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The **International Journal of Emergency Mental Health and Human Resilience** provides a peer-reviewed forum for researchers, scholars, clinicians, and administrators to report, disseminate, and discuss information with the goal of improving practice and research in the field of emergency mental health.

The **Journal** is a multidisciplinary quarterly designed to be the premier international forum and authority for the discussion of all aspects of emergency mental health.

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INTERNATIONAL JOURNAL OF EMERGENCY MENTAL HEALTH AND HUMAN RESILIENCE

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INTERNATIONAL JOURNAL OF EMERGENCY MENTAL HEALTH —AND HUMAN RESILIENCE—

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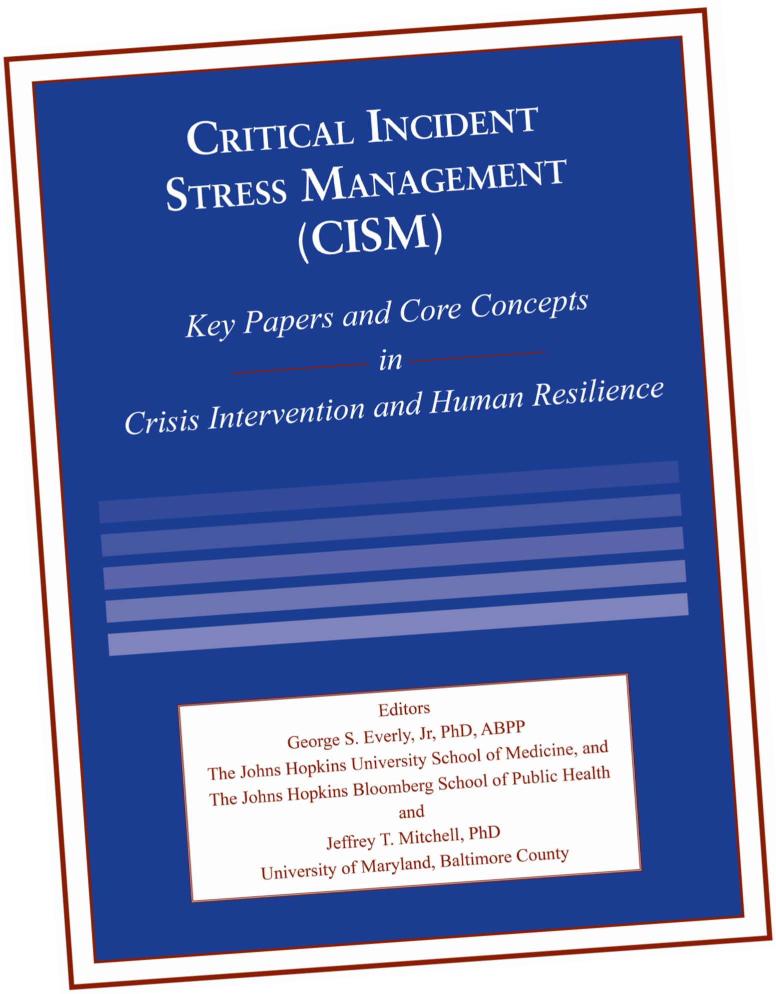
Key Papers and Core Concepts in Crisis Intervention and Human Resilience

Editors

George S. Everly, Jr, PhD, ABPP and Jeffrey T. Mitchell, PhD



CRITICAL INCIDENT
STRESS MANAGEMENT
(CISM)

Key Papers and Core Concepts
in
Crisis Intervention and Human Resilience

Editors
George S. Everly, Jr, PhD, ABPP
The Johns Hopkins University School of Medicine, and
The Johns Hopkins Bloomberg School of Public Health
and
Jeffrey T. Mitchell, PhD
University of Maryland, Baltimore County

CISM concepts have developed over the last thirty years into a sensible support program that is widely accepted by, among others:

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- Businesses
- Fire Services
- Law Enforcement Agencies
- Emergency Medical Systems
- Hospitals
- School Systems
- Community Groups
- The Military
- The United Nations

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- Peer Support Personnel

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Editorial

WHAT'S REALLY IN A NAME?

Writing in the late 1930s, psycholinguist Benjamin Lee Whorf postulated a theory (Carroll, 1956) that would be known as the Whorfian Theory of Linguistic Relativity. The theory simply proposed the notion that words can shape cognition and affect. Said more simply, the words we use to describe people, places, and things serve to shape our attitudes about them and subsequent actions towards them. After 14 years of publication, *The International Journal of Emergency Mental Health* has changed its name. The journal is now called *The International Journal of Emergency Mental Health and Human Resilience*. In addition, a new Managing Editor and a new group of Associate Editors have been selected to guide the *Journal.* We are grateful to the past Editors and editorial board members as we look forward to a new era.

The new era, we believe, is an era that must not only focus upon reactive mental health interventions in the wake of emergencies and disaster, but must look toward the future with *resistance* and *resilience* in mind. The notion of human resilience is one that has garnered great attention in recent years.

In an effort to provide clarity to the rapidly growing field of resilience studies, efforts from the Department of Psychiatry at The Johns Hopkins University School of Medicine resulted in the development of an integrative model of human resilience. The model contributes heuristic value to the construct of resilience and is referred to as the Johns Hopkins Model of Resistance, Resilience, and Recovery (henceforth, the Hopkins' Model). The Hopkins' model serves to advance the field by recognizing the importance of putting resilience on a continuum, and by separating out the notion of protective immunity from the notion of resilience as a form of rebound (Kaminsky et al., 2007; Nucifora, Hall, & Everly, 2011). The Hopkins model describes resistance as the "ability of an individual, a group, an organization, or even an entire population to withstand manifestations of clinical distress, impairment, or dysfunction associated with critical incidents, terrorism, and even mass disasters." One could think of resistance as a form of "psychological immunity to distress and dysfunction" (Nucifora et al., p. S34). Resilience, in this model, refers to "the ability of an individual, a group, an organization, or even an entire population, to rapidly and effectively rebound from psychological and/or behavioral perturbations associated with critical incidents, terrorism, and even mass disasters" (Kaminsky, McCabe, Langlieb, & Everly, 2007). Finally, recovery refers to observed improvement following the application of treatment and rehabilitative procedures. For the purpose of the *Journal*'s masthead, we shall collapse the three-point continuum under the term "resilience."

A review of current events reveals uncertainty and crisis in epidemic proportions. Political crises, not just in the United States, but in Egypt, Greece, Spain, Syria, Lebanon, and Italy, seem largely symptoms of a far more pervasive and malignant state of political conflict, social turmoil, and economic crisis. Domestically, the wars in Afghanistan and Iraq are winding down. Our nation is waiting with great anticipation for the return of thousands of military members and their subsequent reunification with family and friends. In the celebration of this reunification, we would be remiss if we did not acknowledge the challenges that will be inherent in any such process. Military members will be returning to families, social networks, and workplaces that may have changed in their absence. Many returning veterans will be seeking employment in an economy that is suffering record unemployment, historic credit restrictions, and an existing workforce that is reluctant to retire at previously expected age milestones. From a mental health perspective, many veterans will be returning with posttraumatic stress disorder, posttraumatic depression, and traumatic brain injury. Many of them will go undiagnosed and untreated until they experience significant adjustment problems with the family, the workplace, or perhaps the law enforcement system. In addition, there is reason to be concerned about the potential emergence of a virtual epidemic of suicides, based upon a growing prevalence amongst military members already serving. While uncertainty and serial crisis is becoming the norm, it is still anxiogenic. From a systems' perspective, uncertainty and crisis (or even the threat thereof) stifles innovation, is an impediment to investment, and fosters a hording mentality, both personally and institutionally. From a personal perspective, crisis creates fear, unrest, and paralyzes inclinations to act, or leads to the opposite course, ie, impulsive, often regretful, actions largely because it threatens a core human need…the need for safety. The resultant toxic environment may erode organizational, community, and personal health. As dismal as this might sound, not every organization, community, or person is adversely affected by the toxicity of uncertainty and manifest crisis. Some individuals seem resilient in such circumstances; thus they are minimally affected. Others manifest such resilience they seem to actually prosper in adversity. In times of prosperity, there is little motivation to study human resilience, but during times of uncertainty, crisis, and adversity the motivation is substantial.

By renaming the *Journal* so as to expressly include human resilience, we acknowledge the importance of the conduct of such inquiry and we expressly dedicate aspects of the *Journal* for the expression of theory and practice related to human resilience, while not neglecting our previous foci, as well.

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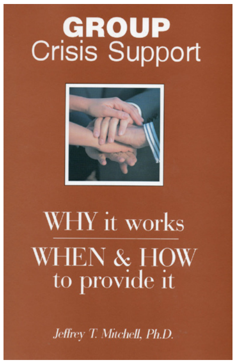

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Does a One-Day Educational Training Session Influence Primary Care Pediatricians' Mental Health Practice Procedures in Response to a Community Disaster? Results from the Reaching Children Initiative (RCI)

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Abstract: *Although many children and adolescents need assessment and treatment for psychological problems, few get such treatment from mental health specialists after a community disaster. Research suggests that a very large proportion of children are seen in pediatric primary care settings and that pediatricians can provide appropriate care for many social and emotional problems in children. However, few pediatricians have received training in providing this help. The focus of this study was to assess whether brief training to increase the capacity of primary care pediatricians (PCPs) to respond to the social or emotional problems of children after the World Trade Center terrorist attacks improved the quality of services to disaster-affected children. Pediatricians (N=137) attended a one-day training workshop covering best practice treatments for mental health problems with an emphasis on trauma, bereavement, and medication use. We surveyed attendees prior to training, immediately post-intervention, and 1- and 6-months later. At 6-months post-intervention, 64% of the primary care clinicians reported instituting practice changes recommended during training. Reported use of formal mental health screening instruments increased, but greater use of medications was more limited. Although participants in the immediate post-intervention survey indicated strong agreement with the desirability to implement specific practice changes, the perceived desirability of such changes declined substantially at the 6-month follow-up. Changes in PCPs' mental health related practice procedures can be facilitated by brief educational interventions, but continued training and support may be needed. We discuss these results relative to preparedness for community disasters. [International Journal of Emergency Mental Health and Human Resilience, 2013, 15(1), pp. 3-14].*

Key words: *primary care, educational training, mental health, adolescents and children*

Research on large-scale community disasters such as the World Trade Center Disaster (WTCD), the 2004 Indonesian tsunami, the Chernobyl Nuclear Power Plant disaster, Hurricane Katrina, and more recent mass shooting/bombings (e.g., Sandy Hook Elementary School, Boston Marathon) has shown that these types of traumatic events can have

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Support for this project came from the September 11 recovery grant from the American Red Cross Liberty Disaster Relief Fund (grant 20044263) to Danielle Laraque, MD. Views expressed in this article are those of the authors and do not necessarily reflect positions of the American Red Cross. Correspondence regarding this article should be directed to Danielle Laraque, MD, dlaraque@maimonidesmed.org

severe consequences for the mental health of survivors (Brewin, Andrews, & Valentine, 2000; Bromet et al., 2009; Galea et al., 2003; Neria, Handi, & Galea, 2008). This line of research also documents that mothers and children exposed to community disasters are particularly vulnerable to social and emotional problems and that these problems can persist for years after the disaster (Adams et al. 2011; Bromet et al., 2009; Chemtob, Nakashima, & Hamada, 2002; Noffsinger, Pfefferbaum, Pfefferbaum, Sherrib, & Norris, 2011).

In addition to the psychological difficulties that follow from a community disaster, previous studies suggest that about half of lifetime mental health problems in adults begin in childhood or adolescence, with between 14 and 32 percent of young people suffering from a social or emotional problem in any given year (Burnett-Zeigler et al., 2012; Farmer, Burns, Angold, & Costello, 2003; O'Connel, Boat, & Warner, 2009) and up to 60% have a diagnosable disorder before the age of 18 (Copeland, Shanahan, Costello, & Angold, 2011). Regardless of the source, parents with children suffering from psychological problems carry an exceedingly high burden, while the economic costs of health care for social institutions such as education, law enforcement, and juvenile justice have been estimated to be in the billions (O'Connel, Boat, & Warner, 2009).

Children generally receive health care within primary care pediatric settings. Numerous investigators and clinicians argue that these settings have great potential as a means of providing first line identification and treatment for emotional and behavioral problems (Asarnow, Jaycox, & Anderson, 2002; Kelleher & Stevens, 2009; O'Connell et al. 2009), much in line with the focus in pediatrics on the whole child. PCPs also develop a level of trust with parents and knowledge of family and community issues that aid in the provision of care for such problems (Hafting & Garlow, 2007). An added benefit of treatment in primary care settings is that care comes without the potential stigma associated with mental health specialty treatment programs (Cheung et al., 2008; Heneghan, Barner, Storfer-Isser, Kortepeter, Stein, & Horwitz, 2008). Primary care physicians (PCPs), therefore, may be particularly important in the aftermath of a large-scale traumatic event in addressing the needs of children and their parents (Chemtob, Nomura, & Abramovitz, 2008).

Current research suggests, however, that children may receive less than optimal mental health treatment from their PCP (Blanchard, Gurka, & Blackman, 2006; Costello, Edelbrock, & Costello, 1988; Kataoka, Zhang, & Wells, 2002; Kelleher, Campo, and Gardner, 2006; Laraque et al., 2004; Laraque et al. 2009). The problem of sub-optimal treatment and the scarcity of mental health specialists who focus on the needs of children could be addressed, given the availability of standardized screeners with high sensitivity and specificity, effective medications, and brief cognitive-behavioral therapeutic treatments for children, via specialized training courses for PCPs (O'Connell et al., 2009; Carter, Briggs-Gowan, & Davis, 2004; Kelleher et al. 2006; Hacker, Myagmarjav, Harris, Suglia, Weidner, & Link, 2006; Strand, Sarmiemto, &Pasquale, 2005; Zuckerbrot, Maxon, Pager Davies, Fisher, & Shafer, 2007; Olfson, Marcus, Weissman, & Jensen, 2002). Research suggests that few PCPs are willing to undertake this additional task on their own (American Academy of Pediatrics (AAP), 2003; AAP, 2009; Cheung et al., 2008; Heneghan et al., 2008; Laraque et al., 2004; Rushton, Bruckman & Kelleher, 2002; Thomas & Holzer, 2006). This hesitation often reflects a need for PCPs to receive additional training to accomplish this public health aim, but such training sessions are relatively rare (Kutner, Olson, Schlozman, Goldstein, Warner, & Berestin, 2008; Stein, Horwitz, Storfer-Isser, Heneghan, Olson, &Hoagwood, 2008). It is possible that this training would be more easily provided in the aftermath of large-scale disasters when pediatricians may be more motivated to view their role in more expansive ways.

Research on the effectiveness of training designed to increase pediatricians' mental health related practice skills is also relatively rare in the literature, with only a few studies assessing long-term influence of training (e.g., 6-months or longer) (Laraque et al., 2004; 2009). Within the context of the WTCD and its impact on children, we sought to examine whether a one-day educational intervention specifically designed to increase post-disaster mental health screening and medication use among pediatricians was effective. Our design assessed: 1) if the intervention would change PCPs reported practice related behavior; and 2) if behavioral intentions measured at the completion of training session would predict actual behavior change 6-months post-intervention (Laraque et al., 2009).

The origins of the training program assessed in the current study come from a collaborative conference covering the topics of mental health, environmental health, and bioterrorism related to September 11th, on December 3, 2001, by the American Academy of Pediatrics (AAP), NY Chapter 3, in collaboration with the New York Academy of Medicine (NYAM) and Mt. Sinai School of Medicine (MSSM).

Recommendations from this conference suggested that area practices were adversely affected by this community disaster and that there was a need for additional professional training, medical education, support services, and patient education related to children's mental health issues. These conclusions formed the basis for the development of a training and research collaboration among the AAP, NYAM, and MSSM that brought together pediatricians, child psychologists, and health services researchers to conduct a regional post-9/11 survey and develop training sessions for New York City area PCPs (Hu, Adams, Boscarino, & Laraque, 2006; Laraque et al., 2004; 2009).

METHODS

Design and Sample

Design of the intervention was guided by adult learning theory and the theory of planned behavior. Activities included interactive sessions, role play, and the motivational technique, mental contrasting and intention implementation (MCII), following each content area (Bauer, Smith, Chien, Berry, & Msall, 2009; Gollwitzer & Bargh, 1996; Kutner, Olson, Schlozman, Goldstein, Warner, & Berestin, 2008; Oettingen, Honig, Gollwitzer 2000; Perkins et al., 2007). The intervention used the intent to change behavior model discussed by Perkins et al. (2007) and focused on changing PCPs' attitudes, beliefs, and perceived behavioral control, which then influences behavioral intentions.

The educational intervention was delivered on eight separate occasions and different locations between November, 2005 and June, 2006. There were 8 to 31 participants in each session. Event presenters included pediatricians, mental health specialists, and a parent advocate. Training focused on use of mental health screening measures, identifying and addressing bereavement issues, understanding the principles of cognitive-behavioral therapy (CBT), and knowledge about medication use (such as selective serotonin reuptake inhibitors [SSRIs]). The Institutional Review Board at Mt. Sinai School of Medicine reviewed and approved all research protocols.

Data Collection Procedures

We recruited AAP members in the New York, New Jersey, and Connecticut region explaining the RCI training session. Potential participants were drawn from the AAP membership databases of the tri-state area (New York, New Jersey or Connecticut). Specifics of recruitment and intervention have been reported in detail elsewhere (Laraque et al, 2009). (See also: http://www.mssm.edu/departments-and-institutes/pediatrics/programs-and-services/reaching-children-initiative). In total, 409 physicians were reached and 215 (137 intervention and 78 control) completed the baseline survey (response rate based on completed surveys/total PCP's contacted=53%). The project also administered immediate post-intervention, one-month, and six-month follow-up surveys to all intervention participants (137 completed the baseline survey and attended the intervention, 131 completed the immediate post-intervention survey [95.6% of attendees], 93 responded to the 1-month survey [67.9%], and 87 the 6-month follow-up survey [63.5%]). Survey questions were derived, in part, from the consensus process for the Guidelines for Adolescent Depression and from our previous survey of physicians in this area (AAP 2003; 2009; Blanchard et al., 2006; Cheung et al., 2007; Laraque et al. 2004; 2009; Zukerbrot et al., 2007).

Practice Changes 6-months Post-Intervention. The 6-month post-intervention survey asked respondents whether or not their practices initiated changes prompted by the RCI training. For those who answered yes, the survey presented a series of statements about treating children with social and emotional problems (e.g., Parents appreciate interest in their child's mental health, see Table 2). Respondents indicated their level of agreement with each statement (range 1-10). We dummy coded responses to these items into strongly agree (codes 8-10) versus less agreement (codes 7 or less). We also inquired if the practice had initiated the use of various medications designed to treat social and emotional problems, including stimulants, atomoxetine, clonidine, tricyclics, SSRI's, and anxiolytics and dummy coded these measures.

Screening for Mental Health Problems. The baseline, 1-month, and 6-month post-intervention surveys asked respondents (Yes/No) if any of the following was likely to happen in their practice: informally screened for attention problems, used a formal screening instrument, established a DSM diagnosis, treated attention problems within the practice, or referred the patient to an outside mental health specialist. A similar set of Yes/No questions asked about screening, diagnosing, and treating children for depression. The baseline survey also listed 9 formal screening instruments and asked which, if any, participants used to identify patients with social or emotional problems (i.e., Pediatric Symptom Checklist [PSC-35 or 17; Jellinek, Murphy, Little, Pagano, Comer, & Kelleher, 1999], Strengths and Difficulties Questionnaire [SDQ; Goodman, 1999; Goodman, Ford, Simmons, Gatward, & Meltzer, 2003], GAPS Questionnaire [American Medical Association [AMA], 2010; Montalto, 1998], Child Behavior Checklist [CBCL; Achenbach & Edelbrock, 1983], Child Depression/Beck Depression Inventory [CDI/BDI; Cary, Faulstich, Gresham, Ruggiero, & Enyart, 1987; Beck, 1988], Patient Health Questionnaire [PHQ-A or PHQ-9; Spitzer, Kroenk & Williams, 1999; Kroenke, Spitzer, & Williams, 2001], the Connors or Vanderbilt Parent/Teacher Form [Coyette, Conners, & Ulrich, 1978; Wolraich, Lambert, Doffing, Bickman, & Simmone, 2003]).

Attitudes about Intention to Change Practice Procedure. The immediate post-intervention, 1-month, and 6-month surveys had 10 questions about the participants' intention to change their practice procedures as a consequence of the training session material, with response categories ranging from 1 (not very likely) to 10 (very likely). We dummy coded these items to group respondents who indicated that they were very likely to make these changes (codes 9 or 10) vs. those who were less likely to make such changes (codes 8 or lower). We also created an Intention to Change scale by summing the 10 dummy variables, with higher scores reflecting greater intention to change practice procedures.

Demographic and Practice Characteristics. Baseline data included information about the participants' demographic and practice characteristics. We have reported a more detailed description of the sample elsewhere (Laraque et al., 2009). In the current analyses, we included the participants' gender, race/ethnicity (White; Asian; Other), and years practicing medicine. For practice characteristics, we asked about the practice setting (community hospital, university hospital, community clinic, private practice, other setting) and if the practice had a practice/nurse manager (Yes/No).

RESULTS

The sample was 77% female, and about 60% White, 23% Asian, and 17% Other Race/Ethnicity. A little over 40% had been practicing medicine for 10 years or less, while 29% were practicing medicine between 11 and 20 years and 31% had been practicing for 20 years. Almost 40% were in private practice, whereas 11% were in community hospital settings, 29% in university hospital settings, 13% in community clinics, and 8% in other settings. Lastly, not quite two-thirds of the practices had a practice/nurse manager (Table 1). Based on an examination of the membership of the tri-state AAP, our sample did not deviate significantly from the overall membership characteristics (Laraque et al. 2009). Additional attrition analyses show that White respondents and those practicing in a setting other than private practice were slightly more likely to complete the 6-month survey compared to other racial groups or those in private practice. Respondents who indicated that their practice has a higher percentage of patients with mental health problems were also more likely to complete the 6-month survey. All of the other comparisons were not statistically significant. Thus, there is little reason to think that our results are severely affected by sampling procedures or attrition. On the other hand, given that participants who completed the 6-month survey were from practices with more patients presenting social and emotional problems, we expect that the current study is one where we are most likely to see sustained effects of our one-day training seminar.

Our baseline survey inquired about the use of specific screeners commonly used by PCPs. The most frequently used of these were the Vanderbilt or the Conners parent or teacher forms, with almost 53% reporting current use of these screening tools. About 8% of the participants reported using the PSC-35, about 10% used the PSC-17, 14% used the CBCL, 13% used a depression screener, such as the CDI or BDI, 7% used the PHQ, about 6% used the GAPS, and only 2% used the SDQ.

Since the focus of this study is on the effect of the one-day training on changes in practice procedures, we present our results from the 6-month post-intervention survey. At 6-months post-intervention, about 64% of the PCPs reported practice changes specifically recommended during the RCI training sessions. As can be seen in Table 1 (rows 1-5), only race/ethnicity was statistically significant to reporting practice changes, with Asian physicians particularly likely to do so compared to White participants. Table 1 (rows 6-15) presents our results for immediate post-intervention intentions. Participants who agreed in the immediate post-intervention survey that they were likely to use a screening tool and likely to use a diagnostic aid were more likely to state that their practice had instituted changes at 6-months post-intervention compared to participants who said that they were unlikely to use such tool or aides.

To assess which factors predict implementing changes in the practice at 6-months, we estimated a logistic regression, with implementation (no/yes) as the dependent variable and race of the MD participant (Asian vs. other race/ethnic-

Table 1.
Demographic Characteristics and Immediate Post-Intervention Attitudes by 6-Month Instituted Practice Changes Suggested by RCI

Skills/Treatment Variables	Did Not Institute Changes % (n)	Institute Changes % (n)
Demographic Characteristics		
MD Gender		
Male	17.2 (5)	29.4 (15)
Female	82.8 (24)	70.6 (36)
Race/Ethnicity		
White	86.2 (25)	60.8 (31)*
Asian	3.4 (1)	21.6 (11)
Other	10.3 (3)	17.6 (9)
Years Practicing Medicine		
15 years or less	54.5 (12)	66.7 (32)
16+ years	45.5 (10)	33.3 (16)
Primary Care Setting		
Other Setting	79.3 (23)	62.7 (32)
Private Practice	20.7 (6)	37.3 (19)
Practice/Nurse Manager		
No	40.7 (11)	30.0 (15)
Yes	59.3 (16)	70.0 (35)
Immediate Post-Intervention Attitudes		
Like to Use Screening Tool		
Unlikely (1-8)	74.1 (20)	28.6 (14)***
Likely (9-10)	25.9 (7)	71.4 (35)
Likely to Use diagnostic Aid		
Unlikely (1-8)	70.4 (19)	33.3 (16)**
Likely (9-10)	29.6 (8)	66.7 (32)
Likely to Elicit Trauma History		
Unlikely (1-8)	66.7 (18)	53.1 (26)
Likely (9-10)	33.3 (9)	46.9 (23)
Recommend/Provide CBT		
Unlikely (1-8)	72.0 (18)	58.3 (28)
Likely (9-10)	28.0 (7)	41.7 (20)
Likely to Recommend/Provide Medications for Depression		
Unlikely (1-8)	83.3 (20)	64.6 (31)
Likely (9-10)	16.7 (4)	35.4 (17)
Provide Bereavement Counseling		
Unlikely (1-8)	77.8 (21)	71.4 (35)
Likely (9-10)	22.2 (6)	28.6 (14)
Network with Mental Health Specialists in My Area		
Unlikely (1-8)	48.0 (12)	25.6 (11)
Likely (9-10)	52.0 (13)	74.4 (32)
Schedule follow-up appointment for Psychosocial Issues		
Unlikely (1-8)	44.4 (12)	28.6 (14)
Likely (9-10)	55.6 (15)	71.4 (35)
Learn more about CBT		
Unlikely (1-8)	54.2 (13)	52.1 (25)
Likely (9-10)	45.8 (11)	47.9 (23)
Setting goals in Partnership with the family for Psychosocial Issues		
Unlikely (1-8)	41.7 (10)	34.3 (12)
Likely (9-10)	58.3 (14)	65.7 (23)

*p<.05 **p<.01 ***p<.001; X^2 test

ity), practice setting (private vs. other settings), and our 10 item Intention to Change scale as independent variables. Participants who indicated that their practice had implemented changes covered during the RCI sessions 6 months after the training were more likely to be Asian (Adjusted Odds Ratio[AOR]=13.07, p<.05), be in a private practice (AOR=3.57, p<.05), and to have more strongly endorsed the intention to change items (AOR=1.32, p<.01) compared to non-Asians, participants in other types of practice settings, or those who expressed less agreement with our intention to change items in the immediate post-training survey.

The 6-month survey results suggested that practice changes were associated with a more positive provider-patient relationship (Table 2). In particular, participants who reported practice changes indicated that more than 80% of patients appreciated their interest in the mental health of the child and 76% said that families appreciated being included in setting goals for the child's psychosocial issues. Less than half of the respondents indicated that parents and children/adolescents easily completed screening tools (48% and 44%, respectively), 40% of participants felt more confident when prescribing medications for mental health disorders, and 45% agreed that their practice was able to manage psychosocial follow-up visits. Finally, 45% of the respondents agreed that their patients improved after taking medications.

According to our 6-month survey, over 65% of intervention participants stated that they initiated the use of stimulants when treating their patients. However, only 36% initiated the use of atomoxetine, 33% the use of clonidine, 19% use of trycyclics, 46% use of SSRI's, and 36% use of anxiolytics. For those respondents who reported changes in their practice procedures, there was an increase in medication use, with the use of stimulants, atomoxetine, clonidine, and SSRI's showing a statistically significant increase at 6-months post-intervention compared to participants who reported no changes in practice procedures.

The baseline, 1-month, and 6-month surveys contained five questions about screening, diagnosing, and treating attention/ADHD problems and a similar set of questions for depression (Table 3). Prior to the intervention, almost 85% of the participants reported that their practice informally screened for attention problems, but only about half used a

Table 2.
6-month Percent Strongly Agreeing with Questions Regarding Attitudes about Treating Patients with Mental Health Problems among Respondents who Initiated Practice Changes Suggested by RCI Training Intervention (N=87)

Strongly Agree with Statement*	6-Months Post-Intervention % (n)
Parents appreciate interest in child's mental heath	80.8 (42)
Parents easily completed screening tool/diagnostic aide	48.0 (24)
Child/Adolescents easily completed screening tool/diagnostic aide	44.4 (22)
I'm more confident when prescribing medications for MH disorders	39.9 (20)
Children/Adolescents generally improve after taking medications	45.1 (23)
Networking with MH specialists in my area improved	51.0 (23)
My practice was able to manage psychosocial follow-up visits	45.1 (23)
Parents did not welcome questions related to their child's MH†	74.0 (37)
Families appreciated being included in setting goals for psychosocial issues	75.5 (37)

*-Items were originally coded strongly disagree to strongly agree on a scale 1-10.

Strongly agree was coded as a score of 8 or higher.

†-Reverse coded (i.e., % reflects those who strongly disagreed with the statement [1-3 as originally coded].)

formal screening instrument. Only 45% established a DSM diagnosis, about 58% treated the psychological problem, and over 75% indicated that the practice would refer patients with this disorder to outside mental health professionals. Much less attention was directed toward the needs of patients with depression. While 87% of the participants said that their practice informally screened for depression, less than 20% used a formal screening instrument, less than 30% established a DSM diagnosis or treated depression, and nearly all of the practices (92%) referred such patients for treatment by others.

Comparing these baseline percentages to our post-intervention surveys, informal screening of attention problems increased to 91% (at one month) and 93% (at 6-months), respectively, and to 71% and 64% for formal screening of attention problems, respectively. Diagnosing and treating attention problems changed relatively little, while referring children to outside providers decreased to 61% by 6-months. Reported use of a formal screening instrument to screen for depression almost doubled from 17 to 33% between baseline and 6-months. While there was much less change in the other measures, most were in the direction recommended by the intervention presenters.

Our final set of analyses look at the percent of respondents who indicated that they intended to make specific practice changes on the immediate post-intervention, 1-month, and 6-month surveys. Over 50% of the participants said that they would make use of a screening tool to identify children with social and emotional problems on the immediate post-intervention survey (Figure 1). Similarly, respondents indicated that they intend to use a diagnostic aide, to network with a mental health specialist, to schedule a follow-up visit for a mental health issue, and to partner with parents. About 45% noted that they would elicit a trauma history and learn more about cognitive behavioral therapy. A lower percentage expressed an intention to treat depression or offer bereavement counseling.

All of the intention-to-change measures, however, showed large declines between the immediate post-intervention and the 6-month surveys. Intention to use formal screening tools declined to just over 30% at 1-month and to less than 20% by 6-months. There were similar reductions for using a diagnostic aide (31% for 1-month and 19% for 6-months) and for learning about CBT (31% and 24%, respectively). Much smaller reductions in intentions are shown for networking with mental health specialists, scheduling a follow-up visit, and partnering with parents.

DISCUSSION

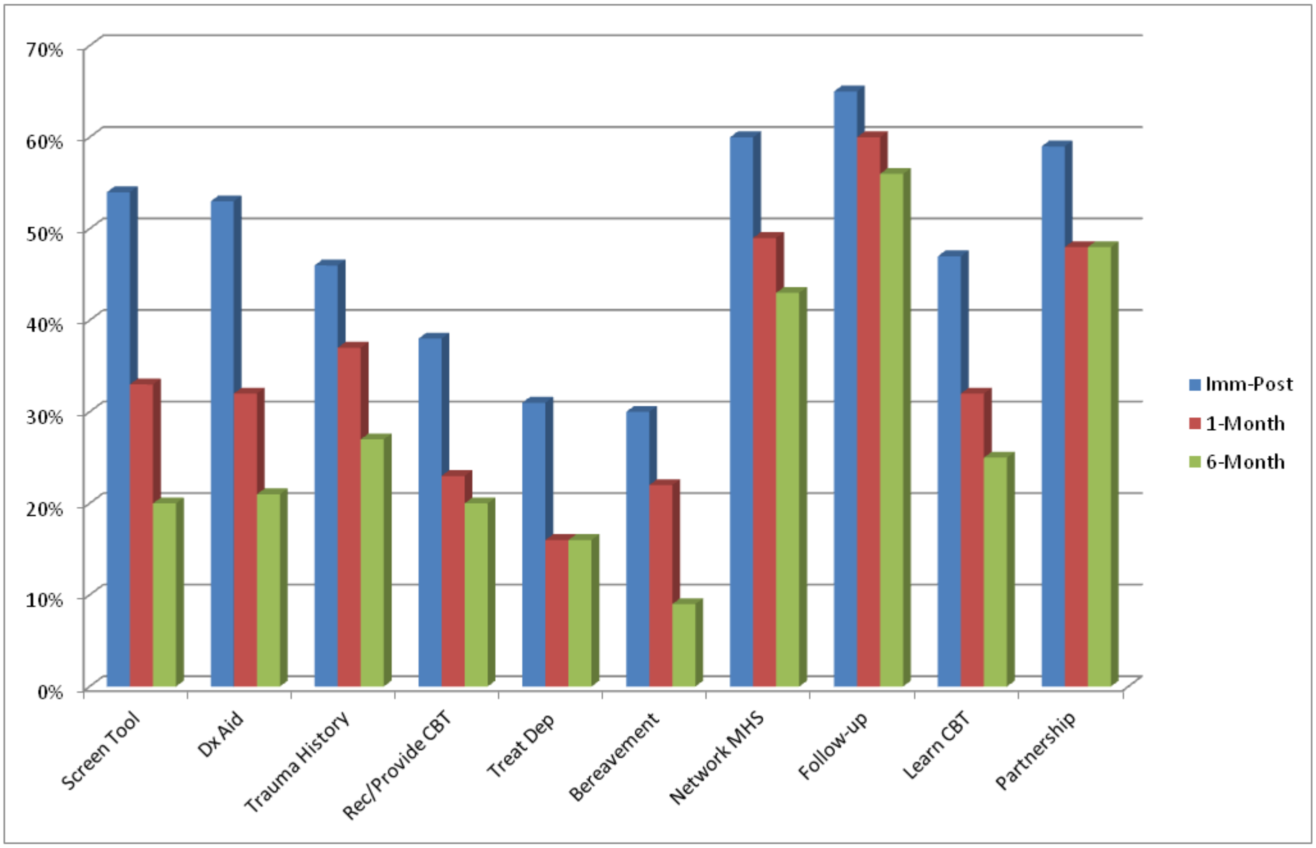
This study emerged out of concern that primary care physicians' practices faced significant long-term demands

Table 3.
Percent Responding Yes for Screening and Treating Patients with Mental Health Problems: Baseline (N=137), 1-Month (N=93), and 6-Months Intervention (N=87)

% Yes for Skills/Treatment Variables	Baseline % (n)	1-Month Post-Intervention % (n)	6-Months Post-Intervention % (n)
Informally screen for attention/ADHD problems	84.7 (111)	91.3 (84)	92.8 (77)*
Formally screen for attention/ADHD problems	49.6 (65)	71.1 (66)	64.2 (52)**
Establish DSM diagnosis for attention problems	45.4 (59)	59.6 (53)	52.4 (43)
Treat attention problems (with or without meds)	58.3 (77)	69.0 (60)	65.9 (54)
Refer out patients with attention problems	77.4 (103)	69.4 (59)	61.3 (46)*
Informally screen for depression	87.2 (116)	93.4 (85)	92.7 (76)
Formally screen for depression	16.7 (21)	35.2 (31)	33.3 (27)*
Establish DSM diagnosis for depression	28.7 (37)	40.0 (34)	39.0 (32)
Treat depression (with or without meds)	29.5 (38)	39.5 (34)	28.8 (23)
Refer out patients with depression	92.4 (121)	95.5 (85)	88.8 (71)

*-p<.05 **p<.01, Cochran Q test, df=2 (N=68)

Figure 1. Percentage of Participants Who Strongly Agree (score of 9 or 10) that Their Practice Intends to Make Changes in Office Procedures as a Consequence of Participation in RCI.



Lessons for Practice

- One day training is effective in altering the behavior of primary care physicians for screening and treatment of social and emotional problems in children.
- Changes suggested by the training session, if implemented, are associated with higher satisfaction expressed by parents of patients.
- Attitudes about initiating changes advocated by the training session showed marked decline over the 6-month post-intervention period.
- Research should examine the possible value of providing ongoing support to PCPs, such as the use of quality circles, ongoing peer learning and support groups, collaborative office rounds, learning collaboratives, and other quality improvement strategies

to address children's disaster related mental health problems as a consequence of the World Trade Center terrorist attacks on September 11 and yet did not feel properly equipped to effectively respond to this disaster. We also anticipated that similar demands would occur following other natural or person-made disasters. Within this context, we addressed two questions in the physician training literature: Among participants who completed a single day training session on diagnosing and treating children with social and emotional problems, 1) what practice changes do they report as a consequence of the training and 2) do these changes ("training" effects) persist six months later? We found that almost 65% of participants reported changes in their practice behaviors 6-months after the intervention. Practice changes reported included greater use of formal symptom screening tools for mental health problems and increased use of medications to address social and emotional difficulties in children. Moreover, the vast majority of respondents who indicated that they made mental health related practice changes reported that the changes were supported by parents. All of these changes can be seen as a necessary response by primary care physicians to a community disaster like the WTCD.

Although positive, these results also highlight the limitations of a single session educational intervention. The one-day training did not appear to result in a large and sustained increased in use of screening tools for depression or the use of medications to treat depression and other mental health problems. When examining relatively familiar psychological and interpersonal difficulties such as ADHD or other attention problems, PCP's willingness to screen and treat children's psychological problems appeared to increase between the baseline and 6-months post-intervention surveys, similar to results from a recent AAP survey (Cheung et al., 2008). The analyses suggested much less change for problems less familiar to PCPs, like depression or bereavement. It should be noted that the U.S. Preventive Services Task Force finds evidence for the utility of screening for depression in adolescence. There is, however, controversy over screening and treating younger children (Williams, O'Connor, Eder, & Whitlock, 2009).

Reflecting on the intent to change model (i.e. MCII) used in our intervention (Perkins et al., 2007), it is likely that PCPs encountered greater obstacles to the implementation of some changes than others. This suggests that practitioners might be provided with practice-based support to implement and sustain practice changes, as well as with repeated exposure to educational materials addressing children's social and emotional problems. Devising concrete strategies that address these obstacles might increase the likelihood of practice changes to treat children's psychological problems.

Study Limitations: First, the PCPs participating in the intervention were self-selected and do not necessarily represent all pediatricians in the Tri-State area. It is also possible, given self-selection, that the training session was not the main source of changes in any of the participants' attitudes or practice procedures. Second, the surveys assessed self-reported changes in attitudes or practice procedures. While intention to change has been shown to predict actual behavior change (Gollwitzer & Bargh, 1996; Perkins et al., 2007), future research should obtain independent verification of actual changes in practice behavior.

Given these PCPs self-selected into the intervention, and were presumably motivated to provide more effective treatment to their patients, our one-day training session effected relatively modest practice changes and did not lead to a sustained increase in the desire to initiate specific changes (e.g., bereavement counseling). It might be prudent for medical training to question the assumption that busy PCPs will begin, and continue, a new behavior that requires extra effort on their part without further support, especially after a community disaster. Research should examine the possible value of providing ongoing support to PCPs, such as the use of quality circles, ongoing peer learning and support groups, collaborative office rounds, learning collaboratives, and other quality improvement strategies (Beyer et al., 2003; Gollwitzer, 1999; Institute for Healthcare Improvement, 2011; Wensing et al., 2009).

Several recent studies show that lengthy delays can occur between the onset of mental health problems and the initiation of adequate treatment (Algon, Calkins, Kohler, & Borgmann, 2012; Anderson, Fuhrer, & Malla, 2010; Norman, Malla, Verdi, Hassall, & Fazekas, 2004). Such delays are associated with poorer course, increased duration of distress for patients and families, and potentially compromise treatment success, as well as increasing the likelihood of contact with law enforcement agencies. These findings give added emphasis for the necessity of adequately training PCPs in the detection, diagnosis, and treatment of psychological problems in children and adolescents and how to respond more efficaciously to community-wide traumatic events. It also suggests that one possible way of providing this training is in the context of disaster preparedness for primary care pediatricians.

This study indicates the feasibility of generating change, even if short-term, and that it is useful to evaluate the efficacy of training interventions over time. Future research might be structured using randomized controlled designs to compare different ways to initiate and maintain changes in PCPs' child mental health practice behaviors. The current research should also encourage further longitudinal studies of the efficacy of mental health training interventions for primary care pediatricians.

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The Communities Advancing Resilience Toolkit (CART)©: Development of a Survey Instrument to Assess Community Resilience

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Abstract: While building community resilience to disasters is becoming an important strategy in emergency management, this is a new field of research with few available instruments for assessing community resilience. This article describes the development of the Communities Advancing Resilience Toolkit (CART) survey instrument. CART is a community intervention designed to enhance community resilience to disasters, in part, by engaging communities in measuring it. The survey instrument, originally based on community capacity and related literature and on key informant input, was refined through a series of four field tests. Community organizations worked with researchers in a participatory action process that provided access to samples and helped to guide the research. Exploratory factor analysis performed after each field test led to the identification of four interrelated constructs (also called domains) which represent the foundation for CART: Connection and Caring, Resources, Transformative Potential, and Disaster Management. This model was confirmed using confirmatory factor analysis on two community samples. The CART survey can provide data for organizations and communities interested in assessing a community's resilience to disasters. Baseline data, preferably collected pre disaster, can be compared to data collected post disaster and/or post intervention. [International Journal of Emergency Mental Health and Human Resilience, 2013, 15(1), pp. 15-30].

Key words: community; community assessment; community resilience; community survey; disaster; disaster preparedness; terrorism

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The federal government now recognizes community resilience as an essential component of a ready and responsive society (see e.g., U.S. Department of Health and Human Services [DHHS], 2009; U.S. Department of Homeland Security [DHS], 2007, 2010, 2011). Resilience can be conceptualized as an attribute (e.g., ability or capacity), a process, and/or an outcome associated with successful individual, family, organizational, or community adaptation to adversity (see e.g., Norris, Stevens, B. Pfefferbaum, Wyche, & R. L. Pfefferbaum, 2008; Plodinec, 2009). Community resilience differs from personal resilience in that community resilience requires community members to be "resilient together, not merely in similar ways" (Brown & Kulig, 1996/97, p. 43), thus illustrating the importance of collective activity in which individuals and groups work to advance response and recovery for the whole. In resilient communities, physical and social structures and conditions help to create the capacity for deliberate, meaningful action from which successful adaptation emerges (Brown & Kulig, 1996/97; B. Pfefferbaum, Reissman, R. L. Pfefferbaum, Klomp, & Gurwitch, 2007; R. L. Pfefferbaum et al., 2008).

Despite attention to the importance of community resilience, few instruments exist to measure it and few interventions have been developed specifically to enhance it (see e.g., Chandra et al., 2010; Cutter et al., 2008). The Communities Advancing Resilience Toolkit (CART), developed by the Terrorism and Disaster Center (TDC) of the National Child Traumatic Stress Network, has been recognized as an "important" community tool developed to assist communities in enhancing resilience (Chandra et al., 2011, p. 2). This paper describes the creation of the CART survey instrument which can be used (a) alone to provide data for organizations and communities interested in measuring their community's resilience to disasters, (b) in conjunction with other instruments as part of a more comprehensive community assessment, and/or (c) as part of additional activities to build community resilience (R. L. Pfefferbaum, B. Pfefferbaum, & Van Horn, 2011; R. L. Pfefferbaum et al., 2013).

METHODS

Early development of CART

The theoretical foundation for the CART survey instrument is found in the public health and social psychology literatures which have described components of community capacity and competence (see e.g., Cottrell, 1976; Gibbon, Labonte, & Laverack, 2002; Goeppinger & Baglioni, 1985; Goodman et al., 1998; Labonte & Laverack, 2001a, 2001b). These literatures were used to identify seven attributes of community resilience: (a) Connectedness, Commitment, and Shared Values; (b) Participation; (c) Support and Nurturance; (d) Structure, Roles, and Responsibilities; (e) Resources; (f) Critical Reflection and Skill Building; and (g) Communication. The seven attributes, and an eighth – Disaster Management – which focuses attention on the adversity of concern for CART, are described elsewhere (R. L. Pfefferbaum et al., 2008).

TDC used the original seven attributes to construct the initial version of the CART survey questionnaire. A Technical Advisory Group – representing a range of expertise from community leadership, education, public health, research, and service – was convened relatively early in the survey development process in 2006 to review the initial survey instrument and provide feedback regarding clarity, content, and administration.

Survey refinement

TDC conducted key informant interviews and focus groups to gain a better understanding of the attributes that contribute to community resilience. Varying versions of the CART survey instrument were piloted as part of early survey development. Each field test was approved by the Institutional Review Board of the University of Oklahoma Health Sciences Center. Community resilience items were structured as Agree/Disagree statements, with the number of response options varying across field tests. A neutral option was included in some, but not all, applications. In addition to the core community resilience items that are the primary component of the survey, each iteration of the instrument included demographic questions and items to address issues of particular local concern which were constructed in cooperation with the organizations that partnered in each CART application. Recognizing that the seven original attributes overlapped and contained substantial interactions, TDC ultimately combined and reframed them into meaningful constructs, also referred to as domains, related to community resilience.

Initial Mixed Sample

The initial CART survey instrument consisted of 42 community resilience items, six items for each of the original seven resilience attributes. Early field tests conducted in the Fall of 2005 involved church groups in two rural communities (n = 81), representatives of multiple community agencies (e.g., fire, hospitals, mental health, police, public health, schools) in a city of approximately 25,000 residents (n = 48), and community college social work students in a city of 1.5 million people (n = 44) which together created the total sample (N = 173). Missing data for 16% of the respondents resulted in complete data for 146 participants.

Several concerns surfaced from these first field tests including redundancy and the wording of some items which were addressed. An eighth attribute, Disaster Management, was added to focus attention on the adversity of primary concern in CART research. Without abandoning the theoretical basis of the instrument, TDC revised the instrument to include 51 items.

CERT sample

Field tests conducted in the Fall of 2006 involved affiliated volunteer responders from the Phoenix, Arizona, Community Emergency Response Team (CERT) Program (Community Emergency Response Teams [CERT], n.d.; Phoenix Community Emergency Response Program, n.d.). Partial data were missing for 40% of respondents in this sample (N=225) who were contacted by postal and electronic mail. Excluding respondents with missing data resulted in complete data for 135 participants. The percentage of missing data increased from the first question to the last, suggesting that the instrument was too long. To correct for the length of the survey and continued redundancy in the questions, the number of community resilience items was reduced from 51 to 21 and the wording of some items was refined. The selection of items for the revised instrument was based on results of exploratory factor analysis, key informant input, and recent literature including emerging research findings (Cutter et al., 2008; Morrow, 2008; Moser, 2008; Norris et al., 2008;). The 21 community resilience items are presented in Table 1.

Table 1.
CART Survey: 21 Community Resilience Items

1. People in my community feel like they belong to the community.
2. People in my community are committed to the well being of the community.
3. People in my community have hope about the future.
4. People in my community help each other.
5. My community treats people fairly no matter what their background is.
6. My community has the resources it needs to take care of community problems (resources include money, information, technology, tools, raw materials, and services).
7. My community has effective leaders.
8. People in my community are able to get the services they need.
9. People in my community know where to go to get things done.
10. My community works with organizations and agencies outside the community to get things done.
11. People in my community communicate with leaders who can help improve the community.
12. People in my community are aware of community issues that they might address together.
13. People in my community discuss issues so they can improve the community.
14. People in my community work together to improve the community.
15. My community looks at its successes and failures so it can learn from the past.
16. My community develops skills and finds resources to solve its problems and reach it goals.
17. My community has priorities and sets goals for the future.
18. My community tries to prevent disasters.
19. My community actively prepares for future disasters.
20. My community can provide emergency services during a disaster.
21. My community has services and programs to help people after a disaster.

Community Renewal International (CRI) Sample

In late 2008, Community Renewal International (CRI) provided the third sample consisting of residents in five poverty neighborhoods in Shreveport-Bossier, Louisiana. CRI is a non-profit comprehensive community initiative working to reverse the disintegration of cities, restore the foundation of safe and caring communities, and transform neighborhoods by rebuilding a system of caring relationships (Community Renewal International [CRI], n.d.). A U.S. Department of Justice grant is funding CRI to develop and field test a model for emergency, terrorism, and disaster preparedness through a renewal and restoration process in the five neighborhoods.

The CART survey was implemented in the five neighborhoods in which CRI has a presence. Participants were asked to respond to statements related to their neighborhood rather than their community. The intent of the study was to select households in each of the neighborhoods from among those identified as having a relationship with CRI matched with households on the same block not identified as having a relationship with CRI. When sampled, the groups of households were not distinct in terms of respondents' knowledge of and connection to CRI, as indicated by responses to a specific survey item, so the two groups were merged into one sample. Trained staff and volunteers interviewed participants (N=352) at their homes using the revised survey instrument containing 21 community resilience items (see Table 1). Missing data for 12% of the participants resulted in a sample of 309 participants with complete data.

Connecting Caring Communities (CCC) sample

The fourth sample used in CART survey development was provided by Connecting Caring Communities (CCC) in Abilene, Texas. CCC, a non-profit community-based organization dedicated to comprehensive community renewal, seeks to build a stronger city by increasing the capacity of residents and bringing resources for health, education, and housing to impoverished neighborhoods (Connecting Caring Communities [CCC], n.d.). CCC enlisted representatives from local foundations, public agencies, education, health care, the Air Force base, the city, and other stakeholders to guide and support the CART initiative.

This field test, completed in the spring of 2009, used an instrument containing 23 community resilience items (rather than the 21-item instrument used for the CRI sample). The revision of survey items was motivated by a concern that previous versions of the instrument used general terms in an item describing the availability of resources (see Table 1, item 6) rather than describing specific types of resources in separate survey items (i.e., separate items for natural resources, labor, and built infrastructure). The CCC sample (N = 453) was drawn to be random, with oversampling in neighborhoods identified by CCC as particularly vulnerable because they contained census tracts designated as Community Development Target Areas by the U.S. Department of Housing and Urban Development or because they were characterized as low income and high crime areas based on U.S. Census data. Surveys were mailed to households. Responses could be submitted by postal mail, online, in person, or over the telephone. Missing data for 11% of respondents resulted in a sample of 402 participants for analysis.

Statistical Analysis

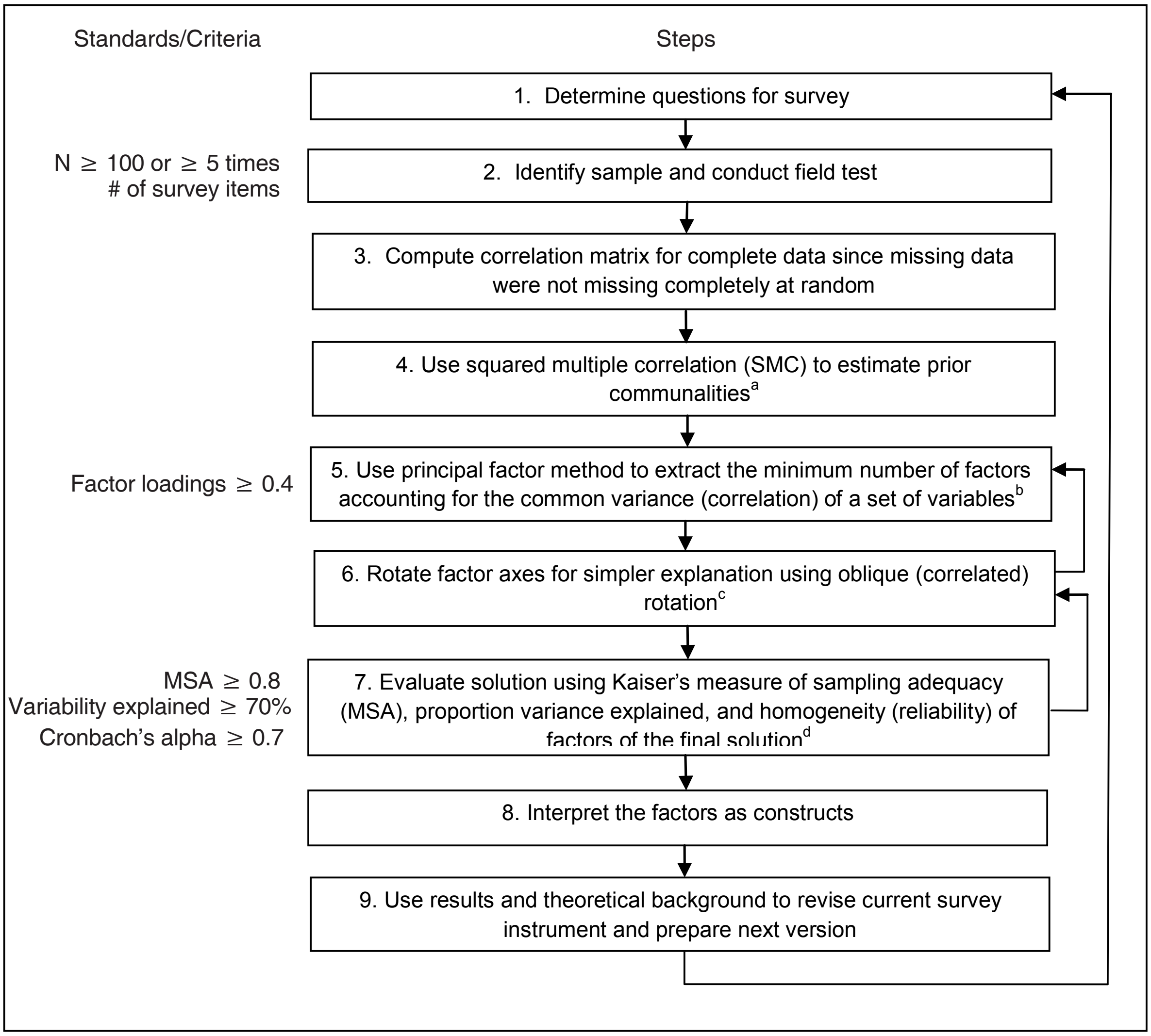
Summary statistics were calculated for all procedures. Demographic patterns and factor analysis results are presented for the CRI and CCC samples. All summary statistics and exploratory factor analysis (EFA) results were obtained using SAS v.9.2 (SAS Institute, Inc., 2008).

Exploratory Factor Analysis

The nine-step iterative process and the decision criteria used to refine the survey are summarized in Figure 1. EFA was used to map observed, inter-correlated variables into fewer uncorrelated, or moderately correlated, unobserved factors that identified theoretical constructs explaining the majority of the variability in the original data (Hair, Black, Babin, & Anderson, 2009; Hatcher, 1994; Tabachnick & Fidell, 2007). EFA for the first two field tests (Initial-Mixed and CERT samples) – along with key informant feedback, the conceptual framework, and contemporary literature – was used primarily for instrument refinement, allowing for exploration of the questions and relationships among the questions. EFA for the third and fourth field tests (CRI and CCC samples) was used to fine tune the instrument and to clarify the underlying constructs, giving rise to a theoretical model of community resilience involving four domains: Connection and Caring, Resources, Transformative Potential, and Disaster Management.

A sample size greater than 100 or five times the number of survey items was required for each field test. Kaiser's Measure of Sampling Adequacy (MSA) was used to determine whether a sample provided some indication of underlying factors. An MSA of 0.8 or higher was considered adequate (Hair et al., 2009; Hatcher, 1994; Tabachnick & Fidell, 2007). Oblique (promax) rotation (Hair et al., 2009; Hatcher, 1994; Tabachnick & Fidell, 2007) was used in the factor analyses because it generated factors that were simpler and more understandable than those generated by orthogonal rotation. Correlation between factors which may be introduced by oblique rotation was not considered problematic in this analysis since the elements of community resilience are not independent. See Figure 1.

Figure 1. Exploratory Factor Analysis Process for Refining the CART Survey Instrument



[a] Communality is defined as the proportion of a question's variance explained by a factor structure.

[b] The principal factor method uses the communalities in the correlation matrix. Factor loadings of 0.4 or higher determined whether or not a question loaded on a factor. The first factor accounts for the largest proportion of the variability of the questions, the second factor accounts for the largest proportion of variability after the first factor is extracted, and this process continues until the variance is explained.

[c] Oblique (correlated) rotation creates some correlation among the factors, which is expected to exist in CART applications, but can provide a simpler, clearer explanation of the factors than orthogonal (independent) rotation.

[d] Sampling adequacy is evaluated using Kaiser's measure of sampling adequacy (MSA) and assesses the correlation structure of the items included in the analysis. An MSA value of 0.8 or greater is considered adequate. For this study, a solution had to account for 70% or more of the variability in the original data to be considered informative. The reliability of the final solution was estimated using Cronbach's alpha to measure the internal consistency of the items in the solution. A Cronbach's alpha of 0.7 or higher was considered acceptable.

Confirmation of the Model with ConfirmatoryFactor Analysis

The theoretical model of community resilience involving four constructs (Connection and Caring, Resources, Transformative Potential, and Disaster Management) developed through theory, expert panel input, and field tests was tested with confirmatory factor analysis (CFA) applied to the data from the CRI and CCC samples. The four constructs were represented by 21 items for the CRI application and 23 items for the CCC application. Twenty items were the same for both samples; one item in the CRI application was divided into three items for the CCC application.

Confirmation of the theoretical model was performed using CFA in LISREL 8.8 (Jöreskog, 2005; Jöreskog & Sörbom, 2006). Since the data were Likert scale, ordinal, and non-normal, the Diagonally Weighted Least Squares estimation method was used. As recommended by the developers of the LISREL software, the polychoric correlation and asymptotic covariance matrices obtained from using the PRELIS program in LISREL were used. Flora and Curran (2004) illustrate the robustness of these procedures. The global measures of fit used in this study were the Satorra-Bentler Scaled Chi-Square statistic, Non-Normal Fit Index (NNFI), Cumulative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA).

Assessment of reliability and validity

Reliability was assessed using Cronbach's alpha coefficient, the composite reliability index, and the average variance extracted (AVE). Cronbach's alpha coefficient was used to assess internal consistency reliability for the CRI and CCC items defining each construct and for all items (Cronbach, 1951; Hatcher, 1994). Cronbach's alpha estimates greater than or equal to 0.7 were considered acceptable (Hatcher, 1994). The composite reliability index, reflecting the internal consistency of the items defining a construct (Fornell & Larcker, 1981; Hatcher, 1994), was calculated for each construct included in the CFA. Composite reliability estimates greater than or equal to 0.6 were considered acceptable (Fornell & Larcker, 1981). The AVE, which provides an estimate of the proportion of variance attributed to a construct by comparing the variance captured by the items of the construct to the variance due to measurement error, was calculated for each construct in CFA for both the CRI and CCC samples. AVE estimates greater than or equal to 0.5 were considered indicative of good model performance (Fornell & Larcker, 1981; Hatcher, 1994).

Face validity of the items was determined initially by TDC and the Technical Advisory Group. CRI staff and CCC partner organizations also reviewed, provided input regarding, and approved the survey items. Face validity was considered present when the items appeared valid to the experts and community partners assisting in the development of the instrument.

Convergent validity, which is considered present when constructs that should be related to each other are observed to be related to each other, was assessed by examining the t-tests for the CFA factor loadings. Convergent validity was supported when all factor loadings for the items defining a construct were statistically significantly different from 0 (Anderson & Gerbing, 1988; Hatcher, 1994).

Discriminant validity, which is considered present when it is possible to differentiate between dissimilar constructs so that constructs that should not be related are observed to be unrelated, was evaluated using the construct inter-correlations, their confidence intervals, and the variance extracted test. Construct inter-correlations less than 0.85 were assumed to indicate discriminant validity (Hatcher, 1994). The confidence interval method was more stringent in requiring the upper bound of the confidence interval to be less than 1.00 (Anderson & Gerbing, 1988). Discriminant validity also was supported if the AVE for each of the pair of variables was greater than the square of the inter-correlation between the variables (Fornell & Larcker, 1981; Hatcher, 1994).

RESULTS

The first two field tests, involving the Initial-Mixed and CERT samples, contributed to the refinement of the CART survey instrument. EFA results of data from the Initial-Mixed sample suggested four community resilience constructs labeled to reflect the essential substance of each: (a) Support and Nurturance; (b) Resources, Responsibilities, and Roles; (c) Respect, Diversity, and Participation; and (d) Critical Reflection, Strategic Engagement, and Response. EFA results from the CERT sample suggested four constructs which differed from those identified in the Initial-Mixed sample in part, no doubt, because disaster management survey items were added to the instrument and included in the CERT factor analysis. The four constructs emerging from analysis of the

CERT sample were: (a) Transformative Potential and Disaster Management, (b) Connection and Caring, (c) Resources, and (d) Participation.

These two early samples did not produce clear separation of constructs, but they provided a basis for believing that constructs existed. The major benefit gained from these early field tests was refinement of the instrument through rewording of some questions and elimination of those that were redundant. In addition, the sorting produced from EFA assisted in later determination of constructs of community resilience.

Demographics of participants in the CRI and CCC samples are presented in Table 2. EFA results and implications for these samples are described below and summarized in Table 3. For these field tests, the survey instruments were reduced and refined, with only a slight difference in the two instruments as noted above. Factor analysis of data from the CRI sample suggested four community resilience constructs labeled to reflect the essential substance of each: Transformative Potential, Connection and Caring, Resources, and Disaster Management. The EFA summary for this sample indicates clear results of four constructs with good fit of the data to these constructs. CCC EFA data suggested the same four community resilience constructs; however, the items sorted somewhat differently.

Table 2.
Demographics for Two Major Field Tests
(CRI and CCC)

	CRI 2008 N=309 21 survey items	CCC 2009 N=402 23 survey items
Gender		
Male	34%	31%
Female	66%	69%
Ethnicity		
Black, African American	83%	4%
Hispanic	1%	8%
White	10%	84%
Other	6%	4%
Age		
18-29 years	18%	10%
30-59 years	55%	50%
60+ years	27%	40%
Marital status		
Married	24%	62%
Not married	76%	38%

Exploratory Factor Analysis Results

All four samples met a sample size criterion of N ≥ 100 or five times the number of survey items as stipulated in the methodology (see Figure 1). The last two field tests had some missing data (12% for the CRI sample and 11% for the CCC sample) which appeared to be random with no identifiable patterns. Respondents with missing data were removed from the analysis.

All MSA estimates were greater than 0.9, indicating the appropriateness of using factor analysis to examine the data (Hair et al., 2009; Hatcher, 1994; Tabachnick & Fidell, 2007). Several survey items did not load on any factor or loaded on more than one factor for all samples except the CRI sample. The percentage of total variability accounted for by the factors of a given analysis ranged from 78% to 100%, with all of the variability accounted for in the last two samples (CRI and CCC). Oblique rotation produced moderately correlated factors, with correlations ranging between 0.40 and 0.63. The CRI and CCC samples provided a clear separation of factors as determined by the factor loading values for each specific construct. No cross-loading was found for the CRI and CCC samples, although five items did not load on any factor for the CCC sample.

The CRI and CCC field tests also produced interpretable factors. The two surveys used in these field tests provided the same interpretation even though very different populations were studied, suggesting possible generalizability of the instrument.

Confirmatory factor analysis results

The community resilience model with four interrelated domains confirmed the results from the EFA when examining the CRI data. All global measures of fit, presented in Table 4, indicated a good fit: Sartorra-Bentley Scaled X^2_{183} = 266.7; RMSEA = 0.039 (90% CI 0.028-0.048); and NNFI and CFI = 0.99. The RMSEA and the bounds of its 90% confidence

Table 3.
Exploratory Factor Analysis Summaries for Two Major Field Tests (CRI and CCC)*

CRI Sample (Fall 2008)

Preliminary Details	Factor Descriptions			
Range of Factor Item Means	Cronbach's alpha	Number of Items Loaded	Construct Loading Range	Associations
CC: 4.1-4.3	Total: 0.94	Total: 21 items	CC: 0.56–0.72	MSA=0.94
TP: 3.8-4.0	CC: 0.81	CC: 5 items	RE: 0.46-0.68	
RE: 3.7-3.9	RE: 0.80	RE: 4 items	TP: 0.40-0.80	*Factor Correlations*
DM: 3.8-4.0	TP: 0.92	TP: 8 items	DM: 0.51-0.68	TP*CC: 0.61
	DM: 0.85	DM: 4 items		TP*RE: 0.61
Eigenvalues				TP*DM: 0.63
9.7, 0.92, 0.64, 0.58				CC*RE: 0.49
				CC*DM: 0.51
				RE*DM: 0.54

CCC Sample (Spring 2009)

Preliminary Details	Factor Descriptions			
Range of Factor Item Means	Cronbach's alpha	Number of Items Loaded	Construct Loading Range	Associations
CC: 4.0-4.2	Total: 0.94	Total: 18 items	CC: 0.53-0.86	MSA=0.95
TP: 3.1-3.5	CC: 0.85	CC: 4 items	RE: 0.42-0.68	
RE: 3.5-3.6	RE: 0.69	RE: 3 items	TP: 0.51-0.79	*Factor Correlations*
DM: 3.5-3.6	TP: 0.87	TP: 7 items	DM: 0.69-0.80	TP*DM: 0.59
	DM: 0.84	DM: 4 items		TP*CC: 0.54
Eigenvalues				TP*RE: 0.58
8.5, 1.46, 0.88, 0.63				DM*CC: 0.40
				DM*RE: 0.46
				CC*RE: 0.56

*CC: Connection and Caring RE: Resources
TP: Transformative Potential DM: Disaster Management

interval were less than 0.06, generally considered the upper limit for a "good" fit (Flora & Curren, 2004; Hatcher, 1994; Hu & Bentler, 1999; Tabachnick & Fidell, 2007). As indicated in Table 5, all estimates of the standardized factor loadings were greater than 0.5 (0.57-0.86) and thus significant by t-test criteria (Anderson & Gerbing, 1988; Hatcher, 1994). The correlations between the constructs ranged from 0.71 to 0.83. Although the community resilience model was confirmed by this analysis, the model is not necessarily generalizable since EFA was partially responsible for the development of the model. These data should fit the model better than other data collected solely for CFA. Other models containing fewer constructs, independent constructs, or constructs completely correlated (each pair inter-correlation set at 1.0) did not fit as well as the model with four interrelated constructs.

Applying CFA to the CCC sample provided some evidence for generalizability as the theoretical model was not the best EFA solution for these data. While the four constructs resulting from the CRI EFA also resulted from the CCC EFA, some items did not fit and thus the item structure of the constructs was different for the best CCC EFA model. When the community resilience model with four interrelated constructs was applied to the CCC data, the fit was not quite as good as that for the CRI sample, but it provided confidence that the theoretical model was a reasonable one. All measures for the CCC sample, presented in Table 4, indicated a good fit: Sartorra-Bentley Scaled $X^2_{224} = 429.5$; RMSEA = 0.048 (90% CI 0.041-0.055); and NNFI and CFI = 0.99. The RMSEA estimate was less than 0.06, with the upper limit of the 90% confidence interval close to 0.06. As indicated in Table 5, all estimates of the standardized factor loadings were greater than 0.5 (0.57-0.94) and thus significant by t-test criteria (Anderson & Gerbing, 1988; Hatcher, 1994). The correlations between the constructs ranged from 0.57 to 0.82.

Reliability and validity

Cronbach's alpha results for the CRI EFA and the CCC EFA, presented in Table 3, generally indicated internal consistency of the construct items. Only the results for the Resources construct for the CCC sample, at 0.69, was below the 0.7 value used to indicate acceptable internal consistency. For the CRI sample, Cronbach's alpha values for the model constructs for CFA were identical to the corresponding CRI EFA values as expected, and all were within the acceptable range indicating internal consistency. For the CCC CFA, Cronbach's alpha estimates were all greater than 0.7, including 0.75 for Resources.

Composite reliability estimates based on CFA were not as high as the Cronbach's alpha estimates. For the CRI sample, all construct estimates were between 0.59 and 0.70, with all estimates except the measure for Connection and

Table 4.
Confirmatory Factor Analysis Global Measures of Fit for Two Major Field Tests (CRI and CCC)

	Df	Satorra-Bentler Scaled X^2	NNFI	CFI	RMSEA (90% CI)
CRI (N=309)	183	266.7	0.99	0.99	0.039 (0.028-0.048)
CCC (N=402)	224	429.5	0.99	0.99	0.048 (0.041-0.055)

NNFI: Non-normal Fit Index

CFI: Cumulative Fit Index

NNFI and CFI are considered measures of "acceptable" fit if value is between 0.9 and 0.95 and of "good" fit if > 0.95.

RMSEA: Root Mean Square Error of Approximation

RMSEA estimates between 0.1 and 0.6 are considered measures of "acceptable" fit and those < 0.06 "good" fit.

Table 5.
Confirmatory Factor Analysis Summary Measures for Two Major Field Tests (CRI and CCC)*

	Range of Factor Item Means	Factor Loadings (Cronbach's alpha)	Composite Reliability	Inter-factor Correlations	Squared Inter-factor Correlations	Average Variance Extracted (AVE)
CRI	Factor	CC: 0.57-0.81 (0.81)	CC: 0.59	CC*RE: 0.71	CC*RE: 0.50	CC: 0.51
(N=309)	means are	RE: 0.68-0.78 (0.80)	RE: 0.63	CC*TP: 0.77	CC*TP: 0.59	RE: 056
	those shown	TP: 0.73-0.86 (0.92)	TP: 0.70	CC*DM: 0.71	CC*DM: 0.50	TP: 0.66
	in Table 3	DM: 0.72-0.86 (0.85)	DM: 0.69	RE*TP: 0.83	RE*TP: 0.69	DM: 0.65
				RE*DM: 0.79	RE*DM: 0.62	
				TP*DM: 0.83	TP*DM: 0.69	
CCC	CC: 3.1-3.5	CC: 0.75-0.88 (0.85)	CC: 0.72	CC*RE: 0.79	CC*RE: 0.62	CC: 0.69
(N=402)	RE: 3.4-3.8	RE: 0.57-0.76 (0.75)	RE: 0.55	CC*TP: 0.70	CC*TP: 0.49	RE: 0.45
	TP: 3.5-4.0	TP: 0.71-0.84 (0.87)	TP: 0.67	CC*DM: 0.57	CC*DM: 0.32	TP: 0.62
	DM: 3.5-3.8	DM: 0.83-0.94 (0.86)	DM: 0.79	RE*TP: 0.82	RE*TP: 0.67	DM: 0.77
				RE*DM: 0.71	RE*DM: 0.50	
				TP*DM: 0.74	TP*DM: 0.55	

*CC: Connection and Caring   RE: Resources
TP: Transformative Potential   DM: Disaster Management

Caring (0.59) within an acceptable or minimally acceptable range of 0.6 or higher, indicating reliability (Fornell and Larcker, 1981; Hatcher, 1994). For the CCC sample, the Resources construct indicated weak (unacceptable) composite reliability (0.55) while the other construct estimates were in the acceptable range. For both samples, only one AVE – the AVE for the Resources construct in the CCC sample – was below the acceptable value of 0.5. See Table 5.

Convergent validity was assumed for both samples as the smallest t statistic was 9 for the CRI sample and 12 for the CCC sample, both indicating p-values less than 0.0001. The inter-correlation interval and AVE methods used to evaluate discriminant validity provided mixed results. The inter-correlation interval method provided support for discriminant validity, while the variance extracted test failed to provide complete support for discriminant validity. For the CRI sample, only the Connection and Caring construct paired with the Disaster Management construct showed discriminant validity using the variance extracted test, while for the CCC sample, only the pairs including the Resources construct failed to show discriminant validity. For the interval method, all inter-correlations in both CRI and CCC were less than 0.85 and none of the calculated intervals included 1, thus indicating discriminant validity. See Table 5.

Table 6.
Description of the Four Domains and Relationship to the Eight Attributes

The Four Domains	Attributes that Map to Each Domain
Connection and Caring	• Connectedness, Commitment, and Shared Values • Participation • Support and Nurturance • Communication
Resources	• Structure, Roles, and Responsibilities • Resources • Communication
Transformative Potential	• Structure, Roles, and Responsibilities • Resources • Critical Reflection and Skill Building • Communication
Disaster Management	• Disaster Management • Communication

DISCUSSION

Of those survey items that remained in the latter two instruments (21 items in the CRI instrument and 23 items in the CCC instrument), the Support and Nurturance and the Respect, Diversity, and Participation items from the Initial-Mixed sample as well as the Connection and Caring items from the CERT sample loaded with Connection and Caring in the CRI and CCC samples. This seems reasonable insofar as respect, diversity, and participation contribute to people's sense of connection to others and to caring provided to community members. Resources emerged as a factor in all analyses. Items originally written to capture critical reflection and skill building loaded together consistently in all samples. Items originally written to address the need for effective communication loaded on the various factors, which is appropriate in that each of the domains requires communication.

Disaster Management items loaded with Transformative Potential items in the CERT sample. Transformative Potential is associated with the identification and analysis of community issues, problem solving, skill building, and efforts to improve the community. CERT members focus specifically and actively on disaster preparedness and response so it is understandable that they would link community problem solving and improvement directly to disaster management. The Disaster Management items loaded as a separate factor in the last two field tests (CRI and CCC), both of which were community samples. This suggests that elements associated with Transformative Potential are important in their own right, not just in their relationship to disaster management, and that identification of community issues, critical analysis of community successes and failures, goal setting, skill building, and collective action are distinct from any particular adversity. The emergence of Transformative Potential and

Disaster Management as separate domains also suggests that CART can be adapted for adversities other than disasters which may eventually contribute to an understanding of the role of community resilience across multiple adversities and lend credence to the proposition that community resilience to one adversity may enhance a community's ability to deal with other adversities (B. Pfefferbaum et al., 2007; R. L. Pfefferbaum et al., 2008). Thus, while CART is anchored in disaster management, the CART survey may prove useful for organizations and communities focused on other major concerns by replacing disaster management items with items reflecting management of different adversities.

As indicated above, TDC sought to clarify the Resources domain, resulting in a 23-item instrument which was used with CCC (compared to the 21-item instrument used with CRI). New survey items addressed resources more specifically than they had been addressed in earlier versions of the instrument, replacing the existing item with separate items for the availability of natural resources, a workforce, and a built infrastructure. The workforce and infrastructure items loaded with other Resources items in the CCC sample; the natural resources item did not load on any factor. In that the original, general item on resource availability used in the CRI sample appeared to capture the more specific items and, in the interests of a shorter questionnaire and as indicated by CFA, the general item will be used in future surveys.

The survey item regarding effective leaders (see Table 1, item 7) failed to load on any factor in the CCC sample. In that leadership is a resource, it is not surprising that this survey item loaded on Resources in the CRI sample as was the case with the CERT sample. The difference in findings regarding leadership in the two recent samples (CRI and CCC) may result from the focus on the entire city with CCC as compared to neighborhoods with CRI, perhaps reflecting confusion about who qualifies as a leader, how well leaders work on issues germane to residents, or other differences. The leadership item will be maintained in the survey instrument because of the presumed importance of leadership in preventing, preparing for, responding to, and recovering from, disasters and other adversities.

The equity item (see Table 1, item 5) loaded on Connection and Caring in the CRI sample and on Resources in the CCC sample. Fair treatment may be a personal issue associated with interpersonal relationships – and thus Connection and Caring – when the focus is on neighborhoods as was the case with the CRI sample. Respondents in the CCC sample may have associated the statement with resource allocation – and thus Resources – because the focus was on the entire city and, therefore, perhaps less personal.

As described above, the factor analysis performed after each of four field tests resulted in the identification of four overlapping, interrelated domains which represent the foundation for the current version of the CART survey instrument: Connection and Caring, Resources, Transformative Potential, and Disaster Management. Table 6 illustrates how the eight attributes (the original seven derived from the community capacity and competence literature plus Disaster Management) map into the four domains. Note that the Communication attribute maps into all four domains. The other attributes each map into one or more domains. These factor analysis results appear to match well with logic and intuition; that is, when examined after the fact, they appear reasonable and consistent.

Strengths and limitations

Strengths of this study included the opportunity to work with a variety of community groups to assist with the development and selection of appropriate survey items and the opportunity to use diverse community groups as the sampling frame for the survey. The early sampling can be considered purposive in that it involved groups convened to address community efforts to deal with disasters. The last two samples were more consistent with what the reader might consider a community though arguably all of the samples might reasonably use the instrument to address disasters or other adversities. Although the two latter communities were quite different, community partners in both cases appreciated the importance of community resilience.

CFA results were used to assess the fit and factor validity for the theoretical model, but the results are not fully generalizable to the population until the theory is applied to a different set of data. Rather than performing CFA on a new sample using the same instrument, CFA was performed on two samples that were used to fine-tune the instrument and to understand better the constructs determined through EFA. The theoretical model had not been explored in the CCC sample and valuable information was obtained from CFA.

As demonstrated and discussed by Flora and Curran (2004), there are no simple sample size guidelines for CFA. Both the CRI and CCC samples met some of the suggested guidelines, for example, sample size greater than 200 and at least 10 observations per item, while neither would meet some of the larger sample size guidelines.

Composite reliability was not high, suggesting that internal consistency of the items could be improved through further refinement of the instrument. While some measures of validity were available, other measures were not because of the lack of existing instruments for measuring community resilience. These issues indicate the potential need for refinement of the theoretical model for community resilience. In spite of these limitations, the instrument shows great promise, and the results are an important step in establishing an evidence base for the CART survey instrument.

Summary and Conclusions

TDC's early exploration of community resilience in relation to disasters led to the identification of seven attributes associated with community capacity and competence: (a) Connectedness, Commitment, and Shared Values; (b) Participation; (c) Support and Nurturance; (d) Structure, Roles, and Responsibilities; (e) Resources; (f) Critical Reflection and Skill Building; and (g) Communication. An eighth attribute, Disaster Management, was added to anchor the survey instrument in disasters. EFA of four field tests led to the identification of four interrelated domains: Connection and Caring, Resources, Transformative Potential, and Disaster Management. These four constructs were confirmed through CFA applied to the two general community samples.

The theory-based and evidence-informed CART survey instrument is one of few available tools that can provide data for communities to use in assessing their resilience. Identification of community strengths and challenges related to the four CART domains can assist communities that seek to develop and initiate resilience building efforts. Reapplication of the survey following strategic action can provide a measure of progress.

The attention to community resilience in homeland security and public health policy makes it increasingly likely that emergency managers, health professionals, community development specialists, affiliated volunteers, and other community stakeholders will be called upon to develop strategies, programs, services, and interventions for building community resilience to disasters. CART survey results can inform that development for a community.

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Fostering
Human Resilience

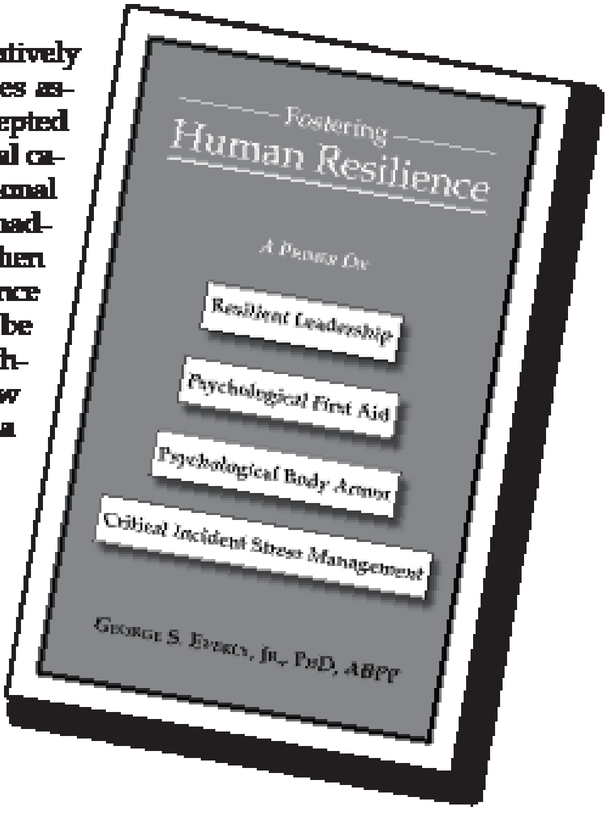
GEORGE S. EVERLY, JR., PHD, ABPP

The promotion of human resiliency represents a relatively new approach to dealing with mental health issues associated with crisis and disaster. It is generally accepted that psychological casualties invariably far exceed physical casualties in the wake of disaster, thus reliance upon traditional mental health resources to address such needs seems inadequate. General hesitance to seek such services, even when available, compounds the problem. Finally, there is evidence that public health and emergency response resources will be available in lower numbers than expected, at all levels within the system and throughout the continuum of care. A new approach is needed. That approach, we argue, must be a system based upon the promotion of human resilience.

Resilience is typically defined as the ability to withstand, adapt to, or rebound from challenges and adversity. This brief treatise is offered as a simple primer for any and all personnel who are likely to respond to, or in the wake of, crisis and disaster.

The reader will be introduced to three mechanisms designed to enhance resiliency:

- Psychological Body Armor - promoting personal resilience;
- Psychological First Aid (PFA) – promoting resilience in other individuals;
- Resilient Leadership – promoting resilience in groups;
- Critical Incident Stress Management – a systems approach to resiliency; and
- Pastoral Crisis Intervention – harnessing the power of the Faith Community



Fostering
Human Resilience
A PRIMER ON
Resilient Leadership
Psychological First Aid
Psychological Body Armor
Critical Incident Stress Management
GEORGE S. EVERLY, JR., PHD, ABPP

This book is especially directed to first responders, first receivers, public health and safety, and military personnel. It is designed to be a quick, practical, and informative guide to human resiliency in the wake of crisis and disaster.

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National Police Suicide Estimates: Web Surveillance Study III

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Abstract:The present study is the third in a series of web surveillance of police suicides (prior analyses conducted in 2008 and 2009). In this age of world web communications, a police suicide in even the smallest and most remote community is generally transmitted nationally and through police websites, forums, and blogs. 55,000 police suicide specific web articles were reviewed over the entire year. 2012 data was then compared with 2008 and 2009 police suicide data. There were 141 police suicides in 2008. Suicides declined from 143 in 2009 to 126 in 2012 (an 11.9% decrease). Across the three time periods, male and female suicides appeared to occur at a similar rate, averaging 92% and 6% respectively. In 2012, (1) suicides appeared to cluster more in the 40-44 year age group more than in previous years among officers of lower rank; (2) an increase in suicide was seen among officers with 15-19 years of service; (3) gunshots remained the most prevalent means of suicide across all three years (91.5%), and (4) personal problems appeared to be prevalent (83%) with work associated legal problems ranking second (13%). Approximately 11% of suicides were military veterans. California (n=10) and New York (n=12) had the highest police suicide rates. Four murder-suicides were noted over the entire year. Suggestions for suicide preventive policies, improving police mental health, and future research are discussed. [International Journal of Emergency Mental Health and Human Resilience, 2013, 15(1), pp. 31-38].

Key words: police suicide, police suicide rates, prevention, mental health

Obtaining information on police suicide is extremely difficult. Suicide is not openly discussed by police personnel; officers tend to view suicide as dishonorable to the officer and profession (Violanti, Vena, & Petralia, 1998). Departmental statistics on police suicide are rare, and police agencies are sometimes reluctant to allow researchers access to existing data. The Federal Bureau of Investigation Law Enforcement Officers Killed or Assaulted (LEOKA, 2010) data does not provide suicide information.

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Another problem which muddles police suicide rate accuracy is the difficulty in gathering data on a national level. If one wanted to conduct a national epidemiological study on police suicide, it would take an enormous amount of resources and time. Several national databases such as the CDC National Occupational Mortality Survey (1993) do provide occupational death certificate data on suicides for 28 states. Future inclusion of more states and updated data may help to enhance knowledge on police suicide rates.

The Present Study

In two previous web surveillance studies, we tested an alternative method for estimating police suicides on a national level. The National Surveillance of Police Suicide (NSOPS) studies consisted of nationwide surveillance of the world-wide web for the years 2008 and 2009 (O'Hara & Violanti, 2009). Based on promising results, we presently repeated our methodology and conducted this analysis for the year 2012.

METHOD

While no perfect system exists for estimating police suicide rates, we had reasonable success utilizing internet surveillance methods to estimate police rates in 2008 and 2009. Internet research tends towards the immediate, which provides some advantage over federal national occupational databases that are several years behind. The web can be searched through hundreds or thousands of pages in relation to relation to the topic of suicide within seconds. In addition, other personal communication facilities can provide direct access and other individuals with relevant interests and knowledge. The present study employed commercially available search engines enabling a search query to run against multiple search engines simultaneously and creating a list of aggregated search results.

Through the use of the web in our analysis, it was recognized that in this age of vast, rapidly interlinking web communications, a police suicide in even the smallest and most remote community is not only reported in that local area but, given both public and media interest in the subject, is reported by multiple media in a chain reaction that lasts several days to several weeks. Adding to the repetitious spread of these reports on the internet are the dozens of police websites, forums, and blogs, which are quick to re-report the event. This has greatly reduced the likelihood that a police suicide would go unnoticed.

The application of the same surveillance methodology in the present study that we used in 2008 and 2009 helped to ensure consistency of data and allowed us to compare across the years. Two assumptions were made in our past and present studies. First, previous research suggests that approximately 17% of police suicides are misclassified as accidents or undetermined deaths (Violanti, 2007). Second, it is possible that we may have missed approximately a 20 % residual of suicides due to our own review process, researcher error, or by news articles that conceivably might not have been fed into the internet. The latter assumption is robust, given the intensity of our review process and our observation during the year that police suicides are of high media interest, are reported by multiple news media from surrounding communities (press and television), and thus will almost inevitably appear in articles by other media repeated times—often for weeks.

Means were substituted for missing age and years of police service data. In cases where officers clearly had less than the mean time in service, the number of years were based on a presumed hire age of twenty-one – the standard police hiring age throughout the United States. Suicides by officers separated from their employment by less than one year and exhibiting behaviors likely predictive of suicide attributable to their employment were included in the study. We adjusted our final tally of police suicides based on these a priori assumptions.

Approximately 55,000 suicide-specific web news articles were reviewed during 2012 for information relating to police suicides in the United States. Suicide data collected were (1) date of suicide; (2) location; (3) department; (4) age; (5) rank; (6) police service time; (7) means of suicide; (8) marital status; (9) probable causal factors; (10) military veteran status; and (11) statements by department and medical examiners.

RESULTS

Table one provides a comparison of descriptive data across 2008, 2009, and 2012. Both male and female suicides appeared to occur at a similar rate, averaging 92% and 6% respectively across the three years. In 2012, suicides appeared to cluster in the 40-44 year age group more than in previous years. In 2012, a rather large increase in suicide was seen in officers with 15-19 years of service compared to 2008 and 2009. Gunshot remained the most prevalent means of suicide across all three years (91.5%). In 2012, a category for possible reasons for suicide and military veteran status was added. Personal problems appeared to be the most prevalent personal reason (83%) with work associated legal problems ranking second (13%). Approximately 11% of suicides were military veterans. Table two lists police suicide occurrences by U.S. states. California (n=10) and New York (n=12) had the highest rate. Interestingly, there were four murder-suicides noted.

Table 1.
Comparison of Descriptive Data- Police Suicide Web Surveillance. 2008, 2009, and 2012

2008 (n=102)		**2009 (n=104)**		**2012(n=92)**	
Gender					
Male	93 (91.2%)	Male	97 (93.3%)		84(91.2%)
Female	7 (9.8%)	Female	6 (5.8%)		8 (0.9%)
Age					
	N %		N %		N %
20-24	2 (3 %)	20-24	1 (1%)	20-24	3 (4%)
25-29	7 (12%)	25-29	3 (6.8%)	25-29	7 (9%)
30-34	3 (5%)	30-34	4 (9.1%)	30-34	11 (15%)
35-39	17 (29%)	35-39	6 (13.6%	35-39	11 (15%)
40-44	11 (19%)	40-44	12 (27.3%	40-44	17 (23%)
45-49	10 (17%)	45-49	3 (6.8%)	45-49	12 (16%)
50-54	4 (7%)	50-54	7 (15.9%)	50-54	8 (11%)
55+	5 (8%)	55+	5 (11.3%)	55+	6 (8%)
(n=59, Mean =38.7 yrs)		**(n=44, Mean=42.7 yrs)**		**(n=75, Mean=41 yrs)**	
Years Police Service					
	N %		N %		N %
0-4	7 (17%)	0-4	4 (.7%)	0-4	9 (11%)
5-9	4 (10%)	5-9	3 (7.3%)	5-9	7 (8%)
10-14	9 (22%)	10-14	8 (2.4%)	10-14	9 (11%)
15-19	7 (17%)	15-19	4 (9.8%)	15-19	29 (37%)
20-24	7 (17%)	20-24	11 (26.8%)	20-24	12 (15%)
25+	6 (15%)	25+	10 (24.4%)	25+	10 (12%)
(n=40, Mean=12.2 yrs.)		**(n= 40, Mean=17 yrs.)**		**(n=76, mean=15.4 yrs.)**	
Rank					
Below Sergeant	89 (88.7%)	Below Sergeant	89 (89.3%)	Below Sergeant	86 (93.5%)
Above Sergeant	11 (11.3%	Above Sergeant	14 (13.5%	Above Sergeant	6 (6.5%)
Method					
	N %		N %		N %
Gunshot	136 (96.1%)	Gunshot	77 (91.7%)	Gunshot	80 (86.9%)
Hanging	3 (1.9%)	Hanging	1 (1.2%)	Hanging	4 (4.3%
Auto	1 (0.97%)	Auto	--	Auto	1 (1.1%)
Overdose	1 (0.97%)	Overdose	4 (4.8%)	Overdose	2 (2.1%)
----	---	Knife	1(1.2%)		
Unknown	1%	Unknown	1.1%	Unknown	5.6%
				Probable reasons *	
				N %	
				Legal problems	12 (13%)
				Disciplinary issues	8 (8%)
				Work related trauma	3 (3%)
				Personal/unknown	69 (83%)
				Military veteran*	10 (11%)

*Added in 2012 study
Not all totals add up to 100% due to missing or unavailable data

Table 2.
Descriptive data of police suicide by state

STATES	# Suicides	Average Age	Gender	Average years of service	Means of suicide	Comments
Alabama	4	39	2 males, 1 female	16	4 gun	1 lieutenant
Alaska	--	--	--	--	--	--
Arizona	--	--	--	--	--	--
California	10	37	8 males, 2 females	13	9 gun, 1 hanging	1 murder-suicide
Colorado	2	30	2 males	2	2 gun	--
Connecticut	3	41	3 Males	16	2 gun, 1 poison	1- job trauma
Delaware	--	--	--	--	--	--
Florida	3	51	3 males	25	3 gun	1 lieutenant, 1 job trauma
Georgia	3	35	3 males	12	3 gun	1 Captain
Hawaii	--	--	--	--	--	--
Idaho	--	--	--	--	--	--
Illinois	3	44	2 males, 1 female	16	2 gun, 1 hanging	suicide symptoms noted
Indiana	2	48	2 males	13	2 gun	1 major
Iowa	--	--	--	--	--	--
Kansas	--	--	--	--	--	--
Kentucky	--	--	--	--	--	--
Louisiana	2	60	2 males	13	1 gun, 1 vehicle	suicide symptoms noted
Maine	--	--	--	--	--	--
Maryland	3	32	2 males, 1 females	12	3 gun	--
Massachusetts	2	35	2 males	23	2 gun	--
Michigan	2	43	2 males	15	1 gun, 1 hanging	--
Minnesota	3	31	3 males	16	3 gun	--
Mississippi	--	--	--	--	--	--
Missouri	1	32	1 male	9	1 gun	1 murder suicide
Montana	--	--	--	--	--	--
Nebraska	1	56	1 male	20	1 gun	--
New Hampshire	1	48	1 male	15	1 gun	--
New Jersey	2	50	2 males	25	2 gun	--
New Mexico	--	--	--	--	--	--
New York	12	37	11 male, 1 female	14	11 gun, 1 hanging	1 sergeant, 1 murder suicide
N. Carolina	5	48	5 males	18	4 gun, 1 poison	--
N. Dakota	--	--	--	--	--	--
Ohio	1	41	1 male	28	1 gun	--
Oklahoma	1	34	1 male	15	1 gun	--
Oregon	1	47	1 male	23	1 gun	1 lieutenant
Pennsylvania	1	68	1 male	23	1 gun	--
Rhode Island	--	--	--	--	--	--
S. Carolina	1	41	1 male	15	1 gun	--
S. Dakota	--	--	--	--	--	--
Tennessee	--	--	--	--	--	--
Texas	2	33	1 male, 1 female	7	2 gun	--
Utah	--	--	--	--	--	--
Vermont	--	--	--	--	--	--
Virginia	2	39	2 males	16	2 gun	--
Washington	2	50	2 males	23	2 gun	1 job trauma
West Virginia	--	--	--	--	--	--
Wisconsin	3	39	3 males	7	3 gun	--
FEDERAL	11	41	11 males	15	11 gun	1 murder suicide

---indicates data not available. Not all totals add up due to missing data for various categories

DISCUSSION

The present study was a follow-up to surveillance studies conducted in 2008 and 2009, in order to provide a more recent description of police suicide rates in the United States. The 2012 study also served the purpose of corroborating the reliability of the previous two studies. In consideration of our a priori methodological assumptions of misclassification and possible unreported police suicides on the web, our final total was 126 suicides. This figure is surprisingly consistent with the 2008 and 2009 studies. However, the 2012 data does show an estimated decrease in the number of police suicides since 2009 (17 fewer, 11.9%) which is encouraging.

Suicide among officers of lower rank (below Sergeant) and the use of firearms continued to dominate, comparable to other previous studies on police suicide (Violanti, 1997). As indicated in Table 2, New York led the nation in police suicides with 12, followed by federal officers (11) and California (10). Many of the web reports contained general statements made to by police departments concerning perceived reasons for the suicide. Suicide was commonly attributed to personal problems and legal problems of the officer. Some departments blamed exposure to work trauma as a precipitant. Many stated that they noticed no signs of an impending suicide.

The age of suicide clustered in the 40-44 year range, consistent with white male middle aged persons in the general U.S. population (Centers for Disease Control Suicide Prevention, 2013). This represents a demographic shift upwards from 2008 and 2009, in which the age group 35-39 was most at risk, suggesting that the infusion of younger officers into law enforcement is resulting in an increased acceptance of emotional self-care and therapy. Youngest officers (20-24) had the lowest percentage of suicides; however their numbers were very small.

Of interest were four murder-suicides involving police officers. These were not reported in our previous work. Exposure of police officers to violence and aggression may increase the risk of homicide-suicide. Several studies have suggested associations of suicide and aggression (Romanov, Hatakka, Keskinen, Laaksonen, Kaprio, Rose et al, 1994). Farberow, Kang and Bullman (1990) compared suicide completers with accident victims, and concluded that suicide completers were more likely to have histories of angry outbursts. Other associations noted in relation to suicide are hostility and irritability. Officers considering suicide may be more likely to have a history of violence and act violently in a greater variety of relationships, especially spousal (D' Angelo, 2000). Palermo (1994) suggested that homicide-suicide should be considered as an extension of aggression first turned inward in the form of suicide. The perpetrator is viewed as an aggressive individual who hides behind a facade of self-assertion, is unable to withstand the reality of an unexpected rejection, and possibly a drastic life change. He commits suicide after killing his extended self.

Prevention

These results are significant in terms of prevention. No departments reported that they noticed to warning signs of potential suicide, and 96% of officers appeared to have slipped completely "under the radar," undergoing noticeable problems or symptoms of distress before taking their lives. The latter is significant and highlights the ability of an officer to maintain a facade, a "front," before his peers while eroding. Law enforcement does have its own code of conduct and subculture and many officers still feel a need to disguise signs of psychological distress for fear of being perceived as "soft" or weak (Arrigo & Shipley, 2004). Additionally, the high percentage of reportedly missed suicides would imply that officers continue to be far more adept at disguising their intentions than previously expected (Slovenko, 2002). Of interest was the fact that several departments acknowledged that job stress/trauma were associated factors in the suicides. The number of trauma related suicides is believed to be significantly higher but can only be determined through further study.

Recent adoption of departmental strategies to reduce suicide may have accounted for the decreased number found in the 2012 surveillance. The increased use of departmental peer support programs, through which personnel in crisis can be referred to mental health professionals for interventional care have helped. Such programs allow the officer to talk with peer support officers whom they may trust and feel more comfortable with prior to any mental health services. Peer support programs have been in existence for several decades and are now being more widely adopted by police agencies.

Second, there appears to be a recognizable reduction in the stigma among officers regarding the topic of mental health. Proactive approaches are becoming more commonplace as officers seem to be recognizing the vital role of therapy in simply surviving what is generally accepted as a toxic, poisonous work environment. As a result of this awareness, personnel are not only taking greater advantage of peer support programs, they are proactively engaging in psychotherapy, particularly outside of law enforcement channels, with prevention in mind rather than waiting until a crisis point is reached. A classic example of this is the simple but effective program designed to prepare officers for stress and trauma before problems arise that was designed by the Badge of Life program (O'Hara, 2008). The underlying principal of the program lies in recognizing the importance of the facade in law enforcement and the core belief that, for every suicide, there are countless other officers continuing to work while masking the effects of their own accumulated stress and trauma. The program proposes that training should focus on putting officers in charge of their own mental health, beginning at the academy and every year after through voluntary, confidential "mental health checks" with a therapist of their choice, undertaken with the same diligence as a yearly dental check, physical exam, or flu shot. Emphasizing that the efforts of law enforcement are better spent on overall mental health than just suicide and crisis management, the Badge of Life program, now in its seventh year, has been offering positive incentives for participation, both for individual officers and administrators. The program actively encourages officers to voluntarily "get the help before they need it, not after." Encouragement is given to seek this assistance either through employee assistance programs or, to ensure confidence in confidentiality, on the "outside." Long-term goals include developing the individual resilience/hardiness of officers in the face of adversity, in addition to the focus of current suicide awareness/prevention programs on recovery. It presents, in essence, a form of inoculation against the negative impacts of later stress and trauma.

The strong influence of the police culture is often a detriment to officers seeking treatment for mental health problems. Within the culture, officers are expected by peers and by themselves to be oblivious to emotional suffering. They are expected to perform police duties without recourse to feelings. While this ethos may be in some case be necessary on the street, it takes a psychological toll on the officers emotional well-being. Officers are still less likely than most to find healthy alternatives for dealing with situations other than stress; they tend, in fact, to turn to maladaptive coping strategies that include escape avoidance and distancing Violanti, (1993). When such maladaptive strategies break down, the self-appraisal skills necessary for the success of a suicide awareness program will likely prove inadequate.

Recent thoughts about police suicide advocate being your "brother's keeper" - watching for signs of suicide in other officers. While this is helpful, it is also important that officers watch out for their own mental health. Violanti (2007) suggests training officers in healthier self-care. It is crucial that this training begin at the recruit level and continue throughout the officer's career, focusing new and incumbent officers not only on the challenges to be faced, but on the personal skills, talents and resources they have available to them. In addition to the need for periodic, proactive, voluntary therapy in what is recognized as a highly toxic career field, the importance of resilience (Antonovksy, 1987; Maddi, 2006).

There are limitations to our research. We have based our final tally of police suicides on robust assumptions taken from previous research (Violanti, 2007). While web-based surveillance is reliable, it is possible that many police suicides were undiscoverable due to low level or no releases at all to the media. Our 20% addition to actual suicides found should have reasonably accounted for these underreported suicides, but we certainly did not find them all. The use of actual mortality statistics based on death certificates and psychological autopsies would be a best evidence data gathering method for suicides. Unfortunately, nationwide collection of such data is a long and difficult task. Federal national databases are presently being updated and will help to clarify more accurate police suicide rates. Despite these limitations, our year-long 2012 surveillance of more than 55,000 suicide-related news reports, followed by properly designed adjustments and accommodation for variables, yielded data not only consistent with our past surveillance studies and Centers for Disease Control data, but also with independent reporting by a wide variety of police publications that take intense interest in the topic of police suicides.

Given the present stage of research on police stress, it is likely that inaccuracies will continue to exist in the reporting of police suicide, including underreporting, misclassification, the lack of updated nationwide data, and difficulty associated with collecting data. Exposure and job socialization in policing have profound impact on officers. Exactly how to measure the impact over time that police work has on individuals is a difficult question. It will likely take long-term prospective studies to make sense out of such exposure.

While we cannot yet be certain that police work by and in itself is a suicide risk factor, we can with some assurance state that it serves as a fertile arena for suicide precipitants, including job stress (both from critical and cumulative trauma), relationship problems, culturally approved alcohol use, and mistrust of mental health professionals.

In summary, the results of our data analysis indicate that there are needless and preventable deaths among our law enforcement officers. As departments continue to successfully prepare officers for danger on the street, they should further consider preparing them for the psychological danger of this work. Perhaps to some degree we are asking the wrong question. Suicide rates are important to guide our research, but more importantly is how to determine how to enhance overall mental health in law enforcement and prevent police suicides. We may be better informed if we know the inherent risk of police suicide and the factors contributing to it in a quantitative, qualitative, and contextual sense.

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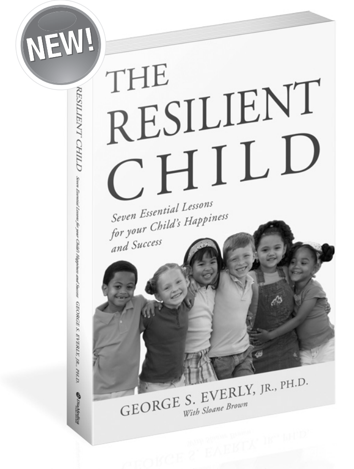

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George S. Everly, Jr., PhD is one of the "founding fathers" of modern resiliency and stress management. He is on the faculties of The Johns Hopkins University School of Medicine and The Johns Hopkins University Bloomberg School of Public Health.

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An Exploration and Analysis on the Timeliness of Critical Incident Stress Management Interventions in Healthcare

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Abstract: There is debate in the literature regarding the definition and effectiveness of "early" critical incident stress management (CISM) interventions. Definitions range from interventions that take place within twelve hours (Everly and Mitchell, 1999; Stallard, Velleman, Salter & Howse, 2005) and up to a three month window (Bisson & Cohen, 2006). Others define early support as an intervention directly after an incident, before the individual leaves work and definitely before having their first sleep (Talbot, 1990; Snelgrove, 2000). Most CISM research is carried out in industries that do not have the same characteristics as healthcare namely, 24/7 operation and a strong female demographic. Therefore, given the lack of research evidence around the timeliness of CISM interventions in healthcare, this study examined the effect of early (<24 hours post-incident) vs. late (>24 hours post-incident) CISM interventions on stress reaction and employees perceptions of service. Although the subject population in each group was too small to show statistical significance, the quantitative data showed an overall trend that the early intervention group had lower mean scores for avoidance, intrusion and hyperarousal at all three time periods. Thematic analysis demonstrated both groups found the CISM intervention was beneficial and the timing appropriate. [International Journal of Emergency Mental Health and Human Resilience, 2013, 15(1), pp. 39-50].

Key words: critical incident stress management, psychological/emotional support, timely interventions, healthcare, resilience

Healthcare staff, which includes; nurses, respiratory technicians, medical imaging personnel, educators, etc., make up approximately 11% of the working population in the province of British Columbia (WorkSafeBC, 2009). There are a number of intense circumstances and traumatic scenarios in the day to day activities and duties of healthcare staff. Some of these incidents include the sudden and unexpected deterioration of a client's health; the ongoing accumulation of dealing with death and dying patients and complications of labour and delivery. In addition, healthcare care staff themselves may be subject to threats of violence and aggression. Keene, Hutton, Hall, and Rushton (2010) highlight loss of relationship with patient, loss related to identification with pain experienced, loss of assumptions about one's worldview, unresolved previous personal losses, loss related to facing personal mortality and loss related to professional expectations as stressors that impact healthcare professionals in the line of duty. Further, others discuss the prevalence of post-traumatic stress symptoms among

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hospital-based health professionals who deal with critical incidents as part of their jobs (de Boer, Lok, van't Verlaat, Duivenvoorden, Baker & Smit, 2011).

Employers who send their workers into traumatic tasks have an important duty of care (Wheat & Regel, 2003). In order to ensure this duty of care, Fraser Health (FH) provides psychological interventions for staff both less than 24 hours and more than 24 hours subsequent to an incident through its Critical Incident Stress Management (CISM) Program. The FH: CISM Program provided 178 critical incident interventions, assisting 630 staff, in the 2010/2011 fiscal year and in the previous four fiscal years, 790 interventions took place, assisting 2,360 staff. The interventions are provided as close in time to the traumatic event as possible. The main focus of the interventions is to attenuate the symptoms of the critical incident (Mitchell, Sakraida & Kameg, 2003; Kaplan, Iancu & Bodner, 2001) however, there continues to be a debate in the literature around the effectiveness of timely interventions. It has been our experience that a timely response to a critical incident is intended to lessen the acute and long term reactions present in staff after a traumatic event. By mitigating these reactions, staff can actively return to assignments in a timely manner. Minimizing this impact is important in the current healthcare reality of health care staff shortages. The FH: CISM program has the ability to effectively impact this health human resource challenge through the interventions carried out. The program has developed into a three pronged approach to managing critical incident stress; 1) offering in-services and training on the effects of critical incidents and traumatic events, 2) providing CISM interventions to sites and staff throughout FH and 3) offering resources and tactful follow-up for staff subsequent to a critical incident intervention. This three pronged approach is in place to alleviate the potential impact of the stressors that healthcare staff are faced with in carrying out their daily routines and tasks.

Literature Review

There is debate and inconsistencies in the literature over what early CISM interventions are and the timeliness and effectiveness of those interventions. Kaplan et al. (2001) cite Marshall, a chief combat historian of the U.S. armed forces during the Second World War, using the words 'immediately after combat' to describe the process of debriefing soldiers. Kaplan et al. (2001) discuss further that debriefings which took place six to nine months after the incident (a more delayed intervention) assisted survivors with reduced psychological distress subsequent to a natural disaster in Hawaii. Definitions of early support range from interventions that take place within twelve hours (Everly & Mitchell, 1999), four weeks (Stallard, Velleman, Salter, Howse, Yule & Taylor, 2005) or up to a three month window (Bisson & Cohen, 2006) and still others define early assistance as an intervention that occurs directly or shortly after an incident before the individual leaves work and definitely before having their first sleep (Talbot, 1990; Snelgrove, 2000). Campfield (2001) builds a case suggesting that the sooner a critical incident intervention is provided, the sooner recovery can commence however this is countered by Thompson (1993) who suggested that a debriefing should be withheld for up to 48 hours to allow for the natural grieving process.

Langlieb, Kahn, and Jeffrey (2005), in addressing mental health concerns in workers, build a case for providing the right treatment path 'early on' for staff to lessen disability, to increase work productivity and improve quality of life. Zohar, Sonnino, Juven-Wetzler, and Cohen (2009) counter this by implying that it is in the immediate aftermath of the trauma that psychological interventions can be potentially detrimental. Matthews (1998) and others suggest that the timing of sessions is an important consideration when researching the effectiveness of CISM interventions (Deykin, Keane, Kaloupek, Fincke, Rothendler, Siegfried, and Creamer, 2001).

The debate on the overall effectiveness of CISM interventions, not withstanding the timing of interventions, has been circulating in literature for a number of years. This project will focus on evaluating the timeliness of CISM interventions. Minimal research literature has been found specifically addressing this timeliness in evidence-based practice. Roberts, Kitchiner, Kenardy, and Bisson (2009) address this concern as well in a systemic review and meta-analysis of early interventions and indicate that the timing of interventions remains contentious and there is an ongoing need to further explore the optimal time for interventions.

Study Background

This preliminary study focused on the timeliness of interventions in the specific discipline of healthcare staff who are NOT victims but caregivers. It is important to understand that CISM interventions were designed to assist the responders; those who serve, rescue and provide care for victims, and that CISM interventions were NOT primarily intended to be instrumental in responding to the actual victims of traumatic events (Regel, 2007; Robinson, 2008). It is important to note that during this research project, there was a separation made to differentiate caregivers from victims, as there are certain interventions provided by the FH:CISM Program which provide emotional support to those who could be defined as victims, even though they are staff.

This research is significant in that it not only addresses the need to explore the optimal time for interventions, but it offers insight into the uniqueness of providing CISM interventions in the healthcare industry; an industry with minimal research evidence around the timeliness of these interventions. Most CISM research is carried out in industries that do not have the same characteristics as healthcare namely, the 24/7 operation and the strong female demographic. In healthcare, the operations continue 24/7 throughout the year with little to no opportunity to "close up shop" to allow for interventions. In other industries there is opportunity to either close the department, or at times, the entire plant (manufacturing plants, railway, financial institutions, etc). Another unique component in offering CISM interventions in healthcare is the strong female demographic of the workforce. In Fraser Health this ratio is close to 88% female employees, further, in the discipline of registered nurses within Fraser Health the female ratio is 92%. This higher ratio of female to male employees may or may not have an impact on the immediacy of CISM interventions however, in the field of psychology it is at times a common thread that females will seek emotional support sooner and more often than males (Taylor, Cousino Klein, Lewis, Gruenewalk, Gurung & Updegraff, 2000; Daalen, Sanders & Willemsen, 2005).

Description of the Problem

It was the aim of the research team to be able to answer the question "is there an association between the time from the critical incident to the time of the CISM intervention and the stress reaction, as scored on the Impact of Event Scale –Revised (IES-R), as well as the healthcare staff perceptions of service". Given the lack of literature around the timeliness of CISM interventions in healthcare, this preliminary research study has the potential to be the first prospective study to examine early vs. late CISM interventions in healthcare, providing pertinent information in a 24/7 industry with a majority female population and will assist in future best practices of workplace-based CISM interventions.

The Setting and Participants

The Fraser Health Authority was formed in 2002 to cover a geographic area of approximately 200 kilometres (120 miles) east-west and 40 kilometres (24 miles) north-south. Fraser Health serves 1.6 million people and has over 26,000 staff, 2,500 physicians and 6,500 volunteers who work to care for patients in 12 acute care hospitals and more than 7,000 residential care beds, as well as providing mental health, public health, home and community care services.

For the purposes of this study the term "healthcare staff" will be used to describe the variety of healthcare disciplines (ie. nurses, respiratory technicians, physicians, medical imaging personnel, educators, etc.) who are the subjects of the study. Healthcare staff expect to assist, help and compassionately provide care to those that walk through their respective clinic doorways. When these expectations are not met the consequences, the potential impact, and the reactions for both the client and the practitioner can be very significant: the result can be psychologically intensive with possible long term effects.

The FH:CISM Program was launched in 2005. One of the primary mandates of the program is to offer emotional support to staff after traumatic events encountered in the day-to-day activities of their respective roles. Prior to 2002, the protocol for critical incident intervention responses was site specific and each site had their own options and availability of responses. Some sites had a psychologist to respond, others a social worker or chaplain and others had multi-disciplinary teams of responders. These responding staff members received a variety of training options and were responding in addition to their existing responsibilities with no additional remuneration.

As the amalgamation of FH took place it was decided to design a CISM program that would offer equal access to these services to all employees and to all sites. Combined with amalgamation, a number of the CISM responders who were offering their time and services off the side of their desks, either could no longer offer this service because of attrition, time, workload or simply no longer willing to continue. A dedicated position was created for an in-house consultant to coordinate and develop a FH:CISM Program in 2005.

The FH:CISM Program provides interventions to offer compassionate emotional support for staff (employees, physicians and volunteers) subsequent to traumatic events that staff face in their day to day activities. These interventions are in place to mitigate the potential reactions, impact and symptoms that staff may experience. When staff go through a critical incident they may experience what can be called an emotional "jolt" which has the potential to leave them feeling some uncertainty as well as discomfort around this unfamiliar instability. At times the FH:CISM interventions are provided within hours of the incident and on other occasions the interventions might take place a day, a week or two weeks or more removed from the actual event. The purpose of this research project was to determine if there is an association between the timing of CISM interventions (early vs. late) and the scored impact as well as staff perceptions on the benefit of the interventions.

METHODS

Ethical approval for this study was pursued and granted through Fraser Health's Research Ethics Board (REB).

Participants

The study subjects were a subset of all those who have experienced a critical incident and attended a FH:CISM intervention from April 1, 2011 to July 30, 2011. As such the study sample was a purposive sample. Due to the fact that the FH:CISM program offers psychological interventions to all staff, physicians and volunteers within Fraser Health, the occupational groups in the study sample were varied; the study sample also had subjects from various departments and sites within Fraser Health. The participants were placed into two different categories based on the time to intervention: staff who participated in a CISM intervention within 24 hours of the critical incident were deemed the "early" group, group "A", and staff who participated in a CISM intervention beyond 24 hours of the critical incident were deemed the "late" group, group "C". As per the Fraser Health REB, all participants signed a "Consent to Contact" form as well as a "Subject Consent to Participate" form. These forms were handed out at the conclusion of the CISM intervention they participated in. By July 30, 2011, twenty-four participants were in the "A" group and thirty-nine were in the "C" group.

Design and Procedure

As the research aim for this study was exploratory, a mixed-methods research design was deemed to be appropriate. Due to the fact that very little is known about the optimal timeliness of interventions, it was suitable to first identify whether or not there were any associations in a non-causal format. This project employed both quantitative and qualitative analysis in order to address our objective, including assessment of staff perceptions of the benefit of the CISM intervention and the timeliness of the CISM intervention on their Impact of Event Scale – Revised (IES-R) score.

All participants were e-mailed a link to an online survey to complete. The online survey was based on the Impact Event Scale – Revised (IES-R). The IES-R is a self-report measure designed to assess current subjective distress for any specific life event (Weiss & Marmar, 1997) and is a useful measure of stress reactions after a range of traumatic events (Sundin & Horowitz, 2002). The IES-R gives a reading on three scales: Avoidance, Intrusions and Hyperarousal. Participants were asked to complete the IES-R three separate times so that the results could be compared at 30 days, 3 months and 6 months. The results of the survey were compared according to the groupings "A" and "C". Participants were asked to enter a unique identifier for the potential of individual comparisons across the time periods as well. In addition, subjects in these two groups were contacted for a phone interview within 15 days of their respective critical incident intervention which allowed staff to provide some qualitative data on their perceptions of the interventions offered by the FH:CISM Program, as well as their respective opinions on the timeliness of these interventions.The phone interview had a total of 11 questions including both open-ended and Likert type questions, all of which were included in the analysis. Again these responses were grouped based on the time to intervention (early vs. late) as described above. The phone interview questions are contained in Appendix I.

All of the critical incident interventions used in this study were led and facilitated by the FH:CISM Program Consultant. This removed variability in the sense that the same skill set, experience and methods were implemented by the same practitioner throughout the study for both groups.

Analysis

IES-R scores were calculated based on the author's instructions (Weiss & Marmar, 1997). The IES-R scores range from 0 – 4, with 0 being "not at all" to 4 being "extremely", as to how much a participant has been distressed or bothered in the last 7 days with respect to a list of difficulties that are provided. The lower the score, the less the participant has been bothered by these difficulties. These scores were then analyzed via Point biserial correlation analysis to see if a correlation existed between each of the three scale's values and the time to intervention (early vs. late). Further analysis was carried out to examine if there were any differences between the time to intervention (early vs. late) and the perceived benefit of the intervention as well as between time to intervention (early vs. late) and the change in IES-R score over time. All quantitative analysis was carried out using statistical software (SPSS v14.0, Chicago, IL, USA, 2003). Two-tailed significance for the Mann-Whitney U-test was set *a priori at 0.025* to protect from potential error of having a chance finding from multiple testing. Open-ended questions from the phone interview underwent a thematic analysis process as described in Pope, Ziebland & Mays (2000) to determine common categories and themes. Analysis of the individual Likert -type phone interview questions included summary descriptive statistics of frequency counts and proportions.

Table 1.
Comparison of IES-R and Subscale Scores According to Intervention Group at 1 month

Time period	Score		Early Intervention	Late Intervention	p-value*
1 month			N = 15	N = 27	
	Avoidance Subscale	Mean	0.65 ± .53	0.68 ± .56	0.93
		Median	0.38	0.63	
	Intrusion Subscale	Mean	1.2±.54	1.1±.88	0.40
		Median	1.28	1.00	
	Hyperarousal Subscale	Mean	0.51±.34	0.63±.68	0.88
		Median	0.43	0.43	
	Impact of Events	Mean	2.37±1.19	2.44±1.95	0.67
		Median	2.80	1.91	

**p-value for Mann-Whitney U-test (significance set at p<0.0125)*

Table 2.
Comparison of IES-R and Subscale Scores According to Intervention Group at 3 months

Time period	Score		Early Intervention	Late Intervention	p-value*
3 months			N = 12	N = 17	
	Avoidance Subscale	Mean	0.19±.32	0.27±.49	0.46
		Median	0.0	0.13	
	Intrusion Subscale	Mean	0.46±.57	0.48±.55	0.98
		Median	0.43	0.43	
	Hyperarousal Subscale	Mean	0.26±.52	0.29±.53	0.98
		Median	0.0	0.0	
	Impact of Events	Mean	0.91±1.35	1.04±1.43	0.95
		Median	0.57	0.55	

**p-value for Mann-Whitney U-test (significance set at p<0.0125)*

Table 3.
Comparison of IES-R and Subscale Scores According to Intervention Group at 6 months

Time period	Score		Early Intervention	Late Intervention	p-value*
6 months			N = 7	N = 17	
	Avoidance Subscale	Mean	0.04±.06	0.18±.35	0.50
		Median	0.0	0.0	
	Intrusion Subscale	Mean	0.22±.42	0.35±.39	0.38
		Median	0.0	0.14	
	Hyperarousal Subscale	Mean	0.04±.07	0.14±.21	0.46
		Median	0.0	0.0	
	Impact of Events	Mean	0.30±.51	0.67±.86	0.26
		Median	0.14	0.43	

**p-value for Mann-Whitney U-test (significance set at p<0.0125)*

RESULTS

No statistically significant difference was found between the time to intervention and the IES-R scores; however Fig.1 shows that overall there was a trend that group “A” (early) had lower mean scores for avoidance, intrusion and hyperarousal on the IES-R at all three time periods.

Table 4 shows the trends for the correlation between group “A” and group “C” and the IES-R subscale scores across time periods.

Fig.1. Scores on IES-R for all Subjects

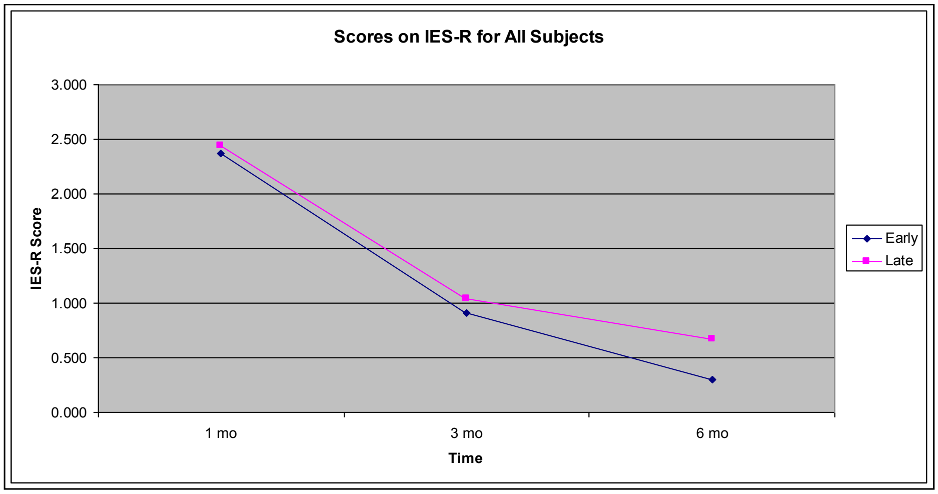

Table 4.
Correlation between IES-R Subscale Scores and Intervention Across Time Periods

Time period	Score	Correlation Coefficient*	p-value
1 month			
	Avoidance Subscale	-0.023	0.89
	Intrusion Subscale	0.052	0.75
	Hyperarousal Subscale	-0.101	0.53
	Impact of Events	-0.018	0.91
3 months			
	Avoidance Subscale	-0.100	0.61
	Intrusion Subscale	-0.013	0.95
	Hyperarousal Subscale	-0.023	0.91
	Impact of Events	-0.045	0.82
6 months			
	Avoidance Subscale	-0.217	0.31
	Intrusion Subscale	-0.150	0.48
	Hyperarousal Subscale	-0.252	0.24
	Impact of Events	-0.221	0.30

**point-biserial correlation coefficient calculated between binary intervention variable (0/1) and IES-R and subscale scores*

Results of the questions from the phone interview included for descriptive statistics of frequency counts are shown in Table 5.

Thematic analysis of the qualitative questions from the phone interview is presented in table 6 below.

Table 5.
Descriptive Statistics of Quantitative Phone Interview Data

Question	Group "A" (early)	Group "C" (late)
Did you receive further psychological support for yourself other than the critical incident intervention (CII)?	Yes = 35%	Yes = 33.3%
Extremeness of your incident?	High/severe (70%) Mean = 4	Low/moderate (55%) Mean = 3.3
CII helped me deal with or recover from the traumatic event.	Agree/strongly agree = 94% Mean = 4.2	Agree/strongly agree = 76% Mean = 4
CII was beneficial in offering me emotional support.	Agree/strongly agree = 94% Mean = 4.2	Agree/strongly agree = 84% Mean = 4
Was the specific CII timing you had beneficial to your own resilience?	Yes = 94%	Yes = 82%
Would you have preferred a different timing for your CII?	No = 88%	No = 64% Yes = 33% would have liked it sooner
What do you feel would be the best timing for a CII?	<24 hours = 59% Between 24 – 48 hrs = 35%	<24 hours = 12% Between 24 – 48 hours = 67%

Table 6.
Thematic Analysis of Qualitative Phone Interview Data

Question	Overall Themes – "A" (early) group	Overall Themes – "C" (late) group
From whom did you receive further psychological support?	*3 main themes* • Family/friends • Colleagues • WorkSafeBC	*4 main themes* • Family/friends • Colleagues • EFAP/Counsellor • School
How was your specific CII timing beneficial to your own resilience?	*4 main themes* • Process and deal with it right away • Share experiences and perceptions • Talking through it and checking in • Attempt to leave the incident at work	*4 main themes from those who found this timeframe positive* • Get together, talk about it and realize thoughts and feelings are normal • Time to process the incident and digest ourselves before getting together as a group • Non-blaming mindset • More concern for my colleagues *1 overall theme from those who found this timeframe negative* • CII was not soon enough and needed to be sooner
What do you feel would be the best timing for a CII?	*4 Themes* • Important to deal with impact within 24 hours • Also some follow-up • Really helpful for building team • Time to process first, then sitting down to discuss further makes sense	*4 Themes* • Need time to process the event first and then talk through (anytime up to 48 hours) • More traumatized right after event, need to deal with it right away • CISM Program is a positive program to have in place • Follow-up with a check-in 30 days later

DISCUSSION

Although no statistically significant difference was found between the time to intervention and the IES-R scores, the data does show that overall there was a trend that group "A" (early) had lower mean scores on the IES-R at all three time periods. Point-biserial correlation coefficient calculations support this finding showing a negative correlation trend indicating that the group associated with the value of 1, in this case group "A" based on our coding scheme, had smaller values on the IES-R scale/subscales than the group associated with 0 (group "C"). So even though the p-value for the correlation was not significant, the trend for the correlation was correct. The correlations for the IES-R scores are even larger at the 6 month time period for group "A" than group "C".

The relationship between the time to intervention and IES-R scores was substantiated by the qualitative results from the phone interview, specifically around recovering from the traumatic event and the benefits of the critical incident intervention (CII) to their resilience. More participants from group "A" (94%) found that an early CII was beneficial to their resilience in terms of being able to process and deal with the incident right away and be able to leave it at work. Eighty-two percent from group "C" felt the timing of their CII was beneficial to their resilience however, 33% of those in group "C" felt that the timing of their CII was not soon enough and would have preferred it sooner.

The results of this study complement past subjective employee surveys in which 89% (2007) and 81% (2009) of Fraser Health staff who completed the survey and had attended an intervention believed the intervention was beneficial in offering them support and assisting them in the lessening of the impact of the incident/event.

Study Implications

The findings from this preliminary study on the timeliness of interventions leave us with a few implications on both the practice of trauma response as well as the need for a further, more expansive study.

Results from the thematic analysis show there are differing opinions from staff as to the best timing for psychological interventions to take place; some staff may prefer to process the impact of a critical incident in solitude and move to a more formal intervention afterwards, but some participants in the late group ("C") believed an intervention would have been more beneficial if it had taken place sooner than the one they received.

This study was preliminary and it is quite clear that a larger sample size would be needed to gain statistically significant data for a similar study in the future. Participation in the study was voluntary and there was a significant "fall off" in participation in the online survey over the 6 month duration of the study. As such, the subject population in each group ended up being too small to show statistical significance. To conduct a future study related to the timeliness of critical incident interventions the study would need to have a longer duration, likely two years as a minimum, which would potentially address the issues with participation numbers by allowing for a much longer period of time to gather participants for the study. It is also believed that a strong incentive would need to be in place and offered to participants in this very active and busy dynamic of healthcare in order to have participants complete the necessary steps along the study timeline.

In addition, it would be beneficial to streamline the process for gathering participants. As per our health authorities' research ethics board (REB), it was necessary to have a "consent to contact" form as well as a "consent to participate" form signed, dated and witnessed. It is understandable why this type of process is required however it made for a cumbersome and at times a potentially awkward process when trying to recruit participants. As an example, at the conclusion of a highly intense CISM intervention, in as tactful a way as possible, staff were asked if they would be open to the FH:CISM Program contacting them to participate in a research study on CISM. By their nature, CISM interventions are anonymous and no names or contact information are usually exchanged, other than additional resources for staff. Therefore, the "consent to contact" and the "consent to participate" forms were a variation from the normal process for participants. Overall most of the participants were accepting of this, however, it would be beneficial to consider other possibilities of gathering this information from potential participants for further research studies.

Practice Implications

It is the current practice of the FH:CISM Program to offer interventions in a timely manner however the timeliness of the CISM intervention is not always the decision of the FH:CISM Consultant. There are many factors outside of the consultant's control. This means that some interventions take place within hours of the critical incident, others within a day and still others a few days or a couple of weeks subsequent to the critical incident. This will likely continue as there are times and incidents which require immediate support. These requests focus mainly on wanting an intervention prior to the staff going off shift and heading home, before leaving work. Furthermore, other requests focus more on wanting an intervention in 4 or 5 days so that the team that went through the critical incident together can all be present to go through the CISM intervention together, and because of shift work, days off, etc., it may take that long to gather them all.

Results from this study show that this diversity is both the practice and also the desire of staff; however thematic analysis data from this study do show trends that move in the direction of having CISM interventions sooner instead of later.

Through the FH:CISM Program there are a number of in-services, training and communication/awareness meetings that take place throughout the duties, roles and responsibilities of the consultant. Therefore, in addition to awareness and information sharing with stakeholders, a focus on the timeliness of interventions can be implemented in all of these discussions.

Another factor which is a key in offering psychological/emotional support for staff is for the consultant to be cognizant of the various concepts on processing that individuals and teams come with. For the FH:CISM Program this means that practitioners offering this type of support need to understand that a staff member's physical presence at an intervention does not necessarily translate to them wanting to be present psychologically. Therefore, sensitivity to the variety of emotional states is crucial. The FH:CISM Program interventions are voluntarily attended and even the discussion is voluntary, which means that if a question or discussion topic is posed for the group to discuss, some may choose to engage in that discussion and others will simply want to listen, contemplate and process internally. It is complex, this discipline of critical incident intervening, and yet, it is also beneficial, rewarding and healing.

Although other therapies such as cognitive behaviour therapy, exposure therapy and cognitive restructuring, may prove to have varied success in preventing traumatic stress symptoms (Roberts et al. 2009), accessing these therapies may be days, weeks if not months away from the actual critical incident (traumatic event). The obvious questions rise to the surface for healthcare organizations; What is offered in the meantime? How are staff supported in the hours or days following these events? How can an organization continue to ask its workers to enter these potentially intense and highly critical incidents if not offering them some urgent and immediate care when warranted and requested?

The FH:CISM Program will respond to these questions by offering interventions and emotional support to its staff in a timely and respectful manner. Staff in Fraser Health are considered the most valuable resource for the provision of healthcare and it is pertinent to this organization to protect the health and wellness of this resource.

Conclusions

The findings of this preliminary study offer some evidence of the value in early critical incident interventions and thereby have added to the body of knowledge in the field of CISM, particularly around the timeliness of providing CISM interventions in the healthcare industry. As mentioned above, the results have motivated the research team for the need for a further, more expansive study around this topic in the near future.

In the meantime, the FH:CISM Program will continue to offer organizational and emotional support to staff subsequent to a critical incident (traumatic event), armed with the knowledge of this new information of the possible impact of the timing of the critical incident intervention in the forefront of our work.

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APPENDIX I:
Phone Interview Questions

1. Did you receive further psychological support related to this critical incident? (yes / no)

If yes, from where or whom? ___________ (ie. EFAP, counselor, colleagues, friends, family).

2. How would you rate the extremeness, or in other words, the “traumatic-ness” of the incident?

Scale where 1 = none; 2 = low; 3 = moderate; 4 = high; 5 = severe

Please indicate how much you agree or disagree with the following statements:

Scale of 1 – 5 where 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree.

3. The critical incident intervention helped me deal with and/or recover from the traumatic event/critical incident.

4. The critical incident intervention was beneficial in offering me emotional support.

5. The critical incident intervention you attended took place *[less than 24 hours or more than 24 hours]* subsequent to the critical incident.. Was this response beneficial in assisting in your own resilience? (yes or no).

a. If “yes” how was it beneficial? __________

b. If “no” why was it not beneficial? __________

c. Further to this question, would you have preferred a different timing for the response of the intervention?

6. Realizing that all critical incidents are similar and yet quite different, please answer the following to the best of your ability.

After you have experienced a critical incident, what would be the optimal time frame for you to be involved in a critical incident intervention to assist in lessening the impact of the incident for you?

a. Within hours

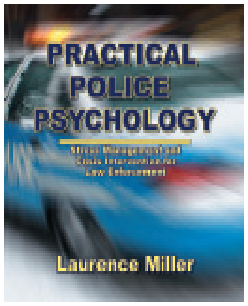
b. Less than 24 hours

c. 24 – 48 hours

d. More than 48 hours.

Please indicate why you chose this timeframe?

____



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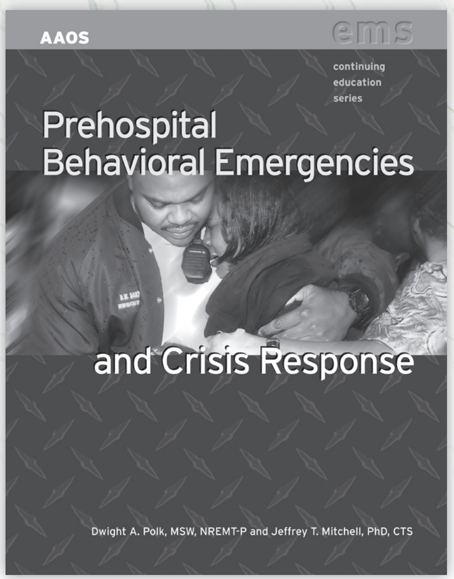

Prehospital Behavioral Emergencies and Crisis Response

American Academy of Orthopaedic Surgeons, **Dwight A. Polk**, and **Jeffrey T. Mitchell**

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Professional Support Requirements and Grief Interventions for Parents Bereaved by an Unexplained Death at Different Time Periods in the Grief Process

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Abstract: The purpose of this qualitative phenomenological study examines the support needs and grief interventions professional and bereaved parents believed were helpful during different time periods in the grief process: the first 72 hours, first three to 14 days, and two weeks and beyond. Ten professionals from the following disciplines were interviewed: emergency communications, emergency medical technician, police, fireman, detective, social worker, funeral director, chaplain, peer support leader, and bereavement organization. Five parents and one grandparent bereaved by Sudden Infant Death Syndrome (SIDS) or Sudden Unexplained Death in Childhood (SUDC) were interviewed. This study identified 13 support need and grief interventions: contact support people, emotional and cognitive regulation, preliminary information on cause of death, time with deceased child, accommodate and advocate, human compassion and support, describe timeline and process, referrals and resources, affordable and easy access to services, communication and follow-up, community experience, professional mental health support, and memorialize. Recommendations are provided on ways to improve services to newly bereaved parents. [International Journal of Emergency Mental Health and Human Resilience, 2013, 15(1), pp. 51-68].

Key words: *Sudden Infant Death Syndrome; Sudden Unexplained Death in Childhood; Grief; Professional Support; crisis interventions; Unexplained death; Grief over time*

Each year in the United States over 2,000 infant deaths are attributed to Sudden Infant Death Syndrome (SIDS) (U.S. Department of Health and Human Services, 2004). SIDS is defined as the sudden death of an infant less than one year old, and the death remains unexplained after a thorough case investigation, including an autopsy, a death scene investigation, and review of the clinical history (Willinger, James, & Catz, 1991). SIDS is the third leading cause of death in children under the age of one (U.S. Department of Health and Human Services, 2004). Children over the age of one that die of Sudden Unexplained Death in Childhood (SUDC) die at a rate of 1.5 per 100,000 live births (Krous , Chadwick, Crandall & Nadeau-Manning, 2005), making SUDC less prevalent but no less heartbreaking for parents. The majority of SUDC cases are seen in children between the ages of 1 and 3 years old (Krous et. al., 2005). The definition of SUDC is virtually the same as for SIDS; a child dies for no obvious reason and after a full examination of all possible causes, the death remains unexplained (Krous et. al., 2005, p. 308).

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The loss of a child is "unlike any other loss" because it disrupts the natural order ad progression of life (Rando, 1986, p. xi). Parents whose children have died are likely to experience more intense grief than people who have experienced any other loss (Leahy, 1992-1993; Pine & Brauer, 1986; Sanders, 1986; Schwab, 1995). In the majority of cases of SIDS and SUDC, it is the parents that find the child unresponsive. The surprise of finding he child, paired with the condition of the child's body that result from death, increase the likelihood the parent will develop posttraumatic stress symptoms an bereavement. Dyregrov and Dyregrov (2008) found that parents who found their child dead and who experienced disturbing visuals in relation to the death are more likely to re-experience those events in the form of flashbacks and other negative images, smells, or sound related to the event. Nightmares and difficulty sleeping are also common after the event (Dyregrov & Dyregov, 2008).

After a child dies a sudden or unexpected death, parents are inundated with professionals from a variety of agencies. The first contact is likely to be the dispatch operator, followed by typical first on scene agencies such as fire, police, and Emergency Management Services (EMS, or ambulance). Later, as the case is investigated, professionals from other agencies will contact the parents such as the coroner, medical examiner, medicolegal death investigator or police detectives. These professionals are trained to approach all sudden death cases as suspect thus initially treating the newly bereaved parents as suspects in the child's death. Other professionals such as chaplains, social workers and bereavement specialists will be utilized to assist with the parent's grief.

Because these professionals are among the first contact that bereaved parents have, they have the most potential to provide support to the parents and their family. While social workers, counselors, and other mental health professionals have training and experience with grief and can offer appropriate support to parents, other, non-mental health oriented professionals receive little to no training that would allow them to provide compassionate and helpful support in situations of sudden and unexpected death (Tye, 1995). The majority of professionals must learn as they go, and while there is no doubt about their intentions, the lack of training poses a tremendous risk for causing further harm to the parents (Loboprabhu, Molinari, Pate, & Lomax, 2007; Tye, 1995).

Studies in this area have revealed that disciplines such as nursing (Tye, 1995), social work (Wells, 1993), detectives (Dannemiller, 2002), police (Miller, 2008), counselors (Bonanno & Lilienfeld, 2008), hospital staff and physicians (Knapp & Mulligan-Smith, 2005), and medical examiners (Fleming, Blair, Sidebotham & Hayler, 2004; Hymel, 2006; Platt, 2005) have all offered suggestions about what they believe are the most effective ways to provide support to bereaved parents. These studies, however, only address the acute grief period of the first 72 hours and fail to include the views of the bereaved parents. a few professional disciplines, such as nursing (Tye, 1995), social work (Wells, 1993), detectives (Dannemiller, 2002), police (Miller, 2008), counselors (Bonanno & Lilienfeld, 2008), hospital staff and physicians (Knapp & Mulligan-Smith, 2005) and medical examiners (Fleming, Blair & Sidebotham, 2004; Platt, 2005) have all offered suggestions on what are believed to be the most effective ways to provide support to bereaved parents, these studies only address the acute grief period of the first 72 hours and fails to include the views of bereaved parents. Other professional disciplines such as 911 dispatchers, emergency medical technicians, fire department personnel, chaplains, funeral directors, and bereavement organizations have not studied, nor do they receive training in the support needs of bereaved parents through their professional paradigm, but after the sudden death of a child, parents must rely on the support and guidance of these professionals.

Interestingly, leaders, and supporters, of bereavement organizations have also neglected to study support needs from the perspective of the bereaved parents—parents rely on them to know how best to help them, yet no one as yet has asked them how to best support them in this traumatic circumstance.

METHOD

This focus of this study was on both parents' and professionals' experiences receiving and providing support and grief interventions at different time periods after the death of a child. A transcendental phenomenological frame was chosen (Moustakas, 1994) as the best way to capture these experiences (Patton, 2002) because it assumes that humans who share a similar experience can retain a common core meaning that is available to uncover and explore (Patton, 2002). The perspectives from both groups represent a fundamental principle of phenomenological research that suggest these experiences are best understood by looking at both perspectives and identifying places of overlap and divergence (Moustakas, 1994). The professionals and bereaved parents in this study have witnessed the phenomena of providing or receiving support after the sudden and unexplained death of a child as a result of SIDS or SUDC and together, these perceptions can create a core perception of what support needs and grief interventions are meaningful in these difficult situations.

Participants

Using the snowball sampling method, the researcher asked each participant to identify other potential participants who met criteria for the research study (i.e., have personal experience with the sudden and unexplained death of a child under the age of 18 and provided or received support) (Patton, 2002). The current participant was then asked to contact the potential participant and invite them to contact the researcher by phone or e-mail to agree to participate in the study or to get permission to provide his or her contact information to the researcher.

Participants were from two groups: professionals and bereaved parents. Names and other identifying information was changed to ensure anonymity. The following professionals were selected to participate: dispatch operator, EMT, fireman, police detective, chaplain, social worker, support group leader, funeral director, and bereavement organization director. Each professional was selected based on his or her personal experience assisting and providing support needs and grief interventions to bereaved parents after the sudden and unexplained death of a child under the age of 18. The professionals' work experience ranged from six to over 31 years.

The recruitment source for bereaved parent participants was through the Sudden Unexplained Death in Childhood Program (SUDC). An advertisement for the study was sent out to SUDC families through an e-newsletter asking potential participants to contact the researcher via phone or e-mail to participate in the study. Five bereaved parents and one grandparent agreed to participate based on their personal experience with the sudden and unexplained death of their child, or grandchild and subsequent interaction with many of the professionals named above. Of the five bereaved parents, two self-identified as adoptive parents to their child who died. The time since the death ranged from one to 9 years.

Data Collection

The primary data sources were the transcribed interviews, and in some cases follow-up interviews, done with each participant. The semi-structured interview outline addressed two broad subject areas: Support needs and grief interventions at specified time periods after the death of the child and experiences of giving or receiving support. Prior to each interview, participants filled out a demographics questionnaire.

Initial interviews lasted approximately one to two hours and follow-up interviews ranged from five to thirty minutes. Both initial and follow-up interviews with professionals were done over the phone with one exception. One professional requested to meet in person at his place of work. All interviews with bereaved parents were done over the phone. The interviews were audio recorded and then professionally transcribed.

Phenomenological researchers believe the participants become co-researchers in the research study. It was imperative that the researcher ensured the transcribed manuscript accurately portrayed the feelings, thoughts, and experiences of those who had witnessed the phenomena. In order to ensure accuracy each participant was emailed his or her interview transcription and asked to check it for accuracy. A semi-structured follow-up interview was offered to each participant approximately one to two weeks after they received their first interview transcript. The purpose of this follow-up interview was to allow the participant the opportunity to expand on the original interview questions, edit, or explain answers from the first interview. All six of the parents and five of the ten professionals participated in a follow-up interview.

Procedure

The first author was responsible for collecting and analyzing the data. Because she is a bereaved parent and has personal experience with the sudden, unexplained death of a child, she was aware of the potential to color her interpretation of the data with her own experiences. As a way of staying mindful of this potential, prior to data collection, a colleague conducted the semi-structured interview with the first author. Immediately after the interview, they reviewed the author's answers to identify areas of her experience that might blur the boundaries between her experiences at different time periods after the death and those of her participants. Once identified, the author posted them above her workspace as a reminder to be mindful of the boundaries of each person's experience.

The narrative data was then examined using Creswell's (2007) approach to analyzing phenomenological data. His approach is largely based on the Stevick-Colaizzi-Keen method as discussed by Moustakas (1994). The author familiarized herself with the data by listening to each recorded interview and then reading the corresponding interview transcript. This process allowed her to "develop a list of significant statements" (Creswell, 2007, p. 159). This included looking over each sentence and paragraph to identify statements, or groups of statements, that captured the essence of the experience. She then went back through and read the transcript again, this time underlining, in pencil, significant support needs and grief interventions. In the column, next to the significant statements, the researcher noted the time period the statement referred to; either a 72 (for the first 72 hours), 3-14 (for the first 3 to 14 days), and 2+ (for two weeks and beyond). The significant statements that were not related to time categories were boxed in pencil and separated. These categories are discussed in a separate section of this paper. The researcher then re-read each transcript one final time to ensure that all relevant statements had been indentified and categorized.

The next step was to take the lists of significant statements and "group them into larger units of information, called 'meaning units' or themes" (Creswell, 2007, p. 159). After all the significant statements were underlined, the researcher went back through each transcript and in the right side column summarized, in a few words, the essence of the underlined statement that addressed support needs or grief interventions. The researcher went back through each transcript again to ensure accuracy of the summarized significant statements and coded each summary in five different categories: 1) time frame, 2) Source (parent or professional), 3) meaning unit, 4) original significant statement from the transcribed manuscript that lead to the meaning unit and 5) color category. Coded summaries were then imported to an Excel spreadsheet (see Figure 1) with each row representative of one identified meaning unit and columns were populated accordingly.

A second Excel worksheet was created for *Themes*. This worksheet had two columns: Theme and Color Code. The data in the Themes worksheet was populated in the following manner. The researcher read through each meaning unit on the original worksheet and determined a working theme title. The working theme title is recorded in the Themes worksheet in the theme column and was assigned a color (e.g., yellow) in the Color column. For each new working theme title that was created a separate color was assigned. After each meaning unit was read and given a working title, the corresponding color from the Themes Worksheet was transferred to the Color column on the data worksheet for that row. Once all the color fields were filled, the color column was filtered by color so that only rows that had a color of a specific value (e.g., yellow) were associated with a given theme. Viewing only rows with a specific color allowed for a visual comparison of the data to ensure that meaning units had been accurately aggregated--common themes were evident across the visible rows. Each color group was then given a final theme name and entered into the Theme column of the data worksheet for each row that matched the corresponding color. If a meaning unit was determined not to be similar to other records in the filtered set, the value of the Color column was changed to another value that more closely identified the correct color as determined in Themes worksheet. At the end of this step the researcher had an excel spreadsheet (see Figure 2) that connected the original significant statement to the meaning unit assigned and the theme that emerged from that data. This spreadsheet provided visual confirmation that the data clustered around distinctive themes.

RESULTS

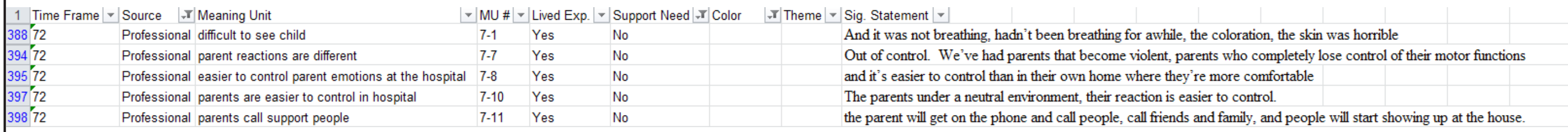
Thirteen support needs and grief interventions were identified and are presented in Table 1. While each individual person described his or her own experience, common core themes and experiences emerged from the interviews with participants.

Contact Support People for the Parents

During the initial few hours after the death of a child, professionals reported they recognized the importance of laying the groundwork for building a long-term, intimate support structure for parents by either contacting the parents' support persons for them or by allowing supportive people to be with the parents. Ten parent participants described this need, and of those 10, four of the six parents believed this was an important need. Professionals also described the value of contacting support persons to help parents. Allen, a firefighter, recounted a time when his attempts to calm a mother were futile but her friends were able to help:

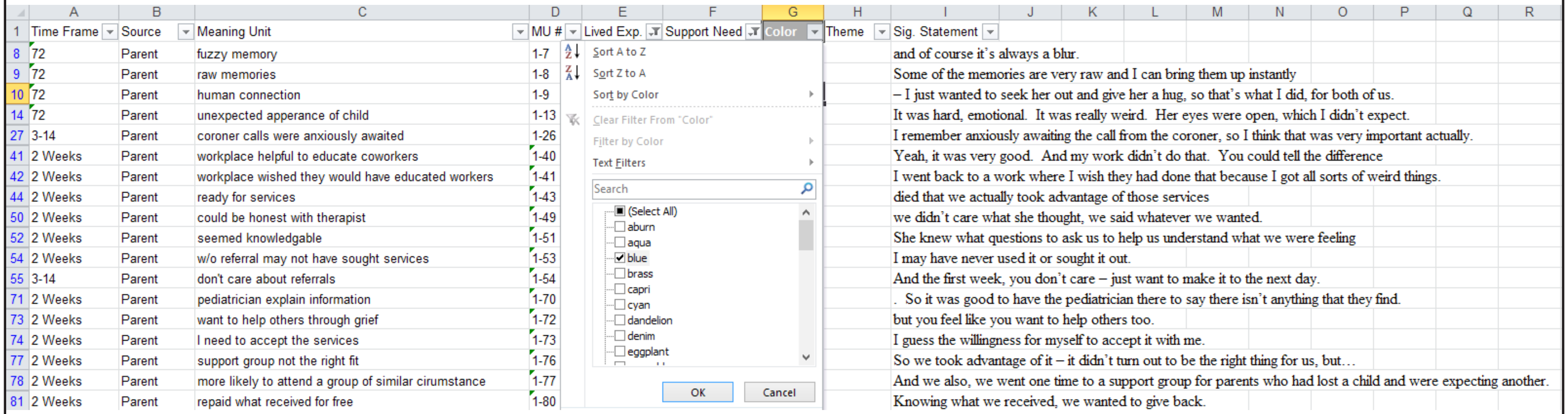
> *A sheriff's officer and I went over to the mother and tried to calm her down, and her friends were there trying to calm her down, and everything we did seemed to escalate the situation. So I ended up*

Figure 1. Excel spreadsheet format for qualitative analysis



1	Time Frame	Source	Meaning Unit	MU #	Lived Exp.	Support Need	Color	Theme	Sig. Statement
388	72	Professional	difficult to see child	7-1	Yes	No			And it was not breathing, hadn't been breathing for awhile, the coloration, the skin was horrible
394	72	Professional	parent reactions are different	7-7	Yes	No			Out of control. We've had parents that become violent, parents who completely lose control of their motor functions
395	72	Professional	easier to control parent emotions at the hospital	7-8	Yes	No			and it's easier to control than in their own home where they're more comfortable
397	72	Professional	parents are easier to control in hospital	7-10	Yes	No			The parents under a neutral environment, their reaction is easier to control.
398	72	Professional	parents call support people	7-11	Yes	No			the parent will get on the phone and call people, call friends and family, and people will start showing up at the house.

Figure 2. Filtering color column by colors in Excel



1	Time Frame	Source	Meaning Unit	MU #	Lived Exp.	Support Need	Color	Theme	Sig. Statement
8	72	Parent	fuzzy memory	1-7					and of course it's always a blur.
9	72	Parent	raw memories	1-8					Some of the memories are very raw and I can bring them up instantly
10	72	Parent	human connection	1-9					– I just wanted to seek her out and give her a hug, so that's what I did, for both of us.
14	72	Parent	unexpected apperance of child	1-13					It was hard, emotional. It was really weird. Her eyes were open, which I didn't expect.
27	3-14	Parent	coroner calls were anxiously awaited	1-26					I remember anxiously awaiting the call from the coroner, so I think that was very important actually.
41	2 Weeks	Parent	workplace helpful to educate coworkers	1-40					Yeah, it was very good. And my work didn't do that. You could tell the difference
42	2 Weeks	Parent	workplace wished they would have educated workers	1-41					I went back to a work where I wish they had done that because I got all sorts of weird things.
44	2 Weeks	Parent	ready for services	1-43					died that we actually took advantage of those services
50	2 Weeks	Parent	could be honest with therapist	1-49					we didn't care what she thought, we said whatever we wanted.
52	2 Weeks	Parent	seemed knowledgable	1-51					She knew what questions to ask us to help us understand what we were feeling
54	2 Weeks	Parent	w/o referral may not have sought services	1-53					I may have never used it or sought it out.
55	3-14	Parent	don't care about referrals	1-54					And the first week, you don't care – just want to make it to the next day.
71	2 Weeks	Parent	pediatrician explain information	1-70					. So it was good to have the pediatrician there to say there isn't anything that they find.
73	2 Weeks	Parent	want to help others through grief	1-72					but you feel like you want to help others too.
74	2 Weeks	Parent	I need to accept the services	1-73					I guess the willingness for myself to accept it with me.
77	2 Weeks	Parent	support group not the right fit	1-76					So we took advantage of it – it didn't turn out to be the right thing for us, but…
78	2 Weeks	Parent	more likely to attend a group of similar cirumstance	1-77					And we also, we went one time to a support group for parents who had lost a child and were expecting another.
81	2 Weeks	Parent	repaid what received for free	1-80					Knowing what we received, we wanted to give back.

Table 1.
Core Support Needs and Grief Interventions Identified by Participants

Support Needs and Grief Interventions	72 Hours	3 – 14 days	2 weeks +
Contact support people for the bereaved parents	x		
Emotional and cognitive regulation	x		
Preliminary information on cause of death	x	x	
Time with deceased child	x	x	
Accommodate and advocate	x	x	
Human compassion and support	x	x	x
Describe timeline and process	x	x	x
Referrals and Resources	x	x	x
Affordable and easy access to services		x	x
Communication and follow-up		x	x
Community Experience			x
Professional mental health support			x
Memorialize			x

> *leaving the area the parent was. The sheriff's officer stayed, the friends stayed, and after about probably 15 minutes, the friends got her calmed down. I was unable to say anything that would help.* (Allen)

A support system can also be helpful when delivering a death notification. Barbara is the mother of 17 month old Casey, a previously healthy girl, who died during an afternoon nap at daycare. The daycare director called 9-1-1 and when the police and medical personnel arrived they had to call Barbara at her workplace to notify her about what had happened. The Sheriff called and asked to talk to Barbara's boss first and asked her to stay with Barbara while he gave her the news about the death of her child. Here is Barbara's experience:

> *No, I don't think they gave us much more information than that. I don't know if they said we tried to revive her, or anything. I'm sure they did – maybe not, I don't know. I remember being in complete shock and dropping the phone when they told me whatever they told me. I remember being very, very thankful they got my boss. I had a good relationship with her. For me it was very helpful to have someone who loved and cared about me, there to be with me when I received the news.* (Barbara)

The suddenness of these deaths makes the need for additional support for parents even more critical. Family and close friends can often keep the news from overwhelming the parents when they first get the news that their child has died. Knowing the importance of these support people, the professionals interviewed reported calling on them as soon as possible.

Emotional and Cognitive Regulation

In addition to initiating a support network for the newly bereaved parents in those first few hours, it was also important to both professionals and parents to help parents gain control over their emotions and beliefs about the recent death. The immediate emotional response from parents, after learning of their child's death, is often hysteria or shock. Parents in this state are unable to function normally which can make the situation difficult for professionals trying to help and difficult for the parents to accept the help. All participants, both parents and professionals, described the need for e*motional and cognitive regulation* as a necessary intervention to the grief process during this time.

Parents usually dial 9-1-1 when they find their child unresponsive and Megan, a 9-1-1 operator, is the first professional they encounter. Megan is quickly confronted with the parent's hysteria and disorganized thought process. In order to provide help she has to gather or confirm basic information to send the appropriate medical response. Megan has found that she must refocus and calm parents in order to be understood. She describes her typical method of helping parents control their emotions so she can provide them with life saving services:

> *Take a deep breath, and I need you to – I need you to give me your address so I can help you." Because there is someone sobbing hysterically we can't understand them. And I tell them "I am sorry I can't understand you, I need you to take deep breaths and then try again." Because if we raise our voice, it makes them more hysterical; if we lower our voice it tends to make them a little calmer and at least able to speak a little forward to us. Some people tend to panic….* (Megan)

The emotional experience for parents is overwhelming and Megan found that offering emotional and cognitive regulation was helpful in getting the parents to calm down. While Megan's initial task is to calm the parents and get information, they often remain hysterical.

Amber is the mother of 22 month old Ian who was found unresponsive in his crib during an afternoon nap. After calling 9-1-1 medical response arrived and put Ian in the ambulance for transport to the hospital. Amber was allowed to ride in the front seat of the ambulance with a police officer and the driver. She was in shock from Ian's state and became hysterical. Amber recounts her need for emotional and cognitive regulation:

> *I remember being in the ambulance – and initially before we got to the hospital, I was screaming at everybody. I was cursing everyone out, and the cop was giving me a hard time, and was telling me if I don't calm down that – I don't know, would he remove me? I was like how can you be speaking to me this way? So I remember completely losing my mind. But telling them, okay, I'm calm. Like someone – I just liked calmed down.* (Amber)

While the request from the police officer was initially upsetting to Amber she was able to gain control of her hysteria which was both helpful to her and the others involved. Professionals were able to help parents by providing specific guidance on how to regulate emotions such as: requesting the parents take deep breaths, normalizing the experience, requests for behavior or desired emotional state. This support need not only assisted professionals but allowed these parents to calm down and refocus in order to accept the necessary help and services being offered. Parents and professionals both mentioned that parents had a strong need to understand what had happened to the child as soon as information became available.

Preliminary Information on Cause of Death

In addition to the intense emotional experience of having a child die, parents are overwhelmed with thoughts and questions about their child's cause of death. The time between the death and medical interpretation of what lead to the child's death can vary from days to weeks. During this time parents are frantically trying to find a reason for why their child died. Some of the reasons are plausible while others are often farfetched. Professionals and parents both discussed the need for *preliminary information on the cause of death* as a support need and grief intervention. Parents noted that preliminary information on the cause of their child's death, or in some cases ruling out potential causes, helped them decrease self blame and anxiety. Five of the six parents and two professionals believed this grief intervention was helpful during the first 72 hours.

Parents often wait days and weeks for information about their child's cause of death. This wait can be very difficult for parents who often make assumptions about what happened to their child. Cayden, Mary's 14 month old boy, had slept past his normal waking time one morning. When she went to wake him he was lying face down on his mattress and had been dead for some time. Mary called 9-1-1 and help arrived shortly. Her house flooded with emergency personnel and law enforcement. She recounts overhearing two gentlemen talking to one another in the hallway. Mary describes her experience receiving preliminary death information:

> *But back to those two guys who were talking, that was very helpful for me, because I heard them say*

> *"I think it's a SIDS case." I went and told them, "No, it's not a SIDS because he's 14 months old, so definitely not a SIDS." And the guy just kind of grabbed my shoulder and looked at my face and he said, "I have seen SIDS cases up to 3 years old." …It was really helpful right then because I was so lost, I didn't know what was going on. It kind of helped me with that irrational feeling I was having. I remember talking about the Scope. There was some Scope sitting on the counter, and I was terrified that maybe he drank some of that and I didn't notice. So just to have someone say, "okay, this has happened to someone who was older than 12 months old, kind of snapped me back a little bit, I guess. It made me realize that maybe it wasn't my fault.* (Mary)

Mary had already begun thinking of potential causes for her son's death, so when she was given preliminary possibilities so soon after his death it helped decrease her irrational thoughts. After hearing this information, Mary allowed herself to stop thinking of potential causes for her son's death and decrease blame. Some professionals interviewed said they make it a point to give parents immediate information to provide reassurance. Allen an EMT describes what he tells parents:

> *Exactly what I would say is, "I'm extremely sorry, but your child has not made it, they've passed away. It looks as though it happened in their sleep and that there was not much suffering involved…" I tell them that right away, and you know what? I don't ever, ever, ever lie to my patients, and I'm not positive that there was no suffering involved, but I feel that people like to hear that.* (Allen)

Through Allen's 21 years as an EMT, he believed it was important to provide parents with what little reassurance he could. It was clear from the numerous accounts mentioned throughout parent interviews that preliminary information on cause of death was an important intervention in the grief process.

During the three to 14 day time frame four of the six parents, and one professional described receiving this information as important and meaningful during this time period. While professionals interviewed did not show the overwhelming need for preliminary information that parents expressed, it should be noted that all the other professionals were not in a position to make cause of death determinations. While some parents had already received preliminary information on the child's cause of death, others were still waiting so information continued to be an important need. Barbara was in frequent contact with the medical examiner's office to gain information on Casey's death. It wasn't until the third day that she received the most preliminary of information during a phone call with the medical examiner:

> *Just to let you know there are no signs of abuse or neglect that we're seeing, and that they haven't found anything." At that point, I don't think she gave us any real specific, just basic, just to kind of put your mind at rest a little bit I think. We were of course happy to receive those calls and hear that – you're anxious, wondering, was there something medical that happened that was really evident, obvious, that we should know about? To hear that there was nothing right away was good news for us.* (Barbara)

Barbara had been anxiously awaiting the call from the medical examiner to learn what may have caused her daughter's death. Learning the autopsy results had come up negative was a helpful intervention in her grief process. Preliminary information on the cause of death was a helpful grief intervention because it provided parents the opportunity to decrease self blame, receive reassurance, and prevent unnecessary guilt. Getting this information early in the grief process helped parents shift their thinking away from wondering or catastrophizing potential causes of death to a specific potential cause which made way for a healthier grief process. However, parents overwhelming expressed a desire to spend time with their child.

Time with Deceased Child

After the sudden and unexpected death of a child, parents described an insatiable need to be with their child. Unlike expected deaths, SIDS and SUCDs are sudden and unexpected so parents must come to realize the finality of their child's death quickly. Spending time with the deceased child was considered a very important grief intervention by the parents interviewed for this study. A total of 11 parent and professional participants described this as a need during the first 72 hours, and of this 11 all six parents noted the importance of this intervention. This need was present during the first 72 hours and again during the following 3-14 days. Mary had a very strong need to be with her son Cayden after he died. Mary recalled the minimal amount of time she had with her son, and the encounter she had with a person from the medical examiner's office:

> *And then I do remember him trying to grab Cayden from my husband, and trying to pull him out of his arms, and telling him it would be better if you do this way. And it definitely wasn't. For us, I think if we had Cayden in the house with us for most of the day that would be good. Because we could have held him and you know. But at this point who knows what they were thinking. I don't know. But I remember wishing it was 1800, and I could feed Cayden at home and I could wash him and do those things.* (Mary)

Mary had not accepted Cayden's death and required more time with him to fully realize the finality of the situation. Mary noted later in the interview that had she been given more time with her son she may have accepted his death sooner.

A parent's denial of their child's sudden and unexpected death is a real phenomenon that professionals acknowledge. Allen, an EMT, has seen a variety of reactions after the sudden and unexpected death of a child. He shared the most difficult call he had ever been on:

> *A social worker in the hospital had told the mother that the child had passed away, and the mother went in there and grabbed the child, wrapped him up and was taking the child home. Didn't believe that that happened. "No, I'm taking my baby home." He or she, I can't remember if it was male or female, but "I have to take him home because it's time for him to eat." Or something like that. They had a big situation in the hospital where the mom had wrapped this child up and was taking it out to the car, and she sat in the car, and they were trying to talk her through it. That was really difficult situation on everybody, the social workers, the ER nurses...* (Allen)

Allen describes this mother's denial about her baby's death. The professionals and support people involved eventually helped this mother realize her child's death by allowing her to see and hold her child.

Of the four professionals involved during this time frame only two, funeral director and bereavement organization director, noted the importance of *time with child* during the three to 14 day timeframe. The other two professional participants during this time were involved with grief support versus plans for the deceased child. However, only two parents discussed this need during this time frame. This was due in part to the timing of the funeral or memorial services and whether the child was cremated. It should be noted that families were often charged fees by the funeral home to prepare the child's body for viewing after the body was released from the county medical examiner. While some parents declined to see the child at this point due to the condition of the body, others were not deterred. Steve, a funeral director for over 30 years, describes his experience with parents:

> *Sometimes the mothers if we're going to have a viewing and embalming, they'll come in and actually take them out of the casket and hold them for hours, and maybe over 2 or 3 day period of time. So we have to be ever mindful of that type of situation too. Sometimes they won't ask, they'll just do it. So we have to be prepared for that. If we put a baby out for viewing at the request of the parents, then we have to be ever mindful that everything has to be perfect because the moms will pick them up and take them out and sit down and hold them sometimes for hours or over 2 or 3 days period of time.* (Steve)

Steve recognized the importance of a mother's need to be with her child so he would make sure all preparation such as embalming, hair, dress and make-up was done well. When parents are able to spend time with their child, hold their child, and feel that their child is no longer living, they can make the necessary transition from denial to reality. Some parents in this study believed spending time with their child was necessary and important to their grief process during this time frame. For those parents who requested to see the child it became important for professionals to accommodate and ensure that all necessary measures were taken to ensure a positive grieving experience; however, advocating and accommodating was also necessary on a broader scale.

Accommodate and Advocate

In an emergent and unexpected crisis parents are undoubtedly in a landscape of unfamiliar territory. Parents and professionals both identified the need to accommodate or advocate for parents. A total of 12 participants discussed this need and of those 12, five of the six parents noted its importance. Participants described advocating and accommodating as doing something for the parents that the professional believed would be helpful such as protecting the parent from unhelpful support people, or collaborating with other professionals on behalf of the parents. This need was heavily present during the first 72 hours after the death of the child but remained important through the three to 14 day time period when funeral arrangements were often made. Some SIDS or SUDC deaths are called by medical personnel at the family's home. Bob, a fire chaplain, describes his experience advocating for the family in the home environment:

> *Every situation is a little bit different. Some will say all they want you to do is just sit there. Some will want you to get in there and make a bunch of phone calls for them, or tell them where do we go from here, what do we do next? It just depends on where there need is at the time and trying to figure out what it is.* (Bob)

Bob accommodated the parents by following their lead and waiting for instruction. Advocating and accommodating can be more than just collaborating with other professionals or following a parent's lead, this need could be advocating or accommodating for religious, spiritual or cultural beliefs as well. Tracey and her husband Ryan adopted Mark from Africa only five weeks before his death. Mark had some medical problems before arriving to the United States, but was cleared for adoption by a local doctor. The family had just begun their new life together when Mark died suddenly in his sleep from SIDS. Tracey recounts the request she made at the hospital:

> *At the hospital, I asked for the chaplain, because Mark didn't, I asked the chaplain to baptize him. At the hospital they were very nice.* (Tracey)

The chaplain was able to accommodate Tracey and provide her son with a baptism.

Advocating and accommodation was also needed after the first 72 hours but this needs presented differently in later time periods. A total of nine participants described this need during the first 3 to fourteen days and of those nine, all six were bereaved parents. Mary, the mother of Cayden, continued her need to spend time with her son and had requested that the funeral home make arrangements to have the wake at her house. Traditionally this is not something that many families request of funeral homes. Mary recounts the importance of this accommodation:

> *I desperately needed that time to have him back in his room and all those things. So we had the wake at our home, and that was really important to me. A lot of people didn't understand that and thought it was – but for me – I think before Cayden died I would have seen these persons as icky, or whatever, but I didn't feel that way at all.* (Mary)

All of the examples in this section provide varied ways in which professionals may provide support by advocating and accommodating parent needs. Throughout this analysis, advocating and accommodating were paired with additional support needs. However, it became clear that without added assistance from professionals these needs would not have been met. The parent's need to have professionals advocate or accommodate on his or her behalf was an imperative grief intervention. In addition to protecting the parents' best interest, professionals and parents believed referrals to other services was also necessary.

Human Compassion and Support

Human compassion and support encompasses emotional, cognitive, behavioral and physical support needs. A total of 13 participants noted the importance of both providing and receiving *human compassion and support* during the first 72 hours. Of those 13 participants all six parents discussed the importance of this need. This theme is comprised of elements that promote and support the human condition to include: Empathy, compassion, sympathy, physical presence and touch, validation, normalize experience and emotions, promote self care and offer to provide services or help.

Robert has been a detective for over 30 years and interviewed many parents after the sudden and unexplained death of their child. He reports that by providing *human compassion and support* he is not only able to support parents, but also accomplish his professional task. Robert discusses this benefit:

> *One of the things that I tried to do is, I tried to interject compassion and empathy into the conversation as soon as I could by starting off with "I'm very sorry for your loss," that kind of thing. "I know it's difficult for you at this time, difficult to speak, but I need to get some very, very, very base information, and if you can help with that we can proceed." A lot of times you'll find that people who are in situations like that don't mind talking, even if it's just the*

> *police. It's talking to somebody. And by getting that kind of confidence level developed, to approach it that way, I believe that as you're talking that person will open up to you a little bit more, and you can get more details about what's going on. But then I would always interchange a lot of the talk from the professional job into the person.* (Robert)

Robert used empathy, sympathy, compassion and listening in his professional capacity and was able to build a connection with the parents to not only support them, but gain more information about the circumstances of the death.

A total of seven professional and parent participant discussed this need during the first three to 14 days, and four out of the six parents mentioned this need as helpful during this time. Michelle's pediatrician had contacted Michelle and her husband after Alyssa died. The preliminary autopsy determined that Alyssa had the influenza B virus which may have contributed to her death and her pediatrician was concerned about Alyssa's brother Caleb. Michelle describes the support she received:

> *She called us and said here's my home number, here's my cell, here's my pager. She was incredible, just great. She said if you want me to see Caleb every day for the rest of his life, do it. Her support was great.* (Michelle)

Michelle was thankful that her pediatrician offered to help Caleb if they needed her assistance. Her older son did get the influenza B virus and the pediatrician continued to offer her support and help to the family. This support need has benefits for both parents and professionals. Parents need compassion and support to help them through the initial hours of grief and into the weeks following the child's death.

Describe Timeline and Process

Another grief intervention desired in all three timeframes was informing parents on what could be expected and when. The death of a child brings about unfamiliar territory. Parents interviewed for this study had not been through the death of a child before and were clueless about the process and timeline for procedures. Parents and professionals alike discussed the need to inform parents about procedures and timelines they should expect. A total of 12 professional and parent participants discussed this need and of these 12, five out of the six parents found this need to be essential during the first 72 hours. Travis, a lieutenant police officer, explains why describing procedures was the second most important support need and grief intervention after providing *human support and compassion*:

> *The second thing is making sure that they understand the procedure, what's going to happen. We have to educate people because they've never been through this, as to what's going to happen from our contact forward. I'm educating them on detectives responding out and we have the victim's resources available to them, and the coroner coming out. That is part of our job is making sure they understand what's going to happened.* (Travis)

Travis believed explaining the procedure was not only part of his job but also very helpful for parents during those first few hours.

This need was also prevalent during the next three to fourteen days. Six participants described this need and of those six, three were parents. Kim, the grandmother for Isabelle, recalled being very frustrated by the lack of information on Isabelle's autopsy. She remembered calling the coroner's office to see if the official cause of death has been identified, but her experience was far from what she expected. Here are her words:

> *They were very cold, and almost hateful when we were, "how long is this going to take?" they would say, "Well, 4 to 6 weeks, of course, don't you know that?" We were like "no, we watch Law & Order, it happens in 48 hours." What's wrong with you folks, it works better on TV. If they could have been really clear about the process.* (Kim)

Kim would have liked a clearer understanding of the process and a timeframe for Isabelle's autopsy. Other parents found the funeral planning to be overwhelming and appreciated assistance with that process. Barbara, the mother of Casey, was thankful that their funeral home made planning Casey's service very easy. She had a hard time making any decisions during this time frame, and bigger decisions such as planning the funeral were even more cumbersome. Barbara described her experience:

> *Well, they just had everything laid out, asked us questions, and made it very simple. We didn't have to make too many decisions, maybe. I think they kept things pretty limited and said this is pretty common for someone in this situation, you're go-*

> *ing to decide between this and this. There's other things, but very basic, not having to make too many decisions when you're already overwhelmed with a million decisions. I think that was helpful. This is what is typically… this is what is done, and making it simple in that respect, I guess.* (Barbara)

Barbara was thankful that the funeral home assisted her in making decisions for Casey's funeral.

After the first two weeks, parents discussed a need to understand the grief process itself. Some parents described reading about the grief process in books, going on-line, talking to others, calling bereavement organizations and joining peer support groups or individual therapy. Whatever the method, it was clear this was an immense need for parents. A total of 7 participants described this need after the first two weeks, and of those seven all six of the parents believed *describe timeline and process* was an essential intervention. Linda, a peer support leader for the bereavement organization The Compassionate Friends (2006), describes what she believes parents need from support groups:

> *They also want to know if what they're feelings is normal. That seems to resound over and over. The very intense feelings that they have, whether that's sadness or anger, they're really extreme emotions. I think as a society, we do not know how to handle extreme emotions. Bereaved families, they're saying "wow, I'm experiencing this emotion, that one I'm uncomfortable with from others, but certainly I'm uncomfortable myself because I've never felt such intense emotions."* (Linda)

Linda reported the need to understand the emotional process that follows the death of a child. The knowledge and experience of grief was new to many parents interviewed, especially the death of a child. They required information on how to move through the grief process. Parents were suddenly faced with the unfamiliar feelings associated with the death of their child but also confronted with the varied procedures and time frames that impacted their lives. Having these explained was very helpful to these parents.

Referrals and Resources

An important support need and grief intervention is *Referrals and Resources* which includes both immediate and long-term support. Professionals often collaborated with other professionals to bring in support personnel during the initial hours after the child's death. The first professionals involved after the death of a child were often medical personnel, law enforcement, chaplains or social workers several of whom were unable to support these parents long-term making additional referrals necessary. Only three of the six parents described this as helpful during the first 72 hours. However, all professionals expressed the importance of providing referrals and resources during this time. First responders would often bring in victim's advocates, chaplains or social workers to provide professional emotional support to parents. Amy, a hospital social worker, provides immediate support but would also write down referrals for additional emotional support or resources the family may want to contact later. Amy recognized that during the immediate crisis most parents are not concerned with long-term support, but she knows there will eventually be a need. She describes what she tells parents in order to meet this long-term need:

> *"I'm going to write it down, and you're not going to remember any of it tomorrow morning, or tomorrow afternoon, or next week." This is something – it's a blue piece of paper. "If you put it in the drawer or you don't find it for six more months, at least it is maybe there when you need it. Because it's something you can see and look at later." They may open a drawer and they may not remember who it came from, but they find this pamphlet that says support group and why, and their phone numbers.* (Amy)

Amy realized that long-term support referrals were not a priority for parents shortly after their child's death, but she wanted parents to have something they could refer to six months later.

In the first 72 hours after the child's death, referrals and resources were focused more on the immediate needs of the parents, and during the three to 14 day time frame the focus of referrals shifted to long-term support organizations. A total of six participants discussed their need for referrals and resources during this time. Of those six participants three were parents. Angie is a director for a bereavement organization which provides both monetary donations for funeral costs and bereavement support to parents. Typically funeral home directors assess a family's financial need and make a referral to Angie's organization. Angie describes how she works with funeral home directors to coordinate these resources for parents:

> *As a board we decided that the parents are so newly grieving and they have so much on their mind, we don't require and application form at all. What we do require is they give us permission to work with the funeral director. And then again, the funeral director is kind of the person on the front line assessing what the need is, and where these families are really struggling.* (Angie)

Angie works closely with funeral directors to help cover the funeral costs and avoid imposing on the parents during their early grief. There are just a few examples of how professionals can access or provide resources for the bereaved parents at different points in the grief process.

Affordable and Easy Access to Services

Parents and professionals alike discussed the importance of affordable funeral services as helpful during the three to 14 day time frame. With such a sudden and unexpected passing many parents did not have the financial reserves set aside to afford the expensive funeral costs or additional support services necessary. Three out of the four professionals, and only one parent interviewed during this time period noted the importance of affordability. However, it should be noted that three of the six parents knew morticians and received services for free. These parents mentioned being very thankful that they did not have to cover these funeral costs. However, other families were left to manage these costs personally. Barbara described her experience with the funeral arrangement costs:

> *When we went to the funeral home they were very, very good at explaining things, and they kept costs down, thankfully, for babies. It's not like adult funerals where they charge you a fortune. They charged a very little bit for a casket and what have you.* (Barbara)

While Barbara was the only parent participant who mentioned this need during this time period, professionals noted this need is widespread from suddenly bereaved parents in their practice. Steve, a funeral director for over 30 years, noted it is their policy to not charge fees on their services for children under the age of 12. He recognized that young parents whose children die suddenly have not prepared for the costs of a funeral, so his funeral home provides services to these families for free. While not all parents interviewed for this study expressed a need for affordable service during this time, due to their own personal connections or resources, the professionals involved noted it is a need for many parents they have worked with.

Communication and Follow-up

Bereaved parents wanted professionals to communicate or follow-up with them on information about their child's death or offer additional support later on. Parents who did not receive adequate communication described feeling frustrated or angry at professionals. Parents who received adequate communication were pleased by the effort on the part of the professional. A total of seven participants described this need, and of those seven four were parents. Barbara noted that the county social worker offered to follow-up with them several months later. She recalled being thankful that social worker made this offering:

> *Telling us that the assistance center had services available to us, and is that something – I want to say it was in the first week we got that, and just letting us know what was available, that there were free services, that we could do counseling. Was that something we wanted to look at, or did we want to have someone come out and talk to us. At that point we had so many family and friends, and people that loved us, supported us, that it was something we declined at that point, but maybe in the future it might be something we might look into. I think that she asked if we wanted them to call us back, and we said sure you can. But right at this moment we are at peace with where we're at.* (Barbara)

Professional support services were not something that Barbara was interested in during the first few weeks when family support was highest. The social worker did follow-up with Barbra six weeks later and provided her with these referrals again. She noted that both her and her husband took advantage of the resources at that later time, and may not have sought these services without the social workers follow-up.

Community Experience

After the first two weeks since the child's death, parents have preliminary information on their child's cause of death and begin to search out other parents who have gone through a similar situation. *Community experience* was a new theme in the grief process beginning after the first two weeks since the child's death. All the participants involved during this time made note of the importance of this need. Parents described not only wanting to understand their own experience of grief but to meet and connect with other parents who had similar experiences. Parents wanted to be in contact with others who had experienced a similar loss, with a child of a similar age, and in a similar timeframe. Parents described their frustrations meeting parents who had a dissimilar experience. Mary, the mother of 14 month old Cayden who died of SUDC, recounts her experience at a The Compassionate Friends support group:

> *But Compassionate Friends, it was like "my 35 year old son passed away" or whatever, it wasn't the same. To be uncompassionate I guess. I was thinking how lucky for you that you got to have your child for 35 years. I would have anything to have my Cayden for 14 years, or any of those kinds of things. And they would talk about these other things like 'we have a party for all his friends,' and 'my son was working here and doing this and had done that.' When they're children, they don't have all that.* (Mary)

Mary found it difficult to relate to the grief experiences of parents in this support group because the other member's experiences were too different from her own. Linda, a Compassionate Friends peer support group leader, noted a tendency for parents to compare grief and compare stories. Over the years her experience has taught her that grief is grief and the focus of her groups is on that shared experience of grief, not the other aspects of the child's death that separate the grief. Here are her words:

> *There is always a need at some point in time that one's grief is greater than another. And I think how that's changed me as a leader is that I see that. When someone in the group wants to say, "you had your child for this amount of time," or, "but your child took his own life, mine didn't." There's a comparison there that I think is really dangerous for a bereaved family to do. I think it's natural and it comes, and I think part of my role is to see that, and again go back to the neutral ground where we are all grieving, and all our stories are different. We're hurting enough, let's not judge one another.* (Linda)

Linda recognized parents' tendency to compare a child's age or type of death and refocuses parents on the common ground they all share. The need to be with others who share a similar community experience was enormous for those who participated in this study. In some cases community experience was not enough support for parents and seeking out professionals was necessary.

Professional Mental Health Support

At some point in the grief process, all parents and professionals that were involved during this time frame identified the need for *professional mental health support* that focused specifically on helping the parents through their grief. Participants described varied experiences with *professional mental health support*, but noted the most helpful elements offered by these professionals were: knowledge of grief process, connection and bond with professional, listened, and accepted parent's grief. In addition to support for the parents, participants who had surviving children at the time of their child's death mentioned the need to seek support services for their children. Michelle, the adoptive mother of Alyssa, recounts her experience with a therapist who specializes in grief:

> *One thing that always blew me away was her memory for details. For example, I told her Alyssa's birth mom's name the first session and she knew it after that. She just didn't forget a name or a detail.* (Michelle)

Michelle felt a connection to her therapist and was surprised by how well she remembered important information.

Memorialize

The theme memorialize appeared in many different fashions for both professionals and parents. Memorialize described the parents' need to do something in their child's memory, or have their child remembered in some way. Five out of the six parents, and both of the professionals involved during for this time frame, described memorializing as a meaningful grief intervention. Tracey, the mother of Mark, discussed an annual event she does through the SIDS foundation:

> *We do a memorial walk, we've done that the past two summers, they do it in August. It's a memorial for the SIDS babies, and it's a walk around the lake, and they have the names of the babies as you walk around the lake. There's all kinds of activities, it's*

> *a nice way to remember him, and it's a fundraiser. It's a nice way to remember him. (Tracey)*

Tracey used memorializing to remember her child and have her child remembered by others. Mary, the mother of Cayden, recalled being invited to a celebration at her church for those who had lost a loved one. She recounts her experience:

> *The first year the church had a special service for people who had passed away. And they invited us to come to the church and put a picture up and all this other stuff, and it was really good. I was waiting and waiting and they didn't invite us this year.* (Mary)

Mary would have liked the opportunity to continue this memorial for her son year after year. For five of the parents interviewed, memorializing was mentioned as a useful grief intervention. Professional organizations typically provide parents with an opportunity to memorialize their child. The Compassionate Friends holds a yearly candle lighting each December to remember these children. Having an opportunity to memorialize was an important grief intervention for these parents.

DISCUSSION

Three support needs and grief interventions appeared to remain consistent for parents throughout all time periods studied, however the purpose for which these needs appeared was different. Parents described the need to have procedures and timelines explained. Procedures during the first 72 hours focused on autopsy and interviews or procedures with detectives or police. During the 3-14 day time period, procedures focused on funeral planning and the expectation for preliminary death information from the medical examiners. However, after the first two weeks procedures were focused towards understanding the process of grief. Parents wanted to know what they should expect, how long it would take, and what a *new* normal will look like. While the basic meaning of understanding is the same in all three time frames, the circumstances changed. The researcher was able to pinpoint the evolution of this support need and grief intervention with added specificity. Professionals may want to keep this evolution in mind when providing services to parents. Any opportunity to provide bereaved parents with information on procedures, processes, or timelines can be considered meaningful and helpful to parents.

Transition from Referrals to Services

Professionals unanimously described the need to provide parents with additional referrals or resources for support in all time frames studied. However, parents were the least interested in these referrals during the first 72 hours, demonstrated an increased interest during the 3-14 day time frame, and the strongest interest after the first two weeks. A support need and grief intervention that emerged parallel to referrals and resources was the need for affordable services. *Affordable and easy access to services* emerged during the 3-14 day time frame but became more important to parents after the initial two weeks. In addition to affordable and accessible services, *professional mental health services* emerged after the first two weeks and were unanimously believed to be helpful by parents.

All participants recognized that parents were often supported immensely by family and friends during the first two weeks after the death of the child, and the need for referrals to other support or resources, affordable or easy access to services and professional mental health support were not needed until later in the grief process. Some professionals and parents noted that they did not believe professional mental health support, to include peer support groups, were helpful until six weeks to three months after the death of the child. Parents reported feeling expected or pressured to seek out these referrals early in the grief process. In some cases, parents who received this help too soon had negative experiences which increased their perception of hopelessness, anger, anxiety and isolation. When making referrals to resources or support early in the grief process, professionals should remind parents that referrals to counseling and other resources do not necessarily have to be used immediately and that parents should wait until they are ready to seek out this additional support. This reminder will prevent parents from thinking the referral is a literal next step in the process, but rather a resource available to them when the need arose.

Community Experience

By the second week all the parents in this study had been given a cause-of-death for their child. After receiving the diagnosis, parents described the need to seek out a community of other parents whose child died in a similar manner. Bereaved parents are all connected by the death of their child, but bereaved parents often expressed a strong need to be with other bereaved parents who experienced a death of their child by similar cause, age and time since death. Parents whose child died from SIDS or SUDC did not find peer support groups particularly helpful if the other parents had children of mixed ages or causes of deaths. Often the most noted reason for the unhelpfulness of these mixed groups was the parents' tendency to compare their grief to others instead of focusing on the shared common experience of grief and suffering. Parents were less focused on comparisons when they were in groups with similar others. In addition to the parents' decreased desire to compare their grief when in groups of similar others, parents also searched for validation of their experience by hearing the experience of others. When other parents' situations or circumstances validated their own experience with their child's death, parents perceived this as helpful; however, when the other parents' situations or circumstances did not confirm their experience, parents found this to be unhelpful and further isolating. For example, if parent had a negative experience with the police after the death of their child and encountered parents who had a positive experience, this dissonance created additional stress and self-doubt for the parent. Parents would often wonder what it was about them that made their experience poor and created further complications in their grief. However, it was not only similar experiences parents wanted validated. If parents were provided with their child's death diagnosis and disagreed with the findings, they would seek out other parents who had similar experiences to the events leading up to their child's death. For example, some parents were told that pneumonia or other viral illnesses were to blame for their child's death, but the parents did not witness symptoms of pneumonia prior to the death. These parents would often associate more with parents who had similar circumstances leading up to the child's death than other parents whose child died from a long battle with pneumonia. These parents described a need to have not only their experience validated but their perceived child's cause of death validated by others. Professionals and peer support leaders should be aware of the parent's tendency to compare or devalue another's grief process and therefore focus group process heavily on the commonalities these parents share.

Transition from Physical Presence to Memorializing

Emerging during the first 72 hours, and present throughout the first two weeks, parents described the need to spend time with their deceased child. Parents and professionals provided a variety of reasons why parents need to spend time with their child, including using the time to accept the reality of the death and to have closure. For some parents the denial of death was so strong it just seemed natural for the child to be home with his or her parents. Regardless of the reason, for these parents the first two weeks were focused on the physical presence of the child. After this transition was completed parents discussed the need to memorialize their child as a way of honoring and remembering them. Parents reported making quilts, participating in fundraisers and memorial walks, or joining others in ceremony to remember their child. Memorializing provided parents a link from physically being with their child to the mental representation of their child and maintained this representation by physically or tangibly doing something in the child's memory.

This transition from physical to mental representation seemed to be a hallmark of a healthy grieving process. Professionals can help these parents maintain a healthy grief process by offering opportunities to memorialize their child. This may include specific memorializing such as making items out of the child's clothes, creating websites, donating physical items such as playground equipment, candle lighting, or participating in organized events such as memorial walks and fundraisers. Research could further explore how the process from physical representation to memorializing transpires over time thus creating a better understanding of how clinicians can help bereaved parents make this necessary shift.

Limitations

The most notable limitation to this study is the lack of representation from professional disciplines that professionals and parents identified as helpful such as: Victims advocates, nurses, doctors, medical examiner or coroners, therapists, psychiatrists or other bereavement organizations. It is clear the number and type of professional involvement is expansive and varies from parent to parent.

An additional limitation of this study was the parent's difficulty recalling specific interactions with professionals during the 3-14 day time frame. It was often difficult for the researcher and parent to determine if the needs appeared during the first 72 hours or beyond the first two weeks. While participants discussed needs they knew appeared during this time frame (e.g., funeral planning), there was the potential that other interactions or needs were missed due to the participant's inability to recall this information. Future studies should either lengthen the short-term and long-term time frames or interview participants who recently went through the death of a child.

The majority of interviews were conducted over the phone which may have limited the quality of data gathered. The researcher was unable to attend to nonverbal cues or subtle nuances that may have changed the type of prompts used during the interview. It was difficult to ascertain the meaning behind long pauses while on the phone; therefore opportunities for greater understanding may have been missed.

Closing

These parents must endure one of the worst deaths and for no apparent reason, with no warning and with no eventual justification. A perfectly happy and healthy child befalls the most tragic human end: death. It is as if they are plucked from life with no warning, no opportunity to say good bye and no rewind. Some parents whose children die are able to gain understanding and acceptance through a set of logical circumstances that lead to their child's untimely death. SIDS and SUDC parents are hit with the tragedy often hours after hearing their child's laughter, seeing their child's beautiful smile or hugging their child with no thought that it would be their last. And then suddenly it is all gone. These deaths often occur during sleep leaving parents with a frightening and often startling awakening to the first day of the rest of their life without that child. Within moments, the parents are consumed with emotions and thoughts. Every dream they had with that child will no longer be realized. The life they had envisioned will forever be changed.

In addition to such a mental shift, these parents become surrounded by professionals. The judicial and medical system also recognizes how out of sorts these deaths are and professionals from several disciplines begin searching for a reason, missed clues that would indicate the death was imminent, and justification for such a premature and unfair death. Both the parents and the professional system begin thinking how unreasonable this child's death was and that can lead to unnecessary blame. The system's process by nature is often accusatory, grievous and unconscionable. Parents who have already endured the unimaginable are taken to a new depth where they are suspiciously examined for being at fault.

In addition to the unthinkable death and the burden of blame, these parents must face the loss of free will at a time when they need it most. Since their child's birth parents made all the decisions for that child, they always knew where their child was and for the first time ever they were no longer able to make these choices. Their child was ripped from life, and due to the judicial and medical system, is often ripped from their arms. The system only compounds one of the most tragic situations.

Professionals are acutely aware of this system and its impact on these innocent parents. Many professionals noted how rare these cases truly are. The majority of sudden and unexpected deaths of children are at the hands of the parents, and it is because of this majority the system remains. Professionals overwhelmingly craved ways to improve these required procedures to inculpable parents. They recognize how upsetting the process can be and strived to offer the most supportive services possible. However, the recipe for compassionate and effective services was lacking. Professionals were left to provide the best services they knew how to provide, and parents' experiences with these services varied dramatically. These services did not stop within days of the death, but continued for years. However, the tragedy does not just affect them. The professionals, who assisted early on, got into their field to help others by either saving lives or catching criminals and in these SIDS and SUDC cases they were unable to do either of these. They are faced with the notion that not every death has a known medical reason or occurs at the hands of a criminal mind. As parents move past the first few days they encounter professionals from other disciplines such as funeral directors, bereavement organizations and therapists who are saddened that their services are needed for such a great loss. As Linda often tells new parents at the start of their meetings "welcome to the club no one wants to belong to."

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Selected Annotated Journal Resources

Alicia Dodds, M.S., Jessica Batinjane, M.S. and Dina Kulenovic, M.S.

Roach, C. B. (2013). Shallow affect, no remorse: The shadow of trauma in the inner city. Peace and Conflict: Journal of Peace Psychology, 19, 150-163. doi: 10.1037/a0032530

TYPE OF ARTICLE

- Theoretical discourse.

OBJECTIVE/PURPOSE OF THE STUDY

- To consider ways in which exposure to continuous traumatic stress (CTS) may present clinically as antisocial behavior in individuals from the inner city who are both victims and perpetrators of violent crimes (blended perpetrator-victims).
- To present ways in which clinicians can better understand and help individuals whose CTS symptoms manifest antisocially.

METHODS

- The author draws upon the literature and his 20 years of experience as a psychotherapist working in American prisons, forensic hospitals, and trauma centers.

RESULTS

- The author describes life in a dangerous neighborhood as being similar to life in a war zone, where emotional and physical safety are elusive and individuals may witness, be the victim of, or be the perpetrator of domestic or community violence and neglect. Such areas are predominantly urban and poor with a high concentration of minority populations.
- Over 75% of children from these areas have had direct exposure to community violence.
- Anger and hostility are part of the typical conceptualization of posttraumatic stress disorder (PTSD), but are usually considered secondary to the core symptoms of re-experiencing, avoidance, and hyperarousal.
- However, for those from dangerous neighborhoods, anger and hostility may be the most prevalent features of PTSD. In addition, these individuals may present with other traditionally antisocial traits such as superficial charm, shallow affect, callousness, and a lack of empathy. This symptom profile may more closely resemble a conduct disorder than an anxiety disorder.
- Anger is active and replaces a more passive state of fear for the sake of self-preservation and survival. Other than anger, other emotions may be suppressed and muted as a means of coping, which can make the individual appear callous.
- The author argues that this response to CTS is “a human reaction to certain conditions” (p. 156) rather than something that is demographically based.
- PTSD can take an internalizing or externalizing form, and each needs to be treated differently.
- Typical PTSD treatment models rely on the premise that the client is able to feel safe during treatment, but an individual remaining in a dangerous environment cannot feel safe or let his guard down.
- Therapy can weaken necessary survival skills, so finding a more appropriate treatment modality is necessary.
- For clients with externalizing PTSD, a clinician can encourage the client to tell his narrative and find cohesive themes and meaning in his story.
- In listening to a client’s narrative, a clinician should help the client locate affect (e.g., pain from being victimized, power and excitement of acting out), use humor (especially irony to help expose humanity in tragedy),

deconstruct the myth of self-creation (identify someone in the narrative who nurtured the client), and connect to his or her "pure" or "true" self (often the client as a child).

CONCLUSIONS/SUMMARY

- PTSD may present as an externalizing conduct disorder with features of psychopathy in individuals who have experienced CTS and are still in the dangerous environment.
- Helping these clients tell their narratives in treatment may be more effective than other approaches like CBT or exposure therapy that are typically utilized with PTSD clients.

CONTRIBUTIONS/IMPLICATIONS

- The present article provides an alternate, more humanizing explanation of the psychopathology of blended victim-perpetrators who have experienced CTS in dangerous environments.
- With this conceptualization, clinicians can provide relevant, beneficial treatment to this underserved and misrepresented population.

Olatunji, B. O., Armstrong, T., McHugo, M., & Zald, D. H. (2013). Heightened attentional capture by threat in veterans with PTSD. Journal of Abnormal Psychology, 122, 397-405. doi:10.1037/a0030440

TYPE OF ARTICLE

- Original empirical investigation.

OBJECTIVE/PURPOSE OF THE STUDY

- To explore the role of attentional bias for threat-relevant cues in veterans with posttraumatic stress disorder (PTSD).

METHODS

Participants

- Twenty veterans with PTSD, 16 trauma-exposed veterans without PTSD, and 22 healthy nonveteran controls.
- Of veterans with PTSD, 81% had at least one comorbid Axis I disorder (anxiety or mood), as noted, there were 16 trauma-exposed veterans who did not meet criteria for a PTSD diagnosis, and the controls had no current psychological diagnoses. Veterans with PTSD reported more trauma exposure than veterans without PTSD.
- Participants were recruited via community advertisements and referrals from veteran services.

Procedure

- Trained clinicians completed the Mini International Neuropsychiatric Interview (MINI), a structured clinical interview that assesses for the presence of 17 Axis I disorders, with each participant.
- Participants completed three computerized symptom measures: the Posttraumatic Stress Disorder Checklist (PCL), the State-Trait Anxiety Inventory (STAI), and the Beck Depression Inventory (BDI).
- Participants were then presented with the Rapid Serial Visual Presentation (RSVP) Task to assess attentional bias. Seventeen images were presented on the computer screen for 100 ms each. On 89% of trials, one image (the target) was rotated 90 degrees to the left or right. Participants indicated whether or not a rotated image was present (detection) and in what direction (accuracy). Distracter images were presented, followed by a 200, 400, 600, or 800 ms lag before the target image. Distracter images were categorized as combat-related threat (e.g., soldiers firing guns), disgust (e.g., feces), pleasant (e.g., baby animals), or neutral (e.g., household objects).

RESULTS

- There was a significant main effect for group [$F(1,2) = 3.20$, $p < .05$, partial $\eta 2 = .10$], such that veterans with PTSD were less accurate compared to controls but not veterans without PTSD in identifying the direction of rotation of the target image.
- There was a significant main effect for lag [$F(3,165) = 57.84$, $p < .001$, partial $\eta 2 = .51$], such that all participants were more accurate with a longer lag time regardless of diagnostic condition.
- There was a significant main effect for distracter type [$F(6,165) = 33.46$, $p < .001$, partial $\eta 2 = .38$], such that there were different accuracy rates based on the emotional stimulus provided. All participants had an attentional bias to disgust distracters compared to other distracter types.
- There were significant interaction effects for group x distracter [$F(6,165) = 5.79$, $p < .001$, partial $\eta 2 = .17$], lag x distracter [$F(9,495) = 21.280$, $p < .001$, partial $\eta 2 = .28$], and group x lag x distracter [$F(18,495) = 1.76$, $p <$

.03, partial η2 =.06] as well. More specifically, veterans with PTSD were less accurate identifying the rotation of the target image following a combat-related distracter than veterans without PTSD and controls, especially after shorter lag times.

- There was a significant group x lag effect for combat-related threat distracters only [F(6,165) = 2.88, p < .02, partial η2 =.10]. After 200, 400, and 600 ms (but not 800 ms), veterans with PTSD were less accurate in detecting the target after combat-related threat distracters than veterans without PTSD (p < .02) and controls (p < .01).

CONCLUSIONS/SUMMARY

- For veterans with PTSD, heightened attentional capture occurs specifically with trauma-relevant threats.
- There is preferential processing of and excessive orienting to trauma-related cues in veterans with PTSD, suggesting disengagement and a deficit in executive control and top-down information processing (using previous experience, context, and expectations to make sense of sensory input). However, over time (as shown with 800 ms lag), top-down processing seems to regain functioning.

CONTRIBUTIONS/IMPLICATIONS

- The present study provides support for clinical interventions that address attentional bias, vigilance, and disengagement from trauma-relevant cues in veterans with PTSD.
- The study suggests further research to determine whether these results are due to PTSD or to the greater trauma exposure of veterans with PTSD, whether there are differences in individuals pre-trauma, and whether there are similar patterns in non-combat trauma populations.

Glacco, D., Matanov, A., & Priebe, S. (2013). Symptoms and subjective quality of life in posttraumatic stress disorder: A longitudinal study. PLoS ONE, 8, e60991. doi:10.1371/journal.prone.0060991

TYPE OF ARTICLE

- Longitudinal correlational study

OBJECTIVE/PURPOSE OF THE STUDY

- To explore whether and how changes in levels of PTSD symptom clusters of intrusion, avoidance and hyperarousal are associated with changes in subjective quality of life (SQOL) over time. SQOL is defined as the patient's satisfaction with life in general and with a number of major life domains.

METHODS

Participants

- Associations between PTSD symptoms and SQOL were investigated in two separate samples: 1) a representative sample of people who still lived in the post-conflict areas in five Balkan countries (prevalence rate of PTSD was 20%) and 2) a non-representative sample of refugees in three Western European countries (prevalence rate of PTSD was 33%).
- Participants that were part of a representative sample of war-affected communities were randomly selected by having investigators approach every fourth household in regions that had been directly exposed to war activities.
- Potential participants for the refugee sample were identified by a combination of random and non-random sampling approaches.
- Inclusion criteria for both groups included; a) being born within the territory of former Yugoslavia, b) being between 18 and 65 years-old, c) having experienced at least one war-related potentially traumatic event, d) and not having severe learning difficulty or mental impairment due to brain injury/organic causes.
- For the two groups, the present analyses included 745 participants diagnosed with PTSD, of which 530 were Balkan residents (follow-up rate of 85.5%) and 215 were refugees (follow-up rate of 76%).

Materials

- The data were previously collected within the CONNECT study, a multicenter observational study on mental health consequences of war and migration conducted in war-affected communities in five Balkan countries (Bosnia and Herzegovina, Croatia, Macedonia, Kosovo, Serbia) and among refugees in Germany, Italy, and United Kingdom carried out between January 2005 and November 2006.
- Socio-demographic characteristics of participants were obtained by a brief structured questionnaire.

- Mental disorders were assessed on the Mini International Neuropsychiatric Interview (MINI), a structured and validated diagnostic interview that corresponded to the symptoms of the DSM-IV Axis I diagnosis.
- The Impact of Events Scale-Revised (IES-R) measured the level of post-traumatic stress symptoms.
- Manchester Short Assessment of Quality of Life (MANSA) was used to assess subjective quality of life, with the mean score taken as a measure of SQOL.

Procedure

- At baseline assessment and 12-month follow-up, interviews were conducted face-to-face by 33 trained interviewers, who were psychologists, psychiatrists, sociologists or anthropologists to evaluate PTSD symptoms over time and associated changes with SQOL.
- The instruments used that had no validated translations in the relevant languages were translated to the appropriate language and then translated back to English.
- Posttraumatic symptoms and SQOL were reassessed after 12-months.

RESULTS

- Re-interviewed participants from the original study were significantly more likely to be female, have fewer traumatic war events, have less often participated in war activities, and have experienced the most traumatic war event a shorter time before the study.
- No significant differences in baseline PTSD symptoms and SQOL levels were found for either samples of refugees or residents living in war affected communities.
- At the one-year follow up, the levels of SQOL were significantly improved in both samples, and the scores on IES-R subscales were significantly reduced.
- Reductions in all symptom clusters levels were associated with improvements in SQOL.
- In both samples, only changes in hyperarousal symptoms were positively correlated with SQOL changes.
- SQOL and IES-R hyperarousal subscale scores had a significant negative correlation at baseline and at follow-up.
- There was a negative association between hyperarousal symptoms and SQOL both at baseline and one-year follow up.

CONCLUSIONS/SUMMARY

- The subjective quality of life (SQOL) of individuals with war-related PTSD is associated most strongly with their levels of hyperarousal symptoms.
- Changes in hyperarousal symptoms were associated with changes in SQOL over time when controlling for the other avoidance and intrusion symptoms clusters and main sociodemographic and trauma-related characteristics.
- The authors suggest a reciprocal influence between hyperarousal and SQOL, in which a reduction of hyperarousal symptoms may lead to improved SQOL and an improved SQOL may also result in reduced PTSD symptoms.

CONTRIBUTIONS/IMPLICATIONS

- This is the largest known longitudinal study to date assessing SQOL in people with PTSD with a representative sample of war-affected people.
- Taking into account the association between hyperarousal symptoms and SQOL, hyperarousal symptoms should be a primary target for treatment to improve SQOL in war-related PTSD.
- While symptom reduction may improve SQOL, improvements of SQOL may result in reduced hyperarousal symptoms. This finding highlights whether identifying and meeting psychosocial needs of people with PTSD may be important for improving life conditions of people with PTSD and alleviate their hyperarousal symptoms.

Brown, L. M., Barnett, S., Hickling, E., Frahm, K., Campbell, R. R., Olney, R., …Casey, R. (2013). Use of outpatient mental health services by homeless veterans after hurricanes. Psychological Services, 10, 250-256. doi: 10.1037/a0031516

TYPE OF ARTICLE

- Original empirical investigation

OBJECTIVE/PURPOSE OF THE STUDY

- To examine the effects of hurricanes on use of outpatient mental health services by homeless veterans.

METHODS

Participants

- Participants in the study were veterans living in Florida who self-identified as homeless prior to the start of the 2004 hurricane season (August 1, 2004).
- Over the 3-year period comprising this study, the sample cohort was made up of 1,033 homeless veterans living in Florida. Within this cohort, 551 were homeless veterans living in hurricane-affected counties.
- Among the sample, participants were significantly more likely to have a greater service-connected disability, be White, and have a greater frequency of prior visits for mental health.
- This study examined mental health service utilization patterns among homeless veterans living in hurricane-affected areas as well as comparing this group's patterns to homeless veterans living in non-hurricane-affected areas.

Materials

- This study used the 2004 to 2006 Veterans Health Administration (VHA) Outpatient Medical Database to examine use of outpatient mental health services.

Procedure

- Primary mental health diagnosis was abstracted from the International Classification of Diseases – 9th Revision (ICD-9) to include veterans that had specific codes.
- Homelessness was defined as a "point in time" in which veterans were homeless at the time of their specific outpatient service encounter at the VA.
- Veterans living in the counties impacted by category 3 or 4 storms were identified using National Oceanic Atmosphere Administration tracking data.
- Data from the VHA Outpatient Medical Dataset from 2004 to 2006 were used to capture all outpatient mental health encounters by homeless veterans for select Current Procedural Technology (CPT) codes, specifically focusing on monthly frequency.

RESULTS

- Among homeless veterans, those residing in hurricane-affected counties were significantly more likely to participate in group psychotherapy than were homeless veterans residing in non-hurricane-affected counties.
- Homeless veterans in hurricane-affected counties were less likely to participate in 20-30 minutes of individual psychotherapy, 20–30 minutes of individual psychotherapy that also included a medical evaluation, or 30 – 40 minutes of individual psychotherapy that also included a medical evaluation than were homeless veterans who did not live in hurricane affected counties.
- After controlling for covariates such as age, gender, and marital status, homeless veterans in hurricane-affected counties averaged significantly more visits per month for 20 – 30 minutes of individual psychotherapy, and 30-40 minutes of individual psychotherapy that also included a medical evaluation, but fewer average visits per month for 20 – 30 minutes of individual psychotherapy that also included a medical evaluation, 30 – 40 minutes of individual psychotherapy, and group psychotherapy when compared to homeless veterans not living in hurricane-affected counties.
- The average number of visits per month for 20 – 30 minutes of individual psychotherapy that also included a medical evaluation, 30-40 minutes of individual psychotherapy, and group psychotherapy increased significantly for homeless veterans residing in hurricane-affected counties over the 3-year analysis.
- Among homeless veterans, race and marital status were found to significantly influence service use for veterans living in hurricane affected areas, such that White veterans were more likely to use most services than those living in non-affected areas.

CONCLUSIONS/SUMMARY

- Disruptions in mental health services may lead to greater mental health needs in the short-term due to the highly vulnerable nature of this population.
- Although homeless veterans in hurricane-affected areas may benefit from frequent visits or more intensive services, they are less likely to receive these kinds of services compared with veterans in non-affected areas.
- This study revealed a difference between use of group and individual mental health face-to-face services among homeless veterans, such that homeless veterans living in hurricane-affected counties were more likely to have a service-connected disability, to have greater frequency of prior visits for mental health, and to have received prior treatment for PTSD than homeless veterans not living in hurricane-affected areas.

CONTRIBUTIONS/IMPLICATIONS

- If the number of available staff is reduced because they also have been adversely affected by a storm, it may be difficult to meet the mental health needs of hurricane-affected veterans.
- Each facility should have a plan in place to ensure continuity of care after disasters. To meet the immediate needs of disaster distressed homeless veterans, group therapy could be provided to facilitate recovery if individual therapists are unavailable.
- The time immediately prior to a hurricane, homeless veterans should be specifically targeted and given information about local shelters, provided sufficient resources, and advised about possible mechanisms to communicate postdisaster should the infrastructure be damaged.

Barrera, T. L., Graham, D. P., Dunn, N. J., & Teng, E. J.(2013). Influence of trauma history on panic and posttraumatic stress disorder in returning veterans. Psychological Services, 10, 169-176.doi: 10.1037/a0031178.

TYPE OF ARTICLE

- Original empirical investigation.

OBJECTIVE/PURPOSE OF ARTICLE

- To examine the role of predeployment sexual and physical abuse, combat exposure, and postdeployment social support in predicting panic disorder and posttraumatic stress disorder (PTSD) diagnoses in returning veterans.

METHODS

Participants

- Participants were recruited using a secure database that identified 1740 returning veterans initially screened at a southwestern VA hospital between May 24, 2004 and March 26, 2008.
- The sample included veterans ranging in age from 19 to 60 years ($M = 29.43$, $SD = 7.55$).
- Participants were racially and ethnically diverse, with 50.2% identifying as Caucasian, 26.8% as African American, 18.3% as Hispanic, and 4.7% as "Other."
- At the time of the assessment, 42.9% of the participants were married, 5.6% were separated, 14.7% were divorced, 0.4% were widowed, and 36.4% were never married.

Measures

- Diagnoses were determined from clinical interviews administered during the initial mental health screenings. Presence or absence of panic disorder and PTSD were determined by review of participants' medical records. Suicidal ideation and attempts were extracted from a risk assessment conducted during the screening evaluation, as well as from safety checks conducted by clinicians 30 days prior to and post participants' postdeployment evaluations.
- The Deployment Risk and Resiliency Inventory (DRRI), a collection of self-report measures, was used to assess risk and resilience factors associated military deployment. Risk factors included predeployment physical and sexual abuse, combat exposure, postdeployment social support, and number of potentially traumatic events.

Procedure:

- The initial mental health screening included an assessment of current psychiatric symptoms, an evaluation of psychiatric, medical, developmental, and military history, as well as an assessment of education/employment/financial status and legal history.
- Participants completed the DRRI as a part of the evaluation.

RESULTS

Prevalence of Panic Disorder and PTSD

- The findings indicated that the prevalence of PTSD in the sample was 28.7% ($n = 499$), with 12.6% ($n = 64$) of those diagnosed also meeting diagnostic criteria for panic disorder. The prevalence of panic disorder among the entire sample was 6.1% ($n = 107$); however, only 2.5% ($n = 44$) of those with panic disorder did not have a comorbid diagnosis of PTSD.
- Rates of comorbid mood disorder and substance use/abuse did not differ statistically among those with panic disorder, PTSD, and comorbid panic disorder and PTSD.
- Rates of panic disorder, PTSD, and comorbid panic disorder and PTSD were not statistically different across race.

Trauma History and Social Support as Predictors of Panic Disorder and PTSD

- This study showed that veterans reporting higher levels of combat exposure and postbattle experiences, such as seeing dead bodies and taking care of injured or dying people, were morelikely to be diagnosed with PTSD or comorbid panic disorder and PTSD than not to be diagnosed with either of these diagnoses.
- Both PTSD and comorbid panic/PTSD diagnoses, as compared to no diagnosis of either of these diagnoses, were predicted in those veterans who reported a lack of postdeployment social support.
- Veterans who endorsed predeployment sexual and physical abuse were also found to be more likely to be diagnosed with comorbid panic disorder and PTSD than not to be diagnosed with either of these diagnoses.

Number of Potentially Traumatic Events

- Findings showed that veterans who reported a greater number of in-theater potentially traumatic events were more likely to be diagnosed with PTSD only or comorbid panic disorder and PTSD than not to be diagnosed with either of these diagnoses.
- Veterans who reported a greater number of postdeployment potentially traumatic events were more likely to be diagnosed with PTSD only rather than to not be diagnosed with either panic disorder or PTSD.

Relationship between Diagnosis and Suicide

- Suicidal ideation was found to be more likely reported by veterans diagnosed with panic disorder (11.4%), PTSD (12.9%), or comorbid panic disorder and PTSD (12.7%) than veterans with neither diagnosis (3.7%).
- Veterans diagnosed with panic disorder were more likely to have attempted suicide (11.4%) than veterans diagnosed with PTSD (5.5%), comorbid panic disorder and PTSD (3.2%), or those who were not diagnosed with either diagnosis (2.5%).

CONCLUSIONS/SUMMARY

- The prevalence of panic disorder in this sample (6.1%) is consistent with reports of panic disorder among older veterans (4.2-8.3%) and substantially greater than the presence of panic disorder found in community samples (2.7%).
- The findings of this study are consistent with previous research in that veterans who experienced increased levels of combat exposure and adverse postbattle experiences were more likely to be diagnosed with PTSD or comorbid PTSD and panic disorder than not to be diagnosed with either of these diagnoses.
- The results also suggest that among this sample, a history of predeployment sexual or physical abuse predicts the comorbid presentation of panic disorder and PTSD.
- Furthermore, traumas occurring in-theater and a lack of social support postdeployment predict the presence of PTSD both alone and comorbid with panic disorder.
- Additionally, suicidal ideation was found to be more likely reported by veterans with panic disorder, PTSD, or comorbid panic disorder and PTSD than those without these diagnoses.
- Suicide attempt rates were twice as high among veterans diagnosed with panic disorder than those diagnosed with PTSD.

CONTRIBUTIONS/IMPLICATIONS

- The results of this study highlight the need for routine assessment of returning veterans for panic symptoms in addition to PTSD, particularly due to the increased risk for suicide attempts and other negative outcomes.
- The study suggests the need for additional examination of the prevalence of panic disorder and comorbid PTSD in other samples of returning veterans.
- Future studies should also evaluate the directionality of the relation between trauma history and the development of panic disorder, as well as the efficacy of psychosocial treatments for panic disorder among returning veterans.

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vanDijke, A., Ford, J. D.,van Son, M., Frank, L., van der Hart, O. (2013). Association of childhood-trauma-by-primary caregiver and affect dysregulation with borderline personality disorder symptoms in adulthood.Psychological Trauma: Theory, Research, Practice, and Policy, 5, 217-224.doi: 10.1037/a0027256.

TYPE OF ARTICLE

- Original empirical investigation

OBJECTIVE/PURPOSE OF ARTICLE

- To examine the relative contributions of self-reported exposure to potentially traumatizing emotional, physical, and sexual events involving a primary caregiver.

METHODS

Participants:

- The sample consisted of 472 consecutive admissions to two adult inpatient psychotherapy treatment centers in the Netherlands. From the original sample, 450 participants were used in the statistical analyses.
- Participants were included in the study if they were diagnosed with either borderline personality disorder or somatoform disorder, as determined by DSM-IV-TR criteria and a review of accessible medical records.
- All participants had a history of somatic and/or psychiatric symptoms and all had previous inpatient or outpatient psychiatric treatment.
- History of potential brain damage and the use of psychotropic medication that might impair executive functioning served as exclusion criteria for participants.
- Severe mental illness, eating disorder with severe weight loss, imminent suicidality, and developmental disorders were exclusionary criteria for the psychiatric comparison (PC) group.
- The PC group consisted of 64 participants that were part of the original sample of participants.
- All PC group patients met DSM-IV-TR criteria for generalized anxiety disorder and/or unipolar depression worthy of inpatient psychiatric care.

Measures

- The Borderline Personality Disorder Severity Index (BPDSI), a semi-structured interview that contains nine sections that correspond to the symptom clusters of BPD, was used to diagnose BPD.
- The Composite International Diagnostic Interview (CIDI) was used to confirm the diagnosis of somatoform disorder. The CIDI is a standardized instrument used for assessing mental disorders according to the definitions and diagnostic criteria of the DSM-IV-TR and the ICD-10.
- To evaluate the underregulation of affect, a Dutch version of the Structured Interview for Disorders of Extreme Stress Not Otherwise Specified, Revised was used. The measure addresses core components of underregulation of affect such as frequent/intense distress, inability to modulate or recover from distress, and the use of self-defeating coping to deal with distress.
- To assess overregulation of affect, the Bermond Vorst Alexithymia Questionnaire (BVAQ) was used. The BVAQ is a 40-item questionnaire that uses a Likert-type scale. Overregulation of affect was measured by diminished ability to verbalize, diminished ability to identify, and diminished ability to analyze emotions.
- Potentially traumatizing events were collected using the Traumatic Experiences Checklist (TEC; Dutch version). The TEC is a self-report questionnaire that inquires about adverse experiences and potential traumatic events. This study developed a TPC (potentially traumatizing event by primary care giver) variable to dichotomously distinguish the presence or absence of such an event among participants.

Procedure

- Upon hospital admission, all patients participated in a diagnostic and orientation period, a project called the Clinical Assessment of Trauma-Related and Affect Dysregulation.
- This diagnostic and orientation period occurred in the first phase (one to six weeks) of psychotherapeutic inpatient group treatment.
- Assessment began two weeks after patients were acclimated to the treatment milieu and was completed by the end of the fifth week of the first phase.
- Evaluation of all assessments, observations, participant findings and the evaluation of the prospective treatment possibilities and goals took place during the sixth week, and before admission into the full program.
- The aforementioned clinical interviews were used during the assessment phase in determining final inclusion into the study.

RESULTS

- Of the total sample, 63% of participants experienced TPC.
- BPD symptoms were positively related to reports of childhood TPC, higher levels of underregulation, and higher levels of overregulation.
- Childhood TPC was also positively related to underregulation, but not overregulation.
- The direct relation between childhood TPC and BPD symptoms, without the presence of underregulation of affect was statistically significant (*B* = 7.54).
- The presence of childhood TPC was associated with

higher levels of BPD symptoms; however, when underregulation was added to the model, this direct effect became smaller though still statistically significant (*B*= 6.45).

- The total indirect effect of childhood TPC via underregulation of affect was also statistically significant (*B*= 1.09).

CONCLUSION/SUMMARY

- The primary findings of this study show that childhood TPC has a direct association with BPD symptoms, as well as an indirect relationship that is partially mediated by underregulation of affect. However, these findings do not rule out other contributing factors to BPD or such factors that are highly related to TPC.
- TPC was not associated with overregulation of affect, and was not found to serve as a mediator of the PC-BPD relation.
- The direct and indirect relationship of TPC to BPD symptoms suggests that treatment of BPD may be enhanced by addressing underregulation of affect for patients with histories of childhood TPC.

CONTRIBUTIONS/IMPLICATIONS

- When considering previous research findingsnoting the strong presence of underregulation of affect in similar samples, the results of this study suggest that the primary focus for assessment and treatment of BPD should be on underregulation of affect in addition to treating TPC.
- For those BPD patients who show presence of overregulation of affect,the implementation of treatment models such as dialectical behavior therapy, transference focused psychotherapy and mentalization based treatment should be evaluated due to their more explicit focus on addressing underregulation of affect rather than overregulation of affect.
- Treatment models such as sensorimotor psychotherapy, accelerated experiential-dynamic psychotherapy and emotion-focused therapy for trauma should be investigated to determine their efficacy in treating overregulation of affect.

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Retraumatization: Assessment, Treatment, and Prevention

Melanie P. Duckworth & Victoria M. Follette (Eds.)
Routledge, 2012, 466 pages, Soft cover, $49.95

Retraumatization: Assessment, Treatment, and Prevention provides current information on the epidemiology, theory, and treatment related to multiple trauma experiences.

The editors define retraumatization as "traumatic stress reactions, responses, and symptoms that occur consequent to multiple exposures to traumatic events that are physical, psychological, or both in nature." This is a broader, and more literal, definition of the term than currently used. Retraumatization may result from repeated, chronic events within an event type, such as child sexual abuse, or across several event types, such as experiencing a motor vehicle accident and a physical assault.

The editors have assembled chapters from multiple theoretical perspectives on retraumatization, including cognitive behavioral, psychodynamic, conservation of resources, and analytic. Each contribution offers a review of the pertinent literature, theoretical formulations, clinical descriptions, and recommendations for assessing and/or treating the experienced trauma.

For example, the conservation of resources (COR) theory views individuals and their coping resources as nested within larger family groups and communities. Individual's resource loss and gain may reflect loss and gain within the larger family and community. Initial individual trauma triggers a chain of resource loss, and increasing risk for additional losses, potentially resulting in "ongoing resource loss spirals," and decreased physical and mental health. COR asserts that these losses are bidirectional – individual loss affects the family and community, and community loss affects the family and the individual. The authors of this chapter recommend interventions be aimed at halting these resource loss spirals allowing individuals, families, and communities to rebuild and recover from trauma.

The last half of this edited book focuses on special or specific circumstances such as multiple experiences of combat trauma, dual combat and sexual trauma during military service, domestic violence, disabling physical injuries, and political violence.

For example, the chapter on multiple combat experiences explores combat trauma either directly or indirectly experienced, and includes non-combat experiences such as motor vehicle accidents in theatre and equipment malfunctions. The U.S. military has classified acute stress reactions as Combat and Operational Stress Reactions (COSR), and considers COSR a normal reaction to extreme stress, very similar to the views of Critical Incident Stress Management.

The authors of this chapter present recommendations for prevention including: primary prevention – focusing on maintaining performance during deployments through selection, training, and preparation for combat as well as psychoeducation and stress inoculation training; secondary prevention – focusing on at-risk populations such as service members returning from a deployment, using a technique called Battlemind, an early intervention tool to help service members transition from the war zone by focusing their already acquired military training and skills on meeting the challenges of readjustment; and tertiary prevention – focusing on treatment of impacted service members through cognitive behavior therapy or exposure therapy, plus addressing common comorbid problems such as substance abuse, anger, and risky behaviors.

The final two chapters explore controversies in the study and treatment of multiple trauma experiences, and future directions in the study of retraumatization. Controversies include the variable definitions of retraumatization, the types of potentially traumatic events (PTEs), and whether retraumatization is specific to trauma occurring within or across developmental stages as well as chronic repeated PTEs vs. separate types of PTEs.

I recommend this valuable resource to mental health professionals working with traumatized individuals. This is a thorough and detailed resource, which will assist clinicians in exploring both the theory and treatment of traumatized individuals.

Melanie P. Duckworth, Ph.D., is an associate professor of psychology in the Department of Psychology at the University of Nevada, Reno. She directs the Motor Vehicle Collision and Chronic Pain Research Program at the University of Nevada, Reno. She has published peer-reviewed articles and invited book chapters that address both assessment and treatment of physical and psychological injuries incurred by persons exposed to potentially traumatizing events.

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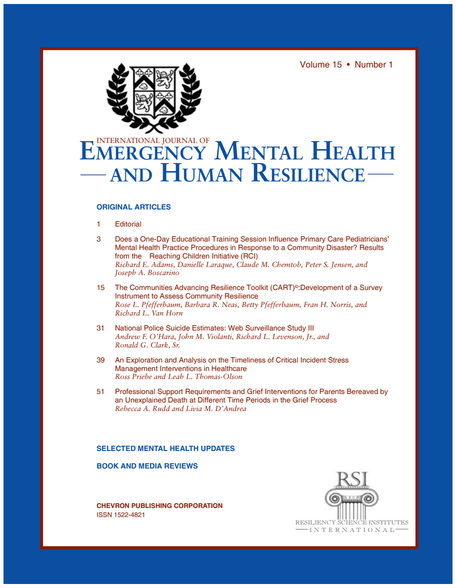

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