



Community Mental Health Provider Responses to a Competency-Based Training in Suicide Risk Assessment and Prevention

Amanda C. La Guardia¹ · Robert J. Cramer^{2,3} · Michael Brubaker¹ · Molly M. Long²

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Abstract

The present study evaluates of a competency-based suicide prevention training. A sample of community mental healthcare providers took part in a suicide risk assessment and prevention training, completing pre-post measures of knowledge, competency/skill and attitudes, as well as baseline interprofessional education (IPE) socialization. Training yielded moderate-to-large improvements in suicide-related knowledge, perceived risk assessment/prevention skills, attitudes toward helping patients, and professional capacity to work with suicidal patients. Small pre-post differences were observed recognizing the need for additional training. IPE socialization moderated impacts on professional capacity. This study offers support for the promising impacts of competency-based and IPE-specific training.

Keywords Suicide prevention · Training · Competency · Interprofessional education

Introduction

Suicide remains a public health epidemic, and one of the most critical challenges facing community mental health and healthcare professionals more broadly. Centers for Disease Control and Prevention (nd, a) data demonstrate the scope of the problem in the United States. Suicide remains the tenth overall leading cause of tenth, with raw number and population rate estimates increasing. Most recent data suggest more than 44,000 deaths by suicide occurred in the United States, translating to a population rate of 13.7/100,000 persons. These data are likely an underestimate as many instance of accidental death may yet be undocumented suicide deaths. Other aspects of self-directed violence (SDV: CDC, nd, b), such as suicide attempts, suicidal ideation and non-suicidal self-injury (NSSI), are even more prevalent. For instance, systematic review data concerning NSSI show prevalence estimates 4.0–46.5% depending on age and setting (Cipriano

et al. 2017). Healthcare professionals are increasingly likely to encounter suicide and related concerns in community settings such as emergency departments and primary care clinics (Larkin and Beautrais 2010). Recent community-based data demonstrate that approximately one-third of persons who attempted suicide were seen by a physician within 1 week of that attempt; that number climbs to nearly two-thirds or persons attempting suicide in the month prior to the attempt (Ahmedani et al. 2015).

Competency-based training for mental health professionals is a promising response to the scope of the suicide problem. Competency-based training models have been prominently used in the medical fields for over a decade, with a focus on functional analysis of clinical performance (Frank et al. 2010; Leung 2002). A competency-based approach to training for suicidal patient care has been conceptualized within psychiatric nursing education (Adams 2015; Punttil et al. 2013) and has shown promise in the training of doctoral-level clinical psychologists (Cramer et al. 2016, 2017). Moreover, such evidence-based approaches to training fit well within the scope of the Zero Suicide (Suicide Prevention Resource Center, nd) approach to tackling suicide prevention. As summarized by Brodsky et al. (2018), Zero Suicide is a multi-level framework resulting from the National Action Alliance on Suicide Prevention. The model addresses both clinical care (e.g., ongoing risk screening, lethal means reduction) and systems or administrative (e.g.,

✉ Robert J. Cramer
rcramer@odu.edu

¹ University of Cincinnati, Cincinnati, OH, USA

² School of Community & Environmental Health, Old Dominion University, Norfolk, VA 23509, USA

³ Virginia Clinical Psychology Consortium Program, Norfolk, VA, USA

Table 1 Suicide prevention competencies and example didactic approach

| Competency (Cramer et al. 2013) | Didactic approach |
|---|--|
| (1) Manage attitude and reactions toward suicide with client | Provision and review of sample self-assessment tools |
| (2) Develop and maintain a collaborative, empathic stance toward client | Educational overview of verbal and non-verbal approaches to rapport building |
| (3) Know and elicit evidence-based risk/protective factors | Discussion of prominent risk and protective factors within the framework of the Interpersonal-Psychological Theory of Suicide (Joiner, 2005) |
| (4) Focus on current plan and intent of suicidal ideation | Review of definitions and indicators of suicide intent, plan and preparation |
| (5) Determine level of risk | Processing and discussing a clinical case study requiring risk judgments, treatment ideas, and documentation considerations |
| (6) Develop and enact a collaborative evidence-based treatment plan | Discussion of example Collaborative Assessment and Management of Suicide (CAMS; Jobes, 2012) case |
| (7) Notify and involve other persons | Discussion of approaches to client perceptions of social support (e.g., presence of versus use of social support) |
| (8) Document risk, plan, and reasoning for clinical decisions | Case scenario concerning when and what information to document from a case |
| (9) Know the law concerning suicide | Review and application of state-specific laws regarding civil commitment |
| (10) Engage in debriefing and self-care | Self-reflection on personal warning signs of burnout and ideas for self-care |

training) suicide prevention strategies. The rationale for implementing improved competency-based approaches to, and empirical testing of, suicide risk assessment and prevention training in the health professions is multifaceted. For instance, work with suicidal and other high-risk patients is common for a range of health professionals, often leading to burnout or other negative impacts (e.g., Baruch et al. 2013). Second, survey data from several professions (e.g., nursing, school psychology) consistently indicates inadequate levels of suicide risk assessment and prevention training in graduate programs and during job training (e.g., Liebling-Boccio and Jennigs 2013; Oranye et al. 2016). In addition, Silva et al. (2016) report findings from a multidisciplinary survey suggesting that more than half of community mental healthcare providers surveyed had not had formal suicide prevention training in their lifetime. Types of training reported ranged from prominent gate-keeper models (e.g., QPR, ASIST) to informal non-specific topical training. These data highlight the need for development and implementation of new, accessible training models such as brief, competency-based educational approaches. Such a goal is consistent with the Zero Suicide mission of filling noted gaps in suicide prevention training for mental health and other professions (Brodsky et al. 2018).

Competency-based training tends to focus on improvement of three areas: (1) factual knowledge, (2) attitudes, and (3) perceived or actual skill acquisition (Frank et al. 2010; Rose 2018). Suicide prevention literature suggests that attitudes toward suicide in general and about suicide prevention (e.g., Botega et al. 2005; Jiao et al. 2014), suicide prevention

knowledge (e.g., Coopens et al. 2014; Smith et al. 2014), and self-perceived ability to handle suicidal patients (e.g., Cramer et al. 2016; Hung et al. 2012) are necessary competency domains of assessment for community mental health professionals. Thus, a need for a multifaceted approach to competency-based training within the mental health professions addressing perceived efficacy/skill to provide care, as well as useful attitudes concerning suicide to compliment simplistic acquisition of knowledge may provide the framework for an effective approach to brief training.

Implementation and Evaluation of Competency-Based Trainings

Based on a broad review of this literature, Cramer et al. (2013) articulated a list of ten core competencies in the assessment and management of suicide. After reviewing a number of key suicidologist expert (e.g., Joiner 2005) and professional organization (American Association of Suicidology 2010) derived sets of competencies, common elements between the sources were identified in order to streamline copious lists of competencies. The set of ten core competencies can be found in Table 1; it is noteworthy they address both direct clinical care skills (e.g., identifying risk and protective factors, documentation standards) and clinician characteristics (e.g., attitudes toward suicide).

Two studies examined training modalities based on the core competencies articulated by Cramer et al. The trainings consisted of a semester-long graduate course (Cramer et al.

2016) and a half-day workshop (Cramer et al. 2017). Concerning the graduate course, a pilot sample of the graduate-level course in suicide theory as well as risk assessment and prevention showed increased suicide-related knowledge, and enhanced student ability to judge suicide risk levels in a case study (Cramer et al. 2017). Examination of the effectiveness of a workshop in suicide risk assessment and prevention showed participation for these clinical psychology graduate students and university counseling center staff was associated with positive gains in suicide-related knowledge, multiple indicators of enhanced self-efficacy in working with suicidal patients, and increased sense of confidence in the specific ten competencies. These studies are of course limited in many ways, not the least of which centers on the range of community mental health samples and small sample sizes. To date, they center primarily on psychology audiences or counseling center settings. Training has not been extended, for example, to settings servicing high risk clients, and little evaluation has been done with respect to the impact of quality of training or trainee experience level as they influence receptivity to training. Given the limited generalizability to date, the usefulness of a workshop in suicide risk assessment and prevention needs to be examined in additional mental health disciplines and community-based settings while building the collective sample size of trainees in the evaluation literature. This extension is particularly important given the well-established benefit of multidisciplinary approaches to the bio-psycho-social-cultural aspects of healthcare (Mental Health Commission 2006). Therapeutic risk management of the suicidal patient (TRMSP) is an approach developed to focus on the role and competence of clinicians that has been shown to apply to multidisciplinary approaches to healthcare to potentially improve suicidal patient outcomes (Grant and Lusk 2015; Wortzel et al. 2013). Thus, an interprofessional education approach to assessing competency development while attending to participant level of interprofessional socialization and valuing may be a useful extension of the research currently being done regarding suicide prevention training.

The Potential Value of Interprofessional Education?

Interprofessional Education (IPE; WHO 2010) occurs when two or more professionals in the health and behavioral fields are educated together during some or all of their professional training. These models of education are currently being implemented across health professions as collaborative and interprofessional healthcare models become the norm. IPE outcomes have been demonstrated to improve patient care in a variety of areas including domestic violence identification and intervention and

delivery of mental health care (Reeves et al. 2013). Thus, opening competency-based training for suicide assessment and prevention to an interprofessional audience seems an appropriate starting point. As a beginning step, we investigate whether IPE socialization values may impact training effectiveness concerning suicide-related competencies. IPE socialization experience and valuing of interprofessional engagement is linked to readiness for interprofessional functioning (King et al. 2010). As suicide prevention, intervention, and postvention tend to involve multiple professionals across disciplines (Grant and Lusk 2015), an understanding of mental health professional's readiness to engage in collaborative care could be important for development of clinician training design to address suicide prevention competency. A fitting example of this can be seen in the suicide prevention competencies in the training; for example, clinical care-related competencies often involve interprofessional dynamics such as communication with, and referral to, other disciplines (Cramer et al. 2013). Moreover, conceptualizing social support as a broad prevention and intervention strategy can involve a wide variety of healthcare providers such as primary care physicians and case managers, to name a few. Therefore, while the specific IPE mechanisms impacting suicide prevention training are yet unknown, IPE core concepts such as teamwork and interprofessional communication seem critical to successful suicide prevention.

Present Study

The present study extends a core competency-based approach to training community mental health professionals in suicide risk assessment and prevention. The significance of the study can be viewed through both the expansion of the training approach beyond psychology/counseling center professionals, and evaluation of whether community mental health professionals' views on IPE may be associated with suicide risk assessment/prevention competencies or response to training. Prior literature on IPE training and suicide prevention have separately focused primarily on healthcare professionals. The current study extends our understanding of IPE-related attitudes beyond the typical group of healthcare professionals. The hypotheses of this training study were:

H1 Training will yield improved suicide risk assessment and prevention-related competencies.

H2 Increased IPE socialization will be associated with greater skill efficacy overall, and enhanced responsiveness to training.

Table 2 Primary workshop sample demographics

| Variable | n (%) | M (SD) |
|--|-----------|---------------|
| Age | – | 41.31 (12.93) |
| Sex | | |
| Male | 2 (6.9) | – |
| Female | 26 (89.7) | – |
| Missing | 1 (3.4) | – |
| Race | | |
| White | 23 (79.3) | – |
| Black/African American | 6 (20.7) | – |
| Ethnicity | | |
| White/non-Hispanic | 22 (75.9) | – |
| Missing | 7 (24.1) | – |
| Highest degree | | |
| Doctoral (e.g., Ph.D., Psy.D.) | 2 (6.9) | – |
| MA/MS | 17 (58.6) | – |
| MSW | 3 (10.3) | – |
| BA/BS | 7 (24.1) | – |
| Primary behavioral health discipline | | |
| Mental health counseling | 20 (69.0) | – |
| Clinical psychology | 1 (3.4) | – |
| Social work | 2 (6.9) | – |
| School counseling | 2 (6.9) | – |
| Substance/alcohol counseling | 3 (10.3) | – |
| Nursing | 1 (3.4) | – |
| Criminal justice | 1 (3.4) | – |
| Know someone who died by suicide? | | |
| No | 8 (27.6) | – |
| Yes—one person | 15 (51.7) | – |
| Yes—two persons | 6 (20.7) | – |
| Still a graduate trainee? | | |
| No | 21 (72.4) | – |
| Yes | 8 (27.6) | – |
| Years of experience providing MH services | – | 7.94 (8.74) |
| Previous hours of SRA/P training | – | 8.30 (11.29) |
| Ever lost a patient to suicide? | | |
| No | 27 (93.1) | – |
| Yes | 2 (6.9) | – |
| Number of patients who attempted suicide in career | – | 1.76 (2.03) |

Total sample n = 29; % = percentage of total sample; M mean; SD standard deviation; MH mental health; SRA/P suicide risk assessment and prevention

Method

Participants

A total of 29 workshop attendees participated in this training study. Table 2 summarizes the sample demographics. The prominent sample characteristics included an average middle age, and primarily White and female. The sample consisted of a mix of community mental

health disciplines (consistent with the HRSA program and potential for IPE socialization assessment), with the majority of the sample being established mental health providers and knowing at least one person who died by suicide. The group possessed a moderate degree of prior mental health service provision experience, and a limited amount of prior suicide risk assessment and prevention training. Most had not reported having a patient attempt or die by suicide to date.

Measures

Demographics

Participants provided a range of demographic and professional experience related information (see Table 2). Response options for suicide exposure, or knowing someone who had died by suicide, included acquaintance, friend, family member, and other.

Suicide Risk Assessment and Management Knowledge

A 12 question multiple-choice quiz was devised based on training content. Items were drawn from a larger validated pool of 20 items used in prior studies (Cramer et al. 2016, 2017). The quiz was devised based on item response theory; that is, questions were designed to indicate a range of difficulty in order to differentiate levels of expertise. This goal was accomplished, as indicated by frequencies of correct answers in both the pre-test (28–86%) and post-test (58–93%).

Suicide Competency Assessment Form

The Suicide Competency Assessment Form (SCAF; Cramer et al. 2013) is an instrument assessing one's self-perceived mastery of the ten core competencies (each rated on a four-point scale), as well as an overall rating summary of self-perceived competence. Prior use of the instrument centers on a total score of the ten competencies and the global rating (Cramer et al. 2016, 2017), although no internal consistency information has yet been reported for the SCAF total score to date. Internal consistency values for the SCAF total score were high in the present sample ($T1 = .94$, $T2 = .96$).

Suicide Behavior Attitude Questionnaire

The Suicide Behavior Attitude Questionnaire (SBAQ; Botega et al. 2005, 2007) is a 21-item instrument developed specifically with health professionals. The SBAQ yields three subscales, (1) feelings towards the patient (higher scores denote more positive feelings), (2) professional capacity (higher scores reflect greater self-perceptions to intervene), and (3) right to suicide (higher scores denote beliefs that a patient does not have the right to take their own life). The measure was utilized in prior suicide prevention-related trainings (e.g., Cramer et al. 2016, 2017). We used two of the subscales in the present study. The right to die subscale was deemed beyond the scope of training content. Internal consistency values in the present study were as follows: feelings toward the patient ($T1 = .71$, $T2 = .77$),

professional capacity ($T1 = .76$, $T2 = .86$), and right to die ($T1 = .75$, $T2 = .65$).

Attitudes Toward Self-Harming Patients

The Attitudes toward Self-Harm Patients (ASHP; Gibb et al. 2010) scale assesses three domains of attitudes about patient NSSI across 15 items (higher scores indicate more positive attitudes): (1) perceived ability to effectively help patients, (2) optimism and patience, and (3) confidence and adequacy of training. Authors of the measure did not present psychometric data. Internal consistency values in the present study were: perceived ability to effectively help patients ($T1 = .76$, $T2 = .71$), optimism and patience ($T1 = .68$, $T2 = .58$), and confidence and adequacy of training ($T1 = .72$, $T2 = .68$).

Interprofessional Socialization and Valuing Scale

The Interprofessional Socialization and Valuing Scale (ISVS; King et al. 2016) short form version consists of nine items evaluating a health professional's attitudes toward interprofessional education, treatment and collaborative practice. The short form is summed for a total score with higher scores denoting more positive views of interprofessional education and practice. We only administered at T1 because we were centrally interested in its baseline associations with suicide-related measures and whether baseline scores moderated suicide-related knowledge, attitudes, and skill training effectiveness. The ISVS total score possesses acceptable internal consistency of .81.

Workshop Content

The half-day workshop¹ has been described in great depth elsewhere in the literature (see Cramer et al. 2017 for more details). In short, the content featured 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 (see Table 1 for example didactic approach for each competency). For example, included in competency 1 (knowing and monitoring attitudes and reactions to suicide) was a case example designed to promote participant reflection on their own attitudes regarding suicide. Empirical research findings were presented summarizing prominent themes and categories of suicide and suicide prevention related attitudes, as well as a discussion of how such attitudes may impact practice. Supplemental handouts

¹ Workshop training materials, quiz questions, and other project content are available for sharing upon request from the corresponding author.

were provided as take-home resources and a case study adapting attitudes. For competency 3 (knowing and eliciting risk and protective factors), an empirically-based review of primary factors was summarized, followed by application within existing theories of suicide and a discussion (with supplemental resources/handouts) of selected psychometrically-validated risk assessment instruments. Interactive exercises in the workshop also commonly included participant processing of multiple competencies at once. For instance, participants received a mock case vignette requiring them to identify risk/protective factors, evaluate suicide-specific content, estimate chronic and imminent risk, and begin an outline of clinical reasoning/documentation. All such exercises were discussed in group format with opportunities to ask questions.

Procedure

Participants were recruited from a larger group ($n = 38$; response rate = 76.3%) of professionals attending the workshop. This total participant pool was comprised of a range of community mental healthcare professions (see Table 2) attending the training at a large Midwestern university. The workshop was shared with potential attendees via online flyers through a university alumni mailing list spanning several health professions, in-class advertising, and through targeted recruiting at participating agencies involved as partners on a Health Resources and Services Administration (HRSA) training grant. All workshop participants had the option to receive professional continuing education credits. Upon arrival, potential participants were verbally notified of the option of participating in a pre-post evaluation of the workshop during the speaker introduction. Interested professionals underwent standard verbal and written consenting procedures, inclusive of rights as a research participant; participants received a project information sheet and were invited to complete the pre-test survey. The workshop took place in a large lecture hall on the HRSA-funded campus. At the completion of the workshop participants received a verbal reminder to complete the post-test survey if they so choose. Study participants received incentive for completion of the optional pre-post evaluation. All attendees received continuing education credits.

This study was conducted as part of a larger training grant approved through the Institutional Review Board (IRB) at the HRSA-funded host institution. All applicable international, national, and/or institutional guidelines were followed. All authors declare no conflicts of interest. All authors certify authorship responsibility.

Results

Data Analysis

All analyses were conducted using SPSS v. 24. In accordance with guidance in the statistical literature for clinical research (e.g., Enders 2017; Scholmer et al. 2010), missing data for suicide- and IPE-related measures (item % missing range 0–10%, only one item as high as 10%) were handled via multiple imputation. Preliminary analyses: IPE and suicide prevention pre-post variables were evaluated via Independent-samples t-tests or bivariate correlations to ascertain whether demographic differences with respect to trainee status and years of experience.² H1: Paired-samples t-tests were used for pre-post workshop outcomes. H2: Bivariate correlations were utilized to assess IPE socialization associations with baseline suicide prevention-related knowledge, attitudes, and skills. As recommended in statistical literature (e.g., Cohen et al. 2003), repeated measures general linear model (GLM) analyses were conducted to examine whether pre-post outcomes varied by level of baseline IPE socialization.³ All repeated-measures analyses were examined via fixed models.

Hypothesis 1 Analyses

Table 3 contains a summary of pre-post tests for suicide prevention knowledge, attitudes, and perceived skills. Inspection of Table 3 shows the following prominent results: (1) In support of H1, moderate to large significant positive gains are present in factual knowledge, perceived skills/competencies, perceived overall capacity to work with suicidal patients, and ability to help patients; (2) A small significant change of decreased optimism; (3) A small significant increase in sensitivity to the need for more training.

Hypothesis 2 Analyses

Contrary to our hypothesis, baseline IPE socialization scores demonstrated primarily negligible sizes and non-significant associations with the majority of baseline suicide-related measures.⁴ A few important exceptions to this pattern were noted. First, IPE socialization demonstrated a moderate significant positive association with SBAQ

² No significant differences or associations were observed for demographic variables with IPE or pre-post suicide prevention variables (statistical tests available upon request).

³ Although IPE socialization was evaluated in a separate GLM analysis for each suicide prevention outcome, we report only significant models due to the short format of this article. Full statistical tests are available for all analyses upon request from the corresponding author.

⁴ Full statistics available upon request from the corresponding author.

Table 3 Suicide risk assessment and prevention workshop pre-post change scores in knowledge, attitudes, and perceived skills

| Variable | Pre-test <i>M (SD)</i> | Post-test <i>M (SD)</i> | T ^c | <i>p</i> -value | Cohen's <i>d</i> |
|---|------------------------|-------------------------|----------------|------------------|------------------|
| Knowledge ^a | 7.10 (2.02) | 9.27 (2.31) | 4.17 | < .001 | 1.00 |
| Global SRA/P competency ^b | 4.42 (1.81) | 5.46 (1.46) | 3.83 | .001 | 0.63 |
| Total SRA/P competency ^b | 25.46 (6.93) | 29.83 (5.92) | 7.40 | < .001 | 0.68 |
| Perceived ability to help patients ^c | 16.95 (2.57) | 18.62 (2.29) | 4.72 | < .001 | 0.69 |
| Optimism and patience ^c | 24.36 (3.26) | 23.70 (2.91) | -2.10 | .04 | -0.21 |
| Confidence and adequacy of training ^c | 17.91 (2.81) | 18.72 (2.65) | 2.86 | .008 | 0.30 |
| Negative feelings toward the patient ^d | 14.77 (4.21) | 14.56 (3.89) | -0.38 | .71 | -0.05 |
| Professional capacity ^d | 16.51 (3.54) | 18.34 (2.88) | 4.60 | < .001 | 0.57 |

n = 29; T = within-subject or paired-samples T. Bold font denotes significant pre-post training effect. Low alphas (i.e., internal consistency values < .70) for T1 and T2 optimism and patience, T1 Conf Adq of Training

SRA/P Suicide risk assessment and prevention; *M* mean; *SD* standard deviation; *Cohen's d* effect size difference between pre- and post-workshop values (.2 = small; .5 = medium; .8 = large; Cohen 1988)

^aNumber of correct multiple choice knowledge quiz questions based on workshop content

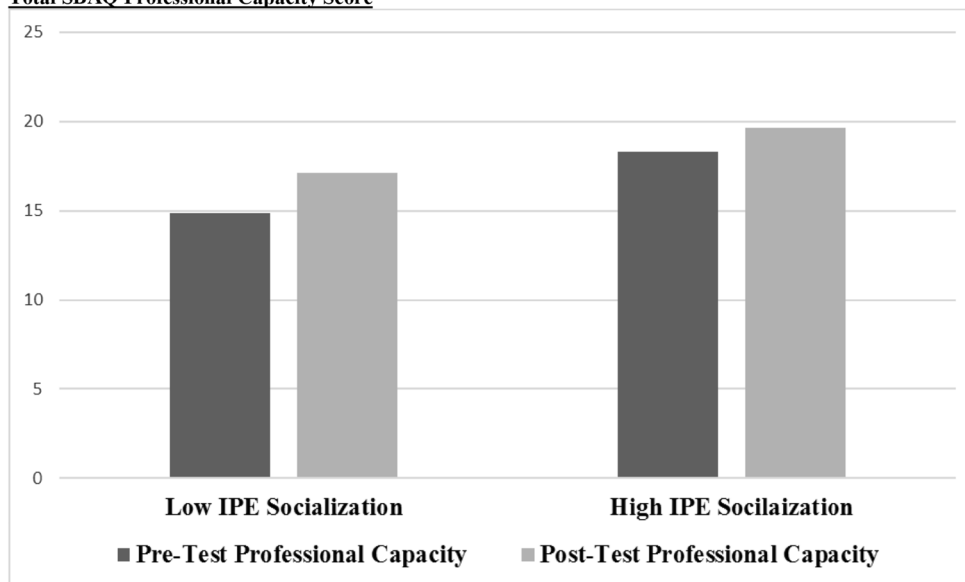
^bScores from the suicide competency assessment form (SCAF; Cramer et al. 2013, 2017)

^cScores from the attitudes toward self-harming patients (ASHP) scale (Gibb et al. 2010)

^dScores from the Suicide Behaviors Attitude Questionnaire (SBAQ; Botega et al. 2005, 2007)

^eAll *df* equal 28

Total SBAQ Professional Capacity Score



Notes: IPE = Interprofessional education; SBAQ = Suicide Behavior Attitudes Questionnaire (Botega et al., 2005, 2007); Low/high = +/- one standard deviation around the mean.

Fig. 1 Interprofessional socialization moderation effect on participant pre-post change in suicide risk assessment and prevention professional capacity. *IPE* Interprofessional education; *SBAQ* Suicide

Behavior Attitudes Questionnaire (Botega et al. 2005, 2007); Low/high = ± 1 SD around the mean

professional capacity scores ($r = .57, p = .001$), as well as a moderate positive trending association with SCAF self-perceived competency total score ($r = .35, p = .07$). Contrary to expectations, IPE socialization failed to moderate all but one pre-post training outcome. Consistent with bivariate analyses, IPE socialization displayed a significant and large

moderating effect on participant pre-post change in SBAQ professional capacity scores, $F(1, 27) = 5.60, p = .02$, partial $\eta^2 = .17$. Figure 1 depicts the pattern of the moderation. Inspection of Fig. 1 shows that, overall, participants high in IPE socialization demonstrated higher professional capacity scores across time points. However, the magnitude of the

effect of suicide prevention training on professional capacity scores was stronger for those in the low IPE socialization group. The pre-post change in professional capacity scores were significant for those in the low IPE socialization group, $t(14) = 3.33, p = .005$, Cohen's $d = 0.71$. The pre-post change in professional capacity scores were significant for those in the high IPE socialization group, $t(13) = 3.65, p = .003$, Cohen's $d = 0.53$.

Discussion

A training group consisting of primarily mental health counseling professionals, addictions practitioners, and social workers demonstrated short-term gains from training in areas including knowledge, attitudes, and perceived skill efficacy. This study serves to replicate and extend prior clinical psychology and university counseling center competency-based training results (Cramer et al. 2016, 2017) to a wider community mental health professions audience. This study is also the first to assess the link between IPE socialization (King et al. 2016) and suicide prevention-related competencies among community mental health professionals, finding preliminary evidence for a connection with perceived professional capacity to work with suicidal patients.

Coupled with a burgeoning literature on competency-based suicide risk assessment and prevention (e.g., Cramer et al. 2017; Hung et al. 2012), as well as a movement toward integrated mental health care (e.g., Cubic et al. 2012; Johnson and Freeman 2014), present findings hold potential to inform future directions in training. To begin, seeing as this competency-based training is designed as an iterative, flexible component of continued education for mental health and health professionals for suicidal patient and client care, adaptations are certainly possible. Future iterations may include IPE strategies and competencies (e.g., collaborative practice approaches; WHO 2010) that could strengthen overall professional capacity associated with the treatment of suicide-related behavior, especially in community-based integrated care settings. Such approaches to IPE-based training should account for the potential influences of experience in working in suicide-specific treatment settings and general healthcare service competence. The intent of this study was to pilot whether an IPE socialization had any promise when topical content (i.e., suicide) is emphasized. Associations with perceived capacity and competencies, as well as a moderating effect on training impacts, support IPE as a possible next avenue for training. For instance, in this study, professionals already high in interprofessional socialization may have had interprofessional experiences that influenced their perceived professional capacity prior to the training. Future training could capitalize on those with IPE experience, such that those with IPE experience can serve as models in

collaborative practice-based training; the interactions with other professionals in the field combined with a competency-based approach may have greater influence on those with little perceived IPE socialization.

Additional findings warrant comment. For instance, participants demonstrated a slight increase in confidence in and adequacy of training, also potentially suggesting sensitization to the need for continued focus in this skill area. This finding is particularly positive in light of the large scale survey results (Silva et al. 2016) noting a general lack of exposure to or feeling of adequate suicide risk assessment and prevention among community health professionals. An increased focus on the need and potency of training also echoes the emphasis of systems-based approaches to reduction of patient suicide contained in Zero Suicide (SPRC, nd). We recommend that healthcare settings adopting the Zero Suicide prevention model consider implementing and evaluating the competency-based approach in the present study. We also observed a small decrease in optimism working with suicidal patients. This finding must be viewed with caution, however, because low internal consistency values were found for this subscale at both time points. Such limited reliability may impact validity and, ultimately, the utility of this subscale as an evaluative tool. A few limitations were evident as a process of this exploratory study. The attendee non-participation (nine workshop attendees elected not to participate in the survey), low sample size, and low alphas for two subscales for this group may have limited the ability to detect significant training effects. While improvements were noted, this intervention was provided as a brief education intervention in the form of a half-day workshop. Prolonged engagement with participants may serve to elicit greater improvements in competency and perceived skill in working with suicidal patients. The low sample size, limited balance of disciplines represented (more than two-thirds were mental health counseling), and demographic narrowness preclude generalizability of findings. Prior tests of this approach (Cramer et al. 2016, 2017) have sampled primarily clinical psychology trainees and counseling center (e.g. social work) staff. Additional healthcare professions, including general practice nurses and physicians, need to be exposed to training moving forward. Finally, the lack of assessment of impact in applied community mental health settings limits generalization and conclusions of impact regarding real world settings and ultimate patient outcomes. Next steps in research should correct for such limitations by usage of an array of attitudinal measures and following training participants into applied community mental healthcare settings in order to objectively assess skill performance and patient-oriented outcomes.

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