkins, T. L., & Witt, J. (2009). The short-term effectiveness of a suicide prevention gatekeeper training program in a college setting with residence life advisers. *The Journal of Primary Prevention, 30*(2), 131-149.

Van Orden, K. A., Witte, T. K., Cukrowicz, K. C., Braithwaite, S. R., Selby, E. A., & Joiner, T. E., Jr. (2010). The interpersonal theory of suicide. *Psychological Review, 117*(2), 575-600.

Wenzel, A., Brown, G. K., & Beck, A. T. (2009). *Cognitive therapy for suicidal patients: Scientific and clinical applications.* American Psychological Association.

Wollersheim, J. P. (1974). The assessment of suicide potential via interview methods. *Psychotherapy: Theory, Research & Practice, 11*(3), 222-225.

Wyman, P. A., Brown, C. H., Inman, J., Cross, W., Schmeelk-Cone, K., Guo, J., & Pena, J. B. (2008). Randomized trial of a gatekeeper program for suicide prevention: One-year impact on secondary school staff. *Journal of Consulting and Clinical Psychology, 76*(1), 104-115.

Yalom, I. D. (1980). *Existential psychotherapy.* Basic Books.

Zhang, A., Franklin, C., Currin-McCulloch, J., Park, S., & Kim, J. (2018). The effectiveness of strength-based, solution-focused brief therapy in medical settings: A systematic review and meta-analysis of randomized controlled trials. *Journal of Behavioral Medicine, 41*(2), 139-151.

Appendixes

Appendix A
Research Opportunity

You are registered for a workshop titled, "Advances in Suicide Assessment and Treatment Planning."

To evaluate the usefulness of this workshop training, all participants are invited to complete research questionnaires before and after the workshop.

- We invite you to participate.
- We appreciate your participation, because it will make future workshops even better.
- But completing the research questionnaires is voluntary.

You all have an informed consent form. If you want to participate in the research project, read and sign the informed consent and then complete the questionnaires until you reach the page that says **STOP**. The remainder of the packet will be completed at 4:10pm, just prior to the end of the workshop.

As it says on the informed consent form, you can discontinue participation at any time. We only want you to participate if you want to participate.

If you don't want to participate you can sit quietly, go outside for coffee or do whatever you'd like to do for 15 minutes.

Thank you for considering this research opportunity.

John S-F
John Sommers-Flanagan, Ph.D.

Research Questionnaire Initials _____Last Three Phone #

Digits_____

Please provide the following information to help us with our ongoing research.

1. Ethnic/racial identity _____
2. Sex _____
3. Highest degree and discipline _____
4. Current position _____
5. Years of experience working in your field _____
6. Did you have formal instruction in suicide assessment/treatment planning during your undergraduate or graduate training? _____ If so, how many hours? _____
7. Not including today, estimate the total number of post-degree suicide assessment and/or intervention continuing education training hours you have received. _____

SUICIDE KNOWLEDGE QUIZ – Pre-Test

1. Suicide ideation primarily represents which of the following?

    A. Attention-seeking

    B. A sign of mental illness

    C. A sign of deviance or abnormality

    D. A communication of distress

2. When conducting suicide assessments, you should primarily focus on:

    A. Looking for signs of psychopathology

    B. Determining the correct psychiatric diagnosis

    C. Acknowledging pain, while looking for and highlighting strengths

    D. Referring clients or students who are suicidal to a physician for medication treatment

3. Which statement about predicting suicide is mostly true?

    A. New research on suicide risk factors allows for accurate prediction of suicide

    B. Death by suicide is very difficult to accurately predict

    C. Suicide prediction is possible among recently hospitalized patients, but not other populations

    D. Mental illness is highly predictive of suicide

4. Which of the following factors is probably the central issue in death by suicide?

A. Psychache or unbearable distress

B. Relational break-ups or social upheaval

C. Unemployment or lack of meaning in life

D. Insomnia, chronic illness, or desensitization

5. Which of the following psychiatric medication types has a black box warning because it has been identified as contributing to suicidality?

A. Serotonin Specific Reuptake Inhibitors

B. Antipsychotic medications

C. Anticonvulsant medications

D. Psychiatric medications don't contribute to increased suicidality

6. Marcy is repeatedly cutting herself (self-harm). Which statement is true about her suicide risk?

A. Her risk is low because cutting is a bid for attention

B. Her risk is probably low because self-harm is related to emotional regulation and not suicidality

C. Her risk is high because she is willing to hurt herself

D. We should conduct an assessment interview with Marcy so we can better understand the purpose of her cutting and gather additional individualized information

7. Which of these is an example of a normalizing frame?

A. “I’ve read that up to 50% of teenagers have thought about suicide. Is that true for you?”

B. “When was the last time you had thoughts about suicide?”

C. “Have you been thinking about suicide recently?”

D. “Please rate your mood right now, using a zero to 10 scale”

8. Noriko wants to use the gold standard for assessing suicide risk. Which approach will she use?

A. The Beck Hopelessness Scale

B. A comprehensive and collaborative suicide assessment interview

C. The Beck Depression Scale

D. The Columbia Teen Screen

9. Dan’s client or student admits to having suicidal thoughts. First off, Dan should:

A. Call 9-1-1

B. Empathically validate and normalize his client’s disclosure

C. Ask the client who would be a good person to contact about this information

D. Recommend antidepressant medications

10. What should you do if the person you’re working with states: “Nothing helped. Nothing ever helps.”

A. Immediately ask about lethality and firearms

B. Ask “Yes-no” questions about what has helped and not helped

C. Avoid “Yes-no” questions and use a continuum to assess what has helped less or more

D. Focus on the positive, because it’s obvious that your client or student is incapable of doing so.

11. The primary thinking impairment (or problem-solving deficit) associated with suicidality involves which of the following:

A. The person is suffering from paranoid thinking.

B. Death is inaccurately seen as impermanent to a suicidal person.

C. The person has an overly narrow focus, seeing only two choices—enduring something terribly painful, or death.

D. Personalization and self-blame.

12. Instead of traditional no-suicide contracts, contemporary approaches to suicide intervention emphasize:

A. Hospitalization.

B. Medication.

C. Genetic testing as a method for prediction.

D. Collaborative safety planning.

13. How comfortable do you feel working with clients or students who are at risk for suicide?

A. Very comfortable

B. Mostly comfortable

C. Neither comfortable or uncomfortable

D. Mostly uncomfortable

E. Very uncomfortable

14. How prepared do you feel working with clients or students who are at risk for suicide?

A. Very prepared

B. Mostly prepared

C. Neither prepared or unprepared

D. Mostly unprepared

E. Very unprepared

SUICIDE COMPETENCY ASSESSMENT FORM (SCAF)

Training year: ☐ **Year 1** ☐ **Year 2** ☐ **Year 3** ☐ **Year 4** ☐ **Year 5** ☐ **Year 6**

Psychology Sub-Discipline: ☐ **Clinical** ☐ **Counseling** ☐ **School** ☐ **Other:** _____

SCAF format: ☐ **Self-rated** ☐ **Observer-rated**

1 Incapable	**2 Working Towards Competency**	**3 Competent**	**4 Advanced**
I have not been trained or am unable to do this task	I have been partially trained or educated on this task	I have adequate training and skill in this task	I have exceptional skill on the most current techniques for this task

HOW WELL CAN YOU OR THE TRAINEE DO THE FOLLOWING? META-CORE COMPETENCY:	**APPROACHING COMPETENCY**		**ACHIEVED COMPETENCY**	
1. Know and manage your attitude and reactions toward suicide	☐1	☐2	☐3	☐4
2. Maintain a collaborative, empathetic stance toward the client	☐1	☐2	☐3	☐4
3. Know and elicit evidence-based risk and protective factors	☐1	☐2	☐3	☐4
4. Focus on current plan and intent of suicidal ideation	☐1	☐2	☐3	☐4
5. Determine level of risk	☐1	☐2	☐3	☐4
6. Develop and enact a collaborative evidence-based treatment plan	☐1	☐2	☐3	☐4
7. Notify and involve other persons	☐1	☐2	☐3	☐4
8. Document risk, plan, and reasoning for clinical decisions	☐1	☐2	☐3	☐4
9. Know the law concerning suicide	☐1	☐2	☐3	☐4
10. Engage in debriefing and self-care	☐1	☐2	☐3	☐4

1 – 2 Unacceptable	**3 – 4 Working Towards Competency**	**5 - 6 Competent**	**7 – 8 Advanced**
I have not been trained or am unable to do this task	I have been partially trained or educated on this task	I have adequate training and skill In this task	I have exceptional skill on the most current techniques for this task

OVERALLRATING:	**APPROACHING COMPETENCY**				**ACHIEVED COMPETENCY**			
Overall quality of risk assessment for suicide	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8

COMMENTS:

SF SUICIDE SKILLS SURVEY – v. 2019.0

This is an assessment of your ability to select a skill to use for suicide assessment and intervention. In every case scenario, imagine that you're working with your population (student, client, patient, resident, or person). Also, in every case, assume that you would first show empathy and use good active listening skills.

1. You're working with a person who appears sad and displays several suicide risk factors. Which of the following queries will make it easiest for the person to admit to suicidal thoughts?

    A. "Have you been having any thoughts about suicide?"

    B. "Have you had thoughts about hurting yourself?"

    C. "When people are feeling down, it's not unusual to also have thoughts about suicide. I'm wondering if you've had any thoughts about suicide."

    D. "Suicidal thoughts are often a part of being depressed, which is a mental illness that can be treated. Have you had any thoughts about suicide?"

2. Looking back at item #1, how confident are you that you can effectively use the approach you selected?

    A. Very confident.

    B. Confident.

    C. Some confidence, but not sure I can do it very well.

    D. Not confident enough to even try it.

3. The person you're meeting with reports cutting as a method of emotional regulation. Which of the following statements is likely to be most effective?

   A. "We need to put cutting on our list of problems and set a goal for you to stop harming yourself."
   B. "You are a beautiful person. There's no need for you to cut yourself."
   C. "It sounds like cutting is one way that you deal with your emotional pain. What's another method you might use to help yourself feel better?"
   D. "There are several alternatives to cutting. Have you ever tried the methods of using ice cubes or drawing on your arms instead?"

4. Looking back at item #3, how confident are you that you can effectively use the approach you selected?

   A. Very confident.
   B. Confident.
   C. Some confidence, but not sure I can do it very well.
   D. Not confident enough to even try it.

5. The person you're working with has high distress, disrupted social relationships, and has disclosed suicide ideation. You want to evaluate that person's capacity for problem-solving. Which of the following tools/strategies would you use?

   A. Acknowledge that suicide is one alternative, and then explore other options or alternatives to suicide.

B. Explore the relative toxicity associated with past and current interpersonal relationships.

C. Ask the existential question, "If you had only 6 months to live, how would you like to spend your time?"

D. Try to shift the person's suicide ideation from active to passive using the *Reasons for Living Scale*.

6. Looking back at item #5, how confident are you that you can effectively use the approach you selected?

A. Very confident.

B. Confident.

C. Some confidence, but not sure I can do it very well.

D. Not confident enough to even try it.

7. Early in an initial session, your client or student says, "I hate my life and I wish I could die." Which approach to collaborative assessment will help you focus in on the core issues underlying your client's/student's statement?

A. Use the DSM-5 criteria for depression to establish or rule out the diagnosis of Major Depressive Disorder.

B. Administer the Patient Health Questionnaire-9 (PHQ-9).

C. Collaboratively explore the client's mood, with an emphasis on what situational factors cause mood to worsen and what factors help the mood to improve.

D. Explore the person's history of mental health treatment, including the specifics surrounding previous suicide attempts and/or hospitalizations.

8. Looking back at item #7, how confident are you that you can effectively use the approach you selected?

A. Very confident.

B. Confident.

C. Some confidence, but not sure I can do it very well.

D. Not confident enough to even try it.

9. The person you're working with was forced into counseling and says, "I've tried everything. Nothing works. Nothing helps me feel better." Which statement would best help the person identify positive coping strategies?

A. "Let's make a list of what has worked before"

B. "Does it help for you to be around your friends and family?"

C. "Right now you're feeling miserable and hopeless. I'm wondering, of all the things you've tried, what's been the least effective?"

D. "It must be true that something has helped in the past, even just a little bit. Can you think of anything that has ever helped?"

10. Looking back at item #9, how confident are you that you can effectively use the approach you selected?

A. Very confident.

B. Confident.

C. Some confidence, but not sure I can do it very well.

D. Not confident enough to even try it.

11. Early in your session your client or student discloses having easy access to firearms. Which of the following strategies would you use?

A. Immediately begin focusing on firearms restriction, specifically identifying a friend or family member who can take over safe-keeping of the firearms.

B. Don't mention anything immediately, but continue listening and hope that the issue comes up again, after you have more rapport.

C. Discuss how dangerous it is for suicidal individuals to have a lethal means easily available. Provide statistics as needed.

D. Acknowledge the client's/student's access, but address lethal means restriction later, probably in the context of collaborative safety planning.

12. Looking back at item #11, how confident are you that you can effectively use the approach you selected?

A. Very confident.

B. Confident.

C. Some confidence, but not sure I can do it very well.

D. Not confident enough to even try it.

13. Your client or student is extremely suicidal and you're not sure whether to initiate hospitalization. Which of the following options is supported by the research literature?

    A. Recommend hospitalization and if the client disagrees, initiate involuntary hospitalization.
    B. Consult with a colleague and then make your best decision about hospitalization.
    C. Consider the person's suicide risk and protective factors and then hospitalize or don't hospitalize, depending on your risk assessment and risk categorization.
    D. Consult with the person, discussing the pros and cons of hospitalization. If the person is against hospitalization, try to work out an intensive safety plan that includes support and monitoring from friends or family. Hospitalize as a last resort.

14. Looking back at item #13, how confident are you that you can effectively use the approach you selected?

    A. Very confident.
    B. Confident.
    C. Some confidence, but not sure I can do it very well.
    D. Not confident enough to even try it.

15. You want to evaluate for suicide intent. Which strategy would be most helpful?

A. Administer the Beck Suicide Intent Scale.

B. Collaboratively explore your client's/student's reasons for dying.

C. Say something like, "It's not unusual for people to make a suicide plan. Have you had thoughts about how you would kill yourself?"

D. Try to move your client/student toward a philosophical discussion by saying something like, "What do you think is likely to make people want to die?"

16. Looking back at item #15, how confident are you that you can effectively use the approach you selected?

A. Very confident.

B. Confident.

C. Some confidence, but not sure I can do it very well.

D. Not confident enough to even try it.

Stop here and wait for further instructions for the post-test.

SUICIDE KNOWLEDGE QUIZ – Post-Test

1. Suicide ideation primarily represents which of the following?

    A. Attention-seeking

    B. A sign of mental illness

    C. A sign of deviance or abnormality

    D. A communication of distress

2. When conducting suicide assessments, you should primarily focus on:

    A. Looking for signs of psychopathology

    B. Determining the correct psychiatric diagnosis

    C. Acknowledging pain, while looking for and highlighting strengths

    D. Referring clients or students who are suicidal to a physician for medication treatment

3. Which statement about predicting suicide is mostly true?

    A. New research on suicide risk factors allows for accurate prediction of suicide

    B. Death by suicide is very difficult to accurately predict

    C. Suicide prediction is possible among recently hospitalized patients, but not other populations

    D. Mental illness is highly predictive of suicide

4. Which of the following factors is probably the central issue in death by suicide?

   A. Psychache or unbearable distress
   B. Relational break-ups or social upheaval
   C. Unemployment or lack of meaning in life
   D. Insomnia, chronic illness, or desensitization

5. Which of the following psychiatric medication types has a black box warning because it has been identified as contributing to suicidality?

   A. Serotonin Specific Reuptake Inhibitors
   B. Antipsychotic medications
   C. Anticonvulsant medications
   D. Psychiatric medications don't contribute to increased suicidality

6. Marcy is repeatedly cutting herself (self-harm). Which statement is true about her suicide risk?

   A. Her risk is low because cutting is a bid for attention
   B. Her risk is probably low because self-harm is related to emotional regulation and not suicidality
   C. Her risk is high because she is willing to hurt herself
   D. We should conduct an assessment interview with Marcy so we can better understand the purpose of her cutting and gather additional individualized information

7. Which of these is an example of a normalizing frame?

   A. “I’ve read that up to 50% of teenagers have thought about suicide. Is that true for you?”

   B. “When was the last time you had thoughts about suicide?”

   C. “Have you been thinking about suicide recently?”

   D. “Please rate your mood right now, using a zero to 10 scale”

8. Noriko wants to use the gold standard for assessing suicide risk. Which approach will she use?

   A. The Beck Hopelessness Scale

   B. A comprehensive and collaborative suicide assessment interview

   C. The Beck Depression Scale

   D. The Columbia Teen Screen

9. Dan’s client or student admits to having suicidal thoughts. First off, Dan should:

   A. Call 9-1-1

   B. Empathically validate and normalize his client’s disclosure

   C. Ask the client who would be a good person to contact about this information

   D. Recommend antidepressant medications

10. What should you do if the person you’re working with states: “Nothing helped. Nothing ever helps.”

A. Immediately ask about lethality and firearms

B. Ask “Yes-no” questions about what has helped and not helped

C. Avoid “Yes-no” questions and use a continuum to assess what has helped less or more

D. Focus on the positive, because it’s obvious that your client or student is incapable of doing so.

11. The primary thinking impairment (or problem-solving deficit) associated with suicidality involves which of the following:

A. The person is suffering from paranoid thinking.

B. Death is inaccurately seen as impermanent to a suicidal person.

C. The person has an overly narrow focus, seeing only two choices—enduring something terribly painful, or death.

D. Personalization and self-blame.

12. Instead of traditional no-suicide contracts, contemporary approaches to suicide intervention emphasize:

A. Hospitalization.

B. Medication.

C. Genetic testing as a method for prediction.

D. Collaborative safety planning.

13. How comfortable do you feel working with clients or students who are at risk for suicide?

A. Very comfortable

B. Mostly comfortable

C. Neither comfortable or uncomfortable

D. Mostly uncomfortable

E. Very uncomfortable

14. How prepared do you feel working with clients or students who are at risk for suicide?

A. Very prepared

B. Mostly prepared

C. Neither prepared or unprepared

D. Mostly unprepared

E. Very unprepared

SUICIDE COMPETENCY ASSESSMENT FORM (SCAF)

Training year: ☐ Year 1 ☐ Year 2 ☐ Year 3 ☐ Year 4 ☐ Year 5 ☐ Year 6

Psychology Sub-Discipline: ☐ Clinical ☐ Counseling ☐ School ☐ Other: _____

SCAF format: ☐ Self-rated ☐ Observer-rated

1 Incapable	2 Working Towards Competency	3 Competent	4 Advanced
I have not been trained or am unable to do this task	I have been partially trained or educated on this task	I have adequate training and skill in this task	I have exceptional skill on the most current techniques for this task

HOW WELL CAN YOU OR THE TRAINEE DO THE FOLLOWING? META-CORE COMPETENCY:	APPROACHING COMPETENCY		ACHIEVED COMPETENCY	
1. Know and manage your attitude and reactions toward suicide	☐1	☐2	☐3	☐4
2. Maintain a collaborative, empathetic stance toward the client	☐1	☐2	☐3	☐4
3. Know and elicit evidence-based risk and protective factors	☐1	☐2	☐3	☐4
4. Focus on current plan and intent of suicidal ideation	☐1	☐2	☐3	☐4
5. Determine level of risk	☐1	☐2	☐3	☐4
6. Develop and enact a collaborative evidence-based treatment plan	☐1	☐2	☐3	☐4
7. Notify and involve other persons	☐1	☐2	☐3	☐4
8. Document risk, plan, and reasoning for clinical decisions	☐1	☐2	☐3	☐4
9. Know the law concerning suicide	☐1	☐2	☐3	☐4
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OVERALLRATING:	APPROACHING COMPETENCY				ACHIEVED COMPETENCY			
Overall quality of risk assessment for suicide	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	☐ 6	☐ 7	☐ 8

COMMENTS:

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F. Administer the Patient Health Questionnaire-9 (PHQ-9).

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C. "Right now you're feeling miserable and hopeless. I'm wondering, of all the things you've tried, what's been the least effective?"

D. "It must be true that something has helped in the past, even just a little bit. Can you think of anything that has ever helped?"

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    D. Consult with the person, discussing the pros and cons of hospitalization. If the person is against hospitalization, try to work out an intensive safety plan that includes support and monitoring from friends or family. Hospitalize as a last resort.

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B. Collaboratively explore your client's/student's reasons for dying.

C. Say something like, "It's not unusual for people to make a suicide plan. Have you had thoughts about how you would kill yourself?"

D. Try to move your client/student toward a philosophical discussion by saying something like, "What do you think is likely to make people want to die?"

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This table is a review of the workshop content. It's designed as a memory aid to help you consolidate what you learned; it also prompts you to reflect on how useful the tools in the workshop are for your work and whether you need or want more training and practice opportunities.			
Tool or Strategy	**Rate how well you could implement this tool.** **0 = Not at all** **1 = Somewhat** **2 = Very well**	**Rate how useful you view this tool.** **0 = Not useful** **1 = Somewhat** **2 = Very useful**	**Want more training and practice on this tool?** **0 = No** **1 = Maybe** **2 = Yes**
1. Manage your attitude and anxiety about working with people who are suicidal.			
2. Mood scaling with a suicide floor.			
3. Normalizing suicidal thoughts when asking directly about suicide.			
4. Gentle assumption.			
5. Balancing questions about strengths and solutions with questions about problems and symptoms.			
6. Building hope from the bottom up.			
7. Deal effectively with client irritability.			
8. Ask the existential "six months to live" question.			
9. Deal with cultural issues in a sensitive manner.			
10. The social universe drawing.			
11. Use S-L-A-P to assess client suicide plans.			

12. Engage in collaborative problem-solving or generate alternatives to suicide.			
13. Separate the pain from the person.			
14. Neodissociation: “There’s a healthy part of you that wants to live. . .”			
15. Use collaborative safety planning.			
16. Talking directly about lethal means restriction.			
17. Decision-making and initiating hospitalization.			

List the most important things you learned in this workshop.

Appendix B

Open-ended Question Responses: List the most important things you learned from this workshop.

Compassion – authentic, ready to act

Suicide statistics, mood scaling, balancing strengths and vulnerabilities

Strategies for helping suicidal clients – especially the 1-10 scale exercise

Safety planning form

Client collaboration

Normalizing suicide ideation

Addressing the six life domains

Normalizing

Starting from the bottom

Importance of individualizing and adjusting and tailoring plan to meet client where they are

Skills – 0-10 rating, 6 months to live, list of options

Helpful techniques

Normalizing and examples of rating systems

That I need to ask directly about suicide and be ok with that

I need more training like this

Normalizing, collaborative safety planning, scaling

Being more comfortable with asking directly about suicide

Working within the six domains

Reaffirmed the work I am doing

Increased confidence

Alternatives to suicide list

Normalization of suicide

Building hope from the bottom up

Options for talking to children, normalizing their feelings, 0-10 scale, social universe drawing

Conceptualization of the six life domains

Attitude to engage

Mood scaling, how to broach the topic, social universe drawing

Normalizing frame, separating pain from person, strength-focused questioning, hopelessness protocol, mood scaling, specific tools to work with youth

Six domains, alternative to suicide, social universe mapping, strength-focused questioning, 0-10

Specific techniques, social universe drawing, mood scaling

Interventions

Normalizing, dialogue, mood scale, alternatives to suicide

Language to help people in distress, 0-10 scale

More comfort normalizing and validating emotions/thoughts when talking about suicide

Specific statistics, new techniques, individualizing

Social universe drawing

Collaborative approach, 0-10 rating

Rating scale, solution-focused, psychache and normalizing

How to use visuals when working with clients in distress

Risk and protective factors don't predict who will die by suicide, but can be helpful to identify triggers and protective factors

How to talk to someone experiencing suicide ideation

Normalizing, self-awareness of my own emotions, suicide ideation doesn't have to be scary

Don't be afraid to collaborate and explore suicide ideation with clients

Dealing with hopelessness and mood scaling

Ways to build rapport, empathetic listening, understanding suicide ideation, interventions to use, how to better manage insomnia/nightmares, six domains, assessment strategies

Responding to hopelessness effectively, viewing cutting as separate from suicidality

Six domains, balanced questioning, collaborate

Can never stop learning or developing counseling practices

Having several options to use with clients, not a one-size fits all approach, be genuine

How to phrase things differently, normalizing statements, domains and problems within them, and being collaborative

Six domains of suicidality, alternative ways to ask about suicide

Collaborative approach, normalizing suicide, treatment planning with six domains, active listening

Meeting clients where they are at, building hope from the bottom up, categorizing risk into domains as treatment targets, equal focus on depression/suicidality and strengths

It is ok to be uncomfortable and fearful as a professional, seek more training and gain more experience

Treating all domains

Start with what is the worst to ‘least worst’

SLAP, safety planning – concrete questions

Specific, practical and useful techniques

Normalizing suicidal thoughts, how to build from the most negative to the most positive

Thinking about domains and how to use different strategies within each domain, social universe drawing, separating pain from the person

Normalizing without dismissing, how to ask directly about suicide

SLAP and role-play examples

Normalizing the feeling, 3 step emotional change trick, dealing with nightmares

How to incorporate positives/strengths in a helpful way without dismissing someone’s experience, how to directly ask about suicide