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PROGRAM EVALUATION OF THE *PREPaRE* SCHOOL CRISIS PREVENTION AND INTERVENTION TRAINING CURRICULUM

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This study details a program evaluation of the *PREPaRE School Crisis Prevention and Intervention Training Curriculum* (*PREPaRE*), conducted in the United States and Canada between 2009 and 2011. Significant improvements in crisis prevention and intervention attitudes and knowledge were shown among 875 *Crisis Prevention and Preparedness* workshop (Workshop 1) participants and 1, 422 *Crisis Intervention and Recovery* workshop (Workshop 2) participants on matched pre-tests and post-tests. Results indicated high participant satisfaction for both Workshop 1 and Workshop 2. A qualitative analysis of workshop evaluation comments indicated strengths regarding workshop aims, materials, and activities, as well as suggestions for improvement, such as utilizing more active learning components. The use of these findings in the *PREPaRE* curriculum revision is discussed. © 2014 Wiley Periodicals, Inc.

The need for crisis prevention and intervention efforts focusing on emotional recovery has been recognized worldwide (Hatzichristou, Lykitsakou, Lampropoulou, & Dimitropoulou, 2011; Jimerson et al., 2012). Further, there is a growing call for improvements to the welfare, support, and mental health needs of children affected by disasters (Brock & Jimerson, 2012; Heath, Nickerson, Annandale, Kemple, & Dean, 2009), with schools as natural and important providers of support. Despite the need for schools to prevent and respond to crises, surveys indicate that many school professionals report lacking preparation for these roles (Nickerson & Osborne, 2006; Nickerson & Zhe, 2004). Furthermore, school districts report being impeded by lack of equipment and expertise (U.S. Government Accountability Office, 2007).

Preparation for School Crisis Prevention and Intervention Work

Survey research conducted in the United States suggests that few training programs across disciplines have specific courses on crisis prevention and intervention (Allen, Burt et al., 2002, Allen, Jerome et al., 2002; Nickerson & Osborne, 2006). Surveys from the early 2000s reveal that

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Portions of these data were presented at the American Psychological Association 2012 Convention and on the PREPaRE website (www.nasponline.org/prepare/index.aspx). Amanda Nickerson, Stephen Brock, and Melissa Reeves are co-authors of PREPaRE.

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only about 5% to 10% of social workers (Astor, Behre, Wallace, & Fravil, 1998), school counselors (Allen, Burt et al., 2002), and school psychologists (Allen, Jerome et al., 2002) had a specific university course on the topics of crisis or violence prevention and intervention. More recent surveys have indicated that 61% of school psychologists have had some coursework in crisis intervention (Bolnik & Brock, 2005) and 25% of school psychologists have taken a graduate course devoted to crisis intervention (Adamson & Gimple Peacock, 2007). These observations may reflect a growing trend to emphasize crisis prevention and intervention as an essential competency and component of graduate coursework (Perfect & Morris, 2011; Ysseldyke et al., 2006). Consistent with these observations, school psychology has institutionalized such training in its comprehensive services model (National Association of School Psychologists [NASP], 2010a) and standards for graduate training programs (NASP, 2010b).

It is more common for school-based mental health professionals (e.g., school social workers, school psychologists) to receive crisis prevention and intervention training through conferences (60%; Adamson & Gimple Peacock, 2007), in-services, and local trainings (approximately 70% to 83%; Adamson & Gimple Peacock, 2007; Astor et al., 1998; Bolnik & Brock, 2005; Nickerson & Zhe, 2004) than in graduate coursework. Many organizations provide workshops on school crisis prevention and intervention (e.g., National Organization for Victim Assistance; Young, 2002). In addition, the U.S. government provides guidance and training documents to assist schools in comprehensive efforts to prevent, prepare, respond, and recover from crisis events (e.g., U.S. Department of Education, 2010; U.S. Department of Education, Office of Safe and Drug-Free Schools, 2007). NASP's *PREPaRE School Crisis Prevention and Intervention Curriculum* (*PREPaRE*) is one of the first curricula developed specifically for school-based professionals to provide comprehensive training on crisis prevention, preparedness, intervention, and recovery within the larger framework of planning for physical and psychological safety in schools (Brock et al., 2009).

PREPaRE School Crisis Prevention and Intervention Training Curriculum

The *PREPaRE* acronym stands for *P*revent/Prepare for psychological trauma; *R*eaffirm physical health, security and safety; *E*valuate psychological trauma; *P*rovide interventions (and) *R*espond to psychological needs; and *Ex*amine the effectiveness of prevention and intervention efforts (Brock et al., 2009). The curriculum is grounded in psychological theory and research, integrates the U.S. Department of Education's (2007) phases of crisis management, and uses the National Incident Management System's (U.S. Department of Homeland Security, 2008) Incident Command System. The curriculum offers multitier interventions for students based on their risk for psychological trauma.

Crisis Prevention and Preparedness: The Comprehensive School Crisis Team (*PREPaRE* Workshop 1) is a full-day workshop designed to provide school personnel with an understanding of the comprehensive school crisis team. It emphasizes systems issues, comprehensive efforts to improve school safety and climate, and staff preparedness and response capabilities. *Crisis Intervention and Recovery: The Roles of the School-based Mental Health Professional* (*PREPaRE* Workshop 2) is a 2-day workshop designed to provide school crisis intervention team members with knowledge and skills needed to meet the needs of students and staff following school-associated crises.

Evaluation of PREPaRE

Kirkpatrick's (1996) model is most widely used when evaluating professional development programs (Eseryel, 2002). This model includes four distinct levels of evaluation: reaction, learning, behavior, and results. The first level, reaction, measures participants' perceptions of program experiences (e.g., satisfaction, motivation to participate), whereas the second level, learning, measures the

impact of training on knowledge, skills, and attitudes (Kirkpatrick, 1996). The third level, behavior, discovers the extent to which training transfers to on-the-job behavior. The final level, results, is a measure of the final outcome of training, such as improved quality or reduced costs.

Kirkpatrick (1996) suggests beginning evaluation with the first three levels: reaction, learning, and behavior. This behavioral level of evaluation is much more resource intensive than the first two levels and is influenced by a variety of factors (Kirkpatrick, 1996). Theory of planned behavior change literature has found that change in knowledge alone is not enough to affect behavioral change (Ajzen, 1991; Armitage & Conner, 2001). In addition to lack of knowledge, crisis response literature cites a multitude of reasons practitioners fail to employ reliable crisis intervention and response, including a lack of self-efficacy, prior negative experiences, and concern with liability issues (Jaksec, 2007). Consistent with theory of planned behavior change literature citing attitude and knowledge (Armitage & Conner, 2001) as critical components in behavioral change, this study reports the evaluation of the *PREPaRE* workshops according to Kirkpatrick's (1996) first two levels of reaction (attitudes) and learning (knowledge). Readers are referred to Brock and colleagues (2009) for a more in-depth discussion of specific types of crisis events and the implication of response behavior on student outcomes.

Systematic program evaluation has been integral to *PREPaRE* curriculum since its inception. Brock, Nickerson, Reeves, Savage, and Woitaszewski (2011) described the development of the *PREPaRE* curriculum, reported on the initial results from the first 3 years of implementation (2006–2008), and assessed the extent to which the Training of Trainers (ToT) model was effective. Their findings revealed high participant satisfaction, increased knowledge, and improved attitudes toward crisis prevention and intervention work, as well as support for the ToT model (i.e., results did not differ significantly for participants trained by a workshop author compared with a trainer prepared through ToT). In 2009, the evaluation procedures were modified to improve efficiency, comprehensiveness, and reliability. More specifically, the workshop evaluation forms were changed from three questions about overall satisfaction (see Brock et al., 2011) to a 10-item evaluation about workshop objectives and content, trainer skill, materials and organization, and application of the training. Additionally, to ensure a more standardized evaluation procedure, trainers were given instructions to read to participants before completing the pre-test, post-test, and evaluations, and participants used Scantron forms to provide their answers. The purpose of this study was to examine the results of the more recent evaluation data obtained from 2009–2011 related to participant satisfaction, knowledge gain, and attitude change. Additionally, this evaluation expands on the previous by exploring the influence of demographic factors on knowledge and attitude change. This more in-depth analysis seeks to investigate additional factors that might influence participants' behavioral, normative, or control beliefs (Armitage & Conner, 2001), all of which are theorized to impact behavioral outcomes. Finally, the results of this evaluation and the integration of findings in the revised *PREPaRE* curriculum are discussed.

Method

Participants

Several separate measures were used in the program evaluation, including pre-tests, post-tests, workshop evaluations (quantitative), and open-ended questions about workshop satisfaction (qualitative). *PREPaRE* workshops are offered (a) through professional conferences (e.g., NASP); (b) by request from a district, school, professional organization, or university training program directed to NASP; or (c) through a trainer who has attended the workshop and completed the mandatory ToT requirements. All trainers implement the same standardized curriculum and evaluation procedures, so every *PREPaRE* participant is intended to be included in the evaluation. Complete demographic

Table 1
Demographics for Workshop 1 and Workshop 2 Participants

	n (%)				
Hours/Years	0	1–5	6–10	>11	Missing
Workshop 1					
Years in Current Profession	188 (21.5)	267 (30.5)	174 (19.9)	235 (26.9)	11 (1.3)
Prior Hours of School Crisis Training	108 (12.3)	231 (26.4)	164 (18.7)	360 (41.1)	12 (1.4)
Prior Hours of Agency/Community Crisis Training	368 (42.1)	71 (8.1)	112 (12.8)	305 (34.9)	19 (2.2)
Workshop 2					
Years in Current Profession	205 (14.4)	487 (34.1)	292 (20.4)	421 (29.5)	23 (1.6)
Prior Hours of School Crisis Training	311 (21.8)	161 (11.3)	368 (25.8)	548 (38.4)	40 (2.8)
Prior Hours of Agency/Community Crisis Training	428 (30.0)	141 (9.9)	306 (21.4)	514 (36)	39 (2.7)

Profession	Workshop 1	Workshop 2
Mental Health	608 (68.8)	1,262 (88.4)
School Psychologists	351 (40.1)	593 (41.5)
School Social Workers	43 (4.9)	142 (9.9)
Agency Social Workers	4 (0.5)	4 (0.3)
School Counselors	194 (22.2)	459 (32.1)
Other Mental Health Professionals	10 (1.1)	64 (4.5)
Educators	173 (19.8)	83 (5.8)
General Education Teachers	15 (1.7)	11 (0.8)
Special Education Teachers	39 (4.5)	15 (1.1)
School Administrators	73 (8.3)	27 (1.9)
District Administrators	28 (3.2)	20 (1.4)
University Professors	18 (2.1)	10 (0.7)
Health Care	40 (4.6)	30 (2.1)
Safety/Security	5 (0.5)	3 (0.2)
Missing	39 (4.4)	50 (3.5)
Race/Ethnicity		
African American	68 (7.8)	135 (9.5)
Asian	17 (1.9)	28 (2.0)
Caucasian	716 (81.8)	1,048 (73.4)
Hispanic	39 (4.5)	101 (7.1)
Other	23 (2.6)	23 (3.9)
Missing	12 (1.4)	55 (3.9)
Graduate Students	246 (28.1)	55 (19.0)
Interns	71 (8.1)	115 (8.1)

information (e.g., occupations, number of years in current profession, prior hours of crisis training) is available in Table 1.

Workshop 1. Workshop 1 participants totaled 1, 456 individuals from November 2009 through November 2011. A total of 608 workshop evaluations and 1, 437 pre- and post-tests were returned, of which 562 were excluded due to invalid or missing data. Data were excluded from the analyses if a complete pre-test or post-test was missing or if the number of participant responses did not match the test (e.g., 16 responses were given to 14 items). Data were also excluded from the analysis if the pre-test could not be matched to the post-test due to absence of an identifying code (the most

common cause). Although the use of Scantron forms was introduced to improve efficiency and reliability, it is possible that this format caused additional confusion for participants and trainers. In addition, it is possible that trainers emphasized the completion of the pre- and post-tests as opposed to the workshop evaluation form. The final sample included 875 matched tests from 42 separate locations throughout the United States and Canada. In addition, 300 Workshop 1 evaluations, collected from 16 separate locations in nine states (Alabama, Illinois, Kentucky, Massachusetts, Nevada, Pennsylvania, South Carolina, Tennessee, and Texas) and Washington, DC, were analyzed qualitatively. Those evaluations were collected from February 2010 to August 2011 and represent the total available *PREPaRE* open-ended question evaluations collected during that time range (this portion of the workshop evaluation is optional). All evaluations were provided to the researchers by NASP, which collects all evaluation data from trainers.

The current sample reached a more homogeneous audience than the prior evaluation, with 68.8% ($n = 720$) of participants identifying as mental health professionals compared with 59.4% ($n = 720$; Brock et al., 2011). This was due to the fewer number of educators participating than in the Brock et al. (2011) sample (19.8%, $n = 173$, compared with 30.7, $n = 372$). Further, graduate students constituted a much larger proportion of workshop participants compared with the previous evaluation (28.1%, $n = 246$, compared with 2.1%, $n = 26$).

Workshop 2. Workshop 2 participants totaled 2, 233 individuals from November 2009 through November 2011. A total of 1, 137 workshop evaluations and 2, 233 pre- and post-tests were returned, of which 805 tests were excluded due to invalid or missing data. The final sample included 1, 422 pre- and post-tests from 97 separate locations. The same trend observed for Workshop 1 in participant occupation and graduate student status was also found for Workshop 2: 88.4% ($n = 1, 262$) reported as mental health professionals compared with 79% ($n = 796$) in Brock et al. (2011), and 19% ($n = 55$) reported as graduate students compared with 4.5% ($n = 45$) in Brock et al. (2011). Further, Workshop 2 appeared to reach a more ethnically/racially diverse group of participants than did Workshop 1 (see Table 1).

Additionally, 487 open-ended question evaluations provided by Workshop 2 participants were analyzed qualitatively for various themes. This number, again, represents the total number of open-ended evaluations collected during this timeframe, given the optional nature of this portion of the overall workshop evaluation process. These Workshop 2 trainings took place in 32 separate locations in 13 states (Alabama, California, Colorado, Florida, Idaho, Illinois, Kansas, Kentucky, Louisiana, Maryland, Nevada, Texas, and Virginia) and one Canadian province (Alberta). This sample of Workshop 2 evaluations was collected between June 2010 and August 2011. No additional demographic data could be determined from the Workshop 1 and 2 open-ended evaluations, as workshop attendees added their written comments on a form separate from the quantitative portion of the evaluation.

Measures

Satisfaction. Participants were asked to complete an evaluation survey at the conclusion of each workshop to assess their satisfaction with the training content and experience (see specific questions in Table 2). Internal reliability analyses indicate a high level of internal reliability, with Cronbach's alphas of .96 and .97 for Workshop 1 and 2, respectively. Beyond the Likert-scale questions used for quantitative analysis, a separate form with three open-ended questions was used: (a) What were the strengths of this workshop? (b) What suggestions do you have to help us improve this workshop? and (c) What specific crisis prevention and/or intervention knowledge and skills did you develop that will inform your work?

Table 2
Participant Workshop Satisfaction Ratings

	Workshop 1			Workshop 2		
Question	*n*	*M*	*SD*	*n*	*M*	*SD*
1. The objectives were clearly stated.	636	3.63	.65	1,190	3.66	.74
2. The content was clear and understandable.	636	3.58	.65	1,188	3.59	.73
3. Workshop materials were well organized.	634	3.60	.66	1,187	3.61	.74
4. The trainer(s) was/were well organized.	630	3.61	.67	1,188	3.62	.74
5. Workshop materials facilitated participation among participants.	637	3.33	.78	1,188	3.57	.77
6. The trainer(s) facilitated participation among participants.	635	3.43	.75	1,185	3.63	.73
7. This workshop increased my knowledge.	632	3.54	.70	1,185	3.65	.73
8. I will be able to apply the information/skills learned to my professional duties.	634	3.53	.65	1,181	3.60	.76
9. I recommend this workshop.	633	3.50	.72	1,177	3.60	.78
10. I recommend this/these trainer(s).	616	3.53	.75	1,151	3.59	.79

Note. All items on a 1–4 scale, with 1 = *strongly disagree* and 4 = *strongly agree*.

Knowledge and Attitudes. To assess attitudes and knowledge, a quantitative pre- and post-test was used. The Workshop 1 test contained four items to measure attitude toward crisis prevention using a 5-point Likert-type scale. It also included 10 multiple-choice items to assess knowledge of key curriculum components (each item was scored 0 for incorrect and 1 for correct). Comparatively, the Workshop 2 test consisted of three items assessing attitudes toward crisis intervention and 13 items assessing knowledge. Test items were developed to have a high amount of content validity, as the multiple-choice questions were structured to examine whether the workshop participants met program objectives. The tests were piloted during development of the *PREPaRE* curricula, and results from the previous *PREPaRE* program evaluation (Brock et al., 2011) were used to refine and finalize the workshop curricula and evaluation procedures.

Procedure

All Workshop 1 and Workshop 2 *PREPaRE* participants were instructed by the workshop trainer(s) to complete pre- and post-tests to evaluate the extent to which *PREPaRE* training achieved its objectives. All *PREPaRE* trainers are required to participate in the workshop training and go through a ToT (4 hours for Workshop 1 and 12 hours for Workshop 2), which includes reviewing the standardized program evaluation procedures. Trainers read instructions to participants about how to complete forms (e.g., asking participants to provide the same personal four-digit identification number on each pre- and post-test so they can be matched for data analysis). Pre-tests are administered immediately prior to the beginning of the workshop and post-tests are completed immediately afterward (i.e., end of day for Workshop 1, end of second day for Workshop 2). Satisfaction evaluations are administered with post-tests. The quantitative portions (pre-test, post-test, and satisfaction) are sent to NASP at the conclusion of each workshop and then sent to an independent company for scoring.

The fourth and fifth authors and nine of their school psychology program graduate students conducted the qualitative data analysis of open-ended evaluation questions. Following a process similar to the Brock et al. (2011) study involving the qualitative analysis of *PREPaRE* evaluations, a preliminary data-collection form was developed by the fourth and fifth authors, early in the process.

This form was created after an initial review of a small subsample of the evaluations. Several qualitative themes emerged during this preliminary approach and they were used to develop two uniquely structured data-analysis forms—one for each workshop. Each preliminary data-collection form included what were perceived to be probable qualitative theme options for the remaining analysis. All additional evaluations were analyzed by one research group member in close physical proximity to a small group of other research group members. This practice was implemented to encourage discussion among researchers, as needed. As evaluations were reviewed in this group format, team members shared impressions and debated theme content, an important aspect of ensuring validity of themes (Ryan & Bernard, 2003).

Using a modified consensus approach based on guidelines presented by Hill and colleagues (2005), the existing preliminary theme categories were added to or modified as new or unique content surfaced during these discussions. A final set of theme categories was eventually agreed on, and two final data-collection forms—one for each workshop—were created by the fourth and fifth authors. Each individual researcher involved in the qualitative analyses then reviewed small sets of the Workshop 1 or 2 open-ended evaluations, using the appropriate final data-collection form, until all of the Workshop 1 and 2 evaluations in this sample were reviewed. Each researcher categorized all evaluation content based on themes included on the final data-collection form. Ultimately, emerging themes were determined based on percentages of the sample reporting theme content.

Results

Workshop 1 and 2 Satisfaction

Quantitative Analysis. Evaluations of participant satisfaction ratings reflected only those with complete responses ($n = 608$ and $n = 1,137$ for Workshop 1 and Workshop 2, respectively). Overall, participant satisfaction was very high. Specifically, Workshop 1 participants reported an average satisfaction rating of 3.53 of 4 ($SD = .60$, mode $= 4$). The average satisfaction reported by Workshop 2 participants was slightly higher, with a mean response of 3.62 of 4 ($SD = .67$, mode $=$ 4); descriptive statistics for specific questions are offered in Table 2. Both Workshop 1 and 2 participants reported the highest levels of satisfaction for Question 1, which assessed the clarity of workshop objectives, and the lowest levels of satisfaction for Question 10, an item assessing satisfaction with workshop trainers. It is important to note that the difference between these two items was very small ($\leq .10$ on a 4-point scale).

Qualitative Analysis. Although numerous potential themes emerged from each of the three open-ended evaluation questions, 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 *PREP<u>a</u>RE* 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, and participants could endorse responses that fit into the separate categories. This convention was employed based on the observations of the research team and as agreed on through consensus according to the guidelines established by Hill et al. (2005).

In the current study, using the 10% threshold and given qualitative evaluation sample sizes of 300 (Workshop 1) and 487 (Workshop 2), workshop participant comments were judged to be themes when indicated on at least 30 and 48 evaluations for each workshop, respectively. An abundant group of themes emerged with this approach, but not numerous enough to make the analysis a cumbersome

review of relatively minor or infrequent feedback. The results of this process are summarized next after each specific open-ended question (with percentages of the respondents who provided written comments endorsing a particular theme):

What Were the Strengths of This Workshop? Four broad strength themes emerged from the Workshop 1 qualitative analysis. The most prominent theme related to knowledge gained. More than one third (35%) of all workshop attendees who provided written comments noted the Helpful/Informative/Awareness Increasing nature of Workshop 1. Other prominent themes included participant approval of workshop materials (20%); the knowledge of the workshop presenter (15%); and the handouts/form templates as good resources (13%).

Five broad strength themes were identified for Workshop 2. The most prevalent theme endorsed by the sample was workshop materials being helpful or useful to the participant (27%). Further strengths emerging from the Workshop 2 data include the helpfulness/usefulness of role plays (18%); good and real-world examples being shared by the presenters (18%); opportunities for interaction with other workshop participants (12%); and presenters' style and enthusiasm for the subject matter (12%). In this regard, 1 participant noted, "The trainers were very-well organized, knowledgeable, and they worked extremely well together. Also, it was nice to have multiple people presenting together, sharing their varied experiences."

What Suggestions Do You Have to Help Us Improve This Workshop? Analysis of Workshop 1 evaluations resulted in three broad improvement themes. The most frequent themes were a desire for an increase in active learning in general (11%), additional role-plays/practical small group work (10%), and encouragement for instructors to use more real-world examples/scenarios (10%). Noteworthy quotes from Workshop 1 participants included: "The activity at the end of the day with the scenarios was definitely the best part," and "Even more scenarios (would be helpful)." A fourth potential theme related to instructor style was deemed to be an outlier. This potential theme surpassed the 10% sample threshold but occurred very heavily in only one of the 16 Workshop 1 sites. Comments about this issue centered on encouraging the instructor to avoid simply reading PowerPoint slides. In analyzing the Workshop 2 evaluation responses, participants endorsed one specific area as needing improvement: including more role plays as part of the curriculum (10%). An exemplary comment highlighting this observation was reported as follows by a Workshop 2 participant: "Perhaps, more role-playing along with additional speakers representing different perspectives would be helpful." No other areas of improvement reached the 10% threshold.

What Specific Crisis Prevention and/or Intervention Knowledge and Skills Did You Develop That Will Inform Your Work? Prominent themes resulting from the current analysis of the 300 Workshop 1 evaluations included: (a) ability to plan for and prepare for school crises (21%); (b) knowledge of the structure, roles, and responsibilities of the Incident Command System (19%); and (c) the ability to design, create, and revise a school crisis plan (14%). With new knowledge in hand, many participant comments appeared to reflect motivation to return to their jobs and actively address crisis preparedness (e.g., "Crisis prevention demands constant attention" and "This is a good time to go back and evaluate our existing plan"). As for Workshop 2 participants, three particular areas of new knowledge and skills that would inform participant work beyond the workshop were: (a) triage (12%); (b) feeling better prepared for an actual crisis (10%); and (c) individual and group psychoeducational interventions (10%). One participant captured elements of these themes quite well through the following statement: "I now have a systematic approach to addressing a crisis; hence, I have gained confidence in my ability to respond to a crisis." Another participant indicated, "I am better-equipped to become a more active member of my school's crisis team. I now feel more confident in helping prepare our school's crisis plan and in carrying it out."

Table 3
Participants' Attitudes From Pre- to Post-Test

Question	Pre-Test *M*	Pre-Test *SD*	Post-Test *M*	Post-Test *SD*	Difference
WORKSHOP 1 ($n = 866$, [a]$n = 861$)					
1. How knowledgeable are you about school crisis prevention and preparedness?	2.42	.82	3.37	.80	.94*
2. How confident are you in your ability to collaborate with others to develop a comprehensive school crisis response management plan?	2.85	1.0	3.50	.91	.65*
3. How enthusiastic are you to collaborate with others to develop a comprehensive school crisis response management plan?	3.43	.90	3.74	.87	.32*
[a]4. How important do you feel school crisis prevention and preparedness knowledge and skills are in today's schools?	4.57	.67	4.54	.81	–.04
WORKSHOP 2 ($n = 1{,}424$, [b]$n = 1{,}422$)					
1. How anxious would you feel if you were required to conduct a school crisis intervention?	3.19	.94	3.85	.60	.67*
[b]2. How confident are you in your ability to know what to do if you were required to respond as part of a school crisis response team?	3.30	.91	3.93	.55	.63*
3. How fearful are you that you might make a mistake during a school crisis intervention?	2.68	.89	3.52	.73	.84*

Note. All items on a 1–5 scale, with higher scores indicating more positive attitudes.
*$p < .01$.

Change in Attitudes

Workshop 1. Table 3 presents descriptive statistics for the pre- and post-workshop attitudes questions. The overall mean attitude toward crisis prevention and preparedness work increased significantly (became more favorable), t (858) = 21.74, $p < .001$, from the pre-test ($M = 3.32$ of 5; $SD = .56$) to the post-test ($M = 3.79$; $SD = .65$). The eta-squared statistic (.36) indicated a large effect size (Cohen, 1988). Specifically, participants reported feeling significantly more knowledgeable about school crisis prevention and preparedness, $t(865) = 29.85$, $p < .001$, $\eta^2 = .51$, and more enthusiastic and confident in their ability to collaborate with others to develop a comprehensive school crisis response management plan, $t(865) = 10.62, p < .001, \eta^2 = .12$; $t(865) = 19.07, p < .001, \eta^2 = .30$. There was a small, nonsignificant decrease in perceptions of the importance of school crisis prevention and preparedness knowledge and skills in today's schools, $t(860) = -1.27$.

A series of one-way between-group analyses of variance were conducted to explore the impact of demographic factors on changes in attitude. A significant difference was found between participants reporting different occupations, $F(4, 839) = 3.13$, $p < .05$. However, this effect was small ($\eta^2 = .01$). Post-hoc comparisons with Scheffe's test were used to further investigate this difference, and no significant differences were found. No significant differences were found between participants in attitude toward crisis prevention and preparedness as a function of years spent in their current profession, $F(3, 844) = 1.88$, *ns*, or number of previous school crisis training hours, $F(3, 843) = 1.98$, *ns*. However, there were significant changes in attitude for individuals with different hours of previous community/agency crisis training, $F(3, 836) = 8.61$, $p < .001$, with those reporting

0 hours ($M = .56$, $SD = .68$) or 1 to 5 hours ($M = .59$, $SD = .59$) of previous training experiencing significantly more positive gains in attitude than those with ≥ 11 ($M = .33$, $SD = .60$) prior hours of training. There were no differences between these groups and those reporting 6 to 10 hours of prior training ($M = .45$, $SD = .45$). Further, although graduate students were significantly more likely to experience more positive gains in attitude change than other participants were, $t(795) = –2.445$, $p < .05$, $\eta^2 = .007$, this effect was very small.

Workshop 2. Descriptive statistics for Workshop 2 pre- and post-attitude items are shown in Table 3. The overall mean attitude toward crisis intervention and recovery work became significantly more favorable, $t(1421) = 41.79$, $p < .001$, from pre-test ($M = 3.06$ of 5; $SD = .78$) to post-test ($M = 3.77$; $SD = .51$). The η^2 of .55 indicated this was a large effect (Cohen, 1988). Participants reported being significantly less anxious about conducting school crisis interventions, $t(1423) = 30.17$, $p < .001$, $\eta^2 = .39$; more confident in their ability to respond as part of the school crisis response team, $t(1421) = 29.04$, $p < .001$, $\eta^2 = .37$; and less fearful about making a mistake while implementing a school crisis response management plan, $t(1423) = 37.89$, $p < .001$, $\eta^2 = .50$.

An exploration of the association of demographic factors with changes in attitude revealed no significant differences between participants reporting different occupations, $F(4, 1385) = 1.14$. However, students reported a significant increase in mean change in attitude over nonstudents, $t(1285) = 23.30$, $p < .001$, $\eta^2 = .30$. Further, attitude toward crisis intervention and recovery differed as a function of years spent in their current profession, $F(3, 1395) = 49.07$, $p < .001$, $\eta^2 = .10$. Specifically, those with no prior experience ($M = 1.10$, $SD = .64$), as well as those with 1 to 5 years of experience in their current profession ($M = .81$, $SD = .63$), experienced significantly greater increases in attitude than di those with 6 to 10 years ($M = .60$, $SD = .57$) and ≥ 11 years of experience ($M = .51$, $SD = .62$).

Changes in attitude also differed based on previous school crisis training hours, $F(3, 1378) = 32.88$, $p < .001$, $\eta^2 = .07$. Scheffe's post-hoc tests revealed that those reporting < 11 hours of previous training in a school setting experienced significantly more positive gains in attitudes than did those with ≥11 hours (0 hours, $M = .86$, $SD = .73$; 1–5 hours, $M = 1.03$, $SD = .67$; 6–10 hours, $M = .73$, $SD = .59$); participants with 1 to 5 hours of prior training experienced greater gains than did those with 6 to 10 hours. A similar trend was found concerning the amount of prior community/agency crisis training hours, $F(3, 1379) = 26.48$, $p < .001$, $\eta^2 = .05$, with participants with fewer prior training hours reporting the largest gains in attitude change (with the exception being that those who had 1 to 5 hours of prior training had significantly more positive changes than did those with 0 hours (0 hours, $M = .86$, $SD = .70$; 1–5 hours, $M = .95$, $SD = .70$; 6–10 hours, $M = .70$, $SD = .57$; ≥11, $M = .55$, $SD = .65$).

Change in Knowledge

Workshop 1. Workshop 1 participant responses indicated significantly large increases in knowledge, $t(874) = 35.77$, $p < .001$, $\eta^2 = .59$, from pre-test ($M = 5.35$ of 10; $SD = 1.65$) to post-test ($M = 8.31$ of 10; $SD = 2.07$). There were no significant differences in knowledge of crisis prevention gained as a function of years spent in their current profession, $F(3, 860) = 1.344$; hours of previous school crisis training, $F(3, 859) = .56$; or community/agency-based training, $F(3, 852) = 1.85$. Further, there were no significant differences in knowledge gained based on the participants' reported professions, $F(4, 855) = .374$, or graduate student status, $t(810) = 1.85$.

Workshop 2. Workshop 2 participant responses also indicated significant increases in knowledge, $t(1427) = 46.63$, $p < .001$, $\eta^2 = .60$, from pre-test ($M = 7.24$ of 13; $SD = 2.0$) to post-test ($M = 10.37$ of 13; $SD = 2.13$). There were no significant differences found between participants

in knowledge gained as a function of years spent in their current profession, $F(3, 1401) = 1.99$, $p = .11$, or amount of previous school crisis training, $F(3, 1384) = 1.89$, *ns*. Interestingly, although small ($\eta^2 = .007$), there was a significant difference in knowledge gained based on the amount of previous community/agency based crisis training participants reported, $F(3, 1385) = 3.24$, $p < .05$. Post-hoc follow-up contrasts indicate one significant difference within groups, with those having no additional community or agency based training ($M = 3.46$, $SD = 2.3$) gaining significantly more knowledge than those with ≥11 hours of prior training ($M = 2.99$, $SD = 2.55$). There were also small significant effects found for the amount of knowledge gained based on graduate student status, $t(1292) = 2.36$, $p<.05$ $\eta^2 = .004$, with graduate students gaining significantly less knowledge ($M = 2.82$, $SD = 2.63$) than working professionals ($M = 3.23$, $SD = 2.49$). Lastly, there were significant differences found between participants' knowledge gained based on their current reported professions, $F(4, 1391) = 2.63$, $p < = .05$. However, this effect was small ($\eta^2 = .007$), and follow-up contrasts revealed no significant difference within groups.

Discussion

Consistent with the previous evaluation completed by Brock et al. (2011), *PREPaRE* participants from both Workshop 1 and Workshop 2 expressed a high degree of satisfaction with their training experience. Overall, participation in each *PREPaRE* workshop was associated with participants feeling more confident in their knowledge and abilities and improved attitudes toward crisis work as a result of their workshop experience. One exception was found in Workshop 1 participants' attitude ratings, in which the importance of crisis prevention skills and knowledge was rated as very important across both the pre- and post-tests; therefore, no significant difference was found across scores. These data lend support for this training model in immediately improving both crisis prevention and intervention knowledge and attitudes.

Participants experienced differential changes in attitudes based on training and prior experiences. Specifically, it appears that *PREPaRE* training is particularly beneficial for students in improving attitudes toward crisis work. This observation may indicate that graduate students do not feel adequately prepared by their current training programs and may benefit from additional crisis prevention and intervention training. Participants who reported fewer experiences with crisis training prior to workshops were more likely to have larger improvements in attitudes. Therefore, it appears that more experience and familiarity with crisis training helps increase one's confidence and attitude, supporting the increasing trend toward incorporation of crisis intervention into graduate coursework (Perfect & Morris, 2011).

Interestingly, the amount of knowledge gained by Workshop 1 participants did not differ based on background factors, suggesting that participants have something to gain from *PREPaRE* irrespective of past professional or training experiences. This effect differed for Workshop 2 participants, in which fewer previous training experiences were associated with a greater gain in knowledge. In contrast, graduate students did not appear to benefit as greatly in terms of knowledge gain compared with working professionals. Workshop 2 is a longer, 2-day training that contains more advanced information targeted toward crisis team members and recovery. Therefore, it is possible that working professionals have acquired more background experience that helps them to better conceptualize the information provided in training.

Qualitative data analysis revealed that participants across both workshops expressed satisfaction with the knowledge they gained, workshop presenters, and materials used. The active training components of the workshops were valued, with Workshop 2 participants citing the dynamic learning experiences as strengths, and both Workshop participants requesting that more experiential learning opportunities be incorporated into the curriculum. A comparison of the current themes with those

reported by Brock et al. (2011) revealed a high level of consistency. In the first study, themes from *PREPaRE* Workshop 1 participants included a desire for more workshop interaction, perceptions of the content being too scripted or dry, and a desire for alternative instruction practices (e.g., use of case-study scenarios). These data have important implications for continually improving the curriculum.

Limitations

The evaluation of training programs such as *PREPaRE* is a complex process, complicated by a number of factors (Kirkpatrick, 1996). In order to assess the effectiveness of training, this evaluation looked at the reaction and learning levels suggested by Kirkpatrick (1996). Although this study found positive effects on both attitude and knowledge, the research design does not allow for causal conclusions to be made in regard to participant learning. Future research should seek to use experimental designs to better explore training effects. Further, future efforts should analyze the impact of the *PREPaRE* training program on more advanced levels of program evaluation (behavior and results). Moving forward, it is important to explore what concepts and strategies participants, and the schools in which they work, are applying in real-life situations and how the *PREPaRE* program affects the implementation of these changes.

Additional limitations of this evaluation included the large amount of missing data. Due to differences in administering the satisfaction evaluations and pre- and post- tests among trainers, no information could be explored concerning how participant satisfaction was related to knowledge and attitude changes. Having more information about the participant sample would serve to improve our understanding of who is more likely to benefit from these workshops. For example, it is possible that participants who seek out the training would be more positive than those who are required by their school to participate. Lastly, the overlap in training dates did not allow for analysis by trainer and location, which prohibited a replication of the efficacy of the ToT model. Moving forward, efforts have been made to better track trainer and location information.

Implications for Practice and Future Directions

Findings from this study have direct implications in that the data have been used to create a second edition of *PREPaRE*. In addition to making content changes to reflect the most current research and practice (e.g., emphasis on positive school climate and resiliency as a context for crisis prevention and intervention), the second edition includes more active learning, participant interaction, and use of multimedia. In addition, the trainer recertification process included a major emphasis on the evaluation process, a review of common problems in the process, and the development of templates to be used in the curriculum to show participants how to complete the forms accurately. In addition, trainers receive updates about evaluation results and specific issues to be addressed to improve the fidelity of the process.

In addition, an international *PREPaRE* curriculum is being developed to incorporate common themes and considerations that make the program useful for countries throughout the world. This work includes addressing issues such as how the *PREPaRE* program works with and fits into the infrastructure of each country's emergency management system, as well as political/hierarchical differences, cultural considerations such as the impact of religious or spiritual beliefs, and using more general terminology that is relevant to a broader audience. Moving forward, special care will be taken to consider distribution of the *PREPaRE* program in such a way that it is available and useful for developing countries around the globe.

Conclusion

PREPaRE has been associated consistently with improvements in attitudes and knowledge toward crisis prevention and intervention across both workshops and evaluations. Future undertakings seek to better evaluate the extent to which training influences these variables over time and determine how *PREPaRE* concepts are utilized in the schools. Further, evaluation efforts must continue to monitor the impact of revisions across the second edition and the international version of the *PREPaRE* curriculum. Continued evaluation of the *PREPaRE* program will not only serve to improve the program as a whole, but also help build a better understanding of professional training in crisis prevention and recovery in schools across the world.

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