

October 2022

Difference in Preparedness: Do School Staff Feel Prepared for an Active Shooter or Attack?

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Recommended Citation

Gaal, Susanne R.; Fuller, Matthew B.; Szaal, Stacie; Linn, Katherine; and Ford, Cherokee (2022) "Difference in Preparedness: Do School Staff Feel Prepared for an Active Shooter or Attack?," *School Leadership Review*. Vol. 17: Iss. 1, Article 2.

Available at: <https://scholarworks.sfasu.edu/slr/vol17/iss1/2>

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Difference in Preparedness: Do School Staff Feel Prepared for an Active Shooter or Attack?

The preparation of a school for an active attack or shooter has become a focus of many state and school leaders as a response to the rise in school shootings (Peterson & Densley, 2021). Preparing a school for an active shooter or attack has consisting of hardening the schools with increased security features or preparation drills (Peterson & Densley, 2021), which has led to active shooter drills becoming a common occurrence in many schools (Huskey & Connell, 2021). While these active shooter drills and other options that could improve the safety of schools in the event of an active attack or shooter are often mentioned in research as effective or ineffective (Schildkraut & Nickerson, 2022). The goal of this study was to use data from the *2020 Texas Educators' Needs Assessment Regarding School Safety and Victims Services* (Fuller et al., 2020) to determine the perception of school staff in Texas K-12 public schools regarding a belief that their school is prepared for a school shooting.

Background of the Study

In 2019, the Center for Assessment, Research, and Educational Safety (CARES) at Sam Houston State University (SHSU) partnered with the Office of the Governor's Public Safety Office to conduct a statewide needs assessment of Texas state educators regarding school safety and victim services. The *2020 Texas Educators' Needs Assessment Regarding School Safety and Victims Services* (Fuller et al., 2020), which was completed by 25,161 respondents contained responses that reflected the respondents' opinion on a variety of school safety issues (e.g., arming teachers, mental health resources, school safety trainings, and school preparedness of an attack). The final report included several recommendations for Texas K-12 and higher education institutes. Key recommendations from the original study that were reflective for the present study

included the following: (a) develop partnerships with Education Service Centers, university partners, and agencies; (b) offer research and guidance pertaining to how schools should staff law enforcement or collaborate with local agencies; and (c) work with education service centers and university partners to refine educational leadership preparation in the state (Fuller et al., 2020). These recommendations were designed to address overall school safety based on the responses from the needs assessment. This study was designed to use the data that was collected in the original study to provide an in-depth analysis of school staff perception of preparedness for an active attack or shooter at their schools.

Research Questions

The following research questions were addressed in this study: (a) what is the difference between K-12 educator role (i.e. teacher, school counselor, principal, superintendent, and school police officer) and their response to their school being prepared for an active attack or shooter?; (b) what is the difference between Texas Education Service Center regions and response to being prepared for an active attack or shooter?; (c) what is the difference between urbanicity and response to being prepared for an active attack or shooter?; and (d) what are the trends with response rates on school preparedness for an active attack or shooter? These research questions focus on matters of considerable concern for educators and policy makers across the state. Results and discussions will allow for a richer discussion on the topics at hand and will provide greater clarity around these often-unexamined concepts.

Review of Relevant Literature

State and school leaders are faced with the difficult decision to determine how to make schools safe and prepared for an active attack or shooter (Peterson & Densley, 2021). Options that have been used to meet this goal included active shooter drills, crisis plans, and the

hardening of schools (Huskey & Connell, 2021). The research is still unclear if these options have worked in creating a safe environment for school staff and students (Gubiotti, M., 2015). This review of literature has been organized to present available research on these topics of school preparedness.

Preparedness for a Crisis

Preparedness for a crisis event especially an active attack or shooter have historically consisted of active shooter drills. These drills were designed to provide preparations for school staff, students, and law enforcement in case of an actual event (Schonfeld et al., 2020). Olinger Steeves et al. (2017) reflected that school safety strategies were working as their research provided data that staff have feelings of being prepared for a crisis event. This research has also indicated that individuals who completed trainings were more likely to make mistakes or misjudge a situation during an active drill. However, this same research has contained data that has led researchers to be concerned that while the staff feels prepared they are not necessary attending training sessions or even reading crisis plans which, could mean that the schools were not as prepared as believed by the research.

Current viewpoints on active shooter drills that that are against lockdown drills argue that these drills are detrimental to the mental health of students by instilling fear, risk, and concerns regarding school safety in students (Huskey & Connell, 2021). Additionally, an increase in questions over not just the effectiveness of these types of drills but the lasting psychological damage that could be done to children who have participated in live active shooter drills have been cited in the research (Gubiotti, M., 2015). Schonfeld et al. (2020), were pediatricians who wrote on active shooter drills for the American Pediatric Society, addressed these concerns and recommended the employment of other preventive measures to ensure school safety. These

measures suggested by Schonfeld et al. (2020) were reflective of some of the recommendations identified in the *2020 Texas Educators' Needs Assessment Regarding School Safety and Victims Services* (Fuller et al., 2020), which included socioemotional learning, mental health resources, counseling resources, and multidisciplinary threat assessment.

There are arguments that are in favor for lockdown drills. Schildkraut and Nickerson (2022) presented in their study validation that lockdown drills implemented using best practices do improve muscle memory for a potential event, decrease fear, and decrease the risk of becoming a victim in a crisis. However, Schildkraut and Nickerson (2022) did recommend the need for national standards on lockdown drills in the effort to standardize the process and lessen the opportunity of not being prepared in the event of an active attack or shooter. Further measures to prepare school districts for an active attack or shooter is to strengthen multi-agency cooperation agreements (Lopez et al., 2020).

Multi-Agency Cooperation

The creation of effective crisis management plans will occur when the interorganizational work is being done by both law enforcement and school leaders. Together, their individual expertise would be beneficial in the ability to create such a plan (Lopez et al., 2020). Working with outside agencies (e.g., community agencies and law enforcement) could create an increase in school safety procedures by assisting with active shooter drills, tabletop exercises, crisis plans, and post crisis management (Zhu et al., 2020). Together schools and outside agencies could work together to create a multi-agency management plan designed to prepare schools for an active attack (Lopez et al., 2020).

The increased collaboration between law enforcement and K-12 schools has provided schools with more police officers along with the ability to develop detailed crisis management

plans (Fuller et al., 2020). These crisis plans have allowed school district and emergency agencies pre-plan for a crisis event. Crisis planning has been cited as increasing the ability for K-12 schools to ensure the safety of their students in a crisis situation (Zhu et al., 2020). However, there are concerns that issues within these agreements (e.g. input in emergency plans, role in disciplinary actions, and training in student role in preparedness drills) have created obstacles in the effectiveness of collaboration between schools and law enforcements. To combat this issue, trainings and working relationships must be established (Lopez et al., 2019).

The presence of a School Resource Officer (SRO) in K-12 schools has been in existence for many years with a goal to promote school safety (Lopez et al., 2019). These officers are the results of collaboration agreements that exist between school district and local law enforcement agencies. With the increase of school shootings and other crisis events, a growing need for more collaboration agreements between these two entities has developed in recent years (Lopez, 2019). The effect of the increase police involvement in K-12 schools has been reviewed with both positive and negative opinions by the community (Butcher & Heritage Foundation, 2020).

In conclusion, current preparation for an active shooter or attack has consisted of active shooter and lockdown drills. These drills have been perceived by researchers as a positive measure (Schildkraut & Nickerson, 2022) or a negative measure (Huskey & Connell, 2021) in the search for a best practice to prepared school staff and students for an active attack or shooter. Additionally, multi-agency cooperation can build a stronger network to effectively preplan for crisis management (Zhu et al., 2020). Further, these collaboration agreements can be used to increase resources including SROs (Lopez et al., 2019).

Methods

The partnership between the Office of the Governor's Public Safety Office and CARES at Sam Houston State University produced a statewide needs assessment, which contained a large data set of school safety needs and concerns from higher education and K-12 educators across the state of Texas. This present study focused on a key question from that data regarding the perception of Texas K-12 staff on their schools' preparedness for an active attack or shooter. While equivalent data are available for higher education personnel the present study focuses on K-12 educators' perceptions only. The data from this question was analyzed by educator role (i.e., superintendent, school police officer, principal, counselor, and teacher), Texas school regions, and urbanicity (i.e., city, rural, suburb, town, and urban) and Texas Education Service Centers. The research design in the original study was a causal comparative because the analysis was a comparison of two or more groups with the goal of identifying a cause (Frey, 2018). In the original study comparison studies were conducted using the various subgroups that participated in the research to determine the school safety perceptions and needs in Texas public schools and higher education. In the present study data were analyzed to compare the subgroups with the three groups (i.e., educator roles; educators by Texas Education Service Centers, and educators by their urbanicity of the school or district) on their perceptions of preparedness for an active attack or shooter. The results of this comparison study was the identification of differences or similarities of preparedness in the three identified groups.

Instrument Development

The instrument used in the present study was created for the *2020 Texas Educators' Needs Assessment Regarding School Safety and Victims Services* (Fuller et al., 2020). The CARES team developed this instrument by following a review of literature from a multi-

disciplinary team of experts and meetings with Texas School Safety Center faculty and staff. The instrument was developed using six psychometric constructs (resilience, hope, respect, preparedness, capacity, and leadership), a focus on familiarity with crisis response services, and a section on arming educational staff. Quantitative data were collected using Likert-type scales where 1= “Very Unprepared”, 2= “Unprepared”, 3= “Somewhat Unprepared”, 4= “Somewhat Prepared”, 5= “Prepared”, and 6= “Very Prepared” (Fuller et al., 2020). The instrument was then refined by a pilot study to experts in the field of educational safety and a group of educators who were potential participants for the study. After the refinements, a third level of review and improvement was conducted by scholars at the Texas School Safety Center who referred a near-final version of the instrument back to SHSU CARES researchers for final approval. A copy of the instrument used in this study was published by Fuller et al (2020).

Survey Administration

The state-wide needs assessment used for the present study was launched to 412,085 K-12 and college/university educators on February 26, 2020. CARES faculty and staff used publicly available files from schools and institutions, open records requests, website searches, and phone calls to collect this contact information for these ten different subcategories of educators. Contact files were constructed such that every educator in 10 categories was invited to participate in the study: (a) superintendent, (b) school police officer, (c) principal, (d) school counselor, (e) teacher, (f) university president, (g) university counselor, (h) university police chiefs, (i) university dean of students, and (j) professors. Thus, the survey was administered as a census-style administration since every Texas employee in these categories was invited to participate in the study. A total of 33,597 participants logged into the system following the invitation or a reminder email; of these 30,725 consented to participate in the study. Of those

consenting to participate, 25,161 respondents completed a majority of the survey's quantitative questions. Therefore, CARES researchers determined that the number of useable responses was 25,161 or 6.1% of the original pool of invited participants. Though low, such a response rate is in keeping with other large-scale, census-style surveys hosted by CARES and other educational research agencies. As noted in Appendix B of Fuller et al.'s (2020) report, a healthy number of responses was received in each of the stratified cells of the census-style sample. Generalizability analyses have been conducted allowing for CARES researchers to examine how these results represent the state of Texas' population perspectives with realistic limitations (Fuller et al., 2020).

Data were collected across the early Spring 2020 semester, right as the US and world experienced the effects of the COVID-19 pandemic. Data collection began in the early part of that semester, prior to large-scale closures or remote learning implementation in schools. In fact, 70.9% of the useable responses were already received once Governor Abbott announced the suspension of normal educational operations for the remainder of the school year on March 31, 2020. Still, SHSU CARES researchers reviewed data collected before and after this date to determine if statistically significant mean differences between responses were present. For the data presented in this study, no mean differences were noted.

Data Preparation and Analyses

Frequency data from the selected survey question were analyzed using SPSS to determine the percentages of responses to the belief of preparedness for an active attack or shooter.

Additionally, Pearson chi-square analyses were also conducted to determine if a relationship existed in the differences in perceptions of preparedness for an active attack or shooter across educator role, Texas Education Service Centers, and urbanicity. This statistical procedure was

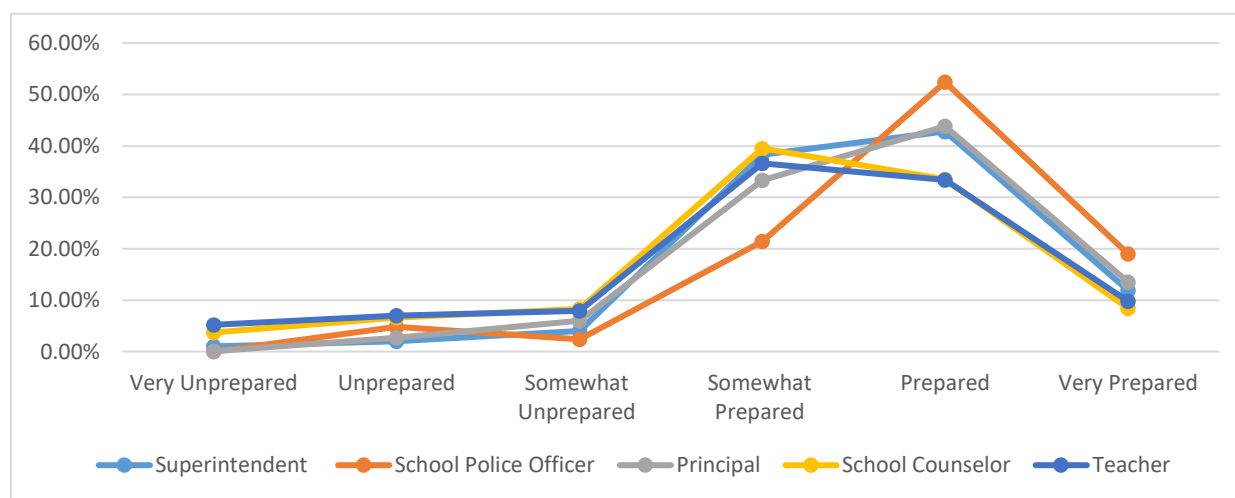
selected because categorical, frequency data were present for all categories. Chi-squares are the statistical procedure of choice when both variables in each research question are categorical (Slate & Rojas-LeBouef, 2011). Therefore, the assumptions for using Pearson chi-square procedures were met.

Results

To ascertain if there was a relationship present between educator role and responding if they felt some level of preparedness for an active attack or shooter, Pearson Chi Squares were selected to determine a relationship. The results were statistically significant, $\chi^2(20) = 101.05, p < .001$. The p-value was less than .05, which indicated that there was a statistical relationship between the variables. The effect size for this finding, Cramer's V, was very small, .04 (Cohen, 1988). As revealed in Figure 1 a majority of all educator roles represented (i.e., superintendents, school police officers, school counselors, principals, and teachers) responded that they believe that their school was prepared for an active attack or shooter.

Figure 1

Percentages of School Preparedness for an Active Attack or Shooter by Educator Role

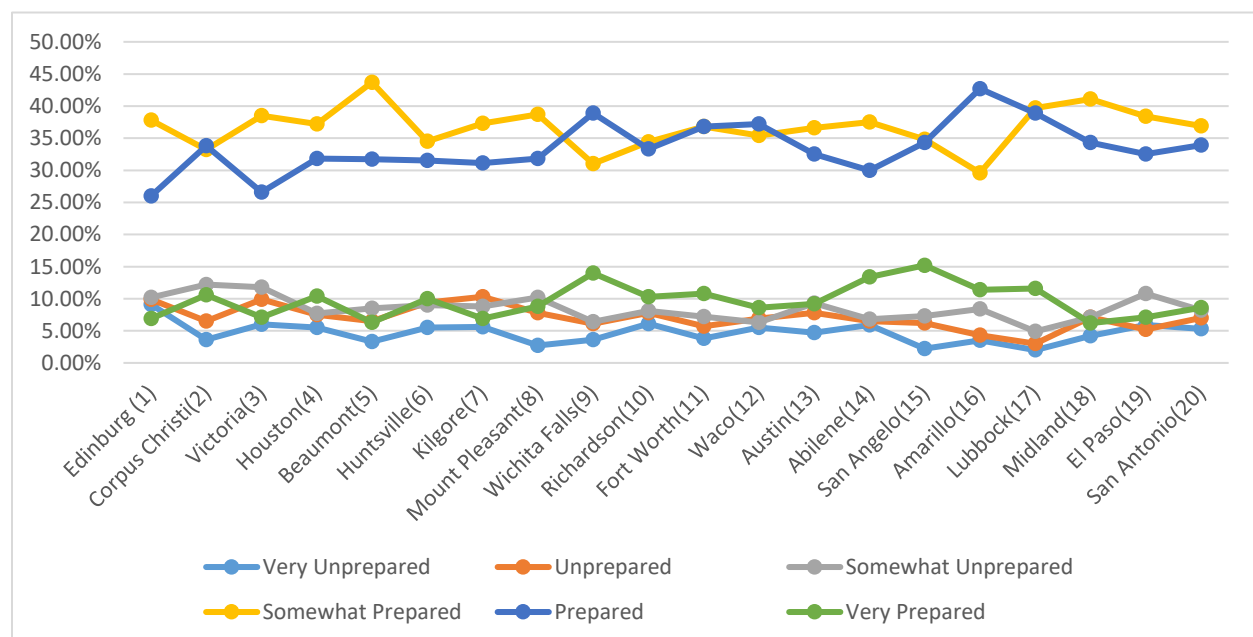


Note. n=14,664. Superintendent n=187; School Police Officer n=78; Principal n=302; School Counselor n=800; Teacher n=13,297.

Developing a further understanding of results of educators' response to the school preparedness for an active attack or shooter question, Pearson chi-square analyses were conducted on response rates of participants by their Texas Education Service Centers and urbanicity of participants schools. For the research questions regarding educator response by their Texas school regions, the result was statistically significant, $\chi^2(95) = 361.95, p < .001$. The p value was less than .05, which indicated a statistically relationship between the variables. The effect size for this finding, Cramer's V, was very small, 0.06 (Cohen, 1988). Across all regions, a majority of the participants responded to the question on school preparedness for an active attack or shooter as "Somewhat Prepared", "Prepared", or "Very Prepared". Figure 2 contains the descriptive statistics for this analysis which supported the relationship between the variables that were statistically represented in the chi square results.

Figure 2

Percentages of School Preparedness for an Active Attack or Shooter by Region

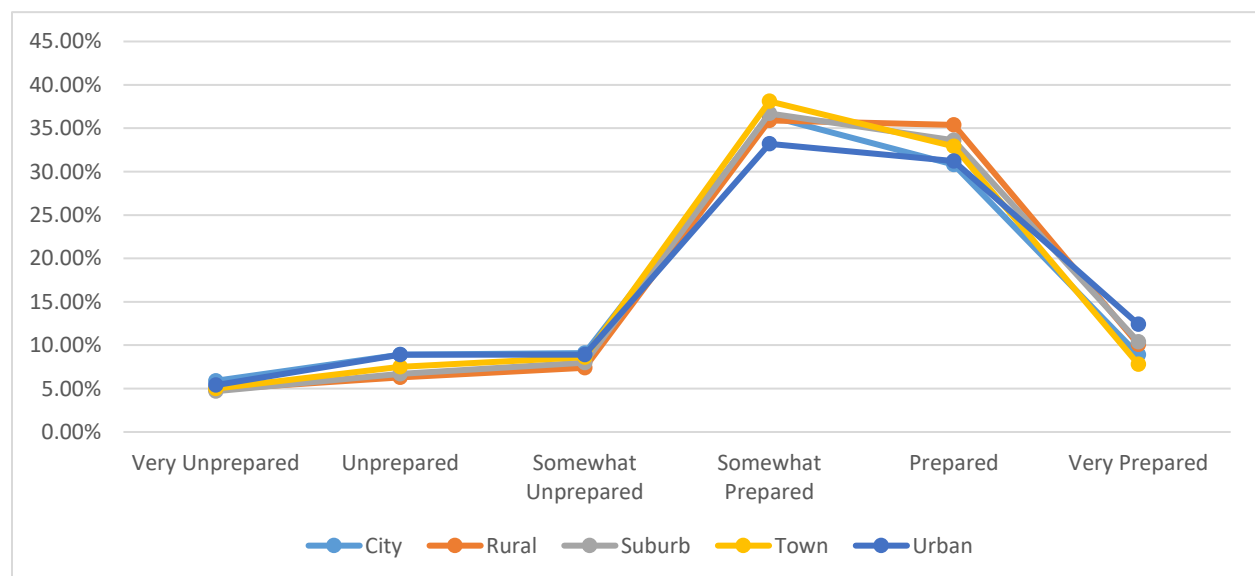


Note. n = 21,113. Region 1 n = 1,361; Region 2 n = 385; Region 3 n = 794; Region 4 n = 3,515; Region 5 n = 460; Region 6 n = 1,573; Region 7 n = 1,790. Region 8 n = 626; Region 9 n = 329; Region 10 n = 2,679; Region 11 n = 1,799; Region 12 n = 742; Region 13 n = 1,244; Region 14 n = 307; Region 15 n = 178; Region 16 n = 368; Region 17 n = 406; Region 18 n = 353; Region 19 n = 406; Region 20 n = 1,798.

For the research question regarding educator response by their urbanicity, the result was statistically significant, $\chi^2(25) = 98.96, p < .001$. The p value was less than .05, which indicated a statistically significant relationship between the variables. The effect size for this finding, Cramer's V, was very small, 0.03 (Cohen, 1988). As reported in Figure 3, a majority of the participants, in all urbanicity areas, reported that they were either "Prepared" or "Somewhat Prepared." The relationship between the variables represented in Figure 3 supported the statistical results in the chi square analysis.

Figure 3

Percentages of School Preparedness for an Active Attack or Shooter by Urbanicity



Note. n = 21,512. City n = 8,998; Rural n = 3,843; Suburb n = 5,151; Town n = 2,918; Urban n = 502.

The final research question reflected any data trends in the response rates for preparedness for an active attack or shooter. As revealed in all tables, a trend was noticeable that respondents selected responses of preparedness for an active attack or shooter. Other trends that were revealed in the data was that a majority of the respondents selected either "Prepared" or "Slightly Prepared" at rates of 30%.

While a majority of all response frequency were under 10% in the areas of “Very Unprepared”, “Unprepared”, or “Slightly Unprepared”. However, a slightly different trend, regarding feeling unprepared, was noticed in some Texas school regions. Indicated in Table 1 that while a majority of the respondents felt that their school was prepared for an active shooter these five regions were they only regions with unprepared totals above 20% of the total respondents.

Table 1

Comparison Total Percentages for Regions 1, 2, 3, 8, and 19

	Prepared Totals	Unprepared Totals
Region	%age of Total	%age of Total
Edinburg (1)	70.70	29.20
Corpus Christi(2)	77.60	22.30
Victoria(3)	72.20	27.70
Mount Pleasant(8)	79.30	20.70
El Paso(19)	78.00	21.90

Discussion

The results of the respondent’s answers to the questions of school preparedness of an active attack or shooter revealed a similar trend as the literature (Olinger Steeves et al. 2017) as a majority of respondents in this study indicated that their schools are prepared. There were no major disparities between the results of answers, even when separated into categories by educator role, Texas Education Service Center regions, or urbanicity. While the relationship was

statistically significant, the pragmatic value of these findings is limited due to the effect size. However, the results had trends in the relationships between the variables that should not be ignored for research purposes.

An interesting trend occurred in the analysis of the Texas regions. Texas is a large state in the U.S. by both size and population, therefore it would be assumed that the school regions would reflect the diverse size of the state. Yet, the data results across the regions were very similar in nature. In fact, as revealed in Figure 2, all of the Texas Education Service Center regions had values that indicated similar levels of perceived preparedness across the regions. These results have indicated that training for active shooter drills does not necessarily need to be regionalized. Trainings for an active attack and shooter could be created on a state level because data has not reflected any region with drastic differences regarding preparedness for this type of attack. While the majority of the respondents listed a sense of preparedness for an active attack or shooter it is important to further analyze why there were percentages over 20% in five Texas Education Region Centers as outlined in Table 1. This difference noted in these five regions should be evaluated as to the reason for higher beliefs of unpreparedness in these regions from the other regions in order to determine if different safety issues need to be addressed.

This same trend also occurred in the analysis of the responses when separated by educator role. The majority of educators, as revealed in Figure 1, reported that they were prepared for an active attack or shooter. These results have indicated a trend with school staff and faculty of preparedness, which could be a result of active shooter drills that have become prevalent in many districts and schools (Schonfeld et al., 2020).

Figure 3 reflected the data collected by respondents based on the urbanicity of their school or district. Similar to the data provided on educator role and Texas Education Service

Centers, there was a majority of respondents who indicated that they feel prepared for an active attack or shooter. Using these results, statewide trainings developed for active shooter and attacks could be generalized for all districts, regardless of their urbanicity, because there were no indications that one region had a deficit in their preparation for an active attack or shooter.

The data reflected a trend that respondents feel prepared for an active attack or shooter but not why respondents felt prepared. The review of literature included trends that many educators are positive about their school's preparedness. However, there were many questions regarding how safe schools truly were due to a lack of training and understanding of crisis manuals (Olinger Steeves et al., 2017). Since the data set that was evaluated in the present study did not include questions regarding how the schools were preparing for an active attack or shooter, it is not possible to create a discussion if Texas educators are also following a trend of feeling prepared at the same time not truly being prepared.

Future studies should focus on questions from the needs assessment that address the literature regarding the activities that are being used that make the respondents feel prepared. A discussion on questions from the *2020 Texas Educators' Needs Assessment Regarding School Safety and Victims Services* (Fuller et al., 2020) that were focused on topics such as trainings, counseling services, mental health services, and safety procedures may reveal if the trends of these topics were comparative to the trends found in the current study. Additional future studies could focus on individual experiences of Texas educators. Survey questions provided statistical data of an entire group. Interviews of individual educators across the regions could provide a deeper insight of why the responses to this survey question were similar across the regions.

Future studies that evaluated reasons why staff is feeling prepared would provide state and district level leaders with directions on how to continue to develop active shooter drills.

Currently, the data has reflected a sense of preparedness. However, future studies need to reflect if there are any deficits in the trainings in order to enhance current training programs to continue the trend of being prepared for an active attack or shooter.

Conclusion

The results reflected in the data analyzed from the *2020 Texas Educators' Needs Assessment Regarding School Safety and Victims Services* (Fuller et al., 2020) on perceptions of preparedness for an active attack or shooter shared a trend that respondents believed that their schools were prepared for this type of event. These results can be used to determine that regionalize school safety training is not necessary as there are few differences in preparation between educator roles, Texas Education Service Center regions, and urbanicity. Additionally, these results have supported that Texas educators have similar views as other educators in the U.S. on the topic of preparedness for an active attack or shooter. While the data has supported this view, this set of data has not included why the educators have overwhelmingly indicated that their school is prepared. Future studies should focus on studies that analyze what factors (e.g. trainings, hardening of schools, increased security) have caused educators to believe that their school is prepared for an active attack or shooter.

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