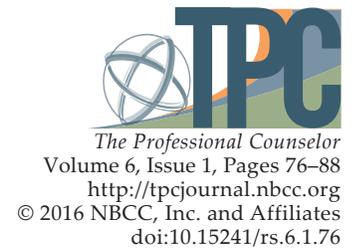


Mental Health Practitioners' Perceived Levels of Preparedness, Levels of Confidence and Methods Used in the Assessment of Youth Suicide Risk

Robert C. Schmidt



Mental health practitioners working within school or community settings may at any time find themselves working with youth presenting with suicidal thoughts or behaviors. Although always well intended, practitioners are making significant clinical decisions that have high potential for influencing a range of outcomes, including very negative (e.g., completed suicide) to very positive (e.g., on path to recovery). This study used an exploratory descriptive survey design to determine practitioner levels of preparedness, levels of confidence and methods used to assess suicide risk in youth. Practitioner respondents (N = 339) to a 23-item survey included professional counselors, school counselors, social workers, school psychologists and psychologists. Key findings indicate insufficient and inconsistent levels of preparedness and confidence, with respondents predominantly using an informal, non-structured interview method to obtain suicide risk level. Implications suggest a need for increased graduate training, supervision and ongoing skill development in suicide prevention and assessment.

Keywords: confidence, suicide risk, preparedness, school counselors, mental health

Youth suicide is a significant public health concern and efforts to reduce youth suicide remain a national priority (Kung, Hoyert, Xu, & Murphy, 2008; National Action Alliance for Suicide Prevention: Research Prioritization Task Force, 2014). In the United States, there were 40,600 suicides in 2012, averaging 111 suicides per day (Centers for Disease Control and Prevention [CDC], 2014a). Of the total number of suicides, 5,183 were youth suicides, averaging 14 youth suicides daily, or one youth suicide every 1 hour and 42 minutes (Drapeau & McIntosh, 2014). Youth suicide is the third leading cause of death between the ages of 10 and 14 and has become the second leading cause of death between the ages of 15 and 24 (CDC, 2014a). The results from the 2013 Youth Risk Behavior Surveillance (YRBS) reported 29.9% of high school students felt sad or hopeless almost every day for 2 weeks or more; 17% of high school students seriously considered attempting suicide; 13.6% of high school students made a suicide plan about how they would attempt suicide; and 8% of students attempted suicide one or more times (CDC, 2014b).

Efforts to address the increasing rate of youth suicide call for the identification of existing training and preparation gaps currently faced by practitioners (National Action Alliance for Suicide Prevention: Research Prioritization Task Force, 2014). These gaps pose many challenges for practitioners to effectively provide appropriate interventions. Although previous studies have investigated training gaps among specific professional disciplines (Debski, Spadafore, Jacob, Poole, & Hixson, 2007; Dexter-Mazza, & Freeman, 2003; O'Connor, Warby, Raphael, & Vassallo, 2004), the current study investigated a broader representation of disciplines including social workers, school counselors, professional counselors, school psychologists and psychologists. This study examined practitioner self-perceived levels of preparedness, levels of confidence and methods used in the assessment of youth suicide.

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Practitioner readiness in suicide assessment. In approximately eight of ten suicides, youth give advance clues or warning signs of their intentions that can be detected by others (McEvoy & McEvoy, 2000; Poland & Lieberman, 2002). In a study spanning four years of youth in a rural school district (N = 5,949) screened for suicidal thoughts, 670 (11%) reported having suicidal thoughts within the past year or past few days (Schmidt, Iachini, George, Koller, & Weist, 2015). Practitioners working within school or community mental health settings have an opportunity to play a critical role in the identification, assessment and prevention of youth suicide (Singer & Slovak, 2011). Within either setting, practitioners will encounter clients having suicidal thoughts or behaviors (Rudd, 2006). The practitioner's responsibility in the assessment of suicide is to estimate risk based on identifying warning signs and associated behaviors and to respond appropriately (Bryan & Rudd, 2006).

In a national sampling of social workers, 93% of the respondents reported having worked with a suicidal patient (Feldman & Freedenthal, 2006), and 55% of clinical social workers reported having a patient attempt suicide (Sanders, Jacobson, & Ting, 2008). In a study of psychology doctoral interns (N = 238) completed by Dexter-Mazza and Freeman (2003), 99% reported providing services to suicidal patients and 5% reported experiencing a patient death by suicide. Across professional disciplines, 22% to 30% of social workers, counselors and psychologists reported having a patient die by suicide (Jacobson, Ting, Sanders, & Harrington, 2004).

Irrespective of the level of suicide training, comfort level or experience (i.e., even those with limited training and preparedness), the circumstances for which practitioners meet with a suicidal client are not only stressful, but also have legal and ethical ramifications (Cramer, Johnson, McLaughlin, Rausch, & Conroy 2013; Poland & Lieberman, 2002). Research suggests significant gaps exist related to the practitioner's training and readiness to perform suicide risk assessments, highlighting training deficits in the level of preparedness, level of confidence and methods used to determine suicide risk level (Smith, Silva, Covington, & Joiner, 2014).

Although youth suicide remains a national concern and priority, gaps appear most prominent in translating research into practice in developing and providing appropriate levels of training and supervision for practitioners (Smith et al., 2014). Research to support this concern offers valuable recommendations (Osteen, Frey, & Ko 2014; Schmitz, Allen, Feldman, et al., 2012); however, despite these recommendations, training and preparation continue to lag (Rudd, Cukrowicz, & Bryan, 2008). Practitioner competency skills in suicide assessment continue to be neglected by colleges, universities, licensing bodies, clinical supervisors and training sites that can have the greatest impact in reducing youth and adult suicide (Schmitz et al., 2012).

Practitioner preparedness. In the past several decades, researchers began identifying gaps in suicide risk knowledge, finding that practitioners were inadequately prepared to assess suicide risk. In master's and doctoral clinical and counseling psychology training programs, 40–50% were found to offer formalized training in suicide assessment and management of suicide risk (Kleespies, Penk, & Forsyth, 1993). Suicide-specific training was only included in 2% of accredited professional counseling programs and 6% of accredited marriage and family therapist training programs (Wozny, 2005).

Training also has been identified as limited among social work graduate programs, averaging 4 hours or fewer specific to suicide education (Ruth et al., 2009). In a study by Feldman and Freedenthal (2006) randomly surveying social workers through the National Association of Social Workers (N = 598), almost all of the social work participants (92.3%) reported working with a suicidal client; however, only 21.1% received any formal suicide-related training in their master's program.

Of the 21.1% of social workers receiving formal training, 46% specified their suicide-devoted training was less than 2 hours.

This pattern continued as additional studies found psychology doctoral interns did not receive adequate training in suicide assessment and/or managing suicide risk in clients. Neither did they receive the necessary levels of clinical supervision in suicide assessment (Mackelprang, Karle, Reihl, & Cash, 2014). In a study of psychology graduate school programs, 76% of the program directors indicated a need for more suicide-specific training and education within their programs but discovered barriers to implement this training (Jahn et al., 2012). The chief barrier reported by the directors was the absence of guidance and curriculum requirements to provide training and, secondly, the inability of colleges to create space in the existing curriculum schedule for added classes (Jahn et al., 2012).

In a survey that included members of the National Association of School Psychologists (N = 162), less than half (40%) of the respondents reported receiving graduate-level training in suicide risk assessment (Debski et al., 2007). Most school psychologists in this study reported feeling at least somewhat prepared to work with suicidal students while doctoral trained practitioners reported feeling well prepared.

School counselors share similar gaps in their preparation to provide suicide intervention and assessment to youth. Research conducted by Wachter (2006) indicated that 30% of school counselors had no suicide prevention training. In a study conducted by Wozny (2005), findings indicated that just 52.3% of the school counselors, averaging 5.6 years of experience, were able to identify critical suicide risk factors. This study exposed competency gaps in suicide assessment, training and intervention consistent with practitioner disciplines that were identified within this study. This is consistent with previous study findings (National Action Alliance for Suicide Prevention, 2014; Schmitz et al., 2012) that identified insufficient training and preparation of practitioners in the assessment and prevention of youth suicide and suicide in general.

Practitioner confidence. Although most practitioners will encounter youth with suicidal thoughts and behaviors, many lack the self-confidence to effectively work with suicidal youth. The lack of confidence appears related to competency levels and limited training (National Action Alliance for Suicide Prevention, 2014; Oordt, Jobs, Fonseca, & Schmidt, 2009).

In contrast, researchers found that as practitioner risk assessment skills increased through suicide-specific training, noticeable increases were measured in practitioner self-confidence (McNiel et al., 2008). Oordt and colleagues (2009) studied mental health practitioner levels of confidence after receiving empirically-based suicide assessment and treatment training. The results indicated that self-reported levels of practitioner confidence increased by 44% and measured a 54% increase specific to self-confidence levels related to the management of suicidal patients. In addition, studies of school counselors identified correlations between self-efficacy, confidence and the ability to improve clinical judgment in providing suicide interventions and assessment (Al-Damarki, 2004).

Adequate training and experience in suicide prevention and assessment has been found to increase practitioner levels of confidence in conducting risk assessments and management planning (Singer & Slovak, 2011). Research suggests that confidence increases the practitioner's ability to estimate suicide risk level, make effective treatment decisions and base recommendations when conducting a quality assessment. However, when the assessor is not confident, the assessment is more prone to errors or missed information, decreasing the accuracy of their assessment (Douglas & Ogloff, 2003).

Paradoxically, overconfidence produces similar results as practitioners lacking confidence. Tetlock (2005) reported that overconfident practitioners are more prone to making errors during a suicide risk assessment unless their clinical judgment is further supported by objective evidence such as using a formal, validated and reliable method of assessment.

Methods Used in Suicide Assessment

There are several categories of suicide assessment instruments developed for youth (Goldston, 2003; National Action Alliance for Suicide Prevention, 2014). These include detection instruments like structured and semi-structured interviews; survey screenings that include self-report inventories and behavior checklists; and risk assessment instruments that include screenings, self-report questionnaires and multi-tier screening assessments.

Across settings including schools, emergency departments, primary care offices and community mental health offices, studies indicate that inconsistent methods are used to assess suicide risk (Horowitz, Ballard, & Paoa, 2009). In most instances, the use of published and validated suicide screening tools are not being properly used as intended or designed, which impacts their reliability and validity (Boudreaux & Horowitz, 2014). This may represent and reflect the practitioner's limited training, confidence and experience in these areas.

In addition, the documentation of the suicide assessment also can reflect the level of the practitioner's training and knowledge of suicide assessment. O'Connor and colleagues (2004) noted that practitioner skill deficiencies in youth suicide assessment are likely to appear in clinic notes as a brief statement, "patient currently denies suicidal thoughts," based on the practitioner's impressionistic and subjective perception after completing a brief unstructured interview. This is commonly the only form of documentation obtained by the practitioner (O'Connor et al., 2004). Research consistently provides evidence across disciplines that some practitioners are not prepared to make clinical judgments (Debski et al., 2007; Jahn et al., 2012; Mackelprang, et al., 2014; Ruth et al., 2009; Smith et al., 2014). This study offered an opportunity to contribute to the understanding of practitioners' self-perceived competencies in the assessment of youth suicide while identifying existing gaps in training.

The Current Study

In previous studies, research has focused on confidence and preparedness levels only in specific disciplines related to the identification and assessment of suicidal youth (Al-Damarki, 2004; Debski et al., 2007; Wozny, 2005). This study encompassed a much broader representative sample of practitioner disciplines including psychologists, social workers, school counselors, professional counselors and school psychologists.

The purpose of this study was to determine relationships among practitioners' self-perceived levels of preparedness, levels of confidence and methods used to perform suicide risk assessments in youth. These efforts were guided by the following research question: What are the relationships among the self-perceived levels of preparedness, levels of confidence, and methods used in the assessment of suicide risk for practitioners whose responsibilities require suicide risk assessment and management? In order to address this, survey questions were designed to obtain participant responses related to skill development, preparation, confidence and methods used in the process of conducting suicide risk assessments.

Method

Procedures and Instrumentation

Since this study sought to collect data using human subjects, the proposal was reviewed and approved by the Wilmington University Human Subjects Review Committee prior to beginning this study. An exploratory descriptive survey design examined practitioner self-perceived levels of preparedness, levels of confidence and methods used to assess suicide risk in youth. Using a quantitative method to guide this study, the researcher attempted to recruit practitioners positioned and responsible for suicide risk assessment. This included working in cooperation with and posting the survey on the Maryland School Psychologists' Association Web site and the University of Maryland Center for School Mental Health Web site. The survey was forwarded to school districts in Maryland and Virginia and directed to school counselors, school psychologists, and school-based mental health professionals, including social workers and professional counselors. In addition, the survey was forwarded to multiple outpatient mental health clinics in the mid-Atlantic region of the United States. Practitioners were provided with information about the survey, study purposes and ethical standards, and it was noted that participation was voluntary and confidential. Practitioners submitted their responses online, allowing the researcher to evaluate self-reported levels related to suicide assessment. Participants were provided with an access link to anonymously complete the survey using SurveyGizmo. The completed data were then entered into an Excel spreadsheet database.

The Child and Adolescent Suicide Intervention Preparedness Survey was the instrument developed for this study. This researcher received prior approval from the authors of two previously published surveys (Debski, et al., 2007; Stein-Erichsen, 2010) while adding specific queries for the purposes of this study. The survey by Debski and colleagues (2007) included a 42-item questionnaire with vignettes that measured the training, roles and knowledge of school psychologists. These questions targeted participant confidence and perceived levels of preparedness that also were sought in this current study, but from a broader discipline base.

The survey by Stein-Erichsen (2010) included a 55-item measure designed to identify confidence levels of school psychologists providing suicide intervention and prevention within schools. The survey questionnaires designed by Stein-Erichsen (2010) and Debski and colleagues (2007) offered questions adapted for this study specifically focusing on preparedness levels, confidence, roles, methods used to assess suicide levels, and omitted survey questions not relevant to this study. This resulted in a 23-item survey targeting practitioner levels of training, preparedness, confidence and the identification of additional training needs.

Participants

The study had 339 participants representing school counselors (N = 107/32%); social workers (N = 90/27%); school psychologists (N = 37/11%); professional counselors (N = 35/11%); psychologists (N = 5/1%); other (N = 62/18%); and three participants with unknown professional identification.

The final sampling of participants included 43 males, 292 females and four participants with unknown gender identification. Participants averaged in age ranges 22–29 (N = 33/10%), 30–39 (N = 105/31%), 40–49 (N = 94/28%), 50–59 (N = 61/18%) and ages 60 and above (N = 45/13%). The participants responded to the item querying level of education as having a bachelor's degree (N = 18/6%), doctoral degree (N = 14/4%), master's degree (N = 275/81%), and other (N = 28/8%) including associate levels of education, as well as four (1%) participants with unknown educational levels.

The participants represented a broad but targeted sampling from a variety of employers, including school settings (N = 166/49%); outpatient mental health settings (N = 108/32%); mental health agencies (N = 31/9%); and other settings (N = 33/10%); as well as one participant with an unknown employment setting. The participants also identified their employment environment as urban (N = 56/60%), rural (N = 174/52%), and suburban (N = 105/31%).

Participants identified the practitioner responsible to assess suicide risk within their work setting having multiple response options (see Table 1). These included a psychiatrist (N = 85/25%), nurse (N = 57/17%), school counselor (N = 179/53%), social worker (N = 168/50%), teacher (N = 7/2%), school psychologist (N = 154/46%), school mental health professional (N = 125/37%), psychologist (N = 64/19%), professional counselor (N = 101/30%), and other (N = 29/9%) including paraprofessionals, while 19 participants (6%) reported they do not complete suicide risk assessments.

Table 1

Participant discipline most likely responsible to provide a suicide risk assessment.

	Participant Response	Percentage
School Counselor	179	53%
Social Worker	168	50%
School Psychologist	154	46%
School Based Mental Health Professional	125	37%
Professional Counselor	101	30%
Psychiatrist	85	25%
Psychologist	64	19%
Nurse	57	17%
Other	29	9%
We do not complete Suicide Risk Assessments	19	6%
Teacher	7	2%

* Participants were asked to identify the staff/discipline responsible for administering a suicide risk assessment within their work setting.

Prior exposure with suicidal students/clients. In the survey, 288 (86%) of the participants reported having a student or client referred to them for being potentially suicidal; 45 (14%) did not receive a similar referral; and six participants did not respond. A majority of participants (N = 287/86%) reported having worked with a student or client initially found to be presenting with active suicidal thoughts and 48 (14%) reported not yet having worked with a suicidal student or client.

Analysis

Using descriptive data, participant responses were further examined to determine frequency and percentages of the total responses. In addition, inferential statistics were used to compute possible relationships among variables using SPSS. Data from the primary survey questions provided

guidance toward establishing possible relationships between practitioner preparedness, confidence and the methods used in determining suicide risk level.

Results

Self-perceived preparedness in suicide assessment. The majority of the respondents reported some type of exposure or training in suicide intervention and assessment. The participants had an opportunity to select multiple answers: graduate course work (N = 174/52%), attending professional development workshops (N = 233/69%), in-service trainings at work (N = 213/63%), and having not received any training (N = 21/6%). In addition, participants had multiple answer options that represented self-perceived preparedness levels: not feeling at all prepared (N = 15/4%), feeling somewhat prepared (N = 120/36%), feeling well prepared (N = 202/60%), and requesting that someone more prepared meet or assess a suicidal student/client (N = 32/9%).

Self-reported confidence in suicide assessment. The confidence levels reported by the participants reflect professional skill development to conduct suicide risk assessments. The responses included feeling very confident (N = 49/15%), confident (N = 212/63%), and not very confident (N = 63/19%). A similar survey item asked about confidence levels working with a suicidal student or client. The responses included feeling very confident (N = 42/12%), confident (N = 231/69%), and not very confident (N = 63/19%). An additional survey item sought information regarding participant feelings when assessing for suicidal thoughts. Results indicated feeling not prepared (N = 39/12%), anxious (N = 116/34%), calm (N = 145/43%), and confident (N = 185/55%).

Methods Used to Determine Suicide Risk Level During Assessment. Several survey items queried participant levels of training and methods used to assess a suicidal student or client. A survey item asked participants if they had received formal training to conduct suicide risk assessments. The respondents indicated Yes (N = 201/60%) or No (N = 133/40%). In addition, a survey question asked participants if they felt qualified to complete a suicide risk assessment: Yes (N = 241/73%) or No (N = 91/27%). A follow-up survey item asked participants how they determined if the student or client was at imminent risk, high to moderate risk or low risk. The participant responses indicated they would conduct an informal, non-structured interview (N = 213/64%) or use a formal, valid suicide assessment instrument (N = 90/27%); the remaining respondents indicated other (N = 31/9%).

Participants were asked what would limit their ability to provide a suicide intervention. Using a “check all that apply” format, responses included practitioners not receiving formal training to work with suicidal students or clients (N = 55/17%), the role of suicide interventions and response is the job of others (N = 19/6%), not feeling adequately prepared to provide a suicide intervention or assessment (N = 65/20%), workplace policy does not allow formal suicide assessments (N = 12/4%), and feeling prepared (N = 225/68%). The discipline most frequently reported to encounter and assess a youth presenting with suicidal thoughts or behaviors in this study was the school counselor (53%). This supported previous research by Poland (1989) who identified that “the task of suicide assessment was likely to fall on the school counselor” (p. 74).

To determine whether relationships existed among self-perceived levels of preparedness, levels of confidence, and methods used in youth suicide assessment, the researcher completed a chi-square statistical analysis to measure numerical and categorical differences. In order to compare differences among several groups, variables were collapsed to include confident/not confident and prepared/not prepared. The first group compared practitioners’ responses of reporting confident/not confident to prepared/not prepared in the process of providing an informal versus formal suicide risk assessment in youth. The analysis indicated that there were significant differences in preparedness levels

according to the method used. Seventy-three percent of those reporting use of formal assessments versus approximately 50% of those using informal assessments indicated confidence in their preparedness abilities ($X^2 = 12.79$; $df = 1$. Cramer's $V = .206$, $p = .000$). A further analysis indicated there were similar significant differences in practitioner confidence levels conducting informal, non-structured suicide risk assessments and formal assessments ($X^2 = 23.54$, $DF = 1$. Cramer's $V = .280$, $p = .000$). The results showed that 95.6% of the practitioners using formal suicide risk assessments reported higher levels of confidence versus 70.1% of the practitioners using informal, non-structured suicide risk assessments.

To identify existing gaps, participants were asked to rank by priority the trainings they needed to increase competency levels. The highest priority was (1) to receive a comprehensive training on warning signs, symptoms and suicidal behaviors, and (2) to attend several suicide assessment workshops.

Discussion

The purpose of this study was to determine if relationships existed among practitioners' self-perceived levels of preparedness, levels of confidence and methods used when assessing for suicide risk in youth. A survey was designed to query participants representing a broad sampling of disciplines related to their perceptions, experience and involvement in youth suicide risk assessment. The results of the survey were analyzed using chi-square to determine if relationships existed among variables, including participant perceptions of feeling prepared and confident, and if this contributed to the methods used to determine suicide risk in youth.

Results of the survey indicated that a majority of the participants (86%) reported having worked with suicidal youth; however, inconsistencies in participant responses emerged related to the constructs of feeling prepared and confident in the assessment of suicide. The results suggested preparedness and training in suicide assessment is linked to practitioner confidence levels when assessing for suicide risk among youth. This finding is supported by earlier research by Oordt and colleagues (2009), who reported that practitioner confidence in suicide assessment is primarily related to competency and training levels. The interrelationship between preparedness and confidence is often reflected in the practitioner's ability to accurately estimate risk level. This may potentially increase the likelihood of omitting critical information, which may affect the estimate of suicide risk (Douglas & Ogloff, 2003; Singer & Slovak, 2011). The results represent an important finding and highlight existing gaps in practitioner preparation. These gaps may reflect a struggle for most university and college graduate school degree programs to offer a more diversified curriculum (Allen, Burt, Bryan, Carter, Orsi, & Durkan, 2002) that includes courses specific to identifying, intervening in and assessing for suicide risk in youth (Schmitz et al., 2012).

The inconsistencies in participant responses related to feeling prepared and confident became apparent when participants rated themselves in working with a suicidal youth. Although over half of the respondents reported feeling well prepared and qualified in their ability, a much smaller percentage reported feeling confident in themselves (12%) and their skill preparation (15%) to assess for suicide. This finding may reflect a self-evaluation dilemma in wanting to self-report feeling prepared to work with a suicidal youth, but in actuality not feeling prepared or confident to provide a suicide intervention or complete an assessment.

As this study broadened its review of practitioner responses related to preparedness and confidence, findings indicated additional inconsistencies in participant responses related to self-

reported feelings of preparedness and confidence when conducting a suicide intervention or suicide assessment. Despite predominantly higher levels of reported confidence, skill development and preparedness to determine if a student or client was at imminent risk, high to moderate risk, or low risk, few participants (27%/N = 90) reported using a formal suicide assessment instrument. Most respondents (64%/N = 213) reported basing their clinical judgment solely on using an informal, non-structured interview. Although practitioners reported feeling prepared and having a sense of confidence assessing for suicide risk, basing clinical judgment on this method alone raises concerns. O'Connor and colleagues (2004) described that practitioner skill deficiencies in suicide assessment are commonly reflected in clinic notes such as "patient currently denies suicidal thoughts," based on the practitioner's impressionistic and subjective perceptions. Consistent with identifying training deficiencies in preparation, 52% (N = 174) of the participants reported receiving limited suicide intervention or assessment training in graduate coursework.

The participants in this study who reported using a formal suicide assessment, however, indicated feeling better prepared to conduct a suicide assessment versus practitioners using an informal, non-structured interview. In addition, practitioners using a formal assessment also had greater confidence levels versus practitioners using an informal, non-structured interview. When participants were asked to rank their own levels of needed training to provide a more thorough suicide intervention, participants identified skill deficiencies and training gaps in identifying warning signs and behaviors and assessing for suicide using a suicide risk assessment. These deficiencies pose great concern and competency challenges for practitioners charged with assessing for suicide risk. The combination of skill attributes, guided interview and diagnostic assessment synthesizes the information and allows practitioners to determine risk level and base clinical judgment on a variety of sources (Rudd, 2006; Sullivan & Bongar, 2009). The skill deficiencies reflected across all disciplines represented significant training gaps. This study suggests the need for increased commitment by colleges and universities to prepare future practitioners to more effectively address the growing national youth suicide crisis.

Implications

Despite suicide being identified as a national public health priority, no significant reduction in suicide has been recorded in the past 50 years (Kung et al., 2008; National Action Alliance for Suicide Prevention, 2014). "With the majority of youth suicide deaths being preventable," (O'Connor, Platt, & Gordon, 2011, p. 581), continued and more urgent calls for increasing practitioner preparedness, confidence and competency skills continue to be neglected.

Each of the disciplines represented in this study is faced with the challenge to address and estimate suicide risk. This study highlighted the critical role of school counselors as being identified by participants (53%) to be the most likely practitioner to respond and provide a suicide assessment. Representing a variety of disciplines and settings, participant responses suggest training deficiencies in the levels of preparedness, confidence and exposure to formal assessment measures. Previous research has made strong recommendations to increase the provisions and training in suicide assessment. Despite heeding previous calls and recommendations to prepare practitioners, more attention is needed to address previous and current identified training deficiencies among practitioners.

Transitioning research into practice includes revisiting several identified recommendations by Schmitz et al. (2012). This includes providing consistent core standards and competencies across disciplines by educational accrediting institutions. This may call for increased suicide-specific educational and training requirements beyond the baccalaureate degree level and include dissecting

vignettes, role-playing, exposing practitioners to several suicide assessment instruments and interpreting the results (Fenwick, Vassilas, Carter, & Haque, 2004). This would include increased emphasis on recognizing the signs and symptoms of depression, suicidal thoughts and behaviors and increasing an understanding of potential next steps once a suicide risk level has been determined. In addition, to sustain these skills, state licensing boards can require continuing education specific to suicide identification, assessment and management. Rudd and colleagues (2008) placed emphasis on practitioners receiving increased suicide assessment strategies through supervision. The prevailing need practitioners identified as a chief priority in this study was to become more familiar with the warning signs, symptoms and behaviors associated with suicide and suicide assessment. The findings included within this study offer future research opportunities to monitor suicide training, preparation and continuing educational requirements of colleges, universities and licensing boards that govern and are responsible for the production of competent practitioners.

Although attention has focused on practitioner training deficits in the identification and assessment of youth suicide, future studies also are warranted in the measurement and impact of existing suicide prevention training programs that may provide opportunities for practitioners to increase skill sets in these areas. Another area meriting future study might include a national sampling of school counselor preparation in the identification, assessment and exposure to assessment tools. In this study, school counselors were identified to be the most likely practitioner called upon to provide an initial suicide intervention or assessment given their access to a large number of youth. This serves as a valuable finding, highlighting the call for increased and expanded counselor education, training and preparation in suicide risk identification and assessment in graduate school.

Limitations

Providing a suicide intervention or assessment involves many complex issues, and addressing the many variables paralleling these efforts could not be entirely assessed in this study. This study was intended to explore current levels of practitioner preparedness, confidence and the methods used to assess youth suicide. There are some notable limitations regarding the current study; therefore, caution is warranted regarding the generalizability of the findings.

Although the Internet provided a greater opportunity for the researcher to create survey access to targeted participants and disciplines, this method did not provide a sample size completion rate. In addition, previous Internet survey research (W. Schmidt, 1997) reported that participants have access to multiple submissions, although ethical practice instructions and consent to complete this survey was provided. In order to access participants from multiple disciplines, the survey used in this study was available online as a self-report method of completion. In this process, self-report instruments, including surveys, inherently contain participant response bias. This may be reflected in responding to questions in a socially desirable or expected manner (Heppner, Wampold, & Kivlighan 2007). In addition, online surveys can be submitted containing omitted and blank responses (Sue & Ritter, 2012).

As previously noted, The Child and Adolescent Suicide Intervention Preparedness Survey used in this study was adapted from two previous research surveys (Debski et al., 2007; Stein-Erichsen, 2010). In this study design, survey questions were created and adapted to measure participant constructs in the assessment of youth suicide. The use of a psychometrically sound survey instrument would be an ideal application to implement and duplicate for future research.

Conclusion

The findings from this study identify significant interrelationships between the practitioner's self-perceived feelings of preparedness, confidence levels and methods used to assess for suicide risk among youth. The self-reported feelings of being prepared and confident seem to contradict the method used to obtain a suicide risk level. This finding suggests many practitioners are well intended, but lack the necessary skills to conduct a thorough suicide risk assessment. The majority of practitioners participating in this study reported conducting a suicide risk intervention using an informal, non-structured interview to formulate a suicide risk level versus using a formalized suicide risk assessment instrument. Prior experience and exposure to suicide risk assessment instruments and increased emphasis in suicide-specific training curriculum in graduate school can offer the opportunity for a practitioner to feel better prepared, feel more confident and utilize a more effective method to determine a youth's suicide risk level. Practitioner gaps in training are typically augmented by the practitioner seeking personal training and workshops to fill these gaps. Efforts must be made by colleges and universities to increase the competency skills in this area if we are to ever reduce the growing number of youth suicides. The findings from this study supported limited previous research sounding urgent calls to better prepare practitioners, especially school counselors, in the identification of youth presenting with suicidal thoughts or behaviors.

Conflict of Interest and Funding Disclosure

The authors reported no conflict of interest or funding contributions for the development of this manuscript.

References

- Al-Damarki, F. R. (2004). Counselor training, anxiety, and counseling self-efficacy: Implications for training psychology students from the United Arab Emirates University. *Social Behavior and Personality, 32*, 429–439. doi:10.2224/sbp.2004.32.5.429
- Allen, M., Burt, K., Bryan, E., Carter, D., Orsi, R., & Durkan, L. (2002). School counselor's preparation for and participation in crisis intervention. *Professional School Counseling, 6*, 96–102.
- Boudreaux, E. D., & Horowitz, L. M. (2014). Suicide risk screening and assessment: Designing instruments with dissemination in mind. *American Journal of Preventative Medicine, 47*(32), 163–169. doi:10.1016/j.amepre.2014.06.005
- Bryan, C. J., & Rudd, D. M. (2006). Advances in the assessment of suicide risk. *Journal of Clinical Psychology, 62*, 185–200.
- Centers for Disease Control and Prevention. (2014a). *Fatal injury data. Web-based injury statistics query and reporting system (WISQARS)*. Retrieved from <http://www.cdc.gov/injury/wisqars/index.html>
- Centers for Disease Control and Prevention. (2014b). Youth risk behavior surveillance, United States, 2003. *Morbidity and Mortality Weekly Report, 63*(SS-4), 1–168.
- Cramer, R. J., Johnson, S. M., McLaughlin, J., Rausch, E. M., & Conroy, M. A. (2013). Suicide risk assessment training for psychology doctoral programs. *Training and Education in Professional Psychology, 7*, 1–11.
- Debski, J., Spadafore, C. D., Jacob, S., Poole, D. A., & Hixson, M. D. (2007). Suicide intervention: Training, roles and knowledge of school psychologists. *Psychology in the Schools, 44*, 157–170. doi:10.1002/pits.20213
- 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*, 211–218.
- Douglas, K. S., & Ogloff, J. R. P. (2003). The impact of confidence on the accuracy of structured professional and actuarial violence risk judgments in a sample of forensic psychiatric patients. *Law and Human Behavior, 27*, 573–587.

- Drapeau, C. W., & McIntosh, J. L. (2014). *U.S.A suicide 2012: Official final data*. Washington, DC: American Association of Suicidology.
- Feldman, B. N., & Freedenthal, S. (2006). Social work education in suicide intervention and prevention: An unmet need? *Suicide and Life-Threatening Behavior*, *36*, 467–480.
- Fenwick, C. D., Vassilas, C. A., Carter, H., & Haque, M. S. (2004). Training health professionals in the recognition, assessment and management of suicide risk. *International Journal of Psychiatry in Clinical Practice*, *8*, 117–121. doi:10.1080/13651500410005658
- Goldston, D. B. (2003). *Measuring suicidal behavior and risk in children and adolescents*. Washington, DC: American Psychological Association.
- Heppner, P. P., Wampold, B. E., & Kivlighan, Jr. D. M. (2007). *Research design in counseling: Research, statistics, and program evaluation* (3rd ed.). Belmont, CA: Brooks/Cole.
- Horowitz, L., Ballard, E., & Paoa, M. (2009). Suicide screening in schools, primary care and emergency departments. *Current Opinion in Pediatrics*, *21*, 620–627.
- Jacobson, J. M., Ting, L., Sanders, S., & Harrington, D. (2004). Prevalence of and reactions to fatal and nonfatal client suicidal behavior: A national study of mental health social workers. *Omega*, *49*, 237–248.
- Jahn, D. R., Wacha-Montes, A., Dra-Peau, C. W., Grant, B., Nadorff, M. R., Pusateri, M. J., Jr., . . . & Cukrowicz, K. C. (2012). *Suicide-specific courses and training: Prevalence, beliefs, and barriers. Part I: Graduate psychology programs and professionals schools of psychology*. Manuscript in preparation.
- Kleespies, P., Penk, W., & Forsyth, J. (1993). The stress of patient suicidal behavior during clinical training: Incidence, impact, and recovery. *Professional Psychology: Research and Practice*, *24*, 293–303.
- Kung, H. S., Hoyert, D. L., Xu, J., & Murphy, S. L. (2008). Deaths: Final data for 2005. *National Vital Statistics Reports*, *56*, 1–66.
- 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*, 136–142.
- McEvoy, M. L., & McEvoy, A. W. (2000). *Preventing youth suicide: A handbook for educators and human service professionals*. Holmes Beach, FL: Learning Publications.
- McNiel, D. E., Fordwood, S. R., Weaver, C. M., Chamberlain, J. R., Hall, S. E., & Binder, R. L. (2008). Effects of training on suicide risk assessment. *Psychiatric Services*, *59*, 1462–1465. doi:10.1176/appi.ps.59.12.1462
- National Action Alliance for Suicide Prevention: Research Prioritization Task Force. (2014). *A prioritized research agenda for suicide prevention: An action plan to save lives*. Rockville, MD: National Institute of Mental Health.
- O'Connor, R. C., Platt, S., & Gordon, J. (2011). *International Handbook of Suicide Prevention: Research, Policy and Practice*. United Kingdom: John Wiley & Sons, Ltd.
- O'Connor, N., Warby, M., Raphael, B., & Vassallo, T. (2004). Changeability, confidence, common sense and corroboration: Comprehensive suicide risk assessment. *Australasian Psychiatry*, *12*, 352–360.
- 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*, 21–32. doi:10.1521/suli.2009.39.1.21
- Osteen, P. J., Frey, J. J., & Ko, J. (2014). Advancing training to identify, intervene, and follow up with individuals at risk for suicide through research. *American Journal of Preventative Medicine*, *47*, 216–221. doi:10.1016/j.amepre.2014.05.033
- Poland, S. (1989). *Suicide intervention in the schools*. New York, NY: The Guilford Press.
- Poland, S., & Lieberman, S. (2002). Best practices in suicide intervention. In A. Thomas & J. Grimes (Eds.), *Best practices in school psychology IV – Volume II* (pp. 1151–1165). Bethesda, MD: National Association of School Psychologists.
- Rudd, M. D. (2006). *The assessment and management of suicidality*. Sarasota, FL: Professional Resource Press.
- 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*, 219–228.
- Ruth, B. J., Muroff, J., Gianino, M., Feldman, B. N., McLaughlin, D., Ross, A., & Hill, E. (2009). *Suicide prevention education in social work education: What do MSW deans, directors and faculty have to say?* Paper session presented at the meeting of the American Public Health Association, Philadelphia, PA.
- Sanders, S., Jacobson, J. M., & Ting, L. (2008). Preparing for the inevitable: Training social workers to cope with client suicide. *Journal of Teaching in Social Work*, *28*, 1–18.

- Schmidt, W. C. (1997). World-wide web survey research: Benefits, potential problems, and solutions. *Behavior Research Methods, Instruments, & Computers*, 29, 274–279.
- Schmidt, R. C., Iachini, A. L., George, M., Koller, J., & Weist, M. (2015). Integrating a suicide prevention program into a school mental health system: A case example from a rural school district. *Children & Schools*, 37, 18–27.
- Schmitz, W. M., Allen, M. H., Feldman, B. N., Gutin, N. J., Jahn, D. R., Kleespies, P. M., . . . & Simpson, J. D. (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, 292–304. doi:10.1111/j.1943-278X.2012.00090.x
- Singer, J. B., & Slovak, K. (2011). School social workers' experiences with youth suicidal behavior: An exploratory study. *Children & Schools*, 33, 215–228.
- Smith, A. R., Silva, C., Covington, D. W., & Joiner, T. E. (2014). An assessment of suicide related knowledge and skills among health professionals. *Health Psychology*, 33, 110–119.
- Stein-Erichsen, J. L. (2010). *School psychologists' confidence level with suicide intervention and prevention in the schools*. Retrieved from: http://digitalcommons.pcom.edu/psychology_dissertations/132.
- Sue, V. M., & Ritter, L. A. (2012). *Conducting online surveys* (2nd ed.). Thousand Oaks, CA: Sage.
- Sullivan, G. R., & Bongar, B. (2009). Assessing suicide risk in the adult patient. In P. M. Kleespies (Ed.), *Behavioral emergencies: An evidenced-based resource for evaluating and managing risk of suicide, violence, and victimization* (pp. 59–78). Washington, DC: American Psychological Association.
- Tetlock, P. E. (2005). *Expert political judgment: How good is it? How can we know?* Princeton, NJ: Princeton University Press.
- Wachter, C. A. (2006). *Crisis in the schools: Crisis, crisis intervention training and school counselor burnout*. ACES Research Grant. Association for Counselor Education and Supervision. Retrieved from <http://libres.uncg.edu/ir/uncg/f/umi-uncg-1190.pdf>
- Wozny, D. A. (2005). Suicide risk assessment: Counselor competency. In J. R. Rodgers (Ed.), *Suicide 2006: Proceedings of the 39th Annual Conference of the American Suicidology Association* (pp. 224–227). Washington, DC: American Association of Suicidology.