According to the American Psychiatric Association (APA; 2013), any actual or perceived threat to an individual’s safety could be considered traumatic. School crises include a range of events (e.g., natural disasters, chemical spills, infectious disease outbreaks, and unexpected deaths) that can be characterized as (a) extremely negative, (b) uncontrollable/unpredictable, and (c) having the potential to impact a large number of people (Brock et al., 2016). Following a crisis, varying degrees of maladjustment occur and for most, full recovery is expected with only a small degree of maladjustment (e.g., tense, anxious, difficulty concentrating; National Institute of Mental Health, 2017). However, others may demonstrate a prolonged crisis response following exposure and demonstrate overall poorer physical health outcomes (Basu, McLaughlin, Misra, & Koenen, 2017), poorer emotional adjustment (e.g., feelings of helplessness, powerlessness, anxiety, guilt, anger, and emotional numbness; Cloitre & Beck, 2017; Cross, Fani, Powers, & Bradley, 2017), decreased cognitive and academic performance (De Bellis, Woolley, & Hooper, 2013) and may potentially develop trauma- and stressor-related disorders in general and posttraumatic stress disorder (PTSD), in particular (APA, 2013; Du et al., 2018; May & Wisco, 2016; McLaughlin et al., 2013).

**OVERVIEW AND PURPOSE**

Because of the potentially devastating effects of a crisis, the PREPaRE School Crisis Prevention and Intervention Training Curriculum (Brock et al., 2009; Brock et al., 2016) was designed in accordance with recommendations from the U.S. Department of Education’s (2013) Guide for Developing High Quality School Emergency Operations Plans to aid school-based practitioners in planning, preparation, and organization for school safety through the five facets of preparedness: prevention, preparedness, mitigation, response, and recovery. The training curriculum has a specific focus on (a) school safety; (b) addressing all aspects of crisis preparedness from prevention through recovery (U.S. Department of Education, 2013); (c) balancing physical safety and security with psychological safety (Sprague & Walker, 2005) by emphasizing resiliency, school climate, social support, psychological first aid, and multitiered intervention based on students’ needs (Brock et al., 2009; Brock et al., 2016; Sugai & Horner, 2009); and (d) building interdisciplinary collaboration skills using the National Incident Management System (FEMA, 2019).

The PREPaRE curriculum consists of two separate, but complementary workshops: Workshop 1: Crisis Prevention and Preparedness: Comprehensive School Safety Planning and Workshop 2: Crisis Intervention and Recovery: The Roles of School-Based Mental Health Professionals. The name of the training curriculum is an acronym that serves to guide practitioners in the sequential and hierarchical steps of crisis prevention and intervention: Prevent/Prepare for psychological trauma; Reaffirm physical health, security, and safety; Evaluate psychological trauma; Provide interventions and Respond to psychological needs; and Examine the effectiveness of prevention and intervention efforts. Figure 1 displays the logic model for PREPaRE, indicating the inputs, outputs, and outcomes of the curriculum. The current evaluation focuses on the short-term outcomes (i.e., highlighted in red in Figure 1) of training participation, including changes in knowledge, changes in attitudes, and satisfaction from 2018 (January to December).
Figure 1. Logic Model of PREPaRE

External Factors
Federal and state education policies and mandates
Training provided by others
Competing priorities in team members’ roles/responsibilities
Size of school/district; number and extent of crises and threats
PROGRAM INTEGRITY

PREPaRE training curriculum includes Training of Trainers (ToT) workshops (i.e., for both Workshops 1 and 2) which helps to ensure long-term sustainability by allowing districts to have their own trainers that can conduct PREPaRE workshops for their school personnel, new district employees, and other community professionals. The ToT workshops provide participants with the information and practice necessary to deliver Workshop 1 and 2 in a standardized way; participants must have completed the corresponding core workshop before attending the ToT workshop. In order to ensure the standardization of each presentation, each PREPaRE trainer uses an extensive manual that includes scripted information about the appropriate content to include when presenting each PowerPoint slide, detailed directions for facilitating discussion and activities, and the appropriate amount of time and corresponding logistical information that may be helpful.

PROGRAM EVALUATION MEASURES AND DATA ANALYSIS

Pre- and posttests: Attitudes and knowledge. These measures are administered immediately before and after each workshop to collect demographic information about participants and to assess participant attitudes and knowledge. The Workshop 1 pretest and posttest contain four items to measure attitudes toward crisis prevention using a 5-point Likert scale (e.g., How enthusiastic are you to collaborate with others to develop a comprehensive school safety and crisis response management plan?); the Workshop 2 test material includes three items that assess attitudes toward crisis intervention. To assess school-safety related knowledge, multiple choice pre- and posttests are administered to measure the extent to which the learning objectives have been mastered by participants. The Workshop 1 test includes 10 multiple-choice items, and the Workshop 2 test includes 13 items. Items are scored 0 for incorrect and 1 for correct. Changes in knowledge and attitudes were analyzed for attitudes toward crisis prevention and preparedness (Workshop 1) and for crisis intervention and recovery (Workshop 2) to produce overall means and standard deviations.

Satisfaction. Participants are asked to complete an evaluation survey at the conclusion of each workshop to assess their satisfaction with the training content and experience. An evaluation of the internal consistency produced Cronbach’s alphas of .96 and .97 for Workshop 1 and 2, respectively (Nickerson et al., 2014). The Workshop 1 evaluation has 11 items addressing workshop objectives (e.g., “The workshop objectives were clearly stated”; “The workshop objectives were clearly met and I can now identify four characteristics of a crisis event”) and 9 items related to workshop satisfaction (e.g., “The content was clear and understandable,” “I recommend this workshop.”). The Workshop 2 evaluation has 7 items pertaining to workshop objectives (i.e., self-assessment of knowledge) and 9 items related to workshop satisfaction.

Missing data. Not all participants provide complete data. The reasons for missing data and their respective percentages for each workshop are presented in Figures 2 and 3. If analyses were run by excluding cases with missing data, the resulting amount of data may produce misleading/inaccurate results that could potentially limit the implications made (Kang, 2013). In order to address missing data, multiple imputation was used to provide accurate and unbiased estimates. All results reported for the quantitative analyses used multiple imputation.
Qualitative analyses. In addition to the quantitative evaluation survey, participants are asked three open-ended question about strengths of the workshop, specific knowledge and skills gained, and recommendations for improvements. While numerous potential themes emerged from each of the three open-ended evaluation questions in each PREPaRE workshop, only those found to be occurring in at least 10% of the sample were deemed common enough to summarize. This is aligned with Ryan and Bernard’s (2003) recommendation that themes be identified by repetition as determined by the researcher. The 10% threshold provided an opportunity to analyze a sufficiently robust, yet manageable, number of themes. This level was determined based on the procedures of a similar qualitative study of the PREPaRE curriculum (Brock et al., 2011). The themes, as developed, were intended to be mutually exclusive. That is, each theme category could stand on its own. Participants wrote responses that were then categorized into content areas. This convention was employed based on the observations of the two graduate-level university faculty members and two graduate student assistants and agreed upon through consensus according to the guidelines established by Hill et al. (2005).
Participant Information

Workshop 1 is appropriate for all members of multidisciplinary school crisis teams. Specific demographic information for all 3,099 participants from 2018 is presented in Figure 4.

**Figure 4. Demographic Data for Participants From PREPaRE Workshop 1**

- **Race/Ethnicity**
  - American Indian/Alaska Native
  - Native Hawaiian or Other Pacific Islander
  - Other
  - Black or African American
  - White
  - Hispanic/Latino
  - Multiple Races
  - Missing

- **Occupation**
  - Mental Health Professional
  - School Faculty/Administration
  - Healthcare Professional
  - Security/Law Enforcement
  - Missing

- **Current Experience in School Setting**
  - 0 Years
  - 1-5 Years
  - 6-10 Years
  - 11 or more years

- **Overall Experience in School Setting**
  - 0 Years
  - 1-5 Years
  - 6-10 Years
  - 11 or more years
  - Missing

- **Prior School Crisis Training**
  - 0 Hours
  - 1-5 Hours
  - 6-10 Hours
  - 11 or more hours
  - Missing

- **Prior Community/Agency Crisis Training**
  - 0 Hours
  - 1-5 Hours
  - 6-10 Hours
  - 11 or more hours
**Results: Pre- and Posttests**

**Attitudes.** As seen in Figure 5, Workshop 1 participants reported more positive attitudes, $t(139) = 37.05, p < .001, \eta^2 = .31$, from the pretest ($M = 3.40, SD = .58$) to the posttest ($M = 3.85, SD = .59$) for their total attitudes (i.e., mean of the four separate attitude questions). Significant changes were found for knowledge, $t(176) = 53.60, p < .001, \eta^2 = .48$, confidence, $t(43) = 26.51, p < .001, \eta^2 = .19$, and enthusiasm, $t(201) = 15.45, p < .001, \eta^2 = .07$. However, participants reported a small but significant decrease, $t(295) = -2.74, p < .05, \eta^2 = .00$, in the perceived importance of the training from pretest ($M = 4.66, SD = .62$) to posttest ($M = 4.63, SD = .65$). Attitude towards crisis prevention and preparedness differed as a function of years spent in their current profession (i.e., those with 0 years of experience had significantly greater attitude change from pretest to posttest than all other years of experience, while those with 1–5 years of experience had significantly greater attitude change from pretest to posttest than those with 11 or more years of experience) and number of pre-PREPare crisis training hours (i.e., those with 0 hours of pre-PREPare crisis training hours had significantly greater attitude change from pretest to posttest than those with 6–10 and 11 or more pre-PREPare crisis training hours, while those with 1–5 pre-PREPare crisis training hours had significantly greater attitude change from pretest to posttest than those with 11 or more pre-PREPare crisis training hours); similarly, those with 0 hours of prior community crisis-training had significantly greater attitude gains that those with 6–10 or 11 or more hours of prior community crisis-training, whereas those with 1–5 hours of prior community crisis-training had significantly greater attitude gains than those with 11 or more hours of prior community crisis training only. Attitude changes were also greater for graduate students as opposed to those not in graduate school. Regarding occupation, mental health professionals had significantly greater changes in attitude from pretest to posttest than school faculty/administration and security/law enforcement professionals but not healthcare professionals.

**Figure 5. Mean Changes in Attitude Toward Crisis Prevention and Preparedness From Workshop 1**

![Figure 5](image)

*Note.* Items are on a 5-point scale, where higher scores indicate more positive attitudes.
Knowledge. Workshop 1 participant responses indicated large, significant increases in knowledge, \( t(995) = 83.06, p < .001, \eta^2 = .69 \) from pretest (\( M = 5.16 \) out of 10, \( SD = 1.52 \)) to posttest (\( M = 8.14 \) out of 10, \( SD = 1.73 \)). These results are presented graphically in Figure 6. Knowledge gains only differed as a function of the number of prior school crisis training hours (i.e., those with 1–5 prior school crisis training hours had higher knowledge gains from pretest to posttest than those with 11 or more hours of prior school crisis training) and not among other demographic variables.

Figure 6. Mean Percentage of Items Correct From the Pretest and Posttest for Workshop 1

Results: Workshop Satisfaction

Overall, participants in Workshop indicated high satisfaction with their workshop experience (\( M = 4.38 \) out of 5, \( SD = .61 \)) and that the workshop objectives were clearly stated and met during instruction (\( M = 4.25 \) out of 5, \( SD = .58 \)). In addition to the quantitative analyses, qualitative analyses were conducted on a sample of 506 Workshop 1 participants from 81 different workshops conducted in 24 U.S. states and 1 Canadian province. The percentages presented are the percentage of statements relative to the total number of evaluations (typically smaller than the total number of participants in the workshop) and are not based on the total number of participants in the workshop. All evaluations used in the analysis were from workshops occurring in 2018. All evaluations in the samples were provided to the authors by the NASP office and the exact procedure of distribution of the evaluations received is unknown.

Strengths of this workshop. Four broad strength themes emerged from the Workshop 1 qualitative analysis. The most prominent theme was the helpful/useful information/increased awareness (29%). Other prominent themes included good instructor knowledge (20%), detailed materials/organized materials/user-friendly materials (19%), and discussions/group time/opportunities to participate/collaboration (14%).
Development of crisis prevention and intervention knowledge and skills. Three prominent themes resulted from the current analysis of the 506 Workshop 1 evaluations: planning and preparedness (22%); the structure/roles/responsibilities/chain-of-command of the crisis team (i.e., ICS; 20%); and how to design/create/revise a crisis plan (18%). Specific exemplar participant statements supporting these themes included appreciation for learning about “… the different needs in a crisis and the people necessary for the ICS …” and “… how important it is to have a specific, well-detailed plan … and communication is very important …”

Suggestions for improvement. Analysis of Workshop 1 evaluations resulted in two broad improvement themes. The two themes were a desire for more discussion/collaboration (12%) and the desire for improvements to be made to the material (11%). Noteworthy statements about these themes from Workshop 1 suggestions for improvement included “… maybe more videos, activities, and real-life examples …,” “… video needs updating …,” and “… more interaction with the audience …”
PREPaRE WORKSHOP 2

Participant Information

Workshop 2 is intended for school crisis team members involved in meeting the mental health needs of students and staff following a school-associated crisis event. Demographic information from the 3,449 Workshop 2 participants can be found in Figure 7.

Figure 7. Demographic Data for Participants From PREPaRE Workshop 2
Results: Pre- and Posttests

**Attitudes.** As seen in Figure 8, Workshop 2 participants reported more positive attitudes $t(140) = 50.83$, $p < .001$, $\eta^2 = .43$, from pretest ($M = 3.04$, $SD = .81$) to posttest ($M = 3.74$, $SD = .60$). Significant changes from pretest to posttest were found for participants being less anxious to conduct intervention[s], $t(32) = 31.95$, $p < .001$, $\eta^2 = .23$, less fearful of making a mistake, $t(936) = 38.33$, $p < .001$, $\eta^2 = .30$, and more confident in responding, $t(94) = 47.34$, $p < .001$, $\eta^2 = .39$. Significant differences in attitude toward crisis prevention and preparedness were found as a function of years spent in their current profession (i.e., practitioners with 0 years in their current profession demonstrated significantly greater attitude changes as compared to those with 1–5 years of experience, 6–10 years, and 11 or more years), status as a graduate student (i.e., graduate students demonstrated significantly greater improvements in attitude than nonstudents), prior school crisis training hours (i.e., those with 11 or more hours of prior crisis training demonstrated significantly smaller changes in attitude than those with 0, 1–5, or 6–10 prior crisis training hours), nonschool crisis training hours (i.e., those with 0 and 1–5 prior nonschool crisis training hours demonstrated significantly greater changes in attitudes than those with 6–10 and 11 or more prior nonschool crisis training hours), and by occupation category (i.e., mental health professionals had significantly greater changes in attitude than school faculty/administration and security/law enforcement).

**Figure 8. PREPaRE Workshop 2 Participants’ Changes in Attitude Toward Crisis Intervention and Recovery**

*Note.* Items on a 5-point scale, higher scores indicate more positive attitudes (e.g., 5 = not at all anxious, 1 = extremely anxious; 5 = extremely confident, 1 = not at all confident; and 5 = not at all fearful, 1 = extremely fearful).
**Knowledge.** Overall, Workshop 2 participant responses indicated large, significant increases in knowledge, \( t(231) = 58.59, p < .001, \eta^2 = .50 \), from the pretest \( (M = 7.55 \text{ out of } 13, SD = 2.14) \) to posttest \( (M = 10.41 \text{ out of } 13, SD = 2.13) \); these data are displayed graphically in Figure 9. There were no significant differences in knowledge gains based on participant demographic variables.

**Figure 9. Mean Percentage of Items Correct for the Pretest and Posttest From PREPaRE Workshop 2**

**Results: Workshop Satisfaction**

Overall, participants in Workshop 2 indicated that the objectives of the workshop were stated clearly \( (M = 4.51 \text{ out of } 5, SD = .52) \) and that they were highly satisfied with their workshop experience \( (M = 4.65 \text{ out of } 5, SD = .53) \). Qualitative analyses were performed on 483 Workshop 2 open-ended evaluation responses from 72 different workshops conducted in 25 U.S. states. Similar to the responses for Workshop 1, the percentages reported are relative to the total number of evaluations (typically smaller than the total number of participants in the workshop) and are not based on the total number of participants in the workshop. All evaluations used in the analysis were from workshops occurring in 2018. All evaluations in the samples were provided to the authors by the NASP office, and the exact procedure of distribution of the evaluations received is unknown.

**Strengths of this workshop.** Six broad strength themes were identified for Workshop 2. The two most prevalent themes endorsed by workshop participants were learning from knowledgeable trainers (22%) and the comprehensive information contained in the workshop (22%). Further strengths emerging from the Workshop 2 data included workshop materials being helpful or useful to the participant (19%); good and real-world examples being shared by the presenters (15%); the helpfulness/usefulness of role plays (12%); and the session being well-organized (10%).
Development of crisis prevention and/or intervention knowledge and skills. Two particular areas of new knowledge and skills emerged as highly common: triage (19%) and information related to interventions, particularly embedded within a tiered system of delivery (16%). One participant captured elements of these themes quite well when stating, “… learning how to determine the level of need for each individual was very important...” Another participant noted appreciation for “… a solid framework to determine tiers of intervention and concrete methods of intervention...”.

Suggestions for improvement. In analyzing the Workshop 2 evaluation responses, the most common response to what needs improvement and the only clear theme involved comments related to improvements being made to the workshop materials (10%), though no specific recommendations were made. Exemplary comments highlighting these themes for Workshop 2 included many statements like “… more multimedia …” and “… some concepts may need revision...”.

SUMMARY AND RECOMMENDATIONS

Results of the program evaluation from 2018 revealed positive findings in terms of attitudes, knowledge, and satisfaction. It is also notable that there was an increase in the total number of participants from 2017 to 2018 for both Workshop 1 (i.e., 2,488 participants in 2017 and 3,099 participants in 2018) and Workshop 2 (i.e., 3,154 participants in 2017 and 3,449 participants in 2018). Similarly, there was also an increase in the percentage of participants that had complete data for both Workshop 1 (i.e., from 55% in 2017 to 62% in 2018) and Workshop 2 (i.e., from 53% in 2017 to 61% in 2018). These findings suggest that the training continues to not only be in demand and that trainers are adhering more closely to the evaluation procedures.

Overall, participants in both workshops demonstrated significant gains in their overall attitudes. In both workshops, those with less experience (i.e., fewer years in their current profession, fewer years in their career in general, fewer prior school-related crisis training hours, and fewer community crisis training hours) demonstrated significantly greater changes in attitude as compared to those with greater experience; for Workshop 2 only, mental health professionals demonstrated significantly greater changes in attitude than school faculty/administration and security/law enforcement. Regarding changes in school crisis preparedness and intervention related knowledge, participants in both workshops demonstrated large, significant changes in knowledge. Those in Workshop 1 who had fewer prior school-related crisis training hours demonstrated the greatest changes in knowledge while there were no significant differences in knowledge gains based on demographic variables from participants in Workshop 2.
Similar to previous years’ analyses, both quantitative and qualitative analyses revealed that participants in both Workshops 1 and 2 were highly satisfied with their workshop experience. Qualitative analyses of 506 Workshop 1 participant responses revealed four prominent strengths of the workshop: (a) the workshop material was helpful/useful information/increased awareness; (b) good instructor knowledge; (c) detailed materials/organized materials/user-friendly materials; and (d) discussions/group time/opportunities to participate/collaboration. Furthermore, qualitative analyses of 483 Workshop 2 participant responses revealed six prominent strengths of the workshop: (a) learning from knowledgeable trainers; (b) comprehensive information contained in the workshop; (c) [the information] was helpful or useful to the participant; (d) good and real-world examples being shared by the presenters; (e) the helpfulness/usefulness of role plays; and (f) the [workshop was] well-organized. Participants in Workshop 1 identified that they felt that they developed skills in the following areas: (a) planning and preparedness; (b) the structure/roles/responsibilities/chain-of-command of the crisis team (i.e., ICS); and (c) how to design/create/revise a crisis plan (18%). Participants in Workshop 2 felt that they developed skills in triage and using interventions in a tiered delivery system.

Participants are also asked about potential improvements for future editions of the PREPaRE Training Curriculum. During previous years’ analyses (i.e., the 2016 and 2017 PREPaRE Reports), participants identified that they would prefer greater discussion/collaboration/role-plays and updated material (e.g., videos). In line with these suggestions, participants from 2018 in Workshop 1 identified that they would prefer greater discussion/collaboration and that the workshop material needed improvements; participants from 2018 in Workshop 2 also endorsed that workshop material needed to be updated. To address participant suggestions, the third edition of the PREPaRE Training Curriculum was developed and integrates many of the suggested improvements to enhance participant experience and improve participant transfer of knowledge and skills back to their workplaces (see Nickerson, Cook, Cruz, & Parks, in press). The third edition curriculum was piloted during the 2019 NASP convention in Atlanta and revealed similar participant improvements to the second edition curriculum and greater percentage of complete participant responses due to the newly introduced electronic format of the pretest, posttest, and the evaluation. Future research should continue to investigate long-term PREPaRE outcomes and the effect of the work environment and personal characteristics on the transfer of PREPaRE-specific knowledge and skills.
REFERENCES


