Examining the Acceptability of School Shooting Prevention Strategies among School Counselors and Other School Personnel

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This study investigated school counselor views regarding school shooting prevention protocols. The study also sought to determine whether school counselor’s preferences on specific school shooting prevention protocols differed from others. Participants included 54 adults, (half were acting school counselors) who read a vignette about a school that was developing school shooting prevention procedures. The participants then rated the acceptability of five different preventative techniques. Analyses were performed to examine differences in acceptability scores on the school shooting prevention procedures including a zero tolerance approach, a threat assessment procedure, expansive security measures, a multi-tiered safety approach, and an experimental approach that involved student initiated activities. Results indicated the multi-tiered safety approach procedure was significantly more acceptable than other procedures for school counselors and others, while the zero tolerance procedure was rated as the least acceptable procedure. No acceptability differences were determined between school counselors and those from other professions.

Keywords: treatment acceptability, school shooting prevention, school counseling, social validity, gun violence prevention

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The 2018 shooting in Parkland, Florida killed 17 individuals and resulted in a difference of opinions regarding suggested preventions and interventions for school shootings (Katsiyannis, Whitford, and Ennis, 2018; USA Today, 2018). Polarizing opinions abound within the public and many questions remain unanswered about the best practices for preventing future occurrences of shootings within schools (Dikel, 2012; Teasley, 2018). School counselors are in a unique position that allows them to work with the varying opinions of students, families, other educators, agencies, and individuals in the community to develop strategies designed to prevent school shootings (Paolini, 2015). In order for school counselors to work collaboratively with others who have varying opinions about school shooting prevention, these counselors need to understand their personal opinions on these matters, the opinions of relevant national associations, and the evidence base for these types of procedures.

According to the American School Counselor Association (ASCA) National Model (ASCA, 2012) school counseling programs are obligated to utilize evidence-based practices, collaborate with parents and other educators, incorporate personal beliefs of stakeholders, and respond to diversity and individual differences in local communities and within society. Developing school shooting prevention strategies that adhere to the standards prescribed by the ASCA National Model can be difficult with all of the varying opinions and limited number of evidence-based practices for preventing school shootings. Regardless, steps must be taken by school counselors to prevent potential school shootings while relying on anecdotal research evidence and the mixed concerns and opinions of various stakeholders.

Evidence of the effectiveness of school shooting prevention procedures is primarily based on intensive case studies conducted after a school shooting has occurred and best practices based on research conducted on more general school violence prevention programs. Numerous violence prevention programs have been developed, but few provide evidence of long-term reductions in violence. Ineffective programs involve strategies such as positive peer culture (Gottredson, 1987); conflict resolution (Webster, 1993); choices training (Webster, 1993); profiling (Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002), school-based metal detector program (Limbos, et al., 2007), zero tolerance (American
Psychological Association Zero Tolerance Task Force, 2008), and scared straight (Andrews & Knaan, 2011).

While several programs and strategies to prevent school violence have been determined to be ineffective, there are also some programs and practices that show some evidence of being effective. The School Safety Initiative Report (Vossekuil, Fein, Reddy, Borum, & Modzeleski, 2002) provided some guidelines that might be useful toward early identification of students who may be in need of assistance, but they reported that there was no accurate way of profiling students who may engage in a school shooting. Borum, Cornell, Modzeleski, and Jimerson (2010) described threat assessment procedures recommended by the Federal Bureau of Investigation, the Secret Service, and the Department of Education as a new and promising approach specifically for preventing school shootings. Threat assessments typically consist of a team of professionals who are responsible for evaluating perceived threats and then making recommendations regarding the appropriate response for each incident reviewed. Cornell et al., (2018) suggested that threat assessment was an emerging standard of school safety practice that could be conducted without significant biases regarding race or gender. Cornell and colleagues reviewed 1,865 threat assessment cases and found that threats were likely to be considered as serious when they involved students in grades above elementary level, involved a student who received special education services, or included statements about battery, homicide, weapon possession or targeting an administrator. In addition, it was determined that the threat assessment teams were highly accurate at determining the seriousness of a threat based on the actual attempts to carry out the threats.

Bonnano and Levenson (2014) suggested that school security measures and climates of safety in schools have some potential for improving strategies to prevent school shootings. School security measures could involve armed School Resource Officers, metal detectors, locked doors, single points of entry, security cameras, etc. Jonson (2017) described how these types of security measures may in some cases act as deterrents to school shootings, but there are representative cases where these types of security measures were not entirely effective at stopping school shootings.
Walker et al., (1996) described a multi-tiered approach to school safety that involved providing all children with preventative strategies to deal with social, academic, and emotional difficulties and also offering differential strategies to students who have engaged in or are at-risk for engaging in destructive behaviors. Ziomek-Daigle, Goodman-Scott, Cavin, & Donahue (2016) noted that a multi-tiered system of support aligns with many of the ASCA National Model’s principles such as the use of data in decision making, collaboration among stakeholders, a focus on prevention, and interventions for groups and individuals. They described how school counselors could function as supporters, facilitators, and interveners within a combined multi-tiered system of support approach and a comprehensive school counseling program. They also detailed the role of a school counseling department within a case study describing the implementation of this type of combined approach.

While several programs for preventing violence have been developed, there do not appear to be many studies conducted on how educators and school service personnel perceive these programs and strategies. Pietrzak, Petersen, and Speaker (1998) surveyed 180 elementary and middle school educators and administrators about which school violence prevention procedures they had utilized and considered most and least effective. These educators and administrators perceived some of the most effective violence prevention strategies to be placing teachers in hallways, in-school security personnel, strict disciplinary procedures and polies, and before and after school programs. They perceived the least effective violence prevention procedures to be alternative schools, multicultural/diversity awareness programs, programs focused on increasing parental involvement, and poverty issue programs. This study was conducted more than 20 years ago, targeted only elementary and middle school educators, did not focus on specific violence prevention procedures such as gun violence, and only included procedures that respondents had implemented themselves or had seen implemented within their school district.

The current study focused on the acceptability of gun violence prevention strategies by educators described in brief descriptions to the respondents. The purpose of this study was to determine how acceptable various school shooting prevention techniques are
specifically among high school personnel and more specifically among licensed professional counselors/therapists. In addition, differences in perception based on being a teacher, school counselor, or administrator were tested for significance along with differences based on various demographic information (age, position title, location, etc.). The following research questions were addressed:

1) Research Question One: How acceptable are five different school shooting prevention procedures?

2) Research Question Two: Are various school shooting prevention procedures more or less acceptable among school counselors than those in other professions, or among students?

Methodology

Participants

The study sample included 54 adults (36 females, 18 males) who ranged in age from 20 to 65 years—35.2% were 20-25 years; 22.2% were 26-35 years; 24.1% were 36-45 years; and 18.5% were 46 years of age or older. The majority of the participants were White (59.3%), followed by Black (25.9%), Asian (9.3%), and Hispanic (5.6%). In addition, half of the participants identified themselves as school counselors, 18.5% clinical mental health students, 13% school counseling students, 7.4% undergraduate students, 3.7% K-12 teachers, 3.8% university counseling professors, and 3.8% other professions (e.g., receptionist, musician). On average, they had 7.29 (SD = 8.89) years of experience in their occupation.

Procedures

Participants were recruited at two state level conferences focusing on school counseling held in Alabama and Tennessee. A recruitment/research statement was given to each participant along with an online link to an anonymous survey. After the participants
completed a demographic questionnaire, a vignette was presented as a way to provide a focus scenario for them to consider while responding to the survey questions. This type of vignettes are frequently used in treatment acceptability research (Carter & Wheeler, 2019). The participants were then provided with five different school shooting prevention procedures—Security Measures, Threat Assessment, Zero Tolerance, Multi-tiered Safety Approach, and Peer Evaluation and Response—one by one; and a modified version of the Abbreviated Acceptability Rating Profile (AARP; Tarnowski & Simonian, 1992) following each procedure. The presentation of the prevention procedures were counterbalanced so as to control for potential order effects.

**Instruments**

**Abbreviated Acceptability Rating Profile.** AARP (Tarnowski & Simonian, 1992) contains eight items designed to measure acceptability of procedures/techniques on a 6-point Likert scale (1 = strongly disagree to 6 = strongly agree). Reliability of the AARP is satisfactory, with Cronbach alpha of .98 (Carter & Wheeler, 2019). The AARP was modified for use in this study to more accurately reflect the procedures described within the vignette. As the AARP was initially developed to evaluate procedures to be implemented with children, only the wording of some items were changed from “for the child” to “for the situation” or “to prevent school shooting.” The modified AARP was highly reliable—α = .97 for Security Measures, .97 for Threat Assessment, .98 for Zero Tolerance, .96 for Multi-tiered Safety Approach, and .98 for Peer Evaluation and Response.

**High School Vignette.** The vignette described a fictional high school that was planning to implement some possible school shooting prevention procedures to avoid any instances from occurring at their school. The vignette was developed by attempting to create a description of a high school that was very close to all the national averages (Public School Review, 2018)—i.e., 508 students, 51% of students identified as minorities, graduation rate of 85%, average spending of $8,593 per student, 48% of students eligible for free lunch, and student-teacher ratio of 16:1. In addition, the high school was described
as having substantial endowment so that the participants might hopefully exclude funding issues when endorsing their ratings.

**School Shooting Prevention Procedures.** The school shooting prevention procedures were briefly described as they might be implemented at the high school depicted in the vignette. Three of the five procedures were considered to have some evidence of effectiveness in the literature; they were *Security Measures*, *Threat Assessment*, and *Multi-tiered Safety Approach*. The *Security Measures* procedure was developed and described as closely as possible to the Tanner-Smith and Fisher’s (2016) description of frequently used measures of security implemented within schools. The *Threat Assessment* procedure was based on the threat assessment described by Van Dyke and Schroeder (2006) which has been implemented in the Dallas Independent School District. The *Multi-tiered Safety Approach* was based on the technique described by Walker, Horner, Sugai, Bullis, Sprague, Bricker, and Kauffman (1996) which has been implemented in numerous schools across the United States. *Zero Tolerance*, another school shooting procedure of which has been deemed ineffective and/or potentially biased in the literature, was presented based on the description by Skiba (2014). Lastly, an experimental school shooting procedure was presented as follows: “A group of students would be recruited to receive training on how to identify students who may be experiencing some intense difficulties, may have expressed feelings of being mistreated, or made written or verbal comments about engaging in violence. This peer evaluation and response (PEAR) group would then meet weekly to evaluate their peers and make recommendations to school professionals for any students who they feel might be having substantial life issues or who may be expressing violent tendencies. The PEAR group would be comprised of a highly diverse group of students and would attempt to evaluate information from other students that might not be readily available to school personnel. The recommendations made by the group would seemingly carry extra weight because it came from a trained group rather than just from an individual. The PEAR group would also receive implicit/unconscious bias training to help avoid student profiling, prejudices, and falsely targeting other students.” This *Peer Evaluation*
and Response procedure has never been introduced in the literature; and so there is no information on its potential effectiveness.

Data Analysis

Sample demographics were summarized by descriptive statistics. Bivariate tests (e.g., reliability, independent-samples t-test with Satterthwaite approximation) were performed to examine the distributional properties of the acceptability score on the five school shooting prevention procedures within the whole sample as well as between participant subgroups. In addition, repeated-measures analysis of variance (RM-ANOVA) was conducted to compare the acceptability of the five procedures. When the within-subject effect (i.e., overall difference in the acceptability score across the five procedures) was significant at .05 alpha level, the procedures were pairwise compared at an alpha level adjusted to control for Type I error (i.e., .05/10 = .005). All analyses were completed using SAS 9.4 (SAS Institute, 2002–2012).

Results

Research Question 1. The first research question focused on determining the acceptability of five different school shooting prevention procedures. As shown in Figure 1, the average acceptability score ranged from 3.72 to 4.96. On average, the perceived acceptability was highest for the Multi-tiered Safety Approach procedure ($M = 4.96$, $SD = 0.93$), followed by the Threat Assessment ($M = 4.45$, $SD = 1.18$), Peer Evaluation and Response ($M = 4.39$, $SD = 1.46$), Security Measures ($M = 4.03$, $SD = 1.45$), and Zero Tolerance ($M = 3.72$, $SD = 1.61$) procedures.

The results of RM-ANOVA indicated that the acceptability score significantly differed across five prevention procedures ($F(4, 212) = 7.82$, $p < .001$). Specifically, the participants perceived that the Multi-tiered Safety Approach procedure is significantly more acceptable than all other procedures (see Figure 1 for adjusted $p$-values). The Zero Tolerance procedure was rated significantly less acceptable than the Threat Assessment
and Peer Evaluation and Response procedures; and the Security Measures procedure was rated significantly lower than the Threat Assessment procedure.

Figure 1. Acceptability of School Shooting Prevention Procedures (N = 54)

<table>
<thead>
<tr>
<th>Procedure</th>
<th>M ± SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Security Measures</td>
<td>4.03 ± 1.46</td>
</tr>
<tr>
<td>B. Threat Assessment</td>
<td>4.45 ± 1.18</td>
</tr>
<tr>
<td>C. Zero Tolerance</td>
<td>3.72 ± 1.61</td>
</tr>
<tr>
<td>D. Multi-tiered Safety Approach</td>
<td>4.96 ± 0.93</td>
</tr>
<tr>
<td>E. Peer Evaluation and Response</td>
<td>4.39 ± 1.46</td>
</tr>
</tbody>
</table>

M ± SD
Note. Adjusted p for mean difference: (A vs. B) = .052; (A vs. C) = .160; (A vs. D) < .001; (A vs. E) = .245; (B vs. C) = .004; (B vs. D) = .006; (B vs. E) = .799; (C vs. D) < .001; (C vs. E) = .015; (D vs. E) = .005.

Research Question 2. The second research question asked if school shooting prevention procedures were more or less acceptable among school counselors than those in other professions or students. As shown in Table 1, school counselors and other participants did not differ in their acceptability ratings on any of the five procedures. Similarly, there was no significant difference when the participants’ acceptability ratings were compared in terms of their gender, age, ethnicity, or state of residence (all p > .05).
Table 1. Acceptability Rating by School Counselor vs. Other Occupations ($N = 54$)

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Counselors ($n = 27$)</th>
<th>Others ($n = 27$)</th>
<th>$t$</th>
<th>$df$</th>
<th>$p$</th>
<th>$d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security Measures</td>
<td>27 3.77 1.58</td>
<td>27 4.29 1.28</td>
<td>1.34</td>
<td>49.79</td>
<td>0.188</td>
<td>0.36</td>
</tr>
<tr>
<td>Threat Assessment</td>
<td>27 4.51 1.12</td>
<td>27 4.39 1.26</td>
<td>0.37</td>
<td>51.26</td>
<td>0.713</td>
<td>0.10</td>
</tr>
<tr>
<td>Zero Tolerance</td>
<td>27 3.42 1.63</td>
<td>27 4.02 1.56</td>
<td>1.38</td>
<td>51.89</td>
<td>0.172</td>
<td>0.38</td>
</tr>
<tr>
<td>Multi-tiered Safety Approach</td>
<td>27 4.93 0.82</td>
<td>27 4.99 1.04</td>
<td>0.24</td>
<td>49.27</td>
<td>0.814</td>
<td>0.06</td>
</tr>
<tr>
<td>Peer Evaluation and Response</td>
<td>27 4.77 1.24</td>
<td>27 4.01 1.59</td>
<td>1.94</td>
<td>49.12</td>
<td>0.058</td>
<td>0.53</td>
</tr>
</tbody>
</table>

**Discussion**

The descriptive statistics showed that the participants overall found four out of five of the school shooting prevention procedures to have some level of acceptability with all having an average rating of *slightly agree*. The Zero Tolerance procedure was the only prevention procedure that the participants gave an overall rating of *slightly disagree* which indicates they did not find the procedure acceptable. While four of the school shooting prevention procedures were considered to be acceptable procedures, it is unclear whether various combinations of these procedures might make the procedures more or less acceptable. Based on the RM-ANOVA, the *Multi-tiered Safety Approach* procedure was rated significantly higher than all other procedures. This procedure may have had some advantages over the other procedures as it was the only procedure that incorporated several factors such as differentiated levels of intensity of programming for different student groups and long term service provision. The other procedures did not include components that differentiated services to different groups of students. The disadvantage of the *Multi-tiered Safety Approach* procedure was that it is ideally designed to be implemented with students for a long period of time beginning in early grades so that the students are given a strong foundation for managing stressful situations. Since the vignette described a high school, the implementation period would be limited to four years with students possibly not having had any earlier experience with this type of procedure.

The major contribution of this study is that it offers some insights into how school counselors and others view certain school shooting prevention procedures as acceptable or not acceptable. Prior studies of this sort appear to be over 20 years old and the procedures
and the focus on school shootings has changed dramatically during that period of time. This study also demonstrated the use of a reliable instrument for gathering acceptability information on a highly relevant topic for school counselors and for numerous others with an interest in school safety.

Given these contributions, there were several limitations of this study that included a small sample size, a limited number of prevention procedures examined, and the convenience sample utilized. Future studies should include a larger sample size and should obtain acceptability ratings from different groups of individuals such as teachers, parents, school administrators, school psychologists, community members, and students. This type of examination would offer a broader picture of how acceptable these types of prevention procedures are and how different groups of individuals may view these procedures. Similarly, a broader number of prevention procedures could be assessed for acceptability and even individualized to determine the acceptability of specific procedures that may be in the process of being implemented at a school or that an actual school district may be considering implementing. In addition, since there are a large number of different types of stakeholders who have a vested interest in school shooting prevention, an attempt should be made to gather acceptability information these procedures from a sample of individuals who can adequately represent these different groups and thus provide a baseline understanding of how acceptable these procedures are among these different groups and the relevant factors that might influence the acceptability of the procedures. This could help to answer some of the unknown questions about these prevention procedures (Dikel, 2012; Teasley, 2018).

**Implications for School Counselors**

School counselors are called to implement evidence-based counseling curriculum that serves the personal/social, academic, and career needs of all students (American School Counseling Association, 2012). School shooting prevention/intervention programs have potential to affect one of these areas, personal/social development, provided efficacious protocols are selected. Further, the literature suggests that interventions
targeted toward violence reduction might improve school climate and vice versa (Bray, 2016; Reaves, McMahon, Duffy, & Ruiz, 2018; Walker, 1995). The American School Counseling Association (2018) states that school counselors “demonstrate leadership in a comprehensive school counseling program” (p. 1). As leaders, counselors can select, adopt, and implement comprehensive counseling related protocols that become part of school shooting prevention/intervention processes.

To accomplish this, school counselors must remain familiar with school shooting developments and efficacious protocols found in the professional literature. As evidenced by findings in this study, however, school counselors may need more training to best serve in this capacity. For example, school counselors were seemingly able to target one school shooting prevention procedure that has been deemed ineffective (Zero Tolerance procedure), yet they did not find the unresearched experimental procedure (Peer Evaluation and Response) less acceptable than other evidence based approaches. The basis of their acceptability ratings remains unclear, but it potentially could be a reflection of their lack of familiarity with such a procedure or it could be a result of the wording of the procedure or other unknown factors. Regardless, the school counselors should remain familiar with developments in the literature in order to support their activities regarding evidence-based procedures designed to prevent school shootings.

A number of strategies might be utilized to enhance knowledge of efficacious school shooting protocols. For example, initial training programs might add this information into the curriculum, Education Service Centers could offer continuing education activities, school counselors might conduct or participate in research, and counselors themselves might partake in self-study activities. State Boards of Education might also consider requiring knowledge of school shootings and effective protocols as part of the licensure or certification processes. This requirement might improve knowledge of school shooting protocols at career onset or renewal.

Since school counselors as well as those serving in other roles preferred the Multitiered Approach, additional research might be in order for this protocol (Walker, Horner, Sugai, Bullis, Sprague, Bricker, and Kauffman, 1996). Despite the existence of some evidence as to its effectiveness (Kyere, Joseph, & Wei, 2018; Song, Thompson,
Leverette, 2019), the Multitiered Approach might be researched with regard to its use in diverse school settings and with a variety of ages. It might also be looked at through a cultural lens to determine appropriateness.

School counselors are called to both analyze and discuss the personal beliefs of those on the counseling team when developing a school counseling program as well as to partner with parents, staff, businesses, and community organizations to best meet the goals of the school counseling program (American School Counselor Association, 2012; American School Counselor Association, n.d.). This is especially important when selecting and adopting school shooting prevention/intervention protocols since overall acceptability by larger groups of stakeholders can minimize criticisms and resistance from the majority of stakeholders (Kautilya Society, n.d.). Therefore, a discussion regarding beliefs concerning school shooting protocols is important and might involve simply having a conversation with stakeholders, or; it could involve using something more formalized such as the use of an instrument similar to the one used in this study. The importance of identifying school shooting prevention strategies that are both effective and acceptable to stakeholders is imperative for school districts that must determine how to allocate funding, time, and employee efforts toward this endeavor. Results of this study may also guide busy school counselors who have little time to determine if their own beliefs correspond with others in the field or community.

School counselors are often the first to respond in times of crisis such as before or after a school shooting (Bray, 2016). While there is substantial information in the literature that offers methods that school counselors may use to respond to a crisis such as a school shooting, there is less information about how school counselors may provide input on potential prevention procedures that a school may be considering (Studer & Salter, 2010). While addressing the impact of crises in schools is an important part of a school counselor’s job responsibility, it is just as important for school counselors to work toward developing prevention strategies. School counselors need to be advocates in their schools for prevention procedures that show some level of potential effectiveness as demonstrated in the professional literature (American School Counseling Association, n.d.). When school counselors are aware of the evidence base regarding school shooting prevention procedures,
they can assist their schools in determining how resources should be allocated and how money should be spent. School counselors have potential to be invaluable assets in preventing school shootings and choosing effective protocols since they are often the only campus personnel familiar with their students’ mental health, emotional, and behavioral needs.

Conclusion

School counselors are in optimal positions to improve school climate, reduce violence, and assist student personal/social development through comprehensive school counseling programs that include efficacious school shooting prevention/interventions. This study investigated school counselor views regarding anti-school shooting protocols and infers a need for additional training and research in this area. The 54 adult participants including 27 acting school counselors preferred the Multitiered Safety Approach over the other interventions. This seems to infer that more research is needed on the efficacy of this potential intervention. Additional school counselor rating preferences further implied that school counselors were not as familiar with violence prevention research as one might hope. Strategies to improve this lack of familiarity might include additional counselor program training, new state requirements, additional opportunities to earn continuing education, and independent study.
References


School Vignette Development References


