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Winter 2019

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Suicide is a leading cause of death in the United States. Individuals with disabilities are more likely to experience suicidal thoughts, behaviors, and deaths by suicide, therefore, it is imperative that vocational rehabilitation (VR) support staff be knowledgeable and skilled at interacting with people in crisis. This survey explores the suicide-related knowledge, comfort, and competency in a multistate sample of 93 VR support staff. Almost 90% of the sample reported having worked with suicidal clients, with over a third reporting doing so more than once per year. However, less than a third of participants reported having received training on suicide. Participants were generally knowledgeable about suicide and willing to ask about suicide and work with suicidal clients but rated themselves low in both overall suicide assessment and crisis intervention competency and in specific skills. Implications for research and practice are discussed.

Suicide was the 10th leading cause of death in the United States in 2017 and was responsible for over 47,000 American deaths that year (Drapeau & McIntosh, 2018). Furthermore, suicide rates increased significantly in 44 US states from 1999 to 2016, with 25 states experiencing suicide rate increases of over 30% (Stone et al., 2018). In addition to the tens of thousands of deaths by suicide each year, there are approximately 25 suicide attempts for every death by suicide (Drapeau & McIntosh, 2018).

Suicidality in People with Disabilities

Although suicide affects individuals from all backgrounds, certain groups may be more at-risk for suicidal thoughts, behaviors, and deaths than others (Centers for Disease Control and Prevention, 2015). Individuals with disabilities have been consistent-

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ly found to be one such group, with researchers finding that they are at increased risk for suicidal thoughts, attempts, and deaths relative to those without disabilities. This has been consistently shown both within disability as a broad category (Lund, Nadorff, & Seader, 2016; Lund, Nadorff, Thomas, & Galbraith, 2019; McConnell, Hahn, Savage, Dube, & Park, 2015), and across a number of specific disability categories, such as psychiatric disability (Lund et al., 2016), physical disability (Khazem, 2018; Khazem, Jahn, Cukrowicz, & Anestis, 2017), multiple sclerosis (Giannini et al., 2010; Pompili et al., 2011), autism spectrum disorders (Segers & Rawana, 2014), spinal cord injury (Giannini et al., 2010), intellectual disabilities (Wark, McKay, Ryan, & Muller, 2018), and Huntington's Disease (Wetzel et al., 2011). Youth aged 15-24 with disabilities have also been shown to have disproportionate number of suicide attempts and suicides when compared to same aged peers without disabilities (Moses, 2018). The exact mechanism underlying the relationship between suicide and disability is unclear; although the increased rates of depression seen in people with disabilities is certainly a contributing factor in the increased

rates of suicidal in people with disabilities (Dennis et al., 2009; Giannini et al., 2010; Lund et al., 2016)., researchers have found that controlling for anxiety and depression diagnoses (Dennis et al., 2009; McConnell et al., 2015) or depressive symptoms (Lund et al., 2016) does not fully explain the significant contribution of disability status to suicidality. Similarly, a limited amount of research has shown that accounting for sociodemographic risk factors, such as unemployment and lower socioeconomic status cannot fully account for the higher rates of suicidality seen among people with disabilities (Lund, Nadorff, Thomas, & Galbraith, in press; McConnell et al., 2015; Russell, Turner, & Joiner, 2009). Thus, the increased suicidality among people with disabilities cannot be fully accounted for by psychological and demographic vulnerability, suggesting that disability itself may be a risk factor for suicide and indicating a strong need for suicide risk assessment and intervention among people with disabilities.

Professional Training on Suicide

Various trainings and interventions have been created to empower and educate providers about how to interact and intercede with clients experiencing suicidal thoughts or behaviors. Suicide-related training and research has generally targeted three main areas: knowledge, willingness to work with suicidal clients, and perceived competency in working with suicidal clients. Suicide knowledge relates to teaching participants about basic myths and fact related suicide. Examples of these include targeting the myth that asking a client or patient about possible suicidal ideations will cause them to consider suicide or reinforcing the fact that depression is a major risk factor for suicide (Smith, Silvia, & Joiner, 2011). Recent research indicates that suicide knowledge is generally high among professionals and paraprofessionals (Smith et al., 2011), although it is still considered to be a necessary and important component of suicide education and training (Isaac et al., 2009; Quinnett, 1995).

Other issues surrounding suicide, such as willingness to work with suicidal clients, can be more complex and difficult to address. Suicide is a highly emotionally charged topic for many people, and professionals and paraprofessionals may have strong personal, moral, and emotional reactions to suicidal clients (McHale & Felton, 2010; Saunders, Hawton, Fortune, & Farrell, 2012). For example, due to the self-inflicted nature of suicide, they may view suicidal clients as being selfish, reckless, or undeserving of care (Saunders et al., 2012). They may also be highly anxious about the potential legal and ethical liability that comes with working with suicidal clients (Saunders et al., 2012). These attitudes and concerns may lead individuals to avoid working with suicidal clients or to avoid asking about suicide. Researchers have found that attitudinal issues and concerns regarding working with suicidal clients can be ameliorated via training (McHale & Felton, 2010). Similarly, training can be used to address core skills necessary when working with suicidal individuals, such as knowing how to properly ask about suicidal intent, assessing risk, and knowing when and how to involve other parties in assessing or intervening with a suicidal client (Cramer, Johnson, McLaughlin, & Conroy 2013). As with attitudes towards suicide, these skills can be targeted and addressed through focused training for both professionals (Cramer, Bryson, Eichorst, Keyes, & Ridge, 2016) and paraprofessionals (Isaac et al., 2009).

Indeed, given the critical, “life or death” nature of suicide assessment and crisis intervention, increased emphasis has been placed on training a wide range of mental health providers, educators, and other professionals in suicide assessment and crisis intervention “gatekeeping,” even if their role is not the direct provision of mental health counseling or psychological or psychiatric treatment (Isaac et al., 2009). Gatekeeper trainings (e.g., Applied Suicide Intervention Skills Training [ASIST; Ramsay, Tanney, Tierney, & Land, 1999]; SafeTALK [LivingWorks, 2010], Question, Persuade, Refer [QPR; Quinnett, 1995]) have been developed to teach both mental health workers and laypeople, such as teachers, college students, and school staff, how to identify and intervene with individuals who are displaying warning signs for suicide. Researchers have found that provision of such training promotes referrals of at-risk individuals (Condrón et al., 2015), increases skills, self-efficacy, and knowledge related to interacting with and ensuring the immediate well-being of individuals at high risk for suicide (Aldrich, Wilde, & Miller, 2018; Isaac et al., 2009). Furthermore, widespread gatekeeper training has even been found to be related to decreased suicide rates in communities (Isaac et al., 2009).

Suicide Assessment and Intervention in Vocational Rehabilitation Counseling

As professionals who work with individuals with disabilities in a counseling setting, vocational rehabilitation (VR) support staff (i.e., individuals who work in the VR office in non-counseling roles such as front desk support or rehabilitation assistant or technician roles) are frequently on the frontlines of working with individuals with disabilities who are experiencing suicidality. Although VR support staff may not be providing mental health services directly, they may still deal with suicidal clients via answering phone calls, assisting with intake, and helping counselors, especially in crisis situations, and thus may be good candidates for this training. However, we are not aware of any published research on suicide-related experiences, comfort, and competency among VR support staff. Indeed, despite the established high risk for suicidality in people with disabilities, very little research has examined suicide-related competency in rehabilitation counseling in general. In a study on client death in rehabilitation counseling in general, Hunt and Rosenthal (1997) found that 83% of their sample of rehabilitation counseling trainees thought that training on death-related issues was important or very important but only 23% reported having received such training. More specific to suicide, Hunt and Rosenthal (2000) found that concerns related to client suicide were the most commonly cited death-and-dying-related concerns among a sample of rehabilitation counselors, and 39 client deaths by suicide were reported by the 131 rehabilitation counselor participants, indicating that suicide is a concern in rehabilitation counseling settings.

Purpose and Research Questions

Given the limited existing research on suicide competency in VR, in rehabilitation counseling in general, and on VR support staff specifically, we set out to examine the suicide-related experiences, knowledge, comfort, and competency in a sample of VR support staff. Our specific research questions were as follows:

1. How often do VR support staff (i.e., individuals who work in the VR office in non-counseling

roles such as front desk support or rehabilitation assistant or technician roles) report working with clients who express thoughts and behaviors related to suicide (i.e., suicidal clients)?

2. How many VR support staff report having received training on suicide?
3. How knowledgeable are VR support staff about suicide myths and facts?
4. How do VR support staff perceive their own comfort and competency in assessing, intervening, and working with suicidal or potentially suicidal clients?
5. How do education, suicide training history, and length of time spent working in rehabilitation counseling relate to suicide knowledge and perceived comfort and competence regarding suicide assessment and intervention among VR support staff?

Method

Recruitment

Participants were recruited as part of a larger study on suicide-related knowledge and competency in VR rehabilitation counselors and support staff working in the State/Federal VR system that was conducted in 2014 (see also Lund, Schultz, & Nadorff, 2017, Lund, Schultz, Nadorff, Galbraith, & Thomas, 2017a, 2017b; Lund et al., 2018a, 2018b, in press a, in press b). The analyses in the present article only include participants who indicated that they were employed in a support staff role in a State/Federal VR agency at the time of the study, via an item that asked participants to identify their current role from the options of a) support or line staff or b) counselor. Recruitment emails were sent out from state VR offices and regional technical assistance centers who agreed to participate in the study. Participants were informed that no identifying information would be collected, that their responses could not be linked to them at any time, that they could skip any items or stop taking the survey at any time without penalty, and that their participation in the study was completely voluntary and would not affect their employment with VR in any way. Data were collected via a Qualtrics survey that was hosted on a secure, university-based server. The study procedures were approved by a university institutional review board prior to data collection.

Participants were recruited via emails sent out by technical assistance centers and state VR offices in Utah, Texas, Oregon (Division of Blind Services only), Idaho, Alaska, South Dakota, North

Dakota, and New Mexico. Participants were retained for the present analyses if they a) indicated their role as being support staff or line staff and b) had complete data for both suicide competency measures. According to Rehabilitation Services Administration data, approximately 788 support staff work in the participating agencies; ninety-three participants met the inclusion criteria for the present analyses, as described previously. Thus, the sample used in the present analyses represents approximately 12% of the VR support staff in the participating states. However, we do not have a direct count of how many support staff received the recruitment emails.

Participants

A total of 93 participants were included in the present analyses. The vast majority ($n=84$; 90.3%) were female, with the remaining 9 (9.7%) participants identifying as male. The mean age was 48.36 years ($SD=11.10$; range=19-69). Participants worked in Texas ($n=53$; 57.0%), Utah ($n=21$; 22.6%), Idaho ($n=11$; 11.8%), New Mexico ($n=6$; 6.5%), North Dakota ($n=1$; 1.1%), and South Dakota ($n=1$; 1.1%). They reported having worked in a rehabilitation counseling setting for an average of 11.61 years ($SD=9.58$; range=0-39); nine participants (9.7%) did not provide data on how long they had worked in rehabilitation counseling. Of the 84 participants who supplied information, 90.5% ($n=8$) had worked in rehabilitation counseling for a year or longer, and two-thirds ($n=56$; 66.7%) had worked in rehabilitation counseling for more than five years. Half ($n=42$; 50.0%) had worked in rehabilitation counseling for more than 10 years.

In terms of education, 60 participants (64.5%) had an associate's degree or less. Eighteen (19.4%) had a bachelor's degree, 11 (11.8%) had a master's degree, and 1 (1.1%) had a doctorate. Three participants did not provide information on their highest degree earned. Four participants (4.3%) indicated that they were a certified rehabilitation counselor (CRC), and one (1.1%) indicated that they were a licensed clinical social worker. No participants identified as licensed mental health counselors, professional counselors, addiction counselors or psychologists.

Measures

In addition to the demographic items described above, participants completed measures related to suicide knowledge, comfort and competency asking about and working with clients who are suicidal, and competency in suicide assessment and crisis intervention. Participants also indicated how frequently they work with clients who "express suicidal thoughts or behaviors."

Suicide knowledge. The 8-item suicide myths and facts measure was developed from a combination of the items used in Smith, Silva, Covington, and Joiner (2011) and the World Health Organization suicide myths booklet (WHO, n.d.). Items are listed in Table 1. Participants rated each item as dichotomously true or false. Correct answers were shown to participants after completing all survey measures. Our scoring and validation process for the suicide knowledge items is described in more detail in the Results section.

Suicide Competency Assessment Form. The Suicide Competency Assessment Form (SCAF; Cramer et al., 2013) was developed for both self- and observer-rating of suicide assessment com-

Table 1. Suicide knowledge items and responses

Item (correct answer)	Percent correct
1. If you talk to a consumer about suicide, you may inadvertently give them permission to seriously consider it. (False)	73.1%
2. Most suicidal people tell others about their suicidal thoughts. (True)	34.4%
3. People who talk about suicide won't actually do it. (False)	89.2%
4. People who are suicidal are often relieved to be asked about suicide. (True)	79.6%
5. Most people who commit or attempt suicide have displayed some warning signs before their attempt. (True)	75.3%
6. Only people with previously diagnosed mental illness are at risk for suicide. (False)	100%
7. Depression indicates a potential suicide risk. (True)	78.5%
8. If a person is serious about suicide, there is little that can be done to prevent it. (False)	83.9%

petency, particularly in psychology trainees. The items address skills related to immediate risk assessment and crisis intervention, rather than therapeutic treatment of suicidality or related conditions, including items regarding involvement of other persons (i.e., referral) and items related to debriefing and managing emotional responses to a suicide-related clinical situation. The SCAF consists of 10 items on which respondents rate their perceived level of competence in different areas related to suicide assessment (e.g., notifying and involving other parties, assessing risk, developing a safety plan) on an 4-point Likert-type scale, with higher scores representing higher perceived competency; items can be seen in Table 2. Scores of 1 are said to represent incapability to perform the task, scores of 2 represent approaching or partial competency, scores of 3 represent competency, and scores of 4 represent advanced competency (Cramer et al., 2013). A previous analysis using the present sample (Lund, Schultz, Nadorff, Galbraith, & Thomas, 2017a) established a one-factor structure for the SCAF in the present sample, and internal consistency was excellent ($\alpha=.95$).

In addition to the total score, participants are also asked to rate their overall suicide assessment competency on a scale from 1-8 with anchor statements for each set of two values. Scores from 1-2 represent “unacceptable” competency (“I have not been trained or an unable to do this task”), scores of 3-4 represent “working towards competency” (“I have been partially trained or educated to do this task”), scores of 5-6 represent “competent” skill (“I have adequate training and skill in this task”), and scores of 7-8 represent “advanced” competency (“I have exceptional skill on the most current techniques for this task”).

Suicide Competency Inventory. The suicide competency measure is a modified version of the 11-item Suicide Competency Inventory (SCI) developed by Graham, Rudd, and Bryan (2011). The original measure included three additional items assessing suicide training and experience; these were not included in the present study because the purpose was to assess perceived suicide competency and comfort. Additionally, the original measure used the terminology “patient”; this was changed to “client” in the current study. Items can be seen in Table 3.

Each item is rated on a five-point Likert scale (1-strongly disagree to 5-strongly agree). Items representing hesitance or discomfort are reserve-coded so that higher scores represent higher comfort and competence in dealing with suicidal clients. Total scores range from 11 to 55.

As reported previously (Lund, Schultz, Nadorff, Galbraith, & Thomas, 2017a), a psychometric analysis of this measure in the present sample gave support for a two-factor structure for this measure, consisting of a six-item “competency and willingness to treat” subscale and a five-item “willingness to assess” subscale. Internal consistency was very good to excellent for both the competency and willingness to treat ($\alpha=.95$) and willingness to assess subscales ($\alpha=.83$). Internal consistency was also very good for the overall measure ($\alpha=.84$). Additional information on the measure psychometrics is available in Lund, Schultz, Nadorff, Galbraith, & Thomas (2017a).

Analyses

For the suicide myth and fact questions, we analyzed the percent of respondents who answered each item correctly as well as the total percent of items answered correctly. For the measures of suicide competency and comfort (i.e., the SCI and the SCAF), we examined total scores, subscale scores, and individual item responses. In order to assess the relationship participant training, education, and experience variables on suicide knowledge, SCAF scores, and SCI scores, we used Pearson’s *r* correlations, independent sample *t*-tests, and Cohen’s *d* effect sizes. In accordance with Cohen (1992), effect sizes of .2, .5, and .8 were used as guidelines for small, medium, and large effect sizes for Cohen’s *d*.

Results

Research Questions 1 and 2: Training and Experiences with Suicide

Ninety-two participants had data available on items related to their experiences with and training on suicide. The vast majority of participants ($n=79$; 85.9%) reported some experiences working with clients who “express suicidal thoughts or behaviors.” Twenty-seven participants (29.0%) reported working with them less than once per year, while 17 (18.3%) reported working with suicidal clients about once a year. Almost two-fifths of respondents (38.0%; $n=35$) reported working with these clients more than once a year, with 15.2% ($n=14$) working with them once a month or more and 4.3% ($n=4$) working with them once a week or more. More than a quarter of participants (29.3%; $n=27$) reported having received training on suicide. Additionally, a majority ($n=61$; 66.3%) reported having a friend or family member who attempted or completed suicide.

Research Question 3: Suicide Knowledge

Participants generally scored well on the eight suicide knowledge questions, with the exception of item 2 (“Most people tell others about their suicidal thoughts”). On this item, only 34.4% ($n=32$) of participants correctly answered “true.” This may have been in part due to confusion about whether or not this item referred to indirect suicidal statements (e.g., “You won’t have to worry about me soon.”; “I can’t take life anymore.”) as well as direct suicidal statements (e.g., “I’m going to kill myself.”). Accuracy on the other items ranged from 73.1% (“If you talk to a consumer about suicide, you may inadvertently give them permission to seriously consider it”) to 100% (“Only people with previously diagnosed mental illness are at risk for suicide”). The percent correct for each item can be seen in Table 1.

Because item 2 demonstrated a much lower accuracy rate than the other items, we examined the effect on total scores when that item was removed. This increased the mean percent correct from

Table 2. Item-level means on the Suicide Competency Assessment Form (Cramer et al., 2013).

Item	Mean	SD
1. Know and manage your attitude and reactions toward suicide	1.99	.878
2. Maintain a collaborative, empathetic stance toward the client	2.40	.934
3. Know and elicit evidence-based risk and protective factors	1.75	.747
4. Focus on current plan and intent of suicidal ideation	1.75	.868
5. Determine level of risk	1.68	.782
6. Develop and enact a collaborative evidence-based treatment plan	1.44	.773
7. Notify and involve other persons	2.46	.879
8. Document risk, plan, and reasoning for clinical decisions	1.59	.837
9. Know the law concerning suicide	1.62	.806
10. Engage in debriefing and self-care	1.61	.860

Note. All items had a range of 1-4 on a four-point scale.

76.8% ($SD=14.7\%$; range=38%-100%) to 82.80% ($SD=14.4\%$; range=43%-100%). A paired sample t-test indicated that percentage correct was significantly higher when item 2 was removed ($t(92)=9.762, p<.001$), and the seven- and eight-item scores were very high correlated ($r=.916, p<.001$). Furthermore, the seven-item score was generally significantly correlated with the suicide competency measures (SCI total score: $r=.230, p=.026$; SCI competency and willingness to treat subscale: $r=.149, p=.154$; SCI willingness to assess subscale: $r=.215, p=.016$; SCAF total score: $r=.209, p=.044$; SCAF overall competency rating: $r=.210, p=.046$) whereas the eight-item score was not. Thus, we decided to use the seven-item score in all subsequent analyses.

Slightly more than a quarter of participants ($n=25, 26.9\%$) answered all items correctly, and an additional 37.6% ($n=35$) answered six of the seven items correctly. Twenty-five (26.9%)

Table 3. Suicide Competency Inventory items and responses

Item	Agree/strongly agree	Neutral	Disagree/strongly agree
1. I am comfortable with the responsibility of treating suicidal clients.	8.6% (8)	21.5% (20)	69.9% (65)
2. I feel competent to treat a client in an acute suicidal crisis	9.7% (9)	12.9% (12)	77.4% (72)
3. I would be willing to treat a depressed client who had made a suicide attempt in the past.	57.0% (53)	18.3% (17)	24.8% (23)
4. I would be willing to treat a depressed client who had reported a suicide attempt over 5 years in the past.	52.7% (49)	19.4% (18)	28.0% (26)
5. I would be willing to treat a depressed client with suicidal thoughts.	54.8% (51)	22.6% (21)	22.6% (21)
6. I would be willing to treat a depressed client who had made a suicide attempt in the past year.	55.9% (52)	18.3% (17)	25.8% (24)
7. I would be more hesitant to ask about suicidality in a client who is 20 years older than me.	5.4% (5)	20.4% (19)	74.2% (69)
8. I might refrain from asking a client about suicide due to fear of offending the client.	11.8% (12)	15.1% (14)	73.1% (68)
9. I worry that bringing up suicide with a client might make the problem worse.	13.0% (12)	12.9% (12)	74.2% (69)
10. I would be more hesitant to ask a male client about suicide.	4.4% (4)	12.9% (12)	82.8% (77)
11. I would be more hesitant to ask about suicidal tendencies in a client who was of higher social status or rank than me.	8.7% (10)	11.8% (11)	79.5% (74)

participants answered five items correctly, five (5.4%) answered four correctly, and three (3.2%) answered three correctly. No participants answered fewer than three items correctly. In total, about two-thirds of participants (64.5%) answered six or seven items correctly, and 91.4% of participants answered at least five of the seven items correctly.

Research Question 4: Suicide Assessment and Intervention Comfort and Competency

Suicide Competency Assessment Form. Participants' mean total score on the SCAF was 18.30 ($SD=6.85$, range=10-37). Means and standard deviations for the individual items of the SCAF can be seen in Table 2. Only two items ("Know and manage your attitude and reactions toward suicide" and "Notify and involve other persons") had mean scores above 2.0 on a four-point scale, and even on those items 52.7% and 53.8% of participants, respectively, endorsed a score of 1 or 2. Overall, both the total score and item-level scores suggest a low level of perceived competency across all domains assessed by the SCAF.

Ninety-one participants completed the overall suicide assessment competency rating item on the SCAF. Participants' mean total score on the SCAF's overall suicide competency rating was 2.64 on the eight-point scale ($SD=1.51$, range=1-7). Forty-five participants (49.5%) rated themselves in the 1-2 range, indicating that their competency was "unacceptable" and that they had "not been trained to do this task." Thirty-five participants (38.5%) rated themselves in the working towards competency range with a score of 3 or 4, indicating they had "have been partially trained or educated on this task." An additional 10 participants (11.0%) rated themselves in the nearing competency range of 5-6, indicating "adequate training and skill in this task." Only 1 participant (1.1%) rated themselves in the competent range with a score of 7, indicating "exceptional skill on the most current techniques for this task," and no participants rated their overall suicide assessment competency as an 8. Overall, only 12.1% ($n=11$) participants rated themselves as having a score of 5 or greater, which would indicate having achieved competency (Cramer et al., 2013).

Suicide Competency Index

Participants' total scores on the SCI had a mean of 34.40 ($SD=9.20$, range=11-55). The mean score on the competency and willingness to treat subscale was 13.69 ($SD=7.19$, range=6-30). Their mean score on the willing to assess subscale was 20.74 ($SD=4.20$, range=5-25), suggesting a general openness to asking clients about suicide.

In terms of competency, over two-thirds of participants (66.9%) disagreed or strongly disagreed that they feel comfortable with the responsibility of treating suicidal clients, and only 8.6% agreed or strongly agreed with that statement. Similarly, over three-quarter of participants disagreed or strongly disagreed that they felt competent to treat a client in an acute suicidal crisis. Only nine participants (9.7%) agreed or strongly agreed with the statement. About half to three-fifths of participants (52.7%-57.0%) agreed or strongly agreed that they would be willingness to treat a client with depression who had a history of suicide attempt or suicidal ideation, with slight variation based on the time since the attempt or currency of ideation. About three-quarters to four-fifths

of participants (73.1%-82.8%) disagreed or strongly disagreed that they would hesitate to ask a client about suicidality due to particular beliefs or client characteristics. The results for each item can be seen in Table 3.

Research Question 5: Factors Related to Higher Levels of Suicide Knowledge, Comfort, and Perceived Competency

Participants who reported having received training on suicide ($n=27$) generally scored better on measures of suicide comfort and competency than those who had not received such training ($n=65$). They had significantly higher SCAF total scores ($t(38.58)=6.080$, $p<.001$, $d=1.47$), SCAF overall suicide assessment competency ratings ($t(88)=6.80$, $p<.001$, $d=1.53$), SCI total scores ($t(90)=2.84$, $p=.009$, $d=.64$), and SCI competency and willingness to treat subscale scores ($t(90)=2.64$, $p=.010$, $d=.59$). SCI willingness to assess subscale scores did not significantly differ between the two groups ($t(90)=1.60$, $p=.113$, $d=.39$), although there was a small effect favoring the group that had received training. Mean percent correct on the seven-item suicide knowledge measure did not significantly differ between the two groups ($t(90)=1.91$, $p=.060$, $d=.43$), although the difference was approaching significance and yielded a small-to-medium effect size.

Frequency of working with suicidal clients was significantly correlated with SCI total score ($r=.258$, $p=.013$) and SCI competence and willingness to treat subscale score ($r=.271$, $p=.009$). It was not correlated with suicide knowledge ($r=.033$, $p=.757$), SCI willingness to assess subscale score ($r=.094$, $p=.371$), SCAF total score ($r=.168$, $p=.109$), or SCAF overall suicide assessment competency rating ($r=.159$, $p=.134$). Number of years working in rehabilitation counseling was significantly, negatively correlated with suicide knowledge ($r=-.326$, $p=.002$), SCI total score ($r=-.315$, $p=.032$), SCI competency and willingness to treat subscale score ($r=-.326$, $p=.004$), and SCAF overall suicide assessment competency rating ($r=-.238$, $p=.032$). It was not significantly correlated with SCI willingness to assess subscale scores ($r=-.150$, $p=.172$) or SCAF total scores ($r=-.210$, $p=.055$). Higher education was significantly associated with higher scores for the SCAF total score ($r=.562$, $p<.001$), SCAF overall competency rating score ($r=.557$, $p<.001$), SCI total score ($r=.487$, $p<.001$), SCI competency and willingness to treat subscale score ($r=.469$, $p<.001$), and SCI willingness to assess subscale score ($r=.263$, $p=.012$). It was not significantly correlated with suicide knowledge ($r=.178$, $p=.093$), although the correlation was approaching significance. Education was not significantly correlated with years spent in rehabilitation counseling ($r=.008$, $p=.945$) or frequency of working with suicidal clients ($r=-.131$, $p=.234$), and time spent working in VR did not significantly differ between those who had received suicide-related training and those who had not ($t(81)=.947$, $p=.347$, $d=.22$).

Discussion

In the present study, we examined suicide-related knowledge, comfort, and competency among VR support staff. Almost 90% of our participants reported some experience in working with clients who expressed suicidal thoughts or behaviors, with over a third reporting working with them more than once a year. These data suggest that support staff do encounter clients who are suicidal in

their work; despite this, however, only about a quarter of participants reported having received training on suicide. We saw a similar gap between participants' generally high basic of knowledge of suicide and their expressed willingness to work with clients who were experiencing suicidal thoughts or had a history of suicide attempt and their perceived ability to competently do so. As a whole, our participants reported that they were not hesitant to ask clients about suicide and were willing to work with these clients but did not feel comfortable in their ability to do so competently. These results were further borne out when participants rated their perceived competency on specific skills related to suicide assessment and immediate crisis intervention. Participants consistently rated themselves as having low competency in these skills, even on items assessing less clinical tasks, such as involving others when working with a suicidal client, knowing the laws related to suicide, and engaging in self-care and debriefing after working with a client in suicidal crisis.

Participants who reported working more frequently with suicidal clients had higher comfort and willingness to do so but did not demonstrate higher perceived competency or greater knowledge. This suggests that while frequent exposure to clients who are suicidal may increase the willingness of support staff to engage with these clients, it does not increase their perceived ability to do so well. Education was associated with both increased comfort and competency, as was having received suicide-related training, suggesting that both general and specific education may help confer some of these skills as well as a greater comfort and willingness to work with suicidal clients. Previous analyses have shown that SCI and SCAF scores are significantly correlated (Lund, Schultz, & Nadorff, in 2017; Lund, Schultz, Nadorff, Galbraith, & Thomas, 2017a). This aligns with previous research showing that training can increase suicide-related comfort and competency (Cramer et al., 2016; Isaac et al., 2009; La Guardia, Cramer, Brubaker, Long, 2019; McHale & Felton, 2010).

Interestingly, a longer length of time working in a rehabilitation counseling setting was associated with lower levels of suicide-related knowledge, comfort, and competency despite time spent working in rehabilitation counseling not being significantly associated with education, frequency of working with suicidal clients, or having received training on suicide. One possible explanation is that support staff who have spent more time working in rehabilitation counseling may be more likely to recognize critical gaps in their own knowledge and abilities or to have had an experience where such gaps were made more evident to them. Additionally, those who have worked in rehabilitation counseling for a longer period of time may have more outdated training, education, or understanding of suicide, thus potentially resulting in decreased knowledge, comfort, and competency.

Implications for Counselors, Supervisors, and Administrators

These results highlight the need for training on suicide competency and crisis intervention among VR support staff. Participants reported that although they frequently worked with clients who express suicidal thoughts or behaviors, they did not feel competent in working with suicidal clients. Furthermore, although less than a third of participants reported having received training on suicide, those who did had markedly higher comfort and perceived

competency in working with suicidal client, suggesting that these skills can be taught through training. The relatively high suicide knowledge scores in this sample also suggest that VR support staff may benefit more from a practical, hands-on training that teaches specific skills for suicide assessment and crisis intervention rather than a training that simply teaches about suicide. Gatekeeper training or enhanced gatekeeper training, such as the programs mentioned previously (e.g., QPR, ASSIST, SafeTALK) may be one possibility for such training. Additionally, VR agencies could partner with local universities or mental health clinics to obtain such training for their staff.

Limitations and Directions for Future Research

As with all studies, there are some limitations that should be noted regarding the current study. First of all, our sample, while a multistate sample, only drew from a handful of states. This potentially limits the generalizability of the results. Also, more than half of our participants were from one state (Texas), further placing limitations on generalizability. Thus, we advise replicating this study with VR support staff from other states, a truly national sample, or both, as well as obtaining a larger sample size if possible. Relatedly, this sample was self-selected and thus may have skewed more heavily towards participants with personal or professional experience with suicide. This may be reflected in the large proportion of participants who reported both working with clients who are suicidal and having a friend or family member who attempted or completed suicide. However, even if this was the case, most participants had not received training on suicide and did not perceive themselves as competent in suicide assessment or crisis intervention, highlighting the need for more training in this area even among highly interested or motivated support staff. Additionally, we did not ask participants if they had previously worked in a counseling role despite currently identifying as support staff; given the presence of some participants with graduate degrees or CRC certification, it is possible that a small number of participants may have previously worked as counselors, giving them experience beyond that typically seen in support staff. Furthermore, we did not ask participants about the type or duration of suicide-related training they received, even though the type, intensity, and effectiveness of the suicide-related training can vary considerably (Schmitz et al., 2012).

Second, the use of the word “treat” on the SCI may have potentially confused some participants, given that VR support staff do not provide mental health treatment. However, it is also notable that about three-quarters of participants still rated themselves as willing to “treat” clients with a history of suicide attempts or thoughts, suggesting that they may have interpreted the term to refer to the services that they provide to clients within the scope of VR. Researchers should examine if changing the term “treat” to a less overtly clinical term, such as “work with,” affects responses. In addition, some items on the SCAF may reflect behaviors that would be out of the scope of practice of VR support staff, such as developing a safety plan. However, the extremely high internal consistency on the SCAF suggest that the ten competencies assessed are highly related, and our item-by-item breakdown provided further evidence that participants tended to rate themselves low on all assessed competencies. Even if support staff may not take the lead in certain aspects of suicide assessment and crisis inter-

vention, knowledge of all the core competencies could assist them in their role as support to VR counselors and members of an interdisciplinary team. Relatedly, researchers should also assess the roles and involvement of support staff in suicide and crisis-related situations in the VR settings.

Additionally, we assessed only self-perceived, not objectively-rated or supervisor-perceived, competency with suicide assessment and intervention. It is possible that respondents' perceptions of their own competencies may not reflect their observer-rated or supervisor per. Thus, researchers should examine the concurrent validity of the SCAF and SCI with other, non-self-report measures of suicide assessment competency. Finally, the item about disclosure of suicidal thoughts on the suicide knowledge questionnaire may have been unclearly worded and should be clarified to include both direct and indirect statements about suicide. Researchers may also consider using a longer suicide knowledge scale with continuous, rather than dichotomous, scoring to assess suicide knowledge. This would allow researchers to both assess internal consistency and to counter the potential ceiling effect observed here, where the mean knowledge score was relatively high.

Conclusion

This study highlights the critical need for suicide-related training among support staff in VR settings. On-the-job training and continuing education programs dedicated to addressing these core competencies in VR support staff should be developed and evaluated. Additionally, ongoing supervision and guidance should be provided to support staff who work with clients who are in or at risk for suicidal crisis.

Authors' note and acknowledgements

The authors would like to extend our gratitude to the state vocational rehabilitation offices and vocational rehabilitation support staff who participated in this study.

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