



CHEVRON
PUBLISHING CORPORATION

PO Box 6274
Ellicott City, MD 21042 USA
Telephone: (410) 418-8002
Fax: (410) 418-8006
office@chevronpublishing.com

Purpose and Scope

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

The **Journal** publishes manuscripts (APA style) on relevant topics including psychological trauma, disaster psychology, traumatic stress, crisis intervention, emergency services, Critical Incident Stress Management, war, occupational stress and crisis, employee assistance programs, violence, terrorism, emergency medicine and surgery, emergency nursing, suicidology, burnout, and compassion fatigue. The **Journal** publishes original research, case studies, innovations in program development, scholarly reviews, theoretical discourse, and book reviews.

Additionally, the **Journal** encourages the submission of philosophical reflections, responsible speculations, and commentary. As special features, the **Journal** provides an ongoing continuing education series providing topical reviews and updates relevant to emergency mental health as well as an ongoing annotated research updates of relevant papers published elsewhere, thus making the **Journal** a unique and even more valuable reference resource.

© 2012

Chevron Publishing Corporation

In accordance with the American National Standard/National Information Standards Organization (ANSI/NISO), this journal is printed on acid-free paper.

INTERNATIONAL JOURNAL OF EMERGENCY MENTAL HEALTH

Founding Editor
George S. Everly, Jr., Ph.D.

Editor
Laurence Miller, PhD
Boca Raton, FL

Legal Editor
Gary E. Jones, Ph.D., J.D., M.P.H.
Boca Raton, FL

Book & Media Editor
Daniel Clark, Ph.D.
Washington State Patrol

Associate Editors

Bertram S. Brown, M.D.
Former Director
National Institute of Mental Health

Charles R. Figley, Ph.D.
Florida State University
Tallahassee, Florida

Raymond B. Flannery, Jr., Ph.D.
Harvard Medical School
Boston, Massachusetts

Paul J. Rosch, M.D.
President, American Institute of Stress
Yonkers, New York

Jeffrey M. Lating, Ph.D.
Loyola College in Maryland
Baltimore, MD

Raymond H. Rosenman, M.D.
Mount Zion Hospital and Medical Center
San Francisco, California

Richard L. Levenson, Jr., Psy.D.
New York, NY

Editorial Board

David Alexander, Ph.D., University of Aberdeen, Aberdeen, Scotland • **Fahad Al-Naser, Ph.D.**, Director General, Social Development Office, Amiri Diwan, State of Kuwait • **Joseph A. Boscarino, Ph.D., MPH**, Geisinger Clinic, Danville, PA • **Gilbert Burnham, M.D., Ph.D.**, Johns Hopkins School of Hygiene and Public Health, Baltimore, MD • **Atle Dyregrov, Ph.D.**, Director, Center for Crisis Psychology, Solheimsvik, Norway • **Murray N. Firth**, Canadian Critical Incident Stress Foundation, Creemore, Ontario, Canada • **Michael G. Gelles, Psy.D.**, U.S. Naval Criminal Investigative Service, Washington, DC • **Mark Goodman, Ph.D.**, University of Medicine and Dentistry of New Jersey, S.O.M., West Orange, NJ • **Melvin Gravit, Ph.D.**, George Washington University School of Medicine, Washington, DC • **James L. Greenstone, PhD**, Capella and Walden Universities, Fort Worth, TX • **Christina Harnett, Ph.D.**, Psychologist/Faculty, Johns Hopkins University, Division of Public Safety Leadership, Baltimore, MD • **Russell J. Hibler, Ph.D.**, Union Memorial Hospital, Baltimore, MD • **A. MacNeill Horton, Jr., Ed.D.**, Psych. Associates, Towson, MD • **Jodi M. Jacobson, Ph.D.**, LCSW, Towson University, Towson, MD • **Col. Richard L. Jaehne**, University of Illinois Fire Service Institute, Champaign, IL • **Kendall Johnson, Ph.D.**, San Antonio High School, Claremont, CA • **Terence M. Keane, Ph.D.**, National Center for PTSD and Boston University School of Medicine, Boston, MA • **Gerry Larsson, Ph.D.**, Swedish Defense College, Karlstad, Sweden • **Jörg Leonhardt, M.S.W., Dipl.**, German Air Traffic Control, Langen, Germany • **Jen Lowry, Ph.D.**, Loyola College in Maryland, Baltimore, MD • **O. Lee McCabe, Ph.D.**, Johns Hopkins Medical Institution, Baltimore, MD • **Theodore Millon, Ph.D.**, D.Sc., Harvard Medical School & University of Miami, Miami, FL • **Jeffrey T. Mitchell, Ph.D.**, University of Maryland, Baltimore, MD • **Shannon Gwin Mitchell, Ph.D.**, Friends Research Institute, Baltimore, MD • **Robert W. Motta, Ph.D.**, Department of Psychology, Hofstra University, Hempstead, NY • **Ralph Piedmont, Ph.D.**, Loyola College in Maryland, Columbia, MD • **Stanley Platman, M.D.**, University of Maryland Medical School and Helix Health System, Baltimore, MD • **Dennis Potter, MSW**, Kantu Consultants, Grand Rapids, MI • **Albert R. Roberts, Ph.D.**, Rutgers University, Piscataway, NJ • **Robyn Robinson, Ph.D.**, Director, Trauma Support Consultants, North Carlton, NSW, Australia • **Glenn R. Schiraldi, Ph.D.**, University of Maryland, College Park, MD • **SSA Donald Sheehan**, Federal Bureau of Investigation, (Retired) • **Martin Sherman, Ph.D.**, Loyola College in Maryland, Baltimore, MD • **Beth Hudnall Stamm, Ph.D.**, Dartmouth Medical School, Hanover, NH • **Susan Villani, M.D.**, Kennedy Krieger Institute, Baltimore, MD • **Victor Welzant, Psy.D.**, International Critical Incident Stress Foundation, Ellicott City, MD • **Mary Beth Williams, Ph.D.**, LCSW, Warrenton, VA

International Journal of Emergency Mental Health (ISSN 1522-4821) is published quarterly by Chevron Publishing Corporation, Inc., PO Box 6274, Ellicott City, MD 21042 USA. Fourth class postage rates paid at Ellicott City, Maryland.

- **SUBSCRIPTION PRICES:** 2013 (four issues): Institutions: \$390.00 (Foreign: \$485.00); Individuals \$82.00 (Foreign: \$128.00) payable in U.S. funds through a U.S. bank. Credit card orders may be placed by calling (410) 418-8002.
- **SINGLE ISSUES:** Available from the publisher for \$25.00 per issue.
- **CHANGE OF ADDRESS:** Please inform the publisher at least six weeks prior to any change. If possible, include old mailing label.



Call for Papers

INTERNATIONAL JOURNAL OF EMERGENCY MENTAL HEALTH

The *International Journal of Emergency Mental Health* is a practice-oriented resource for active professionals in the fields of psychology, law enforcement, public safety, emergency medical services, mental health, education, criminal justice, social work, pastoral counseling, and the military. The journal publishes articles dealing with traumatic stress, crisis intervention, specialized counseling and psychotherapy, suicide intervention, crime victim trauma, hostage crises, disaster response and terrorism, bullying and school violence, workplace violence and corporate crisis management, medical disability stress, armed services trauma and military psychology, helper stress and vicarious trauma, family crisis intervention, and the education and training of emergency mental health professionals. The journal publishes several types of articles:

- **Research reports:** Empirical studies that contribute to the knowledge and understanding of traumatic disability syndromes and effective interventions.
- **Integrative reviews:** Articles that summarize and explain a topic of general or specialized interest to emergency medical, mental health, or public safety professionals.
- **Practice guides:** Reports of existing, developing, or proposed programs that provide practical guidelines, procedures, and strategies for working emergency service and mental health professionals.
- **Case studies:** Clinical or field reports of professional experiences that illustrate principles and/or practice guidelines for crisis intervention and emergency mental health.
- **Book and media reviews:** Reviews of books, films, DVDs, or electronic media of relevance to emergency response and mental health professionals.
- **First person:** Personal accounts of dealing with traumatic stress and crises, either as a victim or caregiver, that provide insight into coping and recovery.

The *International Journal of Emergency Mental Health* is *your* place to say something that can make a difference in the lives of victims and helpers and have a real-world impact on the daily practice of emergency medical, public safety, and mental health services.

Complete **Instructions for Authors** can be found on-line at:
www.chevronpublishing.com/authorinfo.pdf

Submit manuscripts electronically in Word format to:

Victor Welzant, Psy. D. Editor
at
drwelzant@verizon.net

INTERNATIONAL JOURNAL OF
EMERGENCY MENTAL HEALTH

Volume 14 • Number 4

ORIGINAL ARTICLES

- 237 Editorial
Laurence Miller
- 239 Experiences of Chronic Stress One Year after the Gulf Oil Spill
Danilea Werner and Chris Locke
- 247 Incident-Related Television Viewing and Psychiatric Disorders in Oklahoma City Bombing Survivors
Betty Pfefferbaum, Carol S. North, Rose L. Pfefferbaum, Haekyung Jeon-Slaughter, J. Brian Houston, and James L. Regens
- 257 Trauma and Stress-Related Disorders in German Emergency Physicians: The Predictive Role of Personality Factors
Frank-Gerald Bernhard Pajonk, Philippe Cransac, Vincent Müller, Alexander Teichmann, and Wolfgang Meyer
- 269 Elite Firefighter/First Responder Mindsets and Outcome Coping Efficacy
Cynthia Dowdall-Thomae, John Gilkey, Wanda Larson, and Rebecca Arend-Hicks
- 283 The Changing Role of Leadership in the Fire Service
Joseph Calo
- 289 Introducing Embedded Indigenous Psychological Support Teams: A Suggested Addition to Psychological First Aid in an International Context
Amanda Edwards-Stewart, Zeba S. Ahmad, John W. Thoburn, Rich Furman, Ashly J. Lambert, Lauren Shelly, and Ginger Gunn
- 297 Just Show Up: The Importance of Caring Attachments in Emergency Services
Raymond B. Flannery, Jr.

EMERGENCY MENTAL HEALTH UPDATES - Jeffrey M. Lating, Associate Editor

- 301 Selected Annotated Journal Resources
Catherine Ruscitti, M.S. and Jessica Batinjane, M.S.

BOOK AND MEDIA REVIEWS - Daniel Clark, Reviews Editor

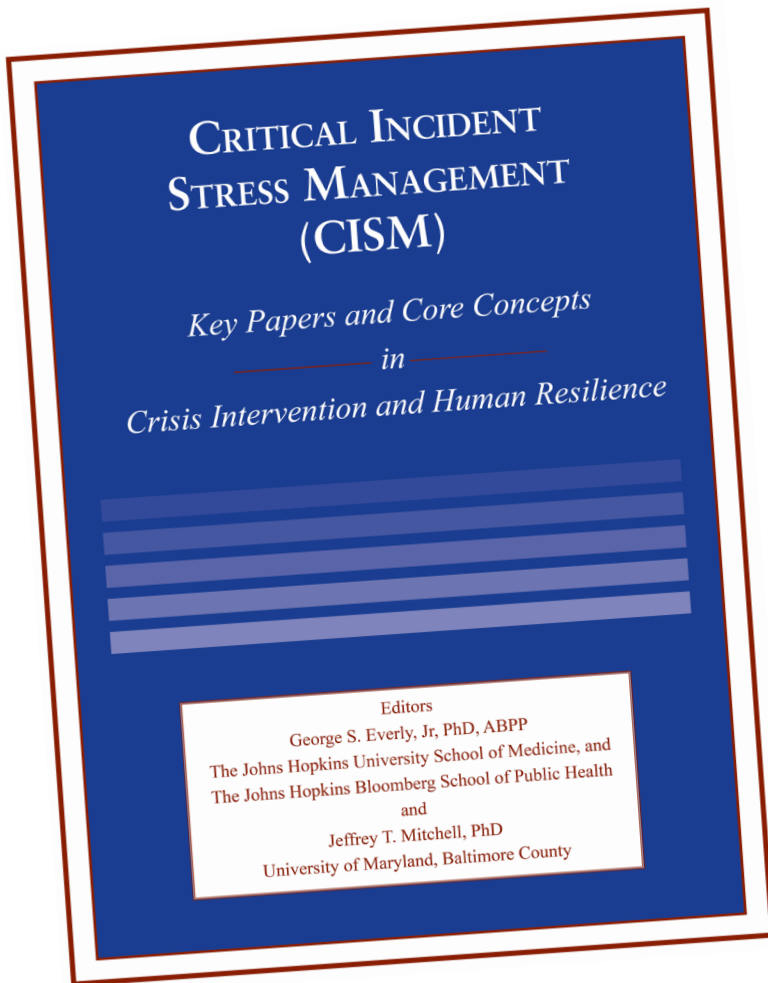
- 305 Treating PTSD in Military Personnel: A Clinical Handbook
Moore, B. A. & Penk, W. E. (Eds.).
- 306 Criminal Psychology: Nature, Nurture, Culture
Laurence Miller, Ph.D.

CRITICAL INCIDENT STRESS MANAGEMENT (CISM)

Key Papers and Core Concepts in Crisis Intervention and Human Resilience

Editors

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



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

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

The success of CISM programs in mitigating distress, encouraging adaptive functions and the identification of individuals who might need more support or a referral for professional care is due, in large part, to the dedication of the thousands of:

- Mental Health Professionals
- Clergy
- Peer Support Personnel

The integrative partnership between these three main support resources is an outstanding hallmark of CISM programs.

The collection of CISM articles, presented in this document, provides the theoretical foundations of the field as well as numerous CISM principles and practical guidelines that are vital to those who provide the many services that are incorporated within the CISM field. 234 pages

Convenient online ordering!

www.chevronpublishing.com

\$42
plus shipping



Editorial

This issue marks a transition in stewardship of the *IJEMH*. During my tenure as editor, we have published articles on virtually every conceivable man-made and natural disaster that afflicts the human species. Even as I write this, the need for emergency mental health services has never been greater, as the wounds of the Boston Marathon bombing are just becoming starkly clear, the fires of the West, Texas factory explosion are smoldering down, and the survivors of the China earthquake are assessing the material and human costs. And that's just this week.

Thus, I am pleased to pass the blue pencil to Dr. George Everly, a clinician and scholar who is one of the founders of the modern field of emergency mental health services, and who will be taking charge of the journal with our next issue.

In the present issue, Danilea Werner and Chris Locke discuss the Project Rebound program to aid in the psychological recovery from oil spills, using the verbatim voices of their subjects to illustrate the role of psychological support in aiding recovery from this kind of technological disaster.

The purpose of terrorism is to induce fear, but in a rigorous study, Betty Pfefferbaum and colleagues show that we needn't be hostages to vicarious trauma: simply viewing TV images of terrorism does not necessarily terrorize. Even when directly exposed to actual traumatic events, traumatic disability is hardly inevitable, as documented by Frank-Gerald Pajonk and colleagues' study of German emergency physicians, which shows that personality traits of resilience may serve to inoculate trauma victims against the worst effects of a horrifying experience. Resilience is also seen in certain types of psychological coping responses utilized by first responders, as reported by Cynthia Dowdall-Thomae and colleagues. While resilient personality traits are probably something one is born with, can we train all emergency service members to cope more resiliently?

The scope of teachable psychological skills for emergency mental health practitioners and first responders extends beyond just coping, however. Joe Calo makes the strong case that developing qualities of emotional intelligence and

management acumen will be crucial for tomorrow's leaders in the fire service and, by implication, for other emergency service agencies. These leaders will be responsible for devising and implementing creative new applications for emergency mental health, such as the program of resilience-based embedded psychological support services described by Amanda Edwards-Stewart and colleagues, especially the use of indigenous service providers to create an atmosphere of comforting familiarity and support. In this way, psychological support services need not always be seen as something that is "flown in" from the outside, but which can emerge from the very social core of the distressed community.

As emergency mental health clinicians and first responders, we're trained to hit the ground and *do something*. But Ray Flannery's review of the role of caring attachments in emergency services shows that it is sometimes the powerful presence of a strong, empathic helper that can have the most immediate and visceral effect on snapping forth a trauma victim's inner resilient resources that will allow him or her to survive and overcome their ordeal.

Indeed, the emphasis on resilience in this issue's contributions highlights a transition of another sort for our journal, the change in name to the *International Journal of Emergency Mental Health and Human Resilience*. Because, at base, that is what we do as emergency first responders: we save by instilling the will to survive and we heal by drawing forth the resolve to transcend. I am therefore delighted to turn over the reins of our newly invigorated and expanded journal to the dynamic Dr. Everly, ably assisted by his new managing editor, Victor Welzant. I am confident that our pages will continue to remain home to those who study, teach, and practice the skills of emergency mental health and trauma therapy, whose dedication to their craft continues to validate and inspire all those who devote themselves to this most vital and necessary profession.

Laurence Miller, PhD

April 22, 2013



Empowered Learning Presents:

jeffmitchell

Elearn1 productions and Dr. Jeff Mitchell have developed a variety of new video based training programs on critical incident stress management. Go to www.DrJeffMitchell.com to view DVD samples and purchase online.

FEATURED DVD:

Critical Incident Stress Management Strategic Planning On the Street!

An intense training program featuring Dr. Jeff Mitchell discussing why good CISM is based on a strategic plan, and how to create that plan.

Three scenarios are accompanied by questions for discussion.

The program opens with suggestions on training applications for team leaders.



ALSO AVAILABLE:

Crisis Management Briefing

Dr. Jeff Mitchell offers information about the nature and uses of a CMB, and then conducts a demonstration with a group of traumatized employees in a business setting.

Debriefing

Dr. Mitchell explains the rationale for using a CISD and describes, in detail, the seven steps in the process. Following a Crisis Management Briefing demonstration, he leads a traumatized group of business executives through a CISD.

Lessons From Experience

In this series, CISM professionals share their experiences and lessons with Dr. Jeff Mitchell. Program One concentrates on working with schools and working in circumstances where the event is separated from the intervention.

Defusing

Dr. Jeff Mitchell describes the defusing process and its benefits. Following a crisis management briefing, he conducts a demonstration of a defusing with a small group of business executives.

Each program includes study questions that can be used for discussions among CISM team members.

Experiences of Chronic Stress One Year after the Gulf Oil Spill

Danilea Werner
Auburn University

Chris Locke
Mechanicsburg, LA

Abstract: *One of the largest oil spills in world history happened off the Alabama Gulf coast in April of 2010. One year later the Gulf Coast community was still trying to recover and reestablish itself as a major source for the shipping, tourism, fishing and energy industries. Although this disaster did not physically destroy communities and families, it did take an economic and psychological toll. Researchers conducted focus groups with mental health professionals employed by Project Rebound, a state sponsored response to disasters in Alabama to explore the mental health effects of the Gulf Oil Spill on two gulf coast communities one year after the spill. Project Rebound clinicians were the front line of the mental health response to the spill and collaborated with community service agencies to provide support to adults, children, and families in the Gulf Coast community. The semi-structured focus groups allowed staff to discuss the extent of mental health treatment utilization as well as provide valuable input as to what can be done to better prepare communities and agencies for future disasters.* [International Journal of Emergency Mental Health, 2011, 14(4), pp. 239-246].

Key words: *Gulf Oil Spill, chronic stress, disaster mental health, disaster response*

In April 2010, the Alabama Gulf Coast Region was devastated by the Deepwater Horizon oil rig explosion and the resulting oil spill. The coast communities primarily consist of shipping, tourism, fishing, and energy industries which support a majority of the people in the Gulf Coast Region. This region was hit hard by the oil spill and suffered great environmental devastation and economic loss resulting in

increased distress physically, emotionally, psychologically and spiritually. Yet much of the recovery efforts continue to be focused on the physical restoration such as environmental cleanup (Thompson, 2004). A crucial, but often ignored, aspect of recovery is emotional (Chibbaro & Jackson, 2006). Often, the emotional distress associated with disaster is higher than physical distress (Kawana, Ishimatsu, & Kanda, 2001), making psychological resilience one of the most important basic survival needs in fostering disaster recovery (Thompson, 2004). Local social service agencies are often the providers of mental health care after disaster and the catalyst for psychological recovery.

Individuals who experience disaster events may initially display a multitude of mental health reactions or responses, including emotional, cognitive, behavioral and physiologi-

Danilea Werner Ph.D., LCSW is an Assistant Professor at Auburn University. Chris Locke Ph.D., LCSW is a social worker at Fort Polk, LA. Direct correspondence regarding this article to dww0004@auburn.edu. Acknowledgement: The authors would like to thank AltaPointe Health Systems and the Gulf Region Project Rebound staff for allowing us access to their dedicated clinicians and their meaningful work. They would also like to thank the Auburn University College of Liberal Arts for providing the grant funding for us to complete this important research.

cal symptoms (Lerner & Shelton, 2001). These immediate responses are not maladaptive, and should be viewed as expected reactions. Reactions can manifest in various ways, but most often individuals experience general anxiety reactions such as fatigue, feeling on edge, excessive worry, increased recurrent headaches, appetite change, heart palpitations and insomnia (Chibbaro & Jackson, 2006; Thompson, 2004). The most common reactions for children are heightened emotional arousal, sleep disturbances, irritability, difficulty concentrating, and heightened physiological reactivity.

These reactions, as well as the psychological and emotional recovery of the community, can be linked to how the disaster is defined. Typically, disasters are defined by four categories: cause, impact, size, and frequency (Halpern & Tramontin, 2007; Myers & Wee, 2005). The cause of the disaster is often the first defining factor to how people and communities react and begin the recovery process. Disasters are defined as either naturally occurring or human caused. Tornadoes, hurricanes, and earthquakes are examples of naturally occurring disasters. They are not caused by nor can they be controlled by human ingenuity. Human created disasters fall into one of two categories: intentional or accidental. Intentional disasters are usually categorized as terrorist attacks, while accidental disasters most often result from human negligence or material malfunction. The Deepwater Horizon Oil Spill is defined as an accidental, human-caused disaster, with British Petroleum (BP) accepting the responsibility for the oil rig explosion.

Disasters are also characterized by the degree of personal impact, which is determined by how many people, communities, and industries are changed by the disaster (Halpern & Tramontin, 2007; Myers & Wee, 2005). The two counties in Alabama most impacted by the Gulf Oil Spill were Baldwin and Mobile. Of the two counties there are two areas that were particularly impacted: Gulf Shores in Baldwin County and Bayou La Batre in Mobile County. Gulf Shores is primarily supported by tourism and the economic industries that cater to tourists. Over 30% of employees in Gulf Shores work in accommodation services, such as travel and food service needs, whereas Bayou La Batre is a working, fishing and manufacturing community (city-data.com). Most of these jobs are directly related to the food service and fishing industries, and the majority of individuals employed in Bayou La Batre work in one of three industries: manufacturing, wholesale, and retail trades.

The size and scope of the disaster can influence the personal impact and therefore reactions and recovery efforts (Halpern & Tramontin, 2007; Myers & Wee, 2005). The size of the disaster, number of people directly affected, duration of the disaster, and the visible impact of the damage all contribute to determining the size and scope. The magnitude of the Gulf Oil Spill is historic. It has been called the worst environmental disaster in U.S. history and one of the worst oil spills in world history. Over 4.9 million barrels of oil spilled into the Gulf of Mexico over an 85 day period. The cap was not sealed and the leak completely stopped September 19, 2010, four months after the explosion, also making it one of the longest on-going disasters (Moss, 2010). The visible impact of the Gulf Oil Spill was unprecedented - tar balls on the beaches, camera shots of oil in the Gulf, pictures of oil covered wildlife, and the 24 hour-a-day camera capturing the oil as it leaked.

Finally, the probability of reoccurrence, which varies based on the cause of the disaster (i.e., natural- versus human-caused) can impact how disasters are defined and how people respond (Halpern & Tramontin, 2007; Myers & Wee, 2005). Most individuals and communities prepare for the reoccurrence of natural disasters such as tornadoes by using early warning systems. The unpredictable nature of human caused disasters presents an especially difficult task of determining how likely something of this nature will reoccur. Communities and individuals are encouraged to be prepared for all emergencies regardless of cause, impact, size, and frequency, because once a disaster occurs, the stronger these elements are the greater the impact, reaction, and response (Caplan, 1964; Johnson, 1993; & Mascari, 2002). The reactions and overall community response related to the oil spill can be explained according to the framework articulated by Crisis Theory.

Crisis Theory

Crisis Theory defines crisis as a state of disequilibrium and disorganization (Caplan's (1964). Caplan further states that crisis creates an imbalance between the problem and the resources an individual uses to deal with the crisis and that, without adequate resources, the individual cannot overcome the problem. The individual, not knowing how to deal with the crisis, becomes stressed as their usual coping methods fail to solve the post-crisis problem. When disasters strike, individuals must, at least temporarily, readjust.

Communities and individuals are anxious to solve the crisis related problems and return to their pre-crisis life. However, depending on the disaster and how it is defined, this may not be possible. The struggle to return to the pre-crisis life and the inability to quickly solve the crisis-related problems can result in mental distress.

Project Rebound

The Alabama Department of Mental Health implemented Project Rebound in the summer of 2010. This program, which was originally implemented after hurricane Ivan, was designed to collaborate with local community organizations in order to mitigate mental distress and promote recovery in the aftermath of disasters. The Gulf Coast Project Rebound dispatched teams of trained crisis counselors in Mobile and Baldwin counties to deliver individual services, classroom presentations, public education, and provide support to community organizations. Their main goal was to help people directly or indirectly impacted by the oil spill manage the distress of the spill and promote recovery.

The purpose of this study is to examine the mental health effects of the Gulf Oil Spill on two gulf coast communities one year after the spill. The researchers are particularly interested in the experiences of the clinicians and how the Gulf Shores and Bayou La Batre communities reacted to the spill and the effects of stress on response and recovery.

Methodology

Participants

Participants consisted of 17 mental health clinicians employed by Project Rebound who worked in collaboration with Gulf Shores and Bayou La Batre community organizations to offer recovery assistance. Additionally, four counselors from two school districts on the Gulf coast were interviewed. Of the 21 total study participants, 8 served the Bayou La Batre community and 13 served the Gulf Shores area. Overall, participants were female (Bayou La Batre 54%; Gulf Shores – 75%), and White (Bayou La Batre – 57%; Gulf Shores – 77%) Participants' average age was 40 in Bayou La Batre and 52 in Gulf Shores. Most participants had at least a Bachelor's Degree (Bayou La Batre – 63%; Gulf Shores – 92%); had worked in the mental health field at least 10 years (Bayou La Batre – 100%; Gulf Shores – 69%) and several had assisted with at least one prior disaster (Bayou La Batre – 33%; Gulf Shores – 73%).

Data Collection Techniques

Seven focus groups were conducted and purposive sampling techniques were utilized to identify mental health professionals working in the Gulf Coast Region. The main selection criterion was that participants were mental health professionals employed by Project Rebound to provide services to individuals and families impacted by the Gulf Oil spill or they were school counselors employed by school districts in the Gulf Shores or Bayou La Batre community. Focus groups were held at the Project Rebound offices in both communities and at the respective schools. All participants self-identified as at least 19 years old and were served lunch or breakfast as an incentive. This study was approved by the university's Institutional Review Board for protection of human subjects. Participation in the study was contingent upon standard informed consent protocol.

The focus group questions varied slightly depending on the target populations, but all were similarly related to the key issues under study. Both authors led all focus groups with one investigator leading the discussion while the other recorded the responses and took notes. Focus groups ranged from 60 to 90 minutes in duration and were audio taped (with participant consent) and transcribed. There were three focus groups (two with Project Rebound staff and one with school counselors) held in Gulf Shores with 13 participants and 4 focus groups (three with Project Rebound Staff and one with school counselors) were held in Bayou La Batre with 8 participants.

In addition to the focus groups, Project Rebound provided access to their intake data. The data collected included demographic data, symptomology, needs, and referrals. Data from October of 2010 through the end of March 2011 were made available. These dates reflect the official beginning of the Gulf Coast Project Rebound project and the one year anniversary of the oil spill respectively.

Coding and Analysis

Documented notes and audio recordings of the focus groups were carefully reviewed and resulting data were analyzed using Glaser and Strauss' (1967) constant comparative method. Coding yielded core themes related to mental health response and recovery. Specifically, the data revealed themes around chronic stressors resulting from the oil spill disaster. The chronic stressors include 1) family disruptions, 2) job loss or change in economic conditions, 3) financial pressures, and 4) bureaucratic hassles.

Results

The clinicians described the Gulf Oil Spill as different from previous disasters, such as Hurricane Ivan and Katrina. This particular disaster left people wondering what to do and when it would end. Specifically, the ongoing nature and the lack of visible damage lead to increased stress and frustration.

“You feel like you cannot control natural [disasters] but this could have been controlled. I think a lot of people recognize that and are upset at BP.”

“It wasn’t an immediate, major impact but now over time it’s been there, whittling away, whittling away, [causing] a lot of panic, a lot of frustration, a lot of worry about the future, and it’s a constant worry.”

“The stress was just building and building and building. It was on TV 24 hours a day.”

“This oil spill... it’s like this is indefinite, it just continues, when will it ever end? Even when we’re gone, people have still been affected, and probably [will] still be affected when this is all over with.”

There are common stressors that emerge from disasters. Typically, the stressors become chronic and impact four areas of individual and community life. These stressors were highlighted by the clinicians and school personnel working with the Gulf Coast community. Family disruption is one of the most common stressors after a disaster. One year post the oil spill, clinicians reported that families were still experiencing disruption.

“Well I know when it first hit we had a lot of families that were displaced because they could not pay rent.”

“We had one family who did doors, they provided doors and things like that, and their business was gone, so he had to start doing something different. So they had to go into a different line of work because [he] couldn’t act as that support anymore.”

“We have had several kids doubling up, not a majority or anything like that, but several families would double up with other relatives.”

“I talked to a child this morning and her parents had to go to New Orleans to work because they lost their job and she is staying with a brother who is 18.”

“A lot of people are moving down here, having to live with other family members. Households joining together.”

Much of the family disruption can be linked to job loss and the change in economic conditions. Many of the people interviewed discussed the spill as a catalyst to the ‘loss of a season’ which refers to the loss of job opportunities, tourism and general economic influx that the Gulf area depends on during the summer months. Many clinicians talked about the loss of a season and how that impacted the community.

“I deal with a lot with the boat workers like oyster shuckers who are seasonal workers and the bosses that own [the boats]- they put so much pressure on to them to have a good year, because last year was so bad. It is just, it is a lot of stress.”

“The problem was there is a lot of bartering that goes on here; they shrimp and they farm land and the two would swap. Well nobody is wanting to buy the vegetables because they do not have the money and they cannot trade it for seafood because they do not have the seafood and then all of the sudden you have greater needs for the area.”

“A lot of these people dropped out of school to get on the backs of these boats and this has been their sole way of making a living. Now with that taken away or impacted that has been a great hurt to the entire community.”

“And this type of economy is apparently very dependent on repeat business so if you lose a season here, chances are people [tourists] are discovering Destin or Jacksonville Beach or...anywhere else. There’s still a big fear about that happening ...you know they lose a season.”

“The Gulf Shore area, they did not have a summer last year and all these folks you depend on, the tourists, the summer jobs, didn’t have one and somehow had to pick up the pieces and go on.”

Due to the loss of economic opportunities and lifelong careers, Gulf Coast families and communities reported increased financial pressures. Project Rebound staff stated that financial pressures are one of the most common catalysts for seeking services and one of the most widespread problems resulting from the oil spill.

“A lot of people are naturally stressed because they cannot find work and are not financially stable so we get a lot of depressed calls wanting therapy.”

“People got their, you know, BP monies but that wasn’t for today that was making up for stuff that already had been spent or things that already had been done.”

“A lot of these people, they’ll say oh yeah I owe 3 months on this car, I had a house that just got foreclosed on...you know the people that fell, fell quickly to the point where you see a Mercedes Benz or a Cadillac Escalade getting food.”

“They’ve reached the panic point. Before, they’ve had enough money in savings to get by and if they’ve got money from BP, that’s gone. So now they’re starting to panic.”

To help relieve some of the financial pressures and to take responsibility for the disaster, BP created the Gulf Coast Claims Facility to help those affected by the Oil Spill apply for and receive appropriate payment for financial losses. However, the bureaucratic hassles in applying and receiving appropriate payment were a constant theme in both Gulf communities.

“For people who did file for an immediate claim there is no standard procedure or method to the madness because two people could have the same job – fishing or whatever industry and one would get their claim paid off and the other wouldn’t.”

“Well on their (BP) website, there are some [forms] in Laotian, Vietnamese, and Spanish but the offering letter coming home is all in English.”

“There is not a lot of recovery- they even had the Vessels Of Opportunity for boat owners to participate in and even with that some people have not gotten paid or they’re still looking for the payment.”

“People that I’ve interviewed seem to take BP’s response and the claims response very personally, almost as if they’re being strongly mistreated.”

“And a lot of people got their bonuses, younger people, waiters and waitresses, and condo cleaners forgot that they were gonna have to pay taxes on it. So here comes tax time and they got another bill.”

In order to help the community, Project Rebound has set up home offices in two Gulf Coast communities, Gulf Shores and Bayou La Batre. The clinicians in both communities explained how these chronic stressors are impacting individuals and the community. Clinicians in both communities spoke of how the stress has reached a breaking point and individuals who have never needed to ask for help are now seeking services.

“You would think that everyone was affected at the same time. That’s not so. A lot of people have you know, uh differ-

ent coping mechanisms, they had, they have some financial resources, they had some social supports, and those for a lot of them are going by the wayside.”

“We’re seeing now people that are NOW losing their job, that are NOW losing their businesses because they’ve tried to survive all this time and they have and they’ve done an admirable job.”

“We kept saying this is a resilient community, it is a hard working blue collar community and they know they can do it but when you keep getting shut out and shut down it starting to affect their mentality, and they are beginning to say I can’t do this.”

However, at first the clinicians found that outreach methods for identifying individuals and families impacted by the Gulf Oil Spill was the best way to serve the community. The clinicians employed various strategies to reach out in the community and establish themselves as a safe and effective place to seek help.

“[We] do a food pantry ... Part of what we do is take their groceries out and we kinda talk to them and kinda get a feel for them and we offer services if needed.”

“When we first got started we went knocking on doors and it didn’t work. So, we set up at the community center [where] a lot of people come in and out of the community center. Toward the end of summer we kicked off a summer camp [for kids].”

The clinicians worked to identify community leaders and gathering places. They then targeted the leaders and worked to establish themselves as a consistent part of the community.

“Anything they invited us to we participated in because we wanted them to see that we were here for the community, whether it was at the community center, whether it was at the local high school or if it was at the Laotian temple, Cambodian temple, we tried to go to all of the events so we are accepted in all of the communities.”

“We sat down with a bunch of people who were organized to assist which was business support, red cross, people on the floor already running trying to offer what was needed. They all said we needed to go to the docks because those docks workers, that is where they do the clean-up, that is where the seafood workers come in and out, that is who you need to talk to because they are having a really hard time. SO, for about 2 months everyday at 5:50 I was out on the docks, shaking hands, meeting people, introducing myself

to the same folks. I would bring donuts. It sounds silly but it was those little things that lead to, "oh hey, Miss T," and they knew me... then they would come into the community center and they would find out there were job employment opportunities and career counselors that could help them."

"Partnership was probably our biggest asset. Once we got partnered it really opened doors."

Discussion

The defining characteristics of the Gulf Oil Spill provided a number of challenges to the response and recovery from both the environmental and emotional impact, including identifying and helping those in need. One year later, it was evident that the community was still in recovery. An assessment of needs and responses to the Gulf Oil Spill completed in August 2011 by the Center for Disease Control and Prevention (CDC) found that Gulf Coast residents in Baldwin and Mobile Counties were recovering from the disaster. The results indicated that emotional and psychological symptoms in both communities were declining and more people were working. The exception was individuals who were still suffering financially. These respondents reported higher rates of distress, including sleep disturbances (26% of Mobile households & 22% of Baldwin county households), symptoms of anxiety and depression, and worry about financial matters (Buttke et al., 2011). According to the CDC assessment, the proportion of individuals reporting stress symptoms in the Gulf Coast Region remains higher than the Alabama average and nationwide estimates. The assessment further confirms the reports provided in this study by Project Rebound clinicians that Gulf Coast residents continued to suffer from chronic stressors related to the oil spill.

Chronic stressors resulting from the Gulf Oil Spill as reported by Project Rebound staff include increased job loss or forced job change, families being disrupted due to displacement, financial problems for the individual and community, and bureaucratic hassles. Long term disaster-related stress can manifest as anxiety, anger, resentment, conflict, hopelessness, and other mental health problems. The CDC assessment found that 13% of households in Mobile County and 13% in Baldwin County reported 14 or more days of mental distress in the previous month (Buttke et al., 2011). Although down from the previous year, individuals reporting financial concerns were more likely to report psychological distress. Confidential referrals to mental health providers

also increased from zero to six in 2011. There were 8000 participants in Project Rebound services during the first year of the spill. More than 1200 of the Project Rebound clients reported feeling anxious and frustrated during their initial visit. Chronic stressors were highlighted by the clinicians and school personnel interviewed as a major challenge to recovery efforts. The clinicians felt that distress reached a peak one year after the spill. In both counties, clinicians reported that individuals and families were finally seeking help one year after the spill because all other coping strategies had failed and they were out of options. The clients' desperation and failed attempts illustrate Caplan's (1964) Crisis Theory which states that individuals utilize all known resources and problem solving techniques after a disaster in an attempt to regain their pre-crisis (pre-oil spill) life. It was only after exhausting all possible avenues of problem solving and coping with the stress that the individuals did seek help from Project Rebound clinicians to resolve these chronic stressors.

One year after the oil spill, clinicians reported that families were still experiencing chronic stressors and disruption. Most of the disruption was related to job loss and changes in economic conditions which mirrors the findings of the CDC study (Buttke et al., 2011). The Gulf Oil Spill led to the loss of the 2010 season. The loss of economic opportunities and lifelong careers forced communities and individuals into crisis, financially and psychologically. Those who were still feeling the economic pressure one year later continue to exhibit the greatest need for social services

The continued presence of the Project Rebound staff in the Gulf Coast communities further illustrates the need for mental health professionals and is a reminder that the effects of the spill are still evolving. Unfortunately, mental health is often an add-on in emergency planning and response, with the majority of concern and resources going to physical forms of preparation and mitigation. However, as this research and previous research confirms, psychological response to disaster is real and can greatly impact all aspects of recovery. Therefore, the role of mental health providers must be valued and utilized when disasters strike. It is evident from the oil spill that a strong partnership between the mental health providers and community organizations is essential in the recovery process to properly assess those at-risk for psychological distress. The providers must be willing and able to work in non-traditional settings, such as the individuals' homes, fishing marinas, and community centers. Mental health providers help the emer-

gency responders and the survivors identify and understand that certain reactions and responses are normal because the situation they have experienced is abnormal. In addition to direct services, mental health providers must collaborate with the community to provide support for stress management, problem solving techniques, advocacy and referrals when necessary. Clinicians interviewed for this research, were very active in the community, delivering presentations and education in various community settings, such as schools and chamber of commerce meetings. As communities prepare for future disasters they can learn from the experiences of the Gulf Coast mental health providers and begin building collaborations and integrating efforts for an effective and efficient response to disasters that will minimize chronic stress and aid in long-term recovery.

REFERENCES

- Buttke, D., Vagi, S., Schnall, A., Chiu, C., Law, R., & Wolkin, A. (2011). *Community Assessment for Public Health Emergency Response (CASPER) one year following the Gulf Coast Oil Spill: Alabama, 2011*. Centers for Disease Control and Prevention, National Center for Environmental Health, Division of Environmental Hazards and Health Effects.
- Caplan, G. (1964). *Principles of preventive psychiatry*. New York: Basic Books, Inc
- Chibbaro, J.S. & Jackson, M.C. (2006). Helping students cope in an age of terrorism: Strategies for school counselors. *Professional School Counseling*, 9(4), 314-321.
- City-Data.com. Bayou La Batre, Alabama. Retrieved from: <http://www.city-data.com/zips/36509.html>.
- City-Data.com. Gulf-Shores, Alabama. Retrieved from: <http://www.city-data.com/city/Gulf-Shores-Alabama.html>.
- Glaser, B.G. & Strauss, A.L. (1967) *The discovery of Grounded Theory: Strategies for qualitative research*. Chicago: Aldine Publishing Co.
- Halpern, J. & Tramontin, M. (2007). *Disaster Mental Health: Theory and practice*. Canada: Thomson Brooks/Cole.
- Johnson, K. (1993). *School crisis management: A hands-on guide to training crisis response teams*. Alameda, CA: Hunter House Inc., Publishers.
- Kawana, N., Ishimatsu, S., & Kanda, K. (2001). Psychophysiological effects of the terrorist Sarin attack on the Tokyo subway system. *Military Medicine*, 166 (Suppl. 2), 23-26.
- Lerner, M.D. & Shelton, R.D. (2001). *How do people respond during traumatic exposure?* The American Academy of Experts in Traumatic Stress, Inc. Reprinted from Acute Traumatic Stress Management, www.traumatic-stress.org.
- Mascari, J.B. (2002). The best laid plans: Will they work in a real crisis? In Bass, D.D. & Yep, R. (Eds), *Terrorism, trauma and tragedies: A counselor's guide to preparing and responding* (pp. 39-51). Alexandria, VA: American Counseling Association Foundation.
- Moss, L. (2010, July 16). *The 13 largest oil spills in history*. *Mother Nature Network*. Retrieved from: <http://www.mnn.com/earth-matters/wilderness-resources/stories/the-13-largest-oil-spills-in-history>
- Myers, D. & Wee, D. F. (2005). *Disaster Mental Health Services, Psychological Stress Series*. New York: Brunner-Routledge.
- Thompson, R.A. (2004). *Crisis intervention and crisis management: Strategies that work in schools and communities*. New York: Brunner-Routledge.

Fostering Human Resilience

GEORGE S. EVERLY, JR., PHD, ABPP

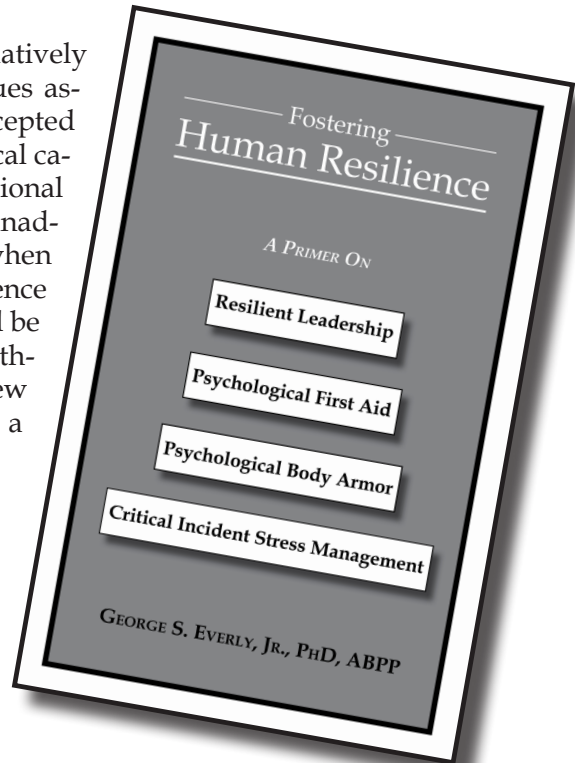
The promotion of human resiliency represents a relatively new approach to dealing with mental health issues associated with crisis and disaster. It is generally accepted that psychological casualties invariably far exceed physical casualties in the wake of disaster, thus reliance upon traditional mental 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

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.



Fostering Human Resilience

George S. Everly, Jr.

\$20

Order by phone, email or website from:
CHEVRON PUBLISHING CORPORATION
Phone us Mon-Fri, 9-5 EST: 410-418-8002
Email us anytime: office@chevronpublishing.com
Order online 24/7: www.chevronpublishing.com



CHEVRON
PUBLISHING CORPORATION

Incident-Related Television Viewing and Psychiatric Disorders in Oklahoma City Bombing Survivors

Betty Pfefferbaum

University of Oklahoma Health Sciences Center

Carol S. North

Veterans Affairs North Texas Health Care System and the
University of Texas Southwestern Medical Center

Rose L. Pfefferbaum

Phoenix Community College

Haekyung Jeon-Slaughter

University of Oklahoma Health Sciences Center

J. Brian Houston

University of Missouri at Columbia

James L. Regens

University of Oklahoma Health Sciences Center

Abstract: *The objective of this study was to examine terrorism media coverage and psychiatric outcomes in directly-exposed terrorism survivors. The study used (1) self-report questionnaires to retrospectively assess event-related media behaviors and reactions in a cross sectional design and (2) longitudinal structured diagnostic interviews to assess psychopathologic outcomes. The participants were 99 directly-exposed Oklahoma City bombing survivors who were initially studied six months after the 1995 incident. Though a fear reaction to bombing-related television coverage and fear-driven discontinuation of bombing-related media contact were associated with diagnostic outcomes, the number of hours viewing bombing-related television coverage in the first week after the event was not associated with the prevalence of bombing-related posttraumatic stress disorder or post-bombing major depressive disorder during the seven years post event. The results raise doubt about the effects of quantified incident-related television viewing on clinically-significant emotional outcomes in directly-exposed terrorism survivors. [International Journal of Emergency Mental Health, 2011, 14(4), pp. 247-256].*

Key words: *disaster, fear, media, Oklahoma City bombing, posttraumatic stress disorder, television viewing, terrorism*

Betty Pfefferbaum, Department of Psychiatry and Behavioral Sciences, College of Medicine, University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma; Carol S. North, Program in Trauma and Disaster, Veterans Affairs North Texas Health Care System and Departments of Psychiatry and Surgery, Division of Emergency Medicine, University of Texas Southwestern Medical Center, Dallas, Texas; Rose L. Pfefferbaum, Liberal Arts Department, Phoenix Community College, Phoenix, Arizona; Haekyung Jeon-Slaughter, Department of Psychiatry and Behavioral Sciences, College of Medicine, University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma; J. Brian Houston, Department of Communication, University of Missouri, Columbia, Missouri; James L. Regens, Department of Occupational and Environmental Health, College of Public Health and Center for Biosecurity Research, University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma.

This research was supported by Award Number MIPT106-113-2000-020 from the Oklahoma City National Memorial Institute for the Prevention of Terrorism (MIPT) and the Office of Justice Programs, National Institute of Justice, Department of Justice (DOJ) (B. Pfefferbaum); the National Institute of Mental Health (NIMH) Grant Number MH40025 (C. S. North); and the U.S. Defense Threat Reduction Agency (DTRA) and the Air Force Research Laboratory (AFRL) Cooperative Agreement FA8650-05-2-6523 (J. L. Regens). Dr. North discloses employment by the Veterans Affairs North Texas Health Care System, Dallas, Texas. Points of view in this manuscript are those of the authors and do not necessarily represent the official position of MIPT, DOJ, NIMH, DTRA, AFRL, or the U.S. Department of Veterans Affairs. Correspondence concerning this article should be addressed to Betty Pfefferbaum, E-mail: betty-pfefferbaum@ouhsc.edu

The September 11, 2001, attacks elevated terrorism to the highest level as a national security and public health concern. Subsequent research documented an association between television viewing of event-related coverage and emotional outcomes in New York City residents (Ahern et al., 2002; Ahern, Galea, Resnick, & Vlahov, 2004a, 2004b; Bernstein et al., 2007) and in the general public nationwide (Schlenger et al., 2002; Schuster et al., 2001; Silver, Holman, McIntosh, Poulin, & Gil-Rivas, 2002). These studies examined various measures of stress reactions (Shuster et al., 2001), distress (Schlenger et al., 2002), posttraumatic stress symptoms (Schlenger et al., 2002; Silver et al., 2002), and “probable” posttraumatic stress disorder (PTSD; Ahern et al., 2004a, 2004b; Bernstein et al., 2007; Schlenger et al., 2002). Other studies have demonstrated that the association between various emotional states and viewing television coverage of a terrorist event is not a universal finding (Miguel-Tobal et al., 2006; Tucker, Pfefferbaum, Nixon, & Dickson, 2000). Thus, extant studies raise a number of questions about media contact and reactions to media coverage related to terrorist incidents.

Among the September 11 studies that have examined contact with media coverage of the attacks, relatively few participants in New York City (Ahern et al., 2002; Ahern et al., 2004a, 2004b), and even fewer in national samples (Schlenger et al., 2002; Schuster et al., 2001; Silver et al., 2002), were onsite or closely associated with those directly affected by the September 11 attacks. For example, in one of the studies by Ahern and colleagues (2004a), less than 25% of the participants saw the attacks in person and it is uncertain how near these individuals were to the World Trade Center or how many were actually in danger. Twelve percent reported a friend or relative killed, but it is unclear how close those relationships were. Thus many, if not most, of the individuals included within these exposure categories did not meet the exposure criterion (criterion A) required for a diagnosis of PTSD based on *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR)* criteria (American Psychiatric Association, 2000). Furthermore, the study did not appear to require the presence of PTSD criterion A exposure in the designation of “probable” PTSD. Thus, although some studies have found an association between viewing incident-related television coverage and emotional outcomes in those who were not directly exposed (Schlenger et al., 2002; Schuster et al., 2001; Silver et al., 2002), studies to date have not adequately addressed these associations in the individuals most directly exposed to a terrorist attack.

To help fill this gap, we used a seven-year follow-up assessment of a longitudinal study of survivors of the 1995 Oklahoma City bombing (North et al., 1999; North, Pfefferbaum, Kawasaki, Lee, & Spitznagel, 2011) to elucidate the effects of bombing-related media coverage on directly-exposed survivors. We addressed two key issues. First, we examined diagnostic outcomes in survivors in association with hours of bombing-related television viewing in the first week after the incident and with reactions to media coverage. Second, we examined the likelihood that a fear reaction to media coverage in the first week after the bombing and fear-driven discontinuation of media contact at any time since the incident, in addition to amount of bombing-related viewing, were associated with the development of bombing-related PTSD and/or major depression assessed using full diagnostic criteria.

METHODS

Procedure

The University of Oklahoma Health Sciences Center and Washington University School of Medicine Institutional Review Boards approved this follow-up study; the University of Texas Southwestern Medical Center Institutional Review Board approved additional data analysis for the study. Potential participants for the seven-year follow-up study were contacted by letter and/or telephone call. All participants provided written informed consent and were paid \$75 to compensate for their time and effort.

We used interviews and self-report questionnaires to obtain demographic information and to retrospectively assess media behavior and reactions. We identified psychiatric disorders using the Diagnostic Interview Schedule for DSM-IV (Robins et al., 1999) and the Disaster Supplement (DIS-IV/DS) (North, Pfefferbaum, Robins, & Smith, 2001).

Sample

At index, approximately six months after the Oklahoma City bombing, 182 survivors in the direct path of the bomb blast were assessed. The sample was randomly drawn from the Oklahoma State Department of Health registry of bombing victims with a 71% participation rate (North et al., 1999). A seven-year follow-up study was conducted between November 2001 and November 2002 (mean = 83.5 months, $SD = 3.4$, median = 83). Because diagnoses and their relationships

to media behavior and fear reactions were the key variables of interest in this study, we included only participants who responded to both the structured diagnostic interviews and the media-related queries in the self-report questionnaire at seven-year follow-up assessment. Of 113 survivors who participated in the follow-up study, 99 completed both the DIS-IV/DS interview and the self-report assessment at both six months and at seven years post bombing (North et al., 2011). These individuals were included in this analysis, representing an overall participation rate of 38%.

Comprehensive assessment of the sample from which participants were drawn for the media study revealed high rates of psychiatric morbidity at index approximately six months after the bombing: 34% developed bombing-related PTSD and 23% developed major depression in the six months

after the incident (North et al., 1999). At seven-year follow up, 41% met criteria for PTSD and 38% met criteria for major depression at some time since the attack (North et al., 2011). In our sample of 99 participants, 40% developed PTSD and 33% developed major depression at some time during the seven-year follow-up period. See Table 1.

Neither loss to follow-up nor missing questionnaires were associated with gender, age, racial/ethnic background, education, income, suffering a bombing-related injury, treatment received, other life events, bombing-related PTSD, or post-bombing major depressive disorder measured at the six-month index assessment. Index participants not represented in this media study conducted seven years after the bombing ($n = 83$), however, were less likely to be married at six months (52% vs. 72%; $\chi^2 = 6.79, p = .009$) than those who

Table 1. Descriptive statistics for demographic variables assessed seven years post bombing			
		n	%
Demographics			
Gender	Males	49	49
	Females	50	51
Race/Ethnicity	Whites	85	86
	Non-Whites	14	14
Marital status ^a	Married	82	85
	Not married	15	15
Education	College graduate	56	57
	Less than college graduate	43	43
Cumulative diagnoses			
Bombing PTSD	Yes	40	40
	No	59	60
Post-Bombing	Yes	33	33
Major Depression	No	66	67

^aTwo observations are missing

were included in the media study ($N = 99$). Information on these variables in the index sample and details of the study methods at index and follow-up are available in previous publications (North et al., 1999; North et al., 2011).

Variables

Demographic variables were gender, age, racial/ethnic background, marital status, and education assessed seven years after the bombing. Racial/ethnic background, marital status, and education variables were each recoded into two groups as White and non-White, married and not married, and four-year college graduate and those with less than four-year college graduation, respectively.

Viewing television coverage of the attacks was measured retrospectively at seven years post bombing. Respondents were asked the number of hours per day they watched television coverage of the bombing during the first week after the incident. Participants also were asked to recall whether they had experienced fear as a result of watching television coverage of the bombing in the week after the event; these responses were coded as “yes” or “no.” Fear-driven discontinuation of bombing-related media contact was measured by asking participants if media coverage following the bombing was “so frightening” that they quit watching, listening to, or reading coverage anytime over the seven years. Original categories of “strongly agree” and “agree” were collapsed for “yes” while categories of “neutral,” “disagree,” and “strongly disagree” as well as no response were collapsed for “no.”

The Diagnostic Interview Schedule (Robins et al., 1999) was used to examine psychiatric diagnoses in the six-month and seven-year follow-up data. The cumulative seven-year diagnostic assessment determined the presence of PTSD at any time during the seven-year post-disaster period. Criterion A required direct exposure to the event, which all participants met. Participants who reported one or more bombing-related criterion B (intrusion) symptoms, three or more criterion C (avoidance and numbing) symptoms, and two or more criterion D (hyperarousal) symptoms related to the bombing, and also reported that symptoms lasted more than one month (criterion E) and created clinically significant emotional distress or interfered with functioning (criterion F), met PTSD criteria. *DSM-IV-TR* (American Psychiatric Association, 2000) criteria were used in similar precise fashion to establish a cumulative diagnosis of major depressive disorder over the seven-year follow-up period.

Statistical Analysis

Raw frequencies and percentages, means, and standard deviations were calculated as descriptive statistics. Spearman's r was used to determine the correlation between hours of television viewing in the first week after the bombing and age. The Kruskal-Wallis test (H statistics) was used to compare hours of bombing-related television viewing by gender, racial/ethnic background, marital status, education, and diagnostic groups. The Cochran-Mantel-Haenszel test (CMH) was used to examine associations among fear reaction to bombing-related television coverage, discontinuation of media contact due to fear, and diagnoses. A level of $p < 0.05$ was used to determine statistical significance. SAS version 9.2 was used for data analysis (SAS Institute, Inc., Cary, NC).

Results

Table 1 displays the demographic characteristics of the 99 follow-up participants and the frequencies and percentages related to cumulative post-disaster disorders over the seven years post bombing. The average age of the participants was 50 years with a standard deviation of 11 years.

All 99 survivors included in this study were within the immediate proximity of the bombing and were highly exposed to the event. At the time of the explosion, 80% ($n = 79$) were in the Murrah Federal Building or the other most heavily damaged buildings adjacent to the Federal Building, 16% ($n = 16$) were in nearby buildings that sustained major damage and where many victims were injured or killed, and 4% ($n = 4$) were either pedestrians or in cars in the path of the bomb blast. Eighty-six percent ($n = 85$) of the sample reported being injured in the bombing, 95% ($n = 94$) knew someone injured in the bombing, and 76% ($n = 75$) knew someone killed.

When asked at the seven-year follow-up, participants retrospectively reported having watched bombing-related television coverage for 6 hours per day on average ($SD = 6$ hours/day, median = 4 hours/day) during the first week after the bombing. Female survivors (mean = 8 hours/day) watched more bombing-related television coverage than did male survivors (mean = 5 hours/day) during this timeframe ($H = 8.14$, $df = 1$, $p = .004$). The number of hours per day survivors watched bombing-related television coverage during the first week after the bombing was not significantly correlated with survivors' age and did not differ significantly between White

and non-White groups or between married and not married groups. Survivors who had graduated from college (mean = 5 hours/day) watched significantly fewer hours of bombing-related television coverage in the first week than did those survivors who had not graduated from college (mean = 9 hours/day) ($H = 9.46, df = 1, p = .002$).

Twenty-two percent ($n = 22$) of the 99 survivors recalled that they felt afraid after seeing bombing-related television coverage during the first week following the event. Experiencing a fear reaction to bombing-related television coverage was not significantly associated with gender, age, racial/ethnic group, marital status, or education.

Fifteen percent ($n = 15$) of the survivors discontinued contact with bombing-related media coverage at some time over the seven years because it was “so frightening.” The likelihood of discontinuing media coverage was not significantly associated with gender, age, racial/ethnic group, or marital status. College graduates were less likely than less-

well educated survivors to discontinue watching bombing coverage because of fear ($CMH = 6.37, p = 0.012$).

Retrospectively-reported number of hours spent watching bombing-related television coverage was not associated with the cumulative prevalence of either bombing-related PTSD or post-bombing major depression over seven years. There was no significant difference in number of hours of bombing-related television viewing between survivors with and without fear reactions to bombing-related television coverage.

Retrospectively-reported fear reaction to bombing-related television viewing in the first week was associated with the cumulative prevalence of both bombing-related PTSD and post-bombing major depression over the seven years. Fear-driven discontinuation of bombing-related media contact was associated with the cumulative prevalence of bombing-related PTSD and post-bombing major depression over seven years. See Table 2.

		Cumulative Post-bombing Diagnoses			
		Bombing PTSD		Major Depression	
		Yes	No	Yes	No
Fear reaction to television viewing ^a	Yes	14	8	12	10
	No	26	51	21	56
	Analysis ^c	CMH=6.28, p =0.0122		CMH=5.67, p =0.0173	
Discontinuation of media contact ^b	Yes	11	4	9	6
	No	29	55	24	60
	Analysis ^c	CMH=7.88, p =0.0050		CMH=5.60, p =0.0180	

a Fear reaction to bombing-related television viewing in the first week after the bombing

b Discontinuation of bombing-related media contact at some time during the seven years after the bombing

c CMH represents Cochran-Mantel-Haenszel statistic

DISCUSSION

Television coverage of the 1995 Oklahoma City bombing was extensive in the days and weeks following the event. The directly-exposed Oklahoma City bombing survivors in our sample retrospectively reported viewing a mean of 6 hours of bombing coverage each day during the first week after the disaster. Female survivors recalled watching significantly more coverage the first week than did male survivors, and survivors who had not graduated from college recalled watching significantly more coverage than did survivors who had graduated from college. Twenty-two percent of the survivors retrospectively reported that they felt afraid after seeing bombing-related television coverage during the first week after the event, and 15% reported that they discontinued bombing-related media contact because of fear at some time since the incident. Experiencing a fear reaction to television coverage was not correlated with any of the demographic variables studied. The only demographic variable that correlated with fear-driven discontinuation of media contact was education; survivors who had not graduated from college were more likely than survivors with a college degree to discontinue media contact due to fear.

There was no significant difference in the retrospectively-reported number of hours devoted to event-related television viewing in the first week after the bombing between those who did and did not develop cumulative bombing-related PTSD or post-bombing major depression. It is likely that these survivors were so saturated with aspects of their direct experiences that watching event-related television coverage failed to generate additional measurable effects. It also is possible that some survivors with PTSD and/or major depression were drawn to television coverage while others avoided it and that the results associated with these behaviors canceled each other out in the analysis.

A fear reaction to television coverage in the first week after the attack was associated with the development of cumulative bombing-related PTSD and cumulative post-bombing major depression. These associations do not establish cause. Anxiety and mood disorders may increase fear and/or those who react with fear may be more susceptible to anxiety or mood disorders. It is also possible that for highly traumatic events, similar factors such as the survivors' individual temperament may be associated with both fear responses and vulnerability to psychopathology.

Fear-driven discontinuation of bombing-related media contact, which has not been reported in prior empirical studies, was associated with the prevalence of cumulative disaster-related PTSD and post-bombing major depression. Discontinued media contact because of fear may have disrupted a direct relationship between television viewing and diagnosis and may explain the failure to find a correlation between hours of event-related television viewing and psychiatric outcomes. For example, less-educated survivors watched more hours of bombing coverage in the first week after the incident than survivors who were college graduates and they were more likely than survivors who were college graduates to discontinue media contact because of fear. So this group both watched more initially and was more likely to discontinue media contact, illuminating why there may be no correlation overall.

The differences between our Oklahoma City findings and those of the September 11 studies regarding the association of incident-related media contact and ensuing psychopathology may reflect differences in (1) the events themselves and media coverage of them, (2) sample characteristics, and/or (3) research design and the measures used to examine media-related associations. Each of these and the limitations of the study are discussed in detail below.

The events and coverage of the events. Although the Oklahoma City bombing was an attack on a federal building, the relative symbolism that event embodied was eclipsed by the September 11 attacks which targeted paramount symbols of the United States representing our national security (the Pentagon) and our economy (the World Trade Center). Consequently, a much broader cross-section of the general public may have perceived themselves to have been personally attacked by al-Qa'ida on September 11. While there were similarities in media coverage of the two events, including replaying graphic depictions of wounded survivors fleeing the scene, there also were notable differences. To some extent the differences in television coverage reflected the differences in the two events including the much greater magnitude of physical damage, the number of casualties, and the attacks against multiple targets that occurred on September 11. In addition, Oklahoma City coverage depicted scenes of the aftermath of the incident while September 11 coverage displayed horrific and grotesque scenes of the actual attacks including airplanes hitting the World Trade Center, buildings collapsing, and people falling or jumping

to their deaths. As a result, because the visual images were more graphic, television coverage of the World Trade Center attacks may have generated more fear and a greater sense of vulnerability among those who watched it. This response to viewing television coverage also may have been amplified given the intensity, shock, and multiple attacks which created uncertainty about when and where the attacks would end.

Samples. Differences in incident exposure may explain the differences in our results and those of other studies of community samples (Ahern et al., 2002; Ahern et al., 2004a, 2004b; Bernstein et al., 2007; Schlenger et al., 2002; Schuster et al., 2001; Silver et al., 2002). Several September 11 studies examined national samples which would have included relatively few, or possibly even no, directly-exposed participants (Schlenger et al., 2002; Schuster et al., 2001; Silver et al., 2002). Ahern and colleagues (2002; 2004a, 2004b) and Bernstein and colleagues (2007) combined a number of event-related experiences to characterize their “directly affected” New York City participants—death of friend or family, personal witnessing, post-event job loss, loss of possessions, displacement from home for one or more nights, and participation in rescue efforts as well as those who were onsite at the scene. Unfortunately, these investigators did not separate exposure through witnessing in person (either from close up or afar) or through exposure of close associates from incident-related stress (e.g., job loss) that would not meet the *DSM-IV-TR* (American Psychiatric Association, 2000) trauma exposure criterion for PTSD.

Unlike the approach in September 11 studies, the participants in our sample were all directly exposed and, for the most part, they had severe exposures, as reflected by the high injury rate of 86%. September 11 studies of general population samples revealed an association between hours of television viewing and posttraumatic reactions, symptoms, or syndromes while our study of directly-exposed survivors found no association with a cumulative diagnosis of PTSD or major depression. It may be that our survivors were so traumatized by their direct experiences with the bombing that viewing television coverage of the event did not add appreciably to their clinical outcomes. Hence, it is possible that viewing television coverage of terrorist events may have different consequences for those who are directly exposed to, and those indirectly or remotely affected by, an incident. Furthermore, the September 11 studies did not address the discontinuation of media contact. It is possible that the correlation between hours of incident-related television view-

ing and various measures of distress occurs in samples of less-affected individuals because these individuals are less likely to be so frightened by media coverage that they stop watching coverage.

Research design and measures. We used rigorous diagnostic methods in our Oklahoma City study. This methodology is especially important in a sample of directly-exposed survivors because these individuals have the requisite experiences to qualify for the diagnosis of PTSD. Much of the research on the September 11 attacks used surveys and brief telephone interviews with abbreviated measures for PTSD and depression (Ahern et al., 2002; Ahern et al., 2004a, 2004b; Bernstein et al., 2007), an approach which is likely to inflate prevalence estimates of psychopathology (North & Pfefferbaum, 2002; Rosen & Lilienfeld, 2008). We would not have expected many of the participants in the September 11 community samples studied by other investigators to develop PTSD, although the ensuing social conditions such as the economic decline may have increased the risk for depression and other emotional suffering in these individuals. On the other hand, our findings do not address the potential that the number of hours of event-related television viewing was associated with incremental increases in posttraumatic stress symptoms that did not reach diagnostic levels.

Some studies of the September 11 attacks (Schlenger et al., 2002; Schuster et al., 2001; Silver et al., 2002) and this study of Oklahoma City bombing survivors used hours of viewing event-related television coverage to examine television-related effects. Some September 11 studies also assessed specific media content. For example, Schlenger and colleagues (2002) studied both content and hours of viewing. Ahern and colleagues (2002; 2004a, 2004b) reported frequency of viewing specific televised images (e.g., airplanes hitting the buildings, buildings collapsing, people falling or jumping from the towers) as their measure of exposure to television coverage. We retrospectively measured fear in reaction to coverage in the first week after the bombing and fear-driven discontinuation of media contact.

Limitations. Our study was limited by participant attrition from the first randomly-selected representative sample studied by North and colleagues (1999) six months after the bombing. Our measures of television viewing and media fear reaction were not included in the initial assessment requiring survivors to recall experiences dating back over seven years in the follow-up assessment. We recognize the limitations

imposed by our retrospective media variables, but local television coverage of the bombing was graphic and extensive with nothing else playing on major stations for days after the incident. Furthermore, coverage of the execution of Timothy McVeigh, which occurred in June 2001 just months before we initiated data collection for this follow-up study, likely served as a reminder of media coverage of the event. Thus, we think survivors had a general memory of the coverage they watched. It is possible that some participants exaggerated their reports of media viewing spurred by their emotional arousal or reactivity. Others may have hoped to forget or deny the horrible images they witnessed, choosing to conceal any distressing effects media coverage had on them, or attributing their reactions to their direct bombing experiences rather than their contact with media coverage of the event.

Conclusions

Our study makes a unique contribution to the existing terrorism media literature by assessing a directly- and highly-exposed sample using full diagnostic assessment. Our results raise doubt about whether the hours of incident-related television viewing alone is associated with clinically-significant emotional outcomes in those who are directly exposed to terrorism. Thus, practitioners and researchers should not assume that event-related media coverage will generate psychopathology in directly-exposed survivors of terrorist events. We recognize that the absence of pathologic outcomes in association with media coverage of directly-exposed survivors of one event does not mean that contact with media coverage among directly-exposed survivors of other events will not be associated with manifest pathology. Our findings do argue, however, for caution in making generalizations about the relationships between media contact and emotional outcomes based on a limited number of studies that rely on community and/or national samples. Furthermore, findings in directly-exposed survivors may not generalize to other samples. It is inappropriate to link PTSD to television viewing absent qualifying exposure to a traumatic event. Additional studies are needed to further clarify the relationships between incident-related media behaviors and psychiatric outcomes in groups with and without direct exposure because television viewing represents a venue for prevention and intervention with various populations.

REFERENCES

- Ahern, J., Galea, S., Resnick, H., Kilpatrick, D., Bucuvalas, M., Gold, J., & Vlahov, D. (2002). Television images and psychological symptoms after the September 11 terrorist attacks. *Psychiatry, 65*(4), 289-300. doi: 10.1521/psyc.65.4.289.20240
- Ahern, J., Galea, S., Resnick, H., & Vlahov, D. (2004a). Television images and probable posttraumatic stress disorder after September 11: The role of background characteristics, event exposures, and perievent panic. *Journal of Nervous and Mental Disease, 192*(3), 217-226. doi: 10.1097/01.nmd.0000116465.99830.ca
- Ahern, J., Galea, S., Resnick, H., & Vlahov, D. (2004b). Television watching and mental health in the general population of New York City after September 11. *Journal of Aggression, Maltreatment and Trauma, 9*(1-2), 109-124. doi:10.1300/J146v09n01_14
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders (4th ed., Revised)*. Washington, DC: Author.
- Bernstein, K. T., Ahern, J., Tracy, M., Boscarino, J. A., Vlahov, D., & Galea, S. (2007). Television watching and the risk of incident probable posttraumatic stress disorder: A prospective evaluation. *Journal of Nervous and Mental Disease, 195*(1), 41-47. doi: 10.1097/01.nmd.000244784.36745.a5
- Miguel-Tobal, J. J., Cano-Vindel, A., Gonzalez-Ordi, H., Iruarrizaga, I., Rudenstine, S., Vlahov, D., & Galea, S. (2006). PTSD and depression after the Madrid March 11 train bombings. *Journal of Traumatic Stress, 19*(1), 69-80. doi: 10.1002/jts.22091
- North, C. S., Nixon, S. J., Shariat, S., Mallonee, S., McMillen, J. C., Spitznagel, E. L., & Smith, E. M. (1999). Psychiatric disorders among survivors of the Oklahoma City bombing. *Journal of the American Medical Association, 282*(8), 755-762. doi: 10.1001/JAMA.282.8.755
- North, C. S., & Pfefferbaum, B. (2002). Research on the mental health effects of terrorism. *Journal of the American Medical Association, 288*(5), 633-636. doi: jed20044 [pii]
- North, C. S., Pfefferbaum, B., Kawasaki, A., Lee, S., & Spitznagel, E. L. (2011). Psychosocial adjustment of directly exposed survivors 7 years after the Oklahoma

City bombing. *Comprehensive Psychiatry*, 52, 1-8. doi:10.1016/j.comppsy.2010.04.003.

North, C. S., Pfefferbaum, B., Robins, L. N., & Smith, E. M. (2001). *The diagnostic interview schedule/disaster supplement (DIS-IV/DS)*. St. Louis, MO: Washington University.

Robins, L., Cottler, L., Buchholz, K., Compton, W., North, C., & Rourke, K. (1999). *The diagnostic interview schedule for DSM-IV (DIS-IV)*. St. Louis, MO: Washington University.

Rosen, G. M., & Lilienfeld, S. O. (2008). Posttraumatic stress disorder: An empirical evaluation of core assumptions. *Clinical Psychology Review*, 28, 837-868. doi: 10.1016/j.cpr.2007.12.002

Schlenger, W. E., Caddell, J. M., Ebert, L., Jordan, B. K., Rourke, K. M., Wilson, D., Thalji, L., Dennis, J. M., Fairbank, J. A., & Kulka, R. A. (2002). Psychological reactions to terrorist attacks: Findings from the National Study of Americans' Reactions to September 11. *Journal*

of the American Medical Association, 288(5), 581-588. doi: 10.1001/jama.288.5.581

Schuster, M. A., Stein, B. D., Jaycox, L. H., Collins, R. L., Marshall, G. N., Elliott, M. N., Zhou, A. J., Kanouse, D. E., Morrison, J. L., & Berry, S. H. (2001). A national survey of stress reactions after the September 11, 2001, terrorist attacks. *New England Journal of Medicine*, 345(20), 1507-1512. doi:10.1056/NEJM200111153452024

Silver, R. C., Holman, E. A., McIntosh, D. N., Poulin, M., & Gil-Rivas, V. (2002). Nationwide longitudinal study of psychological responses to September 11. *Journal of the American Medical Association*, 288(10), 1235-1244. doi: 10.1001/jama.288.10.1235

Tucker, P., Pfefferbaum, B., Nixon, S. J., & Dickson, W. (2000). Predictors of post-traumatic stress symptoms in Oklahoma City: Exposure, social support, peri-traumatic responses. *Journal of Behavioral Health Services & Research*, 27(4), 406-416. doi:10.1007/BF02287822

GROUP
Crisis Support



WHY it works
WHEN & HOW
to provide it

Jeffrey T. Mitchell, PhD

Catalog #MIT5
Paperback 186pp (2007)
ISBN13: 978-1-883581-24-4

\$30.00

**Group Crisis Support: Why it works
When & How to provide it**

Jeffrey T. Mitchell, PhD

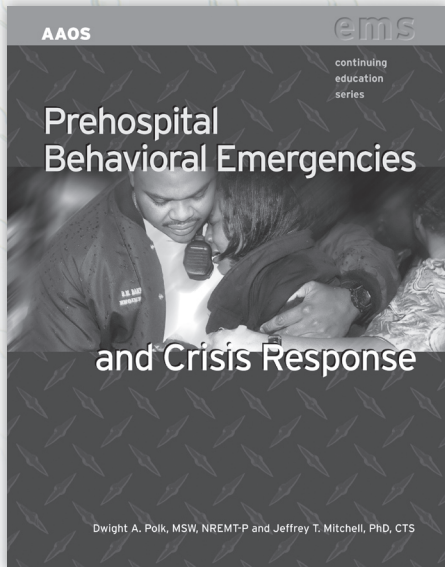
Group Crisis Support is a straightforward, practical guidebook for anyone providing either crucial information or crisis support services to distressed groups. More than a hundred years of sound crisis intervention theory and positive-outcome research back up the guidelines in the book. *Group Crisis Support* provides valuable information for those recently trained as well as the more experienced peer support personnel and crisis intervention professionals. It contains thoughtful crisis management strategies and well-referenced crisis intervention procedures for both large and small groups that will undoubtedly enhance the group management skills of trained crisis support personnel. *Group Crisis Support* is an invaluable tool for crisis response teams in schools, businesses, church groups, emergency medical services, fire services, law enforcement organizations, and the military. 🇺🇸

Exclusively from Chevron!

A New Book by Jeffrey T. Mitchell

Get your copy of this important new resource by ordering NOW!
Order by calling Chevron Publishing at 410-418-8002 • Order online at chevronpublishing.com

A Resource for All Health Care Providers Responding to Mental Health Emergencies



Prehospital Behavioral Emergencies and Crisis Response

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

ISBN-13: 978-0-7637-5120-3
\$41.95 • Paperback • 300 Pages • © 2009

Chevron Publishing is pleased to distribute the newest addition to the American Academy of Orthopaedic Surgeons (AAOS) Continuing Education Series: *Prehospital Behavioral Emergencies and Crisis Response*. Like all titles in this series, an Instructor's ToolKit CD-ROM including PowerPoint presentations and Lecture Outlines, is available to support this program.

Prehospital Behavioral Emergencies and Crisis Response educates providers on crisis and behavioral health issues demonstrated by patients in the prehospital environment. Separated into three parts, coverage includes:

- (1) The acute behavioral crisis
- (2) Chronic mental health issues
- (3) Prehospital response

This resource simplifies various types of diagnosed mental disorders such as mood, personality, eating, and sleeping, as well as schizophrenia and psychosis.

To learn more about this exciting new title, or to place your order, visit Chevron Publishing online at www.ChevronPublishing.com, or call 1-410-418-8002 today.

Table of Contents

- | | |
|---|---|
| 1. The Importance of Crisis and Behavioral Emergencies Training | 10. Disorders of Infancy, Childhood, or Adolescence |
| 2. Crisis Intervention Principles for Prehospital Personnel | 11. Delirium, Dementia, and Amnesic Disorders |
| 3. Assessment in the Prehospital Environment | 12. Substance Related Disorders |
| 4. Responding to the Emotional Crisis | 13. Schizophrenia and Psychotic Disorders |
| 5. Assisting Large Groups Through Crisis | 14. Mood Disorders |
| 6. Emergency Response to Violence | 15. Anxiety Disorders |
| 7. Suicide: An Extraordinary Case of Violence | 16. Dissociative Disorders |
| 8. Supporting Victims of Death Related Crises | 17. Eating Disorders |
| 9. Crisis Intervention in Disasters and Other Large-Scale Incidents | 18. Sleep Disorders |
| | 19. Personality Disorders |
| | 20. Sustaining Staff |

About the Authors

Dwight A. Polk, MSW, NREMT-P—Paramedic Program Director, University of Maryland Baltimore County

Involved in EMS since 1975, and a paramedic since 1982, Dwight Polk has held the position of Paramedic Program Director at the University of Maryland Baltimore County (UMBC) since 1990. Prior to arriving at UMBC, Mr. Polk was a field paramedic and Education Coordinator at Acadian Ambulance Service in Lafayette, Louisiana.

Jeffrey T. Mitchell, Ph.D., CTS—Clinical Professor of Emergency Health Services at the University of Maryland and President Emeritus of the International Critical Incident Stress Foundation.

After serving as a firefighter /paramedic, Dr. Mitchell developed a comprehensive, systematic, integrated and multi-component crisis intervention program called "Critical Incident Stress Management." He has authored over 250 articles and 10 books in the stress and crisis intervention fields. He serves as an adjunct faculty member of the Emergency Management Institute of the Federal Emergency Management Agency.



**JONES AND BARTLETT
PUBLISHERS**
BOSTON TORONTO LONDON SINGAPORE

Place Your Order Today!

Call: 1-410-418-8002 • Visit: www.ChevronPublishing.com

Trauma and Stress-Related Disorders in German Emergency Physicians: The Predictive Role of Personality Factors

Frank-Gerald Bernhard Pajonk

The Saarland University Hospital, Homburg, Germany Georg-August Universität, Göttingen, Germany

Philippe Cransac

The Saarland University Hospital, Homburg, Germany

Vincent Müller

Dr. K. Fontheim's Hospital for Mental Health,
Liebenburg, Germany

Alexander Teichmann

Technische Universität Braunschweig, Germany

Wolfgang Meyer

Queen Mary University London, UK

Abstract: *emergency medical personnel (EMP) are repeatedly exposed to traumatic and stressful events with possible consequences on their mental wellbeing. Out of the group of EMP, we chose German Emergency Physicians (EP), because they represent a distinct group within the German pre-hospital emergency services. In this group, we studied the prevalence rates of posttraumatic stress disorder (PTSD), burnout and depression. We specifically focussed on the role of personality and other factors of vulnerability. Four hundred eighty-seven German EPs answered questionnaires with scales assessing probable PTSD, burnout, depression, and personality factors. Additionally, we asked for biographic, occupational and mental health information. More than 90% of the participants reported at least one traumatic event. We found low to moderate levels of stress-related disorders with 16.8% of participants meeting the criteria for probable PTSD, 4.1% for burnout, and 3.1% for clinical depression. We identified four clusters of personalities that were related to the prevalence of PTSD and depression. The type of personality seems to be more predictive of the development of trauma and stress-related disorders than the EPs' traumatic experiences. [International Journal of Emergency Mental Health, 2011, 14(4), pp. 257-268].*

Key words: *Emergency physician, trauma, personality, posttraumatic stress disorder, burnout, depression*

Many studies address job-related stress of physicians. They have reported that between 26% and 31% of physicians are in danger of developing a burnout syndrome (Kinzl, Traweger, Biebl, & Lederer, 2006; Lederer, Kinzl, Trefalt, Traweger, & Benzer, 2006; Wegener, Kostova, Poschadel,

& Baur, 2007). This rate is reported to be even higher (up to 50%) in physicians working in intensive care or oncology units (Bauer, Hafner, Kachele, Wirsching, & Dahlbender, 2003). It is also known that medical doctors have an increased life time prevalence of depression (Braun et al., 2010). It

Frank-Gerald Bernhard Pajonk is in the Dept. of Psychiatry and Psychotherapy at The Saarland University Hospital in Homburg, Germany and in the Dept. of Psychiatry and Psychotherapy at Georg-August Universität in Göttingen, Germany. Philippe Cransac is in the Dept. of Psychiatry and Psychotherapy at Georg-August Universität in Göttingen, Germany. Vincent Müller is with the Center for Psychiatric and Psychotherapeutic Care and Rehabilitation at Dr. K. Fontheim's Hospital for Mental Health in Liebenburg, Germany. Alexander Teichmann is with the Institute of Psychology at Technische Universität Braunschweig in Germany. Wolfgang Meyer is with Barts and the Royal London School of Medicine at Queen Mary University in London, UK. Correspondence regarding this article should be directed to pajonk@psyspi.de.

has been reported that certain conditions at the workplace (e.g., time pressures, hierarchy within the organisation and levels of responsibility) may play a more important role in developing trauma- and stress-related disorders than being confronted with traumatic situations (Braun et al., 2010; Kinzl et al., 2006). In 2006 a study by Lederer and colleagues of anaesthetists, the following factors for increased risk of burnout were identified: complexity of work, lack of individual time control, lack of opportunities to participate in decision-making, job dissatisfaction and the number of physical complaints. Being confronted with suffering or death did not increase the risk (Lederer et al., 2006). An explanation could be that the development of trauma- and stress-related disorders (and equally, resilience) may be highly influenced by the work environment, whilst the traumatic event precipitates the initial reaction to the trauma.

Emergency medical personnel (EMP) – including physicians and paramedics working in emergency services – are frequently exposed to severe traumatic events, for example in the context of mass casualties, catastrophes, or severe accidents. In these situations they may even face threats to their own lives. Despite EMPs' high exposure to traumatic events, only a limited number of those individuals develop trauma- and stress-related disorders (Orner, 2003). We know about prevalence rates of trauma- and stress-related disorders for some professional groups, 5-18% in fire fighters (Teegen, 1999; Wagner, Heinrichs, & Ehlert, 1998) and 27-42% in paramedics (Jonsson, Segesten, & Mattsson, 2003; Nortje, Roberts, & Moller, 2004; van der Ploeg & Kleber, 2003; Wagner, Heinrichs, & Ehlert, 1998).

In a recent study about gender differences in the development of stress-related disorders Palgi, Ben-Ezra, Essar, Sofer, & Haber (2009) followed up 23 rescue personnel after attending to a train crash. They found no differences between men and women regarding acute stress, dissociation and depressive symptoms (Palgi, Ben-Ezra, Essar, Sofer, & Haber, 2009). However, Tolin and Foa in a review of 2,477 articles on the prevalence of posttraumatic events and the subsequent severity of PTSD among men and women participants found that women were more likely to meet criteria for PTSD than men. The authors concluded that gender differences in risk of exposure to posttraumatic events can only partially account for the differences in risk of developing PTSD (Tolin & Foa, 2006).

For emergency physicians (EP) – physicians working in emergency services – no such data exists. This group is of

particular interest, because in some countries, such as Germany, emergency services are usually staffed with specially trained physicians who are part of and in charge of a team with two paramedics.

Further, we know very little about reasons for resilience or vulnerability that might influence the development of trauma- and stress-related disorders in EMP or EPs. We therefore undertook to assess the rates of trauma- and stress-related disorders in the group of EPs. With regards to vulnerability/resilience we studied a possible predictive role of the personality in predicting trauma related reactions for EPs.

An individual's personality determines the attitudes of the person regarding a certain situation and how this person then behaves. Attitudes and behaviour are relatively stable over long periods beginning in young adulthood, but not unchangeable or rigidly fixed (Soldz & Vaillant, 1996). Personality can be understood as part of several explanatory models in the development of psychological disturbances or mental health problems. It plays an important role as a factor for vulnerability and also accounts for part of the variations that we see in the course of these disorders (Cloninger, 1986).

LaFauci Schutt and Marotta (2011) studied, in a sample of 197 participants, how personality traits and issues like trauma exposure, burnout, and compassion satisfaction predict PTSD symptoms in EMP. They found neuroticism, extraversion, trauma exposure frequency, burn out and compassion satisfaction as most relevant in predicting PTSD symptoms (LaFauci Schutt & Marotta, 2011).

In research and clinical use, the five factor model of personality (McCrae and Costa, 1999) is widely accepted. Research since the 1960s revealed five domains, the so-called *Big Five* (neuroticism, openness, extraversion, conscientiousness, agreeableness), to contain and subsume most known personality traits. These are largely independent from demographical and cultural factors. However, because the five-factor model is unable to sufficiently explain the complete range of behaviours, additional factors have been used. In 1972 Zuckerman and colleagues had proposed the factor 'sensation-seeking / risk-taking' that they formulated as a tendency towards competition, curiosity, leadership skills, fighting spirit, willingness to perform, commitment, risk-taking and the pursuit of new stimuli (Zuckerman, Bone, Neary, Mangelsdorff, & Brustman, 1972). Other factors such as *Spiritual Transcendence* have been suggested (Piedmont, 2001). However, in an activity driven specialty like emer-

gency medicine the sensation-seeking / risk-taking factor could be a potentially more valuable factor to characterise the personality of EPs. Within the extraversion domain of the 'Big Five' the sensation-seeking / risk-taking factor does not seem to be sufficiently subsumed.

Based on this background, the study aimed at investigating the prevalence rates of trauma- and stress-related disorders in EPs and potentially influencing personality factors. Following the results of Braun et al. (2010), Kinzl et al. (2006), and Lederer et al. (2006), we hypothesized that personality factors would be more strongly related to trauma- and stress-related disorders than the number of traumatic events or other job-related factors such as length of service as an EP, number of rescue missions, training and qualification, medical speciality or work experience in intensive care medicine.

METHODS

Acquisition of Participants

We performed a nationwide study in cooperation with the Institute of Emergency Medicine of the Asklepios Hospitals Hamburg, the Association of Southwest German Emergency Physicians (AGSWN), the Helicopter Emergency Medical Services of the German Automobile Association (ADAC) and the German Air Rescue Organisation (DRF Luftrettung). A questionnaire was developed focusing on trauma- and stress-related disorders in EPs.

In Germany emergency medicine is not a medical speciality but a facultative specialist training, in most cases added to the speciality of anaesthesiology, internal medicine, or surgery. In order to be eligible for the study EPs must have completed specialist training in emergency medicine as approved by the Federal Medical Chamber and the Medical Chambers of the 16 German states.

Procedures

We contacted 60 major centers for emergency medicine in Germany. We asked them to participate in this study and to indicate how many questionnaires would be needed to study all the EPs working at their sites. Forty-four centers (73%) were willing to participate. As a result, 1,140 questionnaires were sent to these sites.

Measures

The questionnaires contained a range of socio-demographic and occupational questions. We also asked questions about the participants' and their next of kin's mental health. Several standardized test instruments were incorporated:

Scale used for the assessment of personality

We used the Hamburg Personality Inventory (HPI-K84), which is comprised of 84 items that assess personality based on six factors (Andresen, 2002). The factors in concordance with the 'Big Five-Model' are 'neuroticism' (N), 'openness' (O), 'extraversion' (E), 'conscientiousness' (G), and 'altruism' (A), as well as the sixth factor (R) 'risk-taking' (Andresen, 1995). In the original study (Andresen, 2002) the factors of the HPI had a classical theory test-retest reliability coefficient between .82 and .89, and a high internal consistency (Cronbach's $\alpha = .81-.89$). Results of the NEO-FFI personality inventory corresponded sufficiently to the HPI (Andresen, 2002).

Scale used for the assessment of depressive symptoms.

The Beck Depression Inventory (BDI) in its current German version (Hautzinger, Bailer, Worall, & Keller, 2000), is a self-rating scale for depression with wide-spread use in the clinical field. It consists of 21 groups of statements each being assessed on a 0-3 scale. A total score of 11 to 17 indicates mild-moderate depression. A score of 18 and higher indicates relevant clinical depression. The BDI has proved to be a tool of good sensitivity with rather insufficient specificity with up to 27% false-positives (Roberts, Lewinsohn, & Seeley, 1991). Based on generalizability theory analysis the German version showed good internal consistency (Cronbach's $\alpha = .88$). The construct validity proved to be high (Hautzinger et al., 2000). The correlations between the BDI and other self-rating scales of depression were between (Spearman Brown coefficient) .71 - .89 ($p < 0.0001$) and the correlations between the BDI and expert rating scales ranged from .43 to .61 ($p < 0.01$).

Scale used for the assessment of burnout symptoms

The Maslach-Burnout-Inventory (MBI-D), German version (Bussing & Perrar, 1994) consists of 32 items which form the subscales 'emotional exhaustion' (EE), 'depersonalisation' (DP), and reduced 'personal accomplishment'

(PA). The participants are asked to state the frequency of certain emotions and attitudes on a seven-stage rating scale (from 0 = *never* to 6 = *daily*). Single scores are calculated for each dimension and used to determine if the parameter value becomes critical. The cut-off-score of EE and DP is an average rating of four or more per item and the cut-off score of reduced personal accomplishment is an average rating of three or less. Burnout was defined as both EE and DP subscales above the cut-off; risk of burnout as either EE or DP subscale above the cut-off. In the original validation study (Enzmann, Schaufeli, & Girault, 1995) the MBI-D had good internal consistency (Cronbach's $\alpha = .71-.84$). The authors of MBI-D report good construct validity by showing high correlations with subscales of similar constructs (Bussing & Perrar, 1994).

Scales used for the assessment of PTSD symptoms

In the questionnaire we asked the participants to complete three different scales, the Posttraumatic Stress Scale (PTSS-10), the Posttraumatic Diagnostic Scale (PDS), and the Impact of Event Scale (IES-R), each in their German versions. The PTSS-10 is the most widely used scale in German speaking countries for assessing PTSD symptoms. The study focused on this scale. The PDS and the IES-R were given to analyse potential correlations between these three scales, which are the subject of another study.

The PTSS-10, German version (Maercker, 1998), is a screening instrument for symptoms of PTSD utilizing the frequency of impairment in ten different areas such as sleep disturbance, depression, hyperalertness, withdrawal, general irritability, frequent mood swings, guilt, avoidance of activities prompting the recall of possible traumatic events, and increased muscle tension. It utilizes a rating scale that ranges from 0 (*absolutely not*) to 3 (*often*). With a score of 12.5 points or higher the participant is at risk of experiencing symptoms of PTSD. In several investigations the internal consistency proved to be good with Cronbach's α ranging between .85 and .91. The validity was confirmed by experienced psychiatrists using the structured clinical interview for DSM-IV (SCID). The mean sensitivity was 77% (Range: 54-100%), the mean specificity was 98% (Range: 91-100%).

The Posttraumatic Diagnostic Scale (PDS), German version (Steil & Ehlers, 2000), is based on DSM-IV criteria for PTSD. We only used part one for this study, in which 12 potentially traumatic situations are described. The partici-

pants were asked whether they had ever been exposed to one or more of these situations.

Data analysis

Data analysis was carried out using the statistical package SPSS (Version 18.0). In addition to descriptive analyses a cluster analysis was conducted using the HPI scales as predictor variables. For clustering, Ward's method was used upon the squared Euclidean distance matrix derived from standardized HPI scores. Mean differences in the interval-scaled socio-demographic variables between the clusters were subject to one-way analyses of variance, testing for homogeneity of variances as prerequisites. Significant group differences ($p < 0.05$) were further analyzed by post-hoc-tests with Bonferroni correction. Frequency differences between the clusters in the categorical variables were analyzed by using the Chi-Squared test or Exact-Fischer tests, respectively where cell sizes did not meet criteria for Chi-Squared testing. The sizes of relations were displayed with Cramer's V -coefficient. According to Hemphill (2003), an association of $> .30$ was considered to be strong, between $.20$ and $.30$ to be moderate, and of $< .20$ to be weak. Further, for Post-Hoc analyses of the frequency differences between the clusters in the categorical variables the Configural Frequency Analysis (CFA) developed by Krauth & Lienert (1973) was used. The goal of this method is the detection of types in contingency tables. A *type* is defined as a combination or configuration of clusters and categories (e.g. the anxious-type-and-also-depressed physician) that occurs significantly more often than expected. Bonferroni adjusted Chi-Square tests were applied to correct for the α -error. For the resulting 4x2 contingency tables the adjusted α is $.05/8 = .00625$. The BiAS 9.17 Software Package was used for these analyses. To find out the parameters with the highest statistical impact on development of stress-related disorders logistic regression analyses – with preliminary checking for multicollinearity – were performed using probable PTSD, depression and burnout as outcome variables using forced entry. In case of missing data, pairwise deletion was administered.

RESULTS

Socio-demographic and occupational characteristics of the sample

Four hundred and ninety-six of the 1,140 questionnaires were returned (return-rate: 43.5%), of which 487 could be

used for the study. Tables 1 and 2 show the socio-demographic and occupational characteristics of the sample. The sample consisted of experienced EPs who had been on duty, on average, for nearly 10 years and had managed more than 15 rescue missions per month. The majority of participants were men, married and had completed their specialist training in anaesthesiology. Nearly all of them had worked on intensive care units. Only a minority reported a mental health disorder in the past or a significant loss within the last 12 months.

Using the PDS-Scale, a list of possible traumatic events was offered to the participants. A total number of 1,191 traumatic events were reported. Ninety point five percent of the physicians ($N = 439$) had experienced at least one traumatic situation in the past, the mean number of traumatic events in these physicians was 2.7 ± 1.5 (range: 1-8). In case of

multiple traumatic events the physicians were asked to decide which was the most serious. In 62.9% ($N = 276$) the only or most serious traumatic situation was related to a mission, in 24.4% ($N = 107$) to an experience outside work. An overlap between private and mission related trauma could be detected in 8.9% of situations ($N = 39$). However, in 3.9% ($N = 17$) the information provided did not allow a classification.

Incidence of trauma- or stress-related disorders

According to the PTSS-10 manual, the criteria of probable PTSD were met by 16.8% ($N = 82$) of the participants. Based on MBI criteria, 4.1% of the sample ($N = 20$) suffered from burnout and an additional 11.1% ($N = 54$) were likely to suffer or to develop the condition (one missing value).

Variable		%	Mean (Standard Deviation)	Range
Age (years)			41.1 (6.8)	28-64
Gender	Male	75.8		
	Female	24.2		
Marital status	Married	76.8		
	Single	17.2		
	Separated/divorced	5.5		
	Widowed	0.2		
	Missing data	0.2		
Mental health disorder in the past		5.3		
Mental health disorder in next of kin		21.1		
Significant loss in the last 12 months		8.5		

Table 2.
Occupational Variables of 487 Participants

Variable		%	Mean (Standard Deviation)	Range
Length of service as an EP (years)			9.1 (6.6)	1-35
Number of rescue missions per month			16.7 (15.0)	0-200
Training (hours per year)			45.7 (44.6)	0-300
Qualification	Specialist training completed	39.8		
	Registrar in training	27.9		
	Specialist training completed with further training in intensive care	16.0		
	Associate specialist	14.4		
	Consultant	1.4		
	Missing data	0.4		
Medical speciality	Anaesthesiology	72.7		
	Surgery	12.1		
	Internal Medicine	11.1		
	Others	4.1		
Work experience in intensive care	Yes, currently	69.0		
	Yes, previously	26.5		
	Never	4.5		

Seven point eight percent ($N = 38$) showed moderate depressive symptoms and 3.1% ($N = 15$) signs of relevant clinical depression (one missing value). The scores of the various scales and subscales are presented in Table 3.

Using the Chi-Squared test we investigated the relations between the probable diagnoses according to the tests (participants above the cut-off score of the PTSS, MBI and BDI). The relation between participants exceeding the cut-off score in the MBI and BDI has to be considered as strong (Cramer's $V = .35$), and the relation between those exceeding the cut-off score in the MBI and PTSS (Cramer's $V = .29$) or in the PTSS and BDI (Cramer $V = .27$) as moderately strong (see Table 4).

The participants who reported a traumatic event were asked to determine the time interval between completing the questionnaire and the traumatic situation (6 months to 3 years, 3-5 years, more than 5 years). We performed five univariate ANOVAs between the time since the traumatic event (factor variable) and the scores of PTSS-10, BDI and the three MBI subscales (outcome variables). There were no significant differences among the categories indicating that there was no effect of the time since the traumatic event on the scores.

The duration of work as an EP was independent of the reported number of traumatic events, $r(483) = .07$, $p = .12$. A similar result was found for the correlation with the BDI,

Scale	Subscale	Mean (Standard Deviation)	Range
BDI		5.1 (4.5)	0 - 29
PTSS-10		6.8 (5.5)	0 - 24
MBI	Emotional exhaustion	26.4 (8.0)	9 - 49
	Depersonalization	12.6 (4.5)	5 - 28
	Personal accomplishment	33.5 (4.0)	14 - 42

	BDI	PTSS
MBI	$\chi^2 = 59.82^{***}$ Cramer's V = .35	$\chi^2 = 42.01^{***}$ Cramer's V = .29
BDI		$\chi^2 = 34.34^{***}$ Cramer's V = .27

*** $p < .001$.

$r(484) = -0.02, p = .74$, with the PTSS-10, $r(484) = -0.08, p = .09$, and with the MBI subscale emotional exhaustion, $r(484) = -0.06, p = .21$. A weak but significant correlation was found between the duration of work as an EP and the MBI subscales depersonalisation, $r(484) = -.18, p < .001$, and personal accomplishment, $r(484) = .14, p = .003$.

Personality clusters of participants

Using cluster analysis on the HPI personality traits, four personality clusters could be identified. We were able to include 485 participants into this analysis. Cluster 1, 'the anxious type' (38.1%, $N = 185$), is defined by moderately high scores for neuroticism, scores slightly above average for agreeableness and low scores for risk-taking. People in this cluster can be described as unstable, anxious, nervous,

cautious and risk-averse. Cluster 2, 'the unconventional type' (20.2%, $N = 98$), is characterized by openness, creativity and lower levels of conscientiousness. Cluster 3, 'the crisis-manager type' (30.1%, $N = 146$), stands out as risk-taking, resilient, controlled and considerate. They have high scores for risk-taking, moderately high scores for extraversion and conscientiousness as well as scores slightly below average for neuroticism. Cluster 4, 'the cool type' (11.5%, $N = 56$), has very low scores for extraversion, openness and agreeableness and can be described as quiet, cool and introverted.

The analyses of variance comparing the socio-demographic variables of the four clusters showed that age differed slightly but significantly among the clusters, $F(3; 479) = 3.48; p = .016, \text{Eta}^2 = 0.21$, 'unconventional type': 42.7 ± 7.6 years; 'cool type': 42.1 ± 6.2 years; 'anxious type': 40.5 ± 6.5 years; the 'crisis manager': 40.4 ± 6.7 years (two missing values for age). Results of post-hoc testing with Bonferroni procedure showed that the mean age of the 'unconventional type' was significantly lower than that of the 'anxious type' (mean difference = 2.28, $p = .043$) and of the 'crisis manager' (mean difference = 2.37, $p = .043$). The gender distribution between the clusters differed, $X^2(3, N = 485) = 13.70; p = .003$; however, the association was weak (Cramer's $V = 0.17$) and the Bonferroni adjusted simultaneous Chi-Squared tests of the CFA showed that no type of cluster and gender occurred significantly more or less often than expected ($p > .00625$).

The clusters differed in terms of self-reported mental health disorders, $X^2(3, N = 485) = 17.46; p = .001$, however with a weak association (Cramer's $V = 0.19$). Members of the 'anxious cluster' (10.3%) reported to have been diagnosed with a mental health problem in 10.3%. The Bonferroni ad-

justed simultaneous Chi-Squared tests of the CFA showed that physicians who belonged to the 'anxious cluster' and reported mental health problems were significantly more often present than expected ($p = .002$). We found no differences between the clusters with regard to the frequency of mental health problems in next of kin or experiences of severe loss.

There were no differences among the clusters regarding marital status or in any of the occupational variables (length of service as an EP, number of rescue missions per month, qualification, medical speciality, training, work experience in intensive care). EPs in each cluster did not differ regarding the number of traumatic situations they were exposed to or whether the traumatic situation happened during work-life or private life.

Association between personality and trauma- or stress-related disorders

Table 5 shows the number of participants in each cluster meeting criteria for the diagnoses for probable PTSD, burnout and depression according to PTSS-10, MBI-D and BDI. The clusters differed significantly with respect to PTSD, $X^2(3, N = 485) = 50.34; p < .001$. The association was strong (Cramer's $V = 0.32$). The anxious cluster reported the highest number of PTSD diagnosis (31.4%) as compared to the combined other clusters. The Bonferroni adjusted simultaneous Chi-squared

tests of the CFA showed that physicians who belonged to in the 'anxious cluster' and fulfilled criteria for PTSD were significantly more often present than expected. Physicians who were in the 'crisis-manager cluster' and fulfilled criteria for PTSD were significantly less often present than expected (both $p = .0001$).

The cell sizes of the individuals fulfilling the diagnostic criteria for burnout and depression in the four clusters were too small for valid testing with the Chi-Squared test. We therefore used the Fisher Exact Probability test. It showed no difference among the clusters regarding the frequency of burnout. Regarding clinically relevant depression the clusters differed, $X^2(3, N = 484) = 7.61; p = .04$, however, the Bonferroni adjusted simultaneous Chi-Squared tests of the CFA showed that no type of cluster and clinically relevant depression occurred significantly more or less often than expected ($p > .00625$).

To identify the parameters with the highest statistical impact on the self-reported outcomes of PTSD, burnout and depression, we performed three logistic regressions using block entry of variables. The outcome variable in each analysis was the identification of the disorder according to the appropriate diagnostic scale: PTSD by PTSS-10, depression: BDI >17, burnout by MBI (both scales above cut-off score). Predictor variables were age, gender, marital status,

Table 5.
Numbers and Percentage of Participants meeting Criteria for PTSD, Burnout and Depression (Outcome Variable) in the Four Personality Clusters (Predictor Variable, $N = 485$)

Disorders and Scales		All EPs $N = 487$	Cluster 1 Anxious type $N = 185$	Cluster 2 Unconven- tional type $N = 98$	Cluster 3 Crisis manager $N = 146$	Cluster 4 Cool type $N = 56$
PTSD	PTSS-10	16.8%	31.4%	15.3%	3.4%	7.1%
Burnout	MBI- Subscales (EE and DP) both positive	4.1%	4.3%	6.1%	1.4%	7.1%
	One MBI- Subscale (EE or DP) positive	11.1%	16.2%	10.2%	6.9%	7.1%
Depression	BDI 11-17	7.8%	13.5%	7.2%	2.7%	1.8%
	BDI > 17	3.1%	4.9%	4.1%	0	3.6%

length of service as an EP, number of missions per month, number of traumatic situations, as well as the HPI-scores for neuroticism, agreeableness, extraversion, conscientiousness, openness and risk taking. Testing for multicollinearity revealed a relation between age and length of service as an EP. Thus, the latter one was removed from the analyses for better fit of the models. The remaining predictor variables were included in a single block.

In respect to PTSD, this model explained between 22.6% (Cox & Snell R^2) and 38.4% (Nagelkerkes R^2) of the variance in the outcome variable. It explains the outcome variable significantly better than the original model, $X^2(12) = 121.22$; $p < .001$. The parameters gender, Wald(1) = 5.44; $p < .05$; Exp(B) = 2.19, 95% CI [1.13;4.23] and neuroticism, Wald(1) = 64.27; $p < .001$; Exp(B) = 1.22, 95% CI [1.17;1.29] were detected as significant predictors for the development of PTSD. This means the chance of suffering from probable PTSD increased with higher scores for neuroticism and female gender.

Concerning burnout, the goodness-of-fit test showed a significant difference between the original model and the tested model, $X^2(12) = 44.01$, $p < .001$. It explained between 8.9% (Cox & Snell R^2) and 30.1% (Nagelkerkes R^2) of the variance in the outcome variable. The parameters neuroticism, Wald(1) = 18.51; $p < .001$; Exp(B) = 1.18, 95% CI [1.10;1.28], and agreeableness, Wald(1) = 9.72; $p = .002$; Exp(B) = 0.84, 95% CI [0.75;0.94], could be identified as significant predictors for burnout. These results indicate that EPs with higher scores of neuroticism and lower scores of agreeableness have an increased risk of suffering from burnout.

The logistic regression analysis with the outcome variable of clinical depression showed that solely a higher score of neuroticism, Wald(1) = 17.57; $p < .001$; Exp(B) = 1.24, 95% CI [1.12;1.37] was a significant predictor for the development of depression. The goodness-of-fit test was significant, $X^2(12) = 37.87$, $p < .001$, and the model explained between 7.7% (Cox & Snell R^2) and 34.6% (Nagelkerkes R^2) of the variance in the outcome variable.

DISCUSSION

No previous studies have addressed the prevalence of stress related disorders in EPs. We studied this group which consisted solely of doctors, who, due to the structure of the

German pre-hospital emergency medical system, worked in teams with and were in charge of usually two paramedics.

In our study we used well-established diagnostic instruments; however, due to the design as a posted survey we did not perform clinical interviews to establish a diagnosis. According to PTSS-10, 16.8% of the sample of EPs suffered from probable PTSD, a rate that is comparable to other high-risk occupational groups like firefighters (Teegen, 1999; Wagner, Heinrichs, & Ehlert, 1998) but much lower than numbers reported for paramedics (Jonsson, Segesten, & Mattsson, 2003; Nortje, Roberts, & Moller, 2004; van der Ploeg & Kleber, 2003; Wagner, Heinrichs, & Ehlert, 1998). Four point one percent of the EPs could be diagnosed as suffering from burnout and 11.1% were suspected to be suffering from it. These figures from our sample are smaller than the prevalence for non emergency-physicians found in other studies using similar scales (Bauer et al., 2003; Kinzl et al., 2006; Lederer et al., 2006; Wegener et al., 2007). Lederer et al. described complexity of work, lack of individual time control, lack of opportunities to participate, job dissatisfaction and physical complaints as major reasons for burnout (Lederer et al., 2006). Since the individual EP we studied – as the only doctor within a group of usually two paramedics – is in charge of decision making with possible subsequent greater job satisfaction, he or she does not fulfill all of those reasons for burnout, thus possibly resulting in the lower percentages for burnout in our sample. Further, our results are consistent with findings of Orner (2003), who found good coping strategies and high competence in a study on emergency services staff, stating that it is the ‘individualized, idiosyncratic use of specific adjustment strategies and coping styles’ that helps emergency staff to maintain operational readiness and reduce or alleviate the psychological impact of critical incidents (Orner, 2003).

In our opinion this applies to our sample and in that sense it is worth noting that almost half of the EPs we studied mentioned in the addendum to the questionnaires that they perceived the service in pre-hospital emergency service as giving ‘some freedom in an otherwise stressful work environment’. Being a pre-hospital emergency physician could well have protective qualities when it comes to stress-related disorders. Similarly the proportion of EPs with borderline BDI scores of eleven to seventeen (7.8%) and the proportion of the sample with relevant clinical depression (3.1%) is moderate and not increased in comparison to a general adult population of non-medics.

Another reason for the difference between the results of our study and studies of paramedics (27-42% stress-related disorders) and fire-fighters (5-18% stress-related disorders) might be methodological and sample related. We studied a selected, highly motivated subgroup of EPs with a long work history in emergency medicine and as doctors, at privileged status. The latter could have led to less work-related stress, or even, in the case of stressful situation might have given them an opportunity to cope better or even leave the job, which less privileged employees could not have resorted to. As a result, potentially more vulnerable EPs might have left their jobs earlier leaving more resilient behind.

Almost all the participants in our sample (90.5%) reported being exposed to at least one traumatic situation. The majority of the situations reported were work-related. Since neither the time span since the traumatic event had an effect on the score nor was the duration of working in emergency services related to the reported number of the traumatic events we can conclude that the EPs' coping strategies seem to be stable over time and not related to what happened initially after the traumatic event.

Similar to the interpretation of resilience by Lederer and colleagues (2006), an explanation for our results could be that the development of trauma- and stress-related disorders (and resilience) is more influenced by the work environment and the personality related coping strategies of the EP, whilst the traumatic event itself precipitates only the initial reaction to the trauma. Our results, as those of Lederer et al., seem to justify such an explanation; however, more research needs to be done to on the probable influence of work environment and personality factors versus traumatic events.

Personality clusters of the EPs studied were largely independent of socio-demographic and occupational variables. These results are consistent with those of a previous study by our group. This study identified four personality clusters both in emergency physicians and paramedics. The personality characteristics of EPs and paramedics were not homogenous, however, they did not differ substantially from medical doctors not being EPs (Pajonk et al., 2011). Sensation seeking played a relevant role in discerning the personality clusters. Its value as an additional and independent personality factor has been described by several authors (Andresen, 2000; Beauducel, Brocke, Strobel, & Strobel, 1999; Paunonen & Jackson, 2000; Zuckerman, Kuhlmann, Thornquist, & Kiers, 1991). With a strong association the clusters differed with

respect to probable PTSD, the 'anxious type' reporting the highest number of probable PTSD diagnoses. No differences were found between the clusters regarding the frequency of burnout. Associated with clinical relevant depression, however, the clusters differed, but this result was no longer significant after Bonferroni correction.

Results of the logistic regression analyses supported our hypothesis that an EP's personality is of particular influence. In individuals, higher scores of neuroticism increased the probability of developing all three stress disorders. Nervous, cautious and risk-averse EPs of the 'anxious cluster' were the most, whereas the risk taking, controlled and resilient 'crisis managers' were the least likely to develop a stress-related disorder. This result is in accordance with the results of La-Fauci Schutt and Marotta (2011). Besides personality factors, only gender could be detected as an additional predictor for the development of burnout: women have a higher chance of contracting this disorder. This corresponds to general prevalence differences between the genders: a woman-to-man lifetime prevalence ratio of 2:1 has been reported (Tolin & Foa, 2006). This gender difference, however, does not seem to emerge in the acute stress reaction phase, but later when rescue workers start to process the trauma (Palgi et al., 2009). In that sense they seem to be less related to the traumatic event and more to coping strategies thereafter. We could argue that, based on their personality, EPs will have found a position for themselves and their work in order to cope with a traumatic situation: the 'cool type' in keeping a distance to the traumatic situation; the 'crisis-manager-type' approaching the traumatic situation and addressing it; the 'unconventional type' being open minded and prepared; the 'anxious type' – driven by anxiety or avoidance of it and being labile with high scores of neuroticism – only taking few risks. In our opinion it is not just anxiety the latter group is confronted with that makes them prone to PTSD, burnout or depression, but the fact that their main coping strategy is dominated by an avoidant and labile position. Factors that support such less functional coping strategies may be denial and disengagement, leading to less recovery from stress and trauma, with less reframing experiences and support networks. As a consequence personality factors should be taken into account in order to identify vulnerable individuals. If our results are replicated this could mean that efforts to prevent stress disorders after traumatic situations could be tailored more specifically to the needs of vulnerable EPs.

Although the number of participants studied was 485, a possible criticism of the study is the return rate of 43%. It could be argued that more EPs of the ‘anxious type’ and the ‘crisis manager type’ felt compelled to participate whilst those who thought that they were neither anxious nor managing the crises well, decided not to participate in the study. Although research results about EPs’ gender suggest some correlations with cognitions about the traumatic events and behaviour during the preclinical emergencies (Meyer, 1995), this criticism can only be overcome by a follow-up study done as a non-mail survey, i.e., data collected directly at the emergency centres, with sufficient information about non-participants. The results from logistic regression have been described as having an impact on the development of stress related disorders. However, this assumption has to be understood as hypothetical and not implying any causal relationship. In future, longitudinal testing is required to confirm our hypotheses.

REFERENCES

- Andresen, B. (1995). Risikobereitschaft - der sechste Basisfaktor der Persönlichkeit: Konvergenz multivariater Studien und Konstruktionsexplikation. *Zeitschrift für Differentielle und Diagnostische Psychologie*, *16*, 210-236.
- Andresen, B. (2000). Six basic dimensions of personality and a seventh factor of generalized dysfunctional personality: A diathesis system covering all personality disorders. *Neuropsychobiology*, *41*, 5-23. doi:10.1159/000026628
- Andresen, B. (2002). *Hamburger Persönlichkeits-Inventar (HPI)*. Göttingen, Germany: Hogrefe.
- Bauer, J., Hafner, S., Kachele, H., Wirsching, M., & Dahlbender, R. W. (2003). The burn-out syndrome and restoring mental health at the working place. *Psychotherapie Psychosomatik Medizinische Psychologie*, *53*, 213-222. doi:10.1055/s-2003-38865.
- Beauducel, A., Brocke, B., Strobel, A., & Strobel, A. (1999). Construct validity of sensation seeking: A psychometric investigation. *Zeitschrift für Differentielle und Diagnostische Psychologie*, *20*, 155-171. doi: 10.1024//0170-1789.20.3.155
- Braun, M., Schonfeldt-Lecuona, C., Freudenmann, R. W., Mehta, T., Hay, B., Kachele, H., & Beschoner, P. (2010). Depression, burnout and effort-reward imbalance among psychiatrists. *Psychotherapy and Psychosomatics*, *79*, 326-327. doi:000319531 [pii] 10.1159/000319531
- Bussing, A., & Perrar, K. M. (1994). [Burnout measurement. Study of a German version of the Maslach Burnout Inventory (MBI-D)]. *Pflege Zeitschrift*, *47*(3), suppl 20-30.
- Cloninger, C. R. (1986). A unified biosocial theory of personality and its role in the development of anxiety states. *Psychiatric Developments*, *4*, 167-226.
- Enzmann, D., Schaufeli, W. B., & Girault, N. (Eds.). (1995). *The validity of the Maslach Burnout Inventory in three national samples*. Chur, Switzerland: Harwood.
- Hautzinger, M., Bailer, M., Worall, H., & Keller, F. (2000). *Beck Depression Inventar. Testhandbuch*. Bern, Switzerland: Huber.
- Hemphill, J. F. (2003). Interpreting the magnitudes of correlation coefficients. *American Psychologist*, *58*, 78-79. doi:10.1037/0003-066X.58.1.78
- Jonsson, A., Segesten, K., & Mattsson, B. (2003). Post-traumatic stress among Swedish ambulance personnel. *Emergency Medicine Journal*, *20*, 79-84. doi:10.1136/emj.20.1.79
- Kinzl, J. F., Traweger, C., Biebl, W., & Lederer, W. (2006). [Burnout and stress disorders in intensive care doctors]. *Deutsche Medizinische Wochenschrift*, *131*, 2461-2464. doi:10.1055/s-2006-955030
- Krauth J., Lienert, A. (1973). *Die Konfigurationsfrequenzanalyse*. Freiburg, München, Germany: Verlag Karl Alber
- LaFauci Schutt, J. M., & Marotta, S. M. (2011). Personal and environmental predictors of posttraumatic stress in emergency management professionals. *Psychological Trauma: Theory, Research, Practice, and Policy*, *3*, 8-15. doi:10.1037/a0020588
- Lederer, W., Kinzl, J. F., Trefalt, E., Traweger, C., & Benzer, A. (2006). Significance of working conditions on burnout in anesthetists. *Acta Anaesthesiologica Scandinavica*, *50*, 58-63. doi:AAS867 [pii] 10.1111/j.1399-6576.2005.00867.x
- Maercker, A. (1998). *Posttraumatische Stress Skala-10 (PTSS-10)*. Dresden, Germany: Technische Universität.
- McCrae, R., & Costa, P. (1999). A five-factor theory of personality. In L. L. Pervin & O. John (Eds.), *Handbook of personality: Theory and research* (pp. 139-153). New York, NY: Guilford Press.

- Meyer, W. (1995). Physicians' practice-patterns during cardiopulmonary resuscitation: A review. *Resuscitation, 30*, 223-229. doi:10.1016/0300-9572(95)00900-0
- Nortje, C., Roberts, C. B., & Moller, A. T. (2004). Judgement of risk in traumatized and nontraumatized emergency medical service personnel. *Psychological Reports, 95*, 1119-1128. doi:10.2466/PR.95.7.1119-1128
- Orner, R. J. (2003). *A new evidence base for making early intervention in emergency services complementary to officers' preferred adjustment and coping strategies*. In: R. J. Orner & U. Schnyder (Eds.), *Reconstructing early intervention after trauma* (pp. 142-153). Oxford, UK: Oxford University Press.
- Pajonk, F. G., Andresen, B., Schneider-Axmann, T., Teichmann, A., Gartner, U., Lubda, J., Moecke, H., von Knobelsdorff, G. (2011). Personality traits of emergency physicians and paramedics. *Emergency Medicine Journal, 28*, 141-146. doi:emj.2009.083311 [pii] 10.1136/emj.2009.083311
- Palgi, Y., Ben-Ezra, M., Essar, N., Sofer, H., & Haber, Y. (2009). Acute stress symptoms, dissociation, and depression among rescue personnel 24 hours after the Bet-Yehoshua train crash in Israel: The effect of gender. *Prehospital and Disaster Medicine, 24*, 433-437. doi:10.1016/j.psychres.2008.06.003
- Paunonen, S. V., & Jackson, D. N. (2000). What is beyond the big five? Plenty! *Journal of Personality, 68*, 821-835. doi:10.1111/1467-6494.00117
- Piedmont, R. (2001). Spiritual transcendence and the five-factor model. *Journal of Personality, 67*, 985-1013. doi:10.1006/jrpe.2001.2326
- Roberts, R. E., Lewinsohn, P. M., & Seeley, J. R. (1991). Screening for adolescent depression: A comparison of depression scales. *Journal of the American Academy of Child and Adolescent Psychiatry, 30*, 58-66. doi:S0890-8567(09)64918-2 [pii] 10.1097/00004583-199101000-00009
- Soldz, S., & Vaillant, G. (1996). The big five personality traits and the life course: A 45-year longitudinal study. *Journal of Research in Personality, 30*, 374-388.
- Steil, R., & Ehlers, A. (2000). *Posttraumatische Diagnose - skala*. Universität Jena, Germany: Psychologisches Institut.
- Teegen, F. (1999). Berufsbedingte Traumatisierung bei Polizei, Feuerwehr und Rettungsdienst. *Zeitschrift für Politische Psychologie, 7*, 437-453.
- Tolin, D. F., & Foa, E. B. (2006). Sex differences in trauma and posttraumatic stress disorder: A quantitative review of 25 years of research. *Psychological Bulletin, 132*, 959-992. doi:2006-20202-007 [pii] 10.1037/0033-2909.132.6.959
- van der Ploeg, E., & Kleber, R. J. (2003). Acute and chronic job stressors among ambulance personnel: Predictors of health symptoms. *Occupational and Environmental Medicine, 60 Suppl 1*, i40-46. doi:10.1136/oem.60.suppl_1.i40
- Wagner, D., Heinrichs, M., & Ehlert, U. (1998). Prevalence of symptoms of posttraumatic stress disorder in German professional firefighters. *American Journal of Psychiatry, 155*, 1727-1732.
- Wegener, R., Kostova, P., Poschadel, B., & Baur, X. (2007). *Arbeitsbelastung und Beanspruchung von Krankenhausärzten/innen im Zehnjahresvergleich - Ergebnisse von Querschnittsstudien 1997/2007* (p. 6 ff). Hamburg, Germany: Ordinariat für Arbeitsmedizin der Universität und Zentralinstitut für Arbeitsmedizin und Maritime Medizin Hamburg.
- Zuckerman, M., Bone, R. N., Neary, R., Mangelsdorff, D., & Brustman, B. (1972). What is the sensation seeker? Personality trait and experience correlates of the Sensation-Seeking Scales. *Journal of Consulting and Clinical Psychology, 39*, 308-321. doi:10.1037/h0033398
- Zuckerman, M., Kuhlmann, D. M., Thornquist, M., & Kiers, H. (1991). Five (or three) robust questionnaire scale factors of personality without culture. *Personality and Individual Differences, 12*, 929-941. doi:10.1016/0191-8869(91)90182-B

Elite Firefighter/First Responder Mindsets and Outcome Coping Efficacy

Cynthia Dowdall-Thomae
Northwest Fire District, Tucson, AZ

John Gilkey
University of Arizona, College of Pharmacy

Wanda Larson
University of Arizona, College of Nursing

Rebecca Arend-Hicks
University of Arizona Medical Center

Abstract: *The present study examined coping strategies used by firefighters, the relationship between appraisals and coping strategies used, and the relationship between transitional coping strategies used and outcome coping efficacy for mental preparedness. Firefighter coping strategies of problem focused coping and seeking social support were found to have positive significant relationships to outcome coping efficacy, after transitioning from one critical incident to a second. The coping strategies of blamed self, wishful thinking, and avoidance appear to have a negative significant relationship to outcome coping efficacy. Additionally, the appraisals of challenge and positive reappraisal to meet the challenge appear to have a positive significant relationship to problem focused coping and seeking social support. These findings on outcome coping efficacy may be of help to firefighters for rehabilitative efforts after traumatic incidents when used in the Peer Support Review intervention model. [International Journal of Emergency Mental Health, 2011, 14(4), pp. 269-282].*

Key words: *Mental fitness, optimum levels of performance, elite First Responder mindsets, mobilization efficacy, strategic efficacy, and outcome coping efficacy*

A recent rehabilitation development has been the discovery of the risk for cardiac disability resulting in death (Searle, 2008; United States Fire Administration, 2007,

Cynthia Dowdall-Thomae, Ph.D., Director of Northwest Fire District's Behavioral Health and Community Services Division oversees the NWFD Interagency Team that consists of over 38 different organizations of uniformed personnel. John Gilkey, Ph.D., University of Arizona, College of Pharmacy has developed training modules for Points of Distribution for mass dispensing of medicines in the event of biological warfare. Wanda Larson, Ph.D., University of Arizona, College of Nursing and University of Arizona Medical Center has trained paramedics in the past and is currently training trauma nurses. Rebecca Hicks, R.N., BSN, P.H.N., EMT-P, is a trauma nurse at the University of Arizona Medical Center and was the one of first female Captain-Paramedics in the fire service and the State of Arizona, training firefighter EMTs and paramedics. Send correspondence to: cdowdall@northwestfire.org.

2009, 2011) and the psychological disorders of Posttraumatic Stress Disorder (McFarlane & Bryant, 2007), Acute Stress Disorder, anxiety disorders, and alcoholism (Bacharach, Bamberger, & Doveh, 2008). The presence of increased risk for these disorders in firefighters is believed to be related to the extreme stress that accompanies this occupation (Ide, 1998; McFarlane & Bryant, 2007). In 2006, 2008, and 2010, the leading cause of death in firefighters was cardiac arrest (Ide, 1998; United States Fire Administration, 2007, 2009, 2011), resulting in 47.2% of medical-related deaths, with the average age of injury in firefighters being between the ages of 30 and 34 years of age (United States Fire Administration, 2005). Over 50% of firefighter deaths were due to stress and overexertion. Because many of these stressors cannot be eliminated from the job, the development of Elite Firefighter/

First Responder Mindsets (Dowdall-Thomae, 2008b) through the use of coping strategies may be instrumental in helping to keep firefighters resilient and thriving. An *elite mindset* is one based in using effective coping strategies to meet the challenge resulting in optimum levels of fire/rescue performance. The purpose of the present study is to begin to understand the coping strategies used and the outcome coping efficacy of firefighters for stress management.

Firefighters often leave one traumatic incident in order to respond to another. Such transition requires meeting the challenges of the next scene by being prepared. These scenes may be physically, environmentally, and psychologically stressful (McFarlane & Bryant, 2007; Meir & Gibson, 2004), and some rescues may be life threatening for firefighters (Ide, 1998; United States Fire Administration, 2005; United States Fire Administration, 2007). *Transitional coping* refers to those coping strategies used when transitioning from one critical incident to the next. Effective transitional coping (Elite Firefighter/First Responder Mindset) after horrific exposure to on-scene trauma may, through reduction of stress (Chrousos, 2009), have benefits in reducing cardiac problems, heart attacks, carotid artery dissections, cancer, high blood pressure, pre-diabetic issues, overexertion, head injury, and other medical issues. Furthermore, effective transitional coping strategies may reduce the incidence of Posttraumatic Stress Disorder, Acute Stress Disorder, and anxiety disorders. Information found by this study will be beneficial in developing a foundational knowledge regarding effective transitional coping strategies that may be used to intervene and assist firefighters in reducing stressors that are linked to these psychological disorders and physical conditions. Preparedness and recovery involving transitional coping may help to keep firefighters at their optimum levels of functioning and performance (Dowdall-Thomae, 2008a). Integrated information from rehabilitation theory, sport psychology, and neuropsychology was also explored to understand *outcome coping efficacy*, in its entirety.

Rationale for the Study

Coping Theory, which includes appraisals and coping strategies (Folkman & Lazarus, 1980; Lazarus, 1966; Lazarus & Folkman, 1984), has been utilized to reduce anxiety and stress in sport (Jones et al., 2002). Maladaptive appraisals, such as *threat* and *loss*, have been shown to cause increased stress-related symptoms in new firefighter recruits (Bryant & Guthrie, 2005), making it important for training academies

to teach firefighters about adaptive appraisals and effective coping strategies. Lazarus (1999) suggested that changing the appraisal of threat to the appraisal of challenge could lead to adaptive behaviors through effective coping. The coping strategies of *problem focused* and *seeking social support* were both found to be effective among medical students (Vitaliano et al., 1985) and rehabilitation counselor interns (Kampfe & Mitchell, 1991b). In contrast, the coping strategies of *blamed self*, *wishful thinking*, and *avoidance* were not effective.

The present research explored coping strategies used by firefighters to better understand elite mindsets and outcome coping efficacy of firefighters. This research explored the relationship between appraisals and coping strategies used, and the relationship between coping strategies used and outcome coping efficacy, when transitioning from one critical incident to a second critical incident. Such research may help to facilitate effective coping that promotes mental toughness, a sport psychology term (Jones et al., 2002), by incorporating integrative rehabilitative aspects that include sport psychology and neuropsychology. Jones et al. (2002) have described mental toughness in elite athletes, as the ability to deal with the appraisals of stress and anxiety through effective coping. The ability of an athlete to turn debilitating anxiety (appraisals of threat and loss) into facilitative anxiety (appraisal of challenge and benefit) to create mental toughness through coping may also be taught to firefighters, which may indeed enhance rescue efforts and increase optimum levels of performance (Dowdall-Thomae, 2008a). More accurate terminology for use in the fire service may be *immobilized anxiety* or *fear*, versus *mobilized anxiety* or *fear* (Dowdall-Thomae, 2008a), due to the importance of meeting the challenge and taking immediate action (*Mobilization*) along with critical decision making skills for rescues (Larson 2011). Therefore, the terms *debilitative* versus *facilitative anxiety* are used for sport and the terms *immobilized* versus *mobilized anxiety* are used for firefighters. This study examines what coping strategies are used or not used for mobilization resulting in outcome coping efficacy of firefighters that develops the elite first responder mindset.

In addition, many firefighters have reported having flashbacks, sleep disturbances, and severe anxiety, after responding to a traumatic scene, possibly leading to Acute Stress Disorder and ultimately Posttraumatic Stress Disorder (Antonellis & Mitchell, 2005). Wegner (1994) explored the use of *ironic processing* to control flashbacks in athletes. This processing is an attempt to suppress the flashback by controlling unwanted thoughts through avoidance; however,

the opposite may happen, creating reoccurring flashbacks. For example, a firefighter may fight unwanted flashbacks by using the coping strategy of avoidance, thus making the flashbacks worse. Wegner stated that with mental practice, ironic processing could be reduced or stopped. Firefighters may use coping strategies for reducing or stopping flashbacks that interfere with their performance levels. They may also use coping strategies to help them transition from one scene to the next. This research may help to determine the transitional coping strategies used for mobilization efficacy (using anticipatory coping while being dispatched from one scene to the next) and strategic efficacy (the ability to use coping strategies) that are positively related to outcome coping efficacy. Information found may further the development of the Elite Firefighter/First Responder Mindsets (Dowdall-Thomae, 2008b).

Purpose of the Study

Much research has been done in the area of sport and coping strategies used by athletes and in developing an elite athletic mindset to keep the athlete mentally fit. Not much research has been done in this area regarding firefighters and how they develop an Elite Firefighter/First Responder Mindset to meet the challenges of the job (Dowdall-Thomae, 2008b). This study explored coping strategies used, the relationship between appraisals and coping strategies, and the relationship between coping strategies used and outcome coping efficacy in firefighters. The rationale was that identifying effective coping strategies used may aid in the reduction of physical and psychological disabilities. Shubert et al. (2008) suggested that behavioral health surveillance (monitoring) for first responders was needed for psychological safety. Many fire agencies do not appear to provide adequate mental fitness training in the area of effective coping strategies. Transitional coping strategies used are associated with outcome coping efficacy and may provide foundational information for developing mental preparedness techniques and interventions that encourage self-monitoring of the physical and psychological well being of those exposed to traumatic scenes. In addition, information about the ability to cope effectively may help in developing resiliency. The results of the present study may help first responders to understand the importance of transitional coping that promotes mobilization and mental toughness by using effective coping strategies that continue to develop the Elite Firefighter/First Responder Mindset and keep them at their optimum levels of performance.

METHOD

Research Questions

Research questions included the following: 1) What coping strategies do firefighters use as they transition from one critical incident to a second critical incident? 2) What is the relationship between appraisals and coping strategies used by firefighters? 3) In transitioning from one critical incident to a second critical incident what is the relationship between the coping strategies used by firefighters and outcome coping efficacy?

For the purpose of this study, a critical incident for firefighters is defined as a Code 3 response (a national emergency code meaning lights and sirens) and/or as an incident that has difficult outcomes, such as, death, pediatric death, accidents, fire, large-scale wildland fires, fire fatalities, prolonged rescue efforts, devastating circumstances, and/or mass casualties that brings stressors to a firefighter. Such incidents may stimulate personal responses from a variety of perspectives. For example, critical incidents that may be personalized include the following: A death that involves a child that is the same gender and age as the firefighter's son or daughter, individuals who remind the first responder of someone he or she knows or is related to, someone the firefighter does know, and/or the incident may create unusual stress where the firefighter may reflect on the call.

Participants

Fifty-three firefighter participants, salaried professionals who were currently employed in the metropolitan Southwest, were obtained from four different fire agencies. Of the surveys completed and returned, 52 were from male firefighters and 1 was from a female firefighter. Their ages ranged from 18 to 20 (1.8%), 21 to 30 (41.8%), 31 to 40 (34.5%), 41 to 50 (18.2%), and 51 to 60 (1.8%), with 1.8% missing.

The researcher met with the agency representatives (the fire chief and/or assistant chiefs) and obtained a convenience sample of participants who were comprised of battalion chiefs, captains, and firefighters, from each agency's busiest fire stations. Captains oversee a crew of several firefighters and a battalion chief oversees several fire stations. Battalion chiefs respond on-scene for calls (fires, pediatric deaths etc.), which are generally considered critical and serious. Information about the study was reviewed and each agency representative completed the Firefighter Outcome Coping

Efficacy Agency Authorization Form.

All participating firefighters were between the ages of 18 and 55, and each was employed at his or her present position as a firefighter (structural and wildland). The participants were given a disclosure form describing the procedures, the length of time of the study, and participant's rights. A contact telephone number was provided to participants in the event that they developed any further questions or concerns regarding participation in the study. In addition, a description of risks and benefits, confidentiality and anonymity, and voluntary participation was reviewed. Participants were assured that participation in this study would in no way affect their employment as firefighters and that all information would remain confidential. The disclosure form assisted in anonymity and confidentiality of all participants because a signature that would link individual firefighters to the study was not required.

After reading the disclosure materials, participants were given the RWCCCL for Firefighters (see *Revised Ways of Coping Checklist for Firefighters* in the Instruments section below), along with the Transitioning from One Critical Incident to a Second Critical Incident questionnaire. Each survey packet was coded with a number in the upper right hand corner to account for how many surveys were distributed at each agency. The packets did not contain participants' names to ensure anonymity and confidentiality. Each participant was asked to fill out the instrument individually and return it in a sealed envelope immediately after being dispatched from one critical incident to a second. They were given 20 working days or 3 to 4 shifts to complete the survey because most firefighters work ten days a month. All firefighters were given materials and they were asked to return the blank forms in the sealed envelope provided, if they chose not to participate. This assured anonymity and confidentiality of the identity of persons who chose to or not to participate. Arrangements were made to collect the instruments from the agency representative.

Instrument

The Revised Ways of Coping Checklist

The original Ways of Coping Checklist (WCCL) was developed by Folkman and Lazarus (1980) and was later revised by Vitaliano and his associates (1985) to provide indices of coping based on the transactional model of stress developed by Lazarus (Lazarus & Folkman, 1984). Following this model, an event is considered stressful when a person

appraises it as potentially dangerous to his/her well-being. When a situation is appraised as being potentially harmful, the person decides the kind of coping strategy he/she will use to reduce the harm. Coping is influenced, in a reciprocal manner, both by the appraisal and by the coping method chosen. The RWCCCL has been used extensively in coping research and has been considered to be a particularly beneficial instrument for assessing coping because the instructions ask participants to answer questions regarding a specific event.

The RWCCCL consists of five coping strategy scales (Problem Focused Coping, Seeking Social Support, Blamed Self, Wishful Thinking, and Avoidance) and 42 questions that had four possible answers on a Likert Scale: Never used (Scored 0), Rarely Used (Scored 1), Sometimes Used (Scored 2), and Regularly Used (Scored 3). The RWCCCL instrument was found to have validity and reliability by Vitaliano and associates (1985). Raw scores within a coping category scale were added together and divided by the number of question items in that category to obtain a percentage. For instance, the number of questions for the scales of Problem Focused Coping consisted of 15 items, Seeks Social Support consisted of 6 items, Blamed Self consisted of 3 items, Wishful Thinking consisted of 8 items, and Avoidance consisted of 10 items. Scores from each respective coping strategy scale were summed and divided by the number of items in that coping category.

Revised Ways of Coping Checklist for Firefighters

A special adaptation of the RWCCCL (Vitaliano et al., 1985), the RWCCCL for Firefighters (Dowdall-Thomae, Kampfe, Smith, & Ryan, 2008) was developed for the present research (see Appendix I). This instrument was the same as the RWCCCL, with the exception that some wording associated with transitioning from one fire and rescue incident to being dispatched to a second on scene incident had been added. Also, additional appraisal questions were included at the end of the survey to further explore coping strategies used, such as positive reappraisal. Susan Folkman (1997) stated that appraising a stressful situation in a positive way was a strategy that could be used from its inception to its conclusion. She concluded that modifications to coping theory needed to be made to include positive psychological states that included positive appraisals, such as, Challenge and Positive Reappraisal to Meet the Challenge. Five questions were added to explore how firefighters appraised a situation, which is the first stage of coping, and to determine if firefighters used

Challenge and Positive Reappraisal to Meet the Challenge in transitioning from one critical incident to a second critical incident. The response choices for the appraisal questions were changed to Strongly Disagree (Scored 0), Disagree (Scored 1), Agree (Scored 2), and Strongly Agree (Scored 3). This was done to understand how firefighters appraised the first incident, while transitioning into the second incident to obtain further information on effective coping strategies used. Scores from each individual appraisal question were added and divided by the total number of individual responses in that scale.

Outcome Coping Efficacy for Firefighters

For the purpose of this study, *outcome coping efficacy* means the degree to which coping strategies are perceived to be effective by firefighters when transitioning from one critical incident to a second. To measure outcome coping efficacy, the firefighters were given an additional instrument, formulated by Dowdall-Thomae, Kampfe, Smith, and Ryan (2008), which included questions regarding outcome coping efficacy (see Appendix 2). Some of these questions were revised from earlier research (Kampfe & Mitchell, 1990, 1991b) and some were newly developed questions. Demographic questions were also included in this instrument. A pilot study by Kampfe and Smith (1999) used both the RWCC and other outcome questions in determining coping efficacy with rehabilitation counselor interns (Smith et al., 2008). Questions were added to that 1999 instrument to allow further exploration of outcome coping efficacy in firefighters and were scored from 0 to 4. The scores on Questions 9, 10, and 11 were 0 = Very Poorly; 1 = Poorly; 2 = So-so; 3 = Much; and 4 = Very Much. Questions 12, 13, and 15 were scored from 0 to 4 with 0 = Not at all; 1 = Very Little; 2 = Somewhat; 3 = Much; and 4 = Very Much. Question 14 had a reverse scoring measure where 4 = Not at all; 3 = Very Little; 2 = Somewhat; 1 = Much; and 0 = Very Much.

Procedure

Over 170 firefighters from four different fire agencies were asked to take two different surveys (RWCC and Outcome Coping Efficacy). They were given 20 working days or 3 to 4 shifts to complete the survey because most firefighters worked 10 days or fewer in a month. The allotted time frame to complete the survey was extended so the firefighters had enough time to respond to two critical incidents back-to-back (being dispatched directly from one critical incident

to a second one). Over 100 surveys were returned blank by firefighters because they did not respond to two back-to-back critical incidents. Fifty-five surveys were returned with two surveys not entirely completed. Therefore, 53 surveys were completed by firefighter participants with a 31% response rate. The 53 firefighters who participated in this study came from two large city fire departments, one small to medium city fire department, and one of the largest fire districts in the nation. Both Structural Firefighters and Hot Shot Wildland Firefighters were surveyed. The surveys returned were from firefighters who transitioned from one critical on scene incident to a second critical on scene incident.

Incidents Reported

The demographics of the Outcome Coping Efficacy Survey included a space to describe the two incidents to which firefighters responded. Firefighters reported that they responded to the following emergency medical calls (EMS), fire, and motor vehicle accidents (MVA) back to back that included: pediatric drowning (EMS), pediatric death (EMS), mass casualty fatalities (EMS), house fire fatalities (fire), complicated death (EMS), motor vehicle accidents with complicated rescues (MVA), massive loss due to wildland fires (fire), and serious injury and death of firefighters due to firefighter duties (MVA). Some incidents were left blank and this could be due to the EMS calls and the firefighter not wanting to reveal the incident due to confidentiality (Table 1).

RESULTS

Interval statistical measures were utilized with this non-experimental descriptive design and the Cronbach's Alpha measured for reliability of the RWCC (Vitaliano et al., 1985) for Firefighters (Dowdall-Thomae et al., 2008). For Question 1, descriptive statistics were used to explore coping strategies. Additionally, an ANOVA was used to test for the differences among coping strategies used (Johnson & Christensen, 2004) in conjunction with a Bonferroni (Post Hoc) measure to reduce Type I errors. For Question 2, descriptive statistics and an ANOVA were used to describe appraisals used and the differences among them. In addition, a Pearson Product Moment Correlation Coefficient, with the *p* value set at .05 was used to explore the relationship between appraisals and coping strategies used. For Question 3, the Pearson Product Moment Correlation and a Factor Analysis were used to measure the relationships between coping strategies used and outcome coping efficacy. The Pearson Product Moment

Variable Measure	EMS	FIRE	MVA	Blank
First Incident	21.8%	43.6%	21.8%	12.7%
Second Incident	36.4%	32.7%	18.2%	12.7%
Totals	58.2%	76.3%	40.0%	25.4%
EMS = emergency medical calls Fire = fire incidents MVA = motor vehicle accidents Blank = incident(s) that were not described by firefighters				

Correlation Coefficient was utilized with the *p* value set at .05 to determine whether a relationship between each coping strategy used and outcome coping efficacy existed. A Factor Analysis was computed to correct for multicollinearity. Two factors were established with the Eigenvalue set at one because values less than one are considered insignificant (Vogt, 2005). These two factors consisted of Factor 1, Mobilization Efficacy (anticipatory coping strategies used or not used to make a transition) and Factor 2, Strategic Efficacy resulting in Outcome Coping Efficacy.

Reliability

A Cronbach's Alpha was used to measure the internal reliability of the items used in the Revised Ways of Coping Checklist (Vitaliano et al., 1985) for Firefighters (Dowdall-Thomae et al., 2008). The reliability coefficient, or alpha coefficient analysis, for each coping strategy item is as follows: Problem Focused Coping (Cronbach's $\alpha = .86$), Seeking Social Support (Cronbach's $\alpha = .79$), Blamed Self (Cronbach's $\alpha = .63$), Wishful Thinking (Cronbach's $\alpha = .82$), and Avoidance (Cronbach's $\alpha = .70$). A Cronbach's $\alpha > .70$ suggested that the question items used were measuring each specific coping strategy or estimated factor (Vogt, 2005), and were all reliable. Scores above .70 (0 to 1.0) are considered to be in the high range for measuring the same scale. Blamed Self may have been in the moderately high range because there were only three questions in this coping category. Therefore, the RWCCCL for Firefighters appeared to have internal reliability because all scores for each coping scale

scored moderately high to high indicating that each question in that particular coping scale was measuring the coping strategy it was intended to measure (Vitaliano et al., 1985).

Findings

To understand the results of the study, the three research questions were reviewed with the following findings:

Question 1: What coping strategies do firefighters use as they transition from one critical incident to a second critical incident?

The RWCCCL (Vitaliano et al., 1985) for Firefighters (Dowdall-Thomae et al., 2008) was scored on a Likert Scale from 0 to 3 with 0 = Never Used, 1 = Rarely Used, 2 = Sometimes Used, and 3 = Regularly Used. Each coping strategy category of Problem Focused, Seeking Social Support, Blamed Self, Wishful Thinking and Avoidance was calculated by taking the average responses for each question in that particular coping category (see Appendix 3). For example, to calculate the Blamed Self score for an individual, their scores on Questions 3, 5, and 36 (scale 0 to 3) were summed and divided by 3. This process was repeated for all of the coping strategy scales and the number of items in those scales (Problem Focused- 15 items, Seeking Social Support- 6 items, Wishful Thinking- 8 items, and Avoidance- 10 items). Composite scores were calculated for each coping category to determine the range and they are as follows: Problem Focused Coping reported a range of 2.63 with a minimum score of .20 and a maximum score of 2.83, Seeking Social Support reported a range of 2.83 with a minimum of .17 and a maximum of 3.00, Blamed Self reported a range of 3.00 with a minimum of 0 and a maximum of 3.00, Wishful Thinking reported a range of 2.75 with a minimum of .00 and a maximum of 2.75, and Avoidance reported a range of 2.30 with a minimum of .30 and a maximum of 2.60.

A review of the information found in this study suggested that firefighters used the following coping strategies while transitioning from one critical incident to the second. The mean scores (averaged across individuals) of each coping strategy were Problem Focused (PF) ($M = 1.79$, $SD = .53$), Seeking Social Support (SSS) ($M = 1.54$, $SD = .63$) Blamed Self (BS) ($M = .98$, $SD = .61$), Wishful Thinking (WT) ($M = 1.01$, $SD = .65$) and Avoidance (AV) ($M = 1.13$, $SD = .47$) on a scale from 0 to 3.

The coping strategy descriptive analysis suggested that

firefighters used all coping strategies to some degree. Each of the five coping scales reported by firefighters were on average in the range from rarely (Score 1) to sometimes (Score 2) used. However, it appeared that some firefighters were using these coping strategies regularly (Score 3) and some never used them (Score 0). Conclusively the use of these coping strategies varied widely among firefighters. An ANOVA was calculated to test for significant differences among mean scores of coping strategies used. The ANOVA was significant at the 0.05 level, $F(4,216) = 36.29, p < .001$.

A Bonferroni measure for Pairwise Comparisons was utilized to reduce Type I errors. Problem Focused and Seeking Social Support coping strategies showed a significant difference ($p < .001$) in relationship to each other. All three coping strategies of Blamed Self, Wishful Thinking, and Avoidance showed a significant difference to Problem Focused Coping and Seeking Social Support, but not to one another.

Question 2: What is the relationship between appraisals and coping strategies used by firefighters?

For each of the five appraisal questions pertaining to Threat, Loss, Benefit, Challenge, and Positive Reappraisal to Meet the Challenge, firefighters responded by using a number from 0 to 3 (appraisal scale 0 = Strongly Disagree, 1 = Disagree, 2 = Agree, 3 = Strongly Agree). The single item scores for each individual appraisal question reported a range of 3 with the minimum score being 0 and the maximum score being 3. An example would be if a firefighter responded with a 2 (Agree) for the question associated with Threat. This number was taken as the indicator of their Appraisal of Threat. All scores pertaining to threat were summed and divided by the total number of firefighter responses (53). This process was repeated for each appraisal scale. The mean scores of the appraisals are as follows: Threat Appraisal ($M = .94, SD = .84$), Loss Appraisal ($M = 1.30, SD = .93$), Challenge Appraisal ($M = 2.06, SD = .72$), Benefit appraisal ($M = 1.25, SD = .92$), and Positive Reappraisal to Meet the Challenge ($M = 1.89, SD = .67$). An ANOVA was performed to test for the differences among mean scores for appraisals used and there was a significant difference at the .001 level, $F(4,208) = 18.03, p < .001$.

A Bonferroni measure for Pairwise Comparisons was utilized to reduce Type I errors. The Appraisal of Challenge and the Appraisal of Positive Reappraisal to Meet the Challenge did not show a significant difference ($p < .05$) in relationship to each other. All three Appraisals of Threat, Loss,

and Benefit showed a significant difference to the Appraisal of Challenge and to the Appraisal of Positive Reappraisal to Meet the Challenge, but not to one another.

A Pearson Product Moment Correlation Coefficient analysis with the p value set at .05 (two tailed) was utilized to find the significant relationship between appraisals and coping strategies used (Table 2). The following findings suggested that the Appraisal of Threat correlated positively and significantly with the coping strategies of Seeking Social Support ($r = .283, p = .04$), Wishful Thinking ($r = .508, p < .001$), and Avoidance ($r = .472, p < .001$) levels. The Appraisal of Loss did not appear to correlate significantly with any of the other coping strategies. Additionally, appraising an incident as a Challenge measured a significant correlation or relationship with Problem Focused Coping ($r = .461, p < .001$) and Seeking Social Support ($r = .381, p = .005$). The Appraisal of Benefit also did not show a significant relationship with coping strategies used. A secondary Appraisal of Positive Reappraisal to Meet the Challenge had a significant correlation with Problem Focused Coping ($r = .418, p = .002$). The findings suggested that the Appraisal of Challenge and the Appraisal of Positive Reappraisal to Meet the Challenge both had a significant relationship to the coping strategy of Problem Focused Coping. The Appraisal of Threat had a significant relationship to Seeking Social Support, Wishful Thinking, and Avoidance. None of the five appraisals had a significant relationship to Blamed Self.

Question 3: In transitioning from one critical incident to a second critical incident, what is the relationship between the coping strategies used by firefighters and outcome coping efficacy?

Appraisal questions 9, 10, and 11 were scored from 0 to 4 (0 = Very Poorly, 1 = Poorly, 2 = So-so, 3 = Well, 4 = Very Well). Questions 12, 13, and 15 were scored 0 = Not at All, 1 = Very Little, 2 = Somewhat, 3 = Much, and 4 = Very Much. Question 14 had a reverse scoring of 4 = Not at All, 3 = Very Little, 2 = Somewhat, 1 = Much, and 0 = Very Much.

For each single Outcome Coping Efficacy Question, the following ranges were reported: Question 9, the range was reported as 4 with the minimum score of 0 and the maximum score of 4, Question 10, the range was reported as 2 with the minimum score of 2 and the maximum score of 4, Question 11, the range was reported as 2 with the minimum score of 2 and the maximum score of 4, Question 12, the range was reported as 4 with the minimum score of 0 and the maximum score of 4, Question 13, the range was reported as 4 with the

Table 2.
Appraisals and Coping Strategies

Variable Measure	PF	SSS	BS	WT	AV
Pearson Coefficient					
Threat	.159	.283*	.266	.508***	.472***
Loss	-.084	.102	-.042	.008	.220
Challenge	.461***	.381**	.132	.001	-.085
Benefit	.133	-.067	.033	-.110	-.238
Pos Reappraisal	.418**	.184	-.053	-.068	-.174
PF = problem focused					
SSS = seeking social support					
BS = blamed self					
WT = wishful thinking					
AV = avoidance					
***Correlation is significant at the 0.001 level (two-tailed)					
**Correlation is significant at the 0.01 level (two-tailed)					
*Correlation is significant at the 0.05 level (two-tailed)					

minimum score of 0 and the maximum score of 4, Question 14, the range was reported as 4 with the minimum score of 0 and the maximum score of 4, and for Question 15, the range was reported as 4 with the minimum score of 0 and the maximum score of 4.

The values from each appraisal question were used for the following analyses (see Table 3): Pearson Product Moment Correlation Coefficients were utilized to find a relationship between coping strategies used and Outcome Coping Efficacy questions. The results for Question 9 reported a significant negative relationship to Blamed Self ($r = -.431, p = .001$), Wishful Thinking ($r = -.411, p = .002$), and Avoidance ($r = -.414, p = .002$). There did not appear to be a relationship between Outcome Coping Efficacy Question 9 and Problem Focused Coping and Seeking Social Support. Question 10 reported a negative significant relationship to Blamed Self ($r = -.376, p = .006$) and Wishful thinking ($r = -.322, p = .019$). Question 14 reported a negative significant relationship to Blamed Self ($r = -.362, p = .008$), Wishful Thinking ($r = -.295, p = .032$) and Avoidance ($r = -.396, p = .003$). Question 14 had a positive significant relationship to Questions 9 ($r = .465, p < .001$) and Question 10 ($r = .388, p = .004$). Question 11 reported no significant relationships to coping strategies used. Question 12 reported a negative significant relationship to Wishful Thinking ($r = -.304, p = .027$) and Avoidance ($r = -.304, p = .027$). Question 13 reported a positive significant relationship to Problem Focused ($r =$

$.378, p = .005$). Question 15 reported a positive significant relationship to Problem Focused ($r = .394, p = .004$) and Seeks Social Support ($r = .302, p = .028$).

A Factor Analysis was then used to understand the latent structure of the Outcome Coping Efficacy Survey Questions 9 through 15 (Table 4). Factors with an Eigenvalue greater than 1.0 were extracted (Principal Extraction) and had a cumulative variance of 59%. A Varimax Rotation was applied to obtain simple structure.

Questions 9, 10, and 14 loaded positively on the first factor (Factor 1). All three questions appeared to measure coping mobilization strategies. Factor 1 seemed to be associated with Mobilization Efficacy. According to Lazarus and Launier (as cited in Aldwin & Revenson, 1987) information seeking supports mobilization and is a method to gain information for action (Mobilization Efficacy) to relieve emotional distress in using coping strategies. Outcome Coping Efficacy Questions 9, 10, and 14, which loaded on Factor 1, are as follows:

9. How well did your coping strategies work for you when you transitioned from one critical incident to a second critical incident?

10. How well did you handle transitioning from one critical incident to a second critical incident?

14. After these critical incidents, did you have reoccurring thoughts (flashing back to the incident or negative

Table 3.
Outcome Coping Efficacy Questions and Coping Strategies

Variable Measure	PF	SSS	BS	WT	AV
Pearson Coefficient					
Question 9	-.121	-.105	-.431***	-.411**	-.414**
Question 10	-.020	-.150	-.376**	-.322**	-.249
Question 11	-.123	-.181	-.029	-.121	.036
Question 12	.028	-.007	-.168	-.304*	-.304*
Question 13	.378**	.214	.258	.170	.082
Question 14	-.107	-.211	-.362**	-.295*	-.396**
Question 15	.394**	.302*	-.005	-.152	-.034

PF = problem focused

SSS = seeking social support

BS = blamed self

WT = wishful thinking

AV = avoidance

***Correlation is significant at the 0.001 level (two-tailed)

**Correlation is significant at the 0.01 level (two-tailed)

*Correlation is significant at the 0.05 level (two-tailed)

thoughts that created anxiety that immobilized you etc.)? This question had a reverse scoring from 4 to 0.

Questions 13 and 15 loaded on the second factor (Factor 2, Strategic Efficacy) and appeared to describe overall Outcome Coping Efficacy, which are:

13. Did you feel that the coping strategies that you used in both incidents had an impact on outcome(s)?

15. Did your coping strategies used help you to not personalize both critical incidents?

Questions 9, 10, and 14 seemed to load on Mobilization Efficacy from one critical incident to second (Factor 1) and Questions 13 and 15 appeared to load on Strategic Efficacy resulting in Outcome Coping Efficacy (Factor 2). Question 12, which appeared to load on both factors, is as follows:

12. To what degree did your coping strategies reduce the level of stress you felt going into the second critical incident?

Lazarus and Folkman (1984) defined coping as the adaptation and adjustment processes during and after a stressful circumstance. Individuals who were previously studied were found to use a variety of coping strategies when they were in stressful situations (Folkman & Lazarus, 1980; Kampfe & Mitchell, 1991a). Reduction of stress loaded on Factor 1

(Mobilization Efficacy) and Factor 2 (Strategic Efficacy) by utilizing coping strategies.

Because an orthogonal rotation (Varimax Rotation) was used, multicollinearity among the factors was eliminated to describe more accurately the separate effects of each Outcome Coping Efficacy variable. To further understand the relationship between coping strategies used and Outcome Coping Efficacy, Questions 11 and 12 were omitted because 11 did not load on either factor, and the loading of 12 was low on Factor 2. All of the coping strategies correlated with both Factor 1 Mobilization Efficacy (Action) and Factor 2 Strategic Efficacy (see Tables 4, 5 and 6).

Pearson Product Moment Correlation Coefficients were calculated to find the relationships between Mobilization Efficacy (Factor 1) and each of the coping strategies. Findings were as follows: Blamed Self ($r = -.499, p < .001$), Wishful Thinking ($r = -.419, p = .002$), and Avoidance ($r = -.442, p = .001$) suggested that the use of these coping strategies may have a negative significant relationship to Mobilization Efficacy. The Pearson Product Moment Correlation Coefficients between Coping Strategies used suggested that Problem Focused Coping ($r = .494, p < .001$) and Seeking Social Support ($r = .346, p = .011$) were positively related to Strategic Efficacy (Factor 2) resulting in Outcome Coping

Table 4. Outcome Coping Efficacy Questions and Factor Loadings		
Variable Measure	Factor 1	Factor 2
Varimax Rotation (-1 to +1)		
Question 9	.890	.132
Question 10	.808	.245
Question 11	.431	.227
Question 12	.627	.511
Question 13	.123	.742
Question 14	.708	-.150
Question 15	.053	.776
Factor 1 represents questions that pertain to Mobilization Efficacy Factor 2 represents questions that pertain to Strategic Efficacy		

Table 5. Outcome Coping Efficacy Questions (excluding 11 & 12) and Factor Loadings		
Variable Measure	Factor 1	Factor 2
Varimax Rotation (-1 to +1)		
Question 9	.885	.151
Question 10	.823	.315
Question 13	.137	.794
Question 14	.751	-.095
Question 15	.033	.773
Factor 1 represents questions that pertain to Mobilization Efficacy Factor 2 represents questions that pertain to Strategic Efficacy		

Efficacy and may be used to meet the challenge (see Table 6).

As seen in Table 6, the three coping strategies of Blamed Self, Wishful Thinking, and Avoidance appeared to have significant negative relationships to Mobilization Efficacy (Factor 1) and were not significant in Strategic Efficacy (Factor 2). In other words, Blamed Self, Wishful Thinking, and Avoidance were reported by firefighters not to be effective coping strategies when transitioning and mobilizing to the second incident. Firefighters reported the use of both Problem Focused Coping and Seeking Social Support to have positive significant relationships to Strategic Efficacy (Factor 2) resulting in Outcome Coping Efficacy. In addition,

the Appraisal of Challenge and the Appraisal of Positive Reappraisal to Meet the Challenge had positive significant relationships to both coping strategies of Problem Focused Coping and Seeking Social Support.

DISCUSSION

The results of this study found that firefighters used all of the coping strategies of Problem Focused, Seeking Social Support, Blamed Self, Wishful Thinking, and Avoidance to some degree (rarely to sometimes). However, firefighters appeared to use Problem Focused, Seeking Social Support,

Table 6.
Coping Strategies Used and Outcome Coping Efficacy (9,10,13,14, &15)

Variable Measure	Factor 1	Factor 2
Pearson Coefficient		
Problem Focused	-.178	.494**
Seeks Social Support	-.242	.346*
Blamed Self	-.499***	.206
Wishful Thinking	-.419**	.054
Avoidance	-.442***	.101
Factor 1 represents Mobilization Efficacy Factor 2 represents Strategic Efficacy ***Correlation is significant at the 0.001 level (two-tailed) **Correlation is significant at the 0.01 level (two-tailed) *Correlation is significant at the 0.05 level (two-tailed)		

and Avoidance more than the other two. The findings also reported that Challenge and Positive Reappraisal to Meet the Challenge had positive significant relationships to both Problem Focused Coping and Seeking Social Support. Most importantly, Problem Focused Coping and Seeking Social Support had a positive significant relationship to Strategic Efficacy and overall Outcome Coping Efficacy. The coping strategies of Blamed Self, Wishful Thinking, and Avoidance were found to have a negative significant relationship to Mobilization Efficacy (information seeking through anticipatory coping for transitioning and mobilizing to the next incident) and Outcome Coping Efficacy. These findings supported other studies that found Problem Focused and Seeking Social Support to be effective coping strategies used by other populations (Aldwin & Revenson, 1987; Kampfe & Mitchell, 1991b; Vitaliano et al., 1985). Other studies also reported that Blamed Self, Wishful Thinking, and Avoidance had a negative significant relationship to Outcome Coping Efficacy (Kampfe & Mitchell, 1991b; Smith et al., 2008; Vitaliano et al., 1985).

The findings in this study reported a negative relationship between the coping strategies of Blamed Self, Wishful Thinking, and Avoidance to Mobilization Efficacy (Factor 1) and Outcome Coping Efficacy. In addition, the Appraisal of Challenge and the Appraisal of Positive Reappraisal to Meet

the Challenge had positive significant relationships to both coping strategies of Problem Focused Coping and Seeking Social Support (Strategic Efficacy, Factor 2). Such findings may further our understanding of what coping strategies firefighters use to transition and mobilize strategically from one critical incident to a second critical incident resulting in Outcome Coping Efficacy to maintain and perhaps increase optimum levels of performance.

Application

Most importantly, an integrative approach to applying outcome coping efficacy with the use of rehabilitation, sport psychology, and neuropsychology, may be more conducive to the fire culture in understanding and accepting mental fitness. Such mental fitness in rehabilitation and sport psychology includes effective coping strategies that develop Elite First Responder Mindsets (Dowdall-Thomae, 2008b). Additionally, these prospective fields may provide a vocabulary that firefighters can relate to because the fire service uses terminology that is similar to rehabilitative practice, neuro-medicine, neurophysiology, and sport. Such collaboration between these prospective fields in the area of outcome coping efficacy may give new insight into coping research for first responders that may also provide more answers to help promote cardiac health, cerebral health, pre-diabetic stabilization, addiction

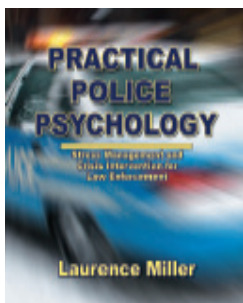
recovery, sleep recovery, resiliency, and psychophysiological stabilization. Conclusively, the findings of this research will help in the development of Peer Support Action Plans (PSAP) for firefighters in the fire service (Dowdall-Thomae, Culliney, & Piechura, 2009) that are based on outcome coping efficacy. The findings may ultimately be used to further develop Elite First Responder Mindsets during the Peer Support Review (PSR) intervention model encouraging firefighters to return to their optimum levels of functioning and performance after a traumatic call, as was done immediately after the Tucson tragedy of January 8th, 2011 (Dowdall, 2011).

REFERENCES

- Aldwin, C. M., & Revenson, T. A. (1987). Does coping help? A reexamination between coping and mental health. *Journal of Personality and Social Psychology*, *53*(2), 337-348.
- Antonellis, P. J., & Mitchell, S. G. (2005). *Posttraumatic stress disorder in firefighters. The calls that stick with you*. Ellicott City: Chevron.
- Bacharach, S. B., Bamberger, P.A., & Doveh, E. (2008). Firefighters, critical incidents, and drinking to cope: The adequacy of unit-level performance resources as a source of vulnerability and protection. *Journal of Applied Psychology*, *93*(1), 155-169.
- Bryant, R. A., & Guthrie R. M. (2005). Maladaptive appraisals as a risk factor for post-traumatic stress. *Psychological Science*, *16*(10), 749-752.
- Chrousos, G.P. 2009. Stress and disorders of the stress system. *Nature Reviews Endocrinology* *5*, 374-381.
- Dowdall, C.T. (2011). Tucson tragedy: The CISM response. *LifeNet*, *22*(2), 1.
- Dowdall-Thomae, C. (2008a, June). Critical incident interventions for optimum levels of functioning and performance (mitigating through mobilized and immobilized anxiety/fear using coping strategies). Tucson, Arizona: Pima County Health Department and Homeland Security's Conference on Mental Health Preparedness for Disaster Response.
- Dowdall-Thomae, C. (2008b, November). Using integrative rehabilitation (transitional coping strategies) in uniformed personnel after a critical incident. Tucson, Arizona: Arizona Department of Public Safety.
- Dowdall-Thomae, C., Culliney, S., & Piechura, S. J., (2009). Peer support action plan: Northwest Fire and Rescue. *International Journal of Emergency Mental health*, *11*(3), 177-83.
- Dowdall-Thomae, C., Kampfe, C. M., Smith, S. M., & Ryan, L. (2008). The revised ways of coping checklist for firefighters. Unpublished manuscript.
- Folkman, S. (1997). Positive psychological states and coping with severe stress. *Social Science & Medicine*, *45*(8), 1207-1221.
- Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, *21*(3), 219-239.
- Ide, C. W. (1998). Failing firefighters: The causes of death and ill-health retirement in serving firefighters in Strathclyde, Scotland in 1985-94. *Occupational Medicine*, *48*(6), 381-388.
- Johnson, B., & Christensen, L. (2004). *Educational research: Quantitative, qualitative, and mixed research*. Boston: Pearson Education.
- Jones, G. J., Hanton, S., & Connaughton, D. (2002). What is this thing called mental toughness? An investigation of elite sport performers. *Journal of Applied Sport Psychology*, *14*, 205-218.
- Kampfe, C. M., & Mitchell, M. M. (1990). Rehabilitation counseling internships - students' perceptions and coping strategies. *Rehabilitation Education*, *4*, 13- 22.
- Kampfe, C. M., & Mitchell, M. M. (1991a). Coping strategies of master's degree students during internships: A national study. *Rehabilitation Education*, *5*, 1-12.
- Kampfe, C. M., & Mitchell, M. M. (1991b). Relationships among coping strategies and selected variables in clinical internships. *Rehabilitation Education*, *5*, 29-41.
- Kampfe, C. M., & Smith, S. M. (1999). [Pilot of appraisal, coping, and coping efficacy of distance rehabilitation counselor interns]. Unpublished raw data.
- Larson, W. (2011). Team member characteristics contributing to high reliability in emergency response teams managing critical incidents. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (Accession Order No. AAT 3453325).
- Lazarus, R. (1966). *Psychological stress and the coping process*. New York: McGraw Hill.
- Lazarus, R. (1999). *Stress and emotion*. New York: Springer.

- Lazarus, R., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York: Springer.
- McFarlane, A. C., & Bryant, R. A. (2007). Post-traumatic stress disorder in occupational settings: Anticipating and managing the risk. *Occupational Medicine*, 57, 404-410.
- Meir, C. M., & Gibson, A. L. (2004). Evaluation of a treadmill test for predicting the aerobic capacity of firefighters. *Occupational Medicine*, 54(6), 373-378.
- Searle, B. J. (2008). Does personal initiative training work as a stress management intervention. *Journal of Occupational Health Psychology*, 13(3), 259-270.
- Shubert, J., Ritchie, E. C., Everly, G. S., Fiedler, N., Williams, M. B., Mitchell, C. S., & et al. (2008). A missing element in disaster mental health: Behavioral health surveillance for first responders. *International Journal of Emergency Mental Health*, 9(3), 201-213.
- Smith, S. M., Kampfe, C. M., Dowdall-Thomae, C., Moore, S. F., & Sales, A. P. (2008). The relationship between coping strategies and outcome coping efficacy of distance rehabilitation interns enrolled in a distance learning masters program. *Rehabilitation Counselors & Educators Journal*, 2(1), 19-24.
- United States Fire Administration. (2011). *Firefighter fatalities in the United States in 2010*. (USFA Publication No. EME 2003-CO-0282). Washington, DC: U.S. Government Printing Office.
- United States Fire Administration. (2009). *Firefighter fatalities in the United States in 2008*. (USFA Publication No. EME 2003-CO-0282). Washington, DC: U.S. Government Printing Office.
- United States Fire Administration. (2007). *Firefighter fatalities in the United States in 2006*. (USFA Publication No. EME 2003-CO-0282). Washington, DC: U.S. Government Printing Office.
- United States Fire Administration. (2005). *Firefighter fatalities in the United States in 2004*. (USFA Publication No. EME-2003-CO-0282). Washington, DC: U.S. Government Printing Office.
- Vitaliano, P. P., Russo, J., Carr, J., Maiuro, R., & Becker, J. (1985). The ways of coping checklist: Revision and psychometric properties. *Multivariate Behavioral Research*, 20, 3-26.
- Vogt, W. P. (2005). *Dictionary of statistics and methodology (6th ed)*, London: Sage.
- Wegner, D. M. (1994). Ironic processes of mental control. *Psychological Review*, 101(1), 34-52

From Laurence Miller, PhD



Practical Police Psychology: Stress Management and Crisis Intervention for Law Enforcement

Patrol tactics, police-citizen interactions, crime victim intervention, officer-involved shooting, line-of-duty death, hostage crises, suicide-by-cop, officer suicide, undercover investigation, testifying in court, officer misconduct and discipline, critical incidents and job stress, police families, law enforcement leadership, community policing.

Thomas, 2006, ISBN: 0398076367, \$72.95 (hardcover), ISBN: 0398076375, \$48.95 (softcover). Order from ccthomas.com or amazon.com.

International Critical Incident Stress Foundation, Inc.

The Source for Information and Training in
Comprehensive Crisis Intervention Systems

Contact ICISF today for...

- ❖ Regional Conferences on crisis intervention
Visit the ICISF website for the range of topics available
- ❖ World Congress on Stress, Trauma & Coping (bi-annual)
- ❖ Membership in an international multi-disciplinary organization devoted to crisis intervention education
- ❖ Quarterly member newsletter
- ❖ Quarterly journal (with certain membership options)
- ❖ Certificates of Specialized Training in five specialty tracks
- ❖ Assistance in formation of CISM Teams
- ❖ International Database & Registry of CISM Teams
- ❖ Consultation in crisis & disaster response



ICISF, Inc.

3290 Pine Orchard Lane, Suite 106
Ellicott City, MD 21042
Telephone: (410) 750-9600
Fax: (410) 750-9601
Email: icisf@icisf.org
Website: www.icisf.org



Bring ICISF training to your area

*The latest training and education on
Comprehensive Crisis Intervention Systems*

Speakers Bureau Program

- Dynamic speakers
- Avoid travel costs - train your staff at your site
- Highest quality professional programs
- Wide variety of stress, crisis intervention and disaster psychology courses
- Specialized topics to suit your needs
- Keynotes, General Sessions and Breakouts

Host a 2014 Regional Conference

- Earn Scholarships to attend classes
- Choose classes to suit your training needs
- Earn a portion of the conference net profit
- Network with other CISM Practitioners from around the World
- Discuss issues facing you or your team with ICISF faculty & staff

www.ICISF.org or call Terri (410) 750-9600

The Changing Role of Leadership in the Fire Service

Joseph Calo

Howard County Fire and Rescue, Columbia, MD

Abstract: The role of the modern fire service is evolving drastically and today's leaders must have the courage, tenacity, and perseverance to embrace and prepare for substantial change in an industry heavily steeped in almost two centuries of tradition that's historically resistant to new ways of doing things. Moreover, from an individual perspective, fire service professionals must personally prepare themselves to lead the emergency response industry in the years ahead. Fire service leaders will be faced with new and different challenges. The roles and responsibilities of our profession are changing and becoming more complex. Many common practices currently done in the fire service today will require innovative solutions in the future. To lead our firefighters, not only into dangerous environments, but through these changing times, the professional fire officer will need to be functionally educated, current with new tactics to combat changing conditions, and possess an understanding of leadership principles such as emotional intelligence, leadership style, and leadership theory. This foundation will help today's fire officers become tomorrow's fire service professionals. [International Journal of Emergency Mental Health, 2011, 14(4), pp. 283-288].

Key words: *Fire service, fire officer, leadership, professional responsibility, accountability, leadership models, five-factor personality model, emotional intelligence, leadership styles*

The role of the modern fire service is changing drastically. As political and public expectations continue to increase, response criteria expand, constituency demographics shift, and technology marches forward, the role of the modern fire service is radically evolving. Many fire service professionals either fail to recognize these central shifts or refuse to admit their existence. Irrespective of our willingness to participate in these fundamental changes, forces more

powerful than a collectively entrenched culture of resistance and complacency are moving the fire service away from its traditional construct. Consequently, today's leaders must have the courage, tenacity, and perseverance to embrace and prepare for substantial change in an industry heavily steeped in almost two centuries of tradition that's historically resistant to change. Moreover, fire service professionals must take action to personally prepare themselves to lead the emergency response industry in the years ahead.

In order to provide background for this discussion, it is important to understand that, over the past decade, the role of the fire service in the United States has evolved from one of only fire suppression to a complete "all hazards" community protection responsibility. Outside of the criminal and civic

Joseph Calo, M.S., very recently received his Masters Degree in Management with an emphasis in Public Safety Leadership from Johns Hopkins University. He is a 17-year veteran of the Howard County Fire Service. Correspondence regarding this article should be directed to jcalo@howardcountymd.gov.

incidents mainly managed by local police agencies, the modern fire service responds to all other requests for emergency service including, but not limited to; fires of all types, emergency medical incidents, vehicle accidents, elevator rescues, hazardous materials events, aircraft incidents, water rescues, building collapses, trench rescues, lost persons, mass casualty incidents, critical infrastructure incidents and support, and weapons of mass destruction events. Essentially, if a citizen is in need of emergency services that does not involve criminal activity, the fire service is most often called upon to respond. This expansion of responsibility has forever altered the fire service and the resulting leadership vacuum created has yet to be filled. Additionally, in the vast majority of circumstances, emergency support services are funded primarily by tax revenue. At a time when it's not uncommon for government agencies to be responsible to accomplish more while being allocated fewer financial resources, the role of the modern fire service continues to become more complex.

An additional consideration stems from the political perspective. Under the broad labor umbrella of the American Federation of Labor and Congress of Industrial Organizations (American Federation of labor and Congress of Industrial Organizations, 2011), the International Association of Fire Fighters (IAFF) is the labor union that represents nearly 300,000 full-time, professional firefighters in the United States and Canada (International Association of Fire Fighters, 2011). In the United States, IAFF professional firefighters protect 85% of the country's population. The IAFF is one of the most active lobbying organizations in Washington and is among the top 1% of Political Action Committees in the country (2011). Commonly, the IAFF represents entry level firefighters to middle management, with those in senior management being generally excluded.

In these difficult financial times, political leaders are being held to a greater level of fiscal accountability by their constituents (Fitzgerald & Stirling, 1999). Politically, the efforts of the IAFF have been tremendously successful and have helped significantly increase firefighter wages over the past decade (International Association of Fire Fighters, 2011) but have resulted in an increased strain on taxpayers. Higher salaries demand a greater level of accountability for service. Interestingly, although the IAFF typically represents those at the lower end of the compensation scale, to avoid salary compression and a lack of organizational movement, pay increases negotiated by the local IAFF affiliates are commonly adopted throughout the department, thereby "trickling up" to

management personnel. Increases in pay spread department-wide and are therefore more costly.

When we consider all these factors - the expanding role of the fire service requiring costly specialized equipment, increased legislative standards, and the "trickle up" of salaries, fire department budgets have significantly increased. In the modern fire service, leaders are being called upon to solve more complex problems on a more frequent basis. Their roles and responsibilities are expanding, public expectations are increasing, salaries are rising, and leaders are being held accountable for greater amounts of taxpayer dollars. These dynamics will force fire service personnel to move toward a more professional model and evolve as leaders in the public safety industry. In order to successfully shepherd the fire service into a modern day model, today's fire officers will not only need to improve their knowledge, skills, and abilities in their respective technical competencies but they must intentionally seek the necessary education and leadership skills to lead a large scale organization.

Currently, I believe the most essential skill lacking in today's fire service is a true understanding of what it means to be a leader. It is often said the fire service is a paramilitary organization. While we have rank, general orders, and terms like AWOL and insubordination, we differ greatly from the military in the preparation, or more accurately the lack of preparation, of our leaders. At every level, the military places a tremendous emphasis on leadership training, certifications, and preparation for promotion. As it's often said, "it's up or out." So far in our history, the fire service has not yet embraced this concept. Because of this, many fire officers have never intentionally studied the concepts behind successful leadership models or the personal growth associated with such study. Therefore, a careful and purposeful examination of the traits, skills, theories, and behaviors required of a modern fire service professional is vital to a fire officer so they can better understand the changing role of leadership in fire service.

It's important to note that while the ideal of leadership sounds appealing to many, the harsh realization is that leadership is challenging and is not without significant peril. At its core, leadership is about asking people to be better tomorrow than they were today; to give more next week than they gave this week; to keep those in their charge on task and focused on the mission and the larger purpose. Commonly, leadership requires you to ask people to change something about themselves or their character. The crucial issue that makes this

process dangerous is loss (Heifetz & Linsky, 2002). People's values and attitudes and behaviors are linked to their identity. To change the way people behave – the way they do things – is to challenge how they define themselves and can create an internal sense of loss of oneself (Heifetz & Linsky, 2002). To confound matters, by challenging one's identity, people can subconsciously lose their overall sense of competence in themselves. As such, leaders are often attacked, marginalized, diverted, or seduced in an attempt to reduce the discomfort of leadership (Heifetz & Linsky, 2002).

To understand successful leadership one must have an understanding of what constitutes a good leader. While there are many understandings and differing opinions, in its simplest form, "Leadership is a process whereby an individual influences a group of individuals to achieve a common goal" (Northhouse, 2010, p. 3). By viewing leadership as a process, it becomes an interactive event between the involved parties wherein both are affected in some way. This distinction allows leadership to be available to everyone and not just individuals with formal position or specific traits (Northhouse, 2010). Furthermore, by definition, to be considered a leader one must have a measurable effect on his or her followers. Leadership cannot be present in the absence of influence (Northhouse, 2010). Leadership can only occur when a single individual influences the behavior of a group in such a way that they are collectively working toward a common goal (Northhouse, 2010).

Early in the study of leadership, many believed there were specific leadership traits or inherited characteristics that were present in those that demonstrated strong leadership skills. While many theories have been examined, a consensus has developed among researchers that there are five fundamental factors of personality, known as the five-factor personality model (Northhouse, 2010). Through meta-analysis, these factors including extraversion, openness, agreeableness, neuroticism, and conscientiousness are strongly related to effective leadership, with extroversion being the most strongly related (Northhouse, 2010). While there may be traits that predispose individuals to leadership, the process of leadership is behavioral, and therefore observable, and can be learned (Northhouse, 2010). Without the ability to learn leadership, there would be little point in nurturing fire officers who did not seemingly possess these specific traits.

It is common for conventional wisdom to associate leadership with qualities such as intelligence, foresight, grit, and internal fortitude (Goleman, 2004). While these qualities

are vital for success, they alone are not strong enough to be predictive of it. Truly effective leaders possess a high degree of emotional intelligence, which includes self-awareness, self-control, internal motivation, empathy, and social skill (Goleman, 2004). When IQ, technical competencies, and emotional intelligence are calculated as factors of excellent performance, emotional intelligence has consistently been shown to be twice as important as the other factors for jobs at all levels (Goleman, 2004). These types of "soft skills" represent the vital, but often ignored, human component and internal self-work necessary for leadership.

The first element of emotional intelligence is self-awareness and is related to the ability to know and understand one's own feelings and needs, strengths and weaknesses, and desires and motivators (Goleman, 2004). Importantly, those who are self-aware are mindful of how their feelings affect their work and those around them (Goleman, 2004). The second component is self-regulation and is related to the ability to control internal urges and moods as well as the ability to think before acting (Goleman, 2004). The third component is motivation which is related to the desire to actively pursue goals over time and the internal drivers that go beyond financial and status rewards (Goleman, 2004). Fourth is empathy and is related to the ability to understand the "emotional makeup" of others and being able to treat them accordingly (Goleman, 2004). The fifth component of emotional intelligence is social skill and is related to the ability to effectively function in a social context. Skills such as establishing rapport, building networks, and fostering relationships are the hallmarks of someone with high social skills (Goleman, 2004).

While the classic characteristics of leadership are still crucial, it is the soft skills of emotional intelligence that have the most impact on effectiveness at work. Research conducted by the late Harvard psychologist David McClelland found that leaders who possessed a significant level of emotional intelligence competencies were far more effective leaders than their counterparts who lacked such competencies (Goleman, 2000). As leaders responsible for the welfare of firefighters operating in a highly stressful, exceptionally dangerous environment, it is imperative we understand the "other side" of leadership so that we may lead our personnel more effectively. The trust and commitment associated with those who understand emotional intelligence needs to be earned before critical incidents occur. Fortunately, unlike trait-based leadership theories, it is believed the skills behind

emotional intelligence can be learned (Goleman, 2004). Although building these skills is challenging, time consuming, and requires significant effort, the effort clearly seems to be worth the cost.

After gaining an understanding of the components of emotional intelligence, fire officers should begin to consider how emotional intelligence relates to their primary personal leadership style as well as general leadership styles as a whole. In his article, "Leadership That Gets Results," Goleman defined six distinct leadership styles; coercive, authoritative, affiliative, democratic, pacesetter, and coaching and then drew correlations between each style of leadership as well as the relative impact each style had on aspects of organizational climate (Goleman, 2000). Coercive leadership pressures individuals and insists on compliance. It's the "Do what you're told" mentality based in fear. The affiliative style places a high priority on people and their emotional needs. The democratic style attempts to gain consensus through collaboration. The pacesetter style attempts to set high expectations through the actions of the leader. The coaching style attempts to lead by helping individuals realize their unique talents and link them to their work. The authoritative leader mobilizes people toward a common goal or vision (Goleman, 2000).

In his research, Goleman found that all six styles had a quantifiable impact on organizational climate, some positive and some negative, and that there was a direct correlation between a positive work environment and financial productivity. In other words, a more positive work environment leads to more productivity and, therefore, is associated with more positive financial results. Depending on the environment and the conditions, leaders need each of these styles in their leadership repertoire. However, it is important to understand that only four styles had positive results while two had negative results. Both the coercive style and the pacesetter style were primarily negative and the least effective while the authoritative style was most strongly correlated with positive outcomes (Goleman, 2000). Tomorrow's leaders in the fire service need to be knowledgeable about these styles and strive to create a greater understanding of those styles they are less familiar with or comfortable employing.

From a technological perspective, the "enemy" of the firefighter has changed significantly. What used to be a routine fire in a home or a building is now a very different affair. Structures are being built with lighter-weight, eco-friendly

products that strive to use less mass. While excellent for the home building industry, these homes do not withstand fire conditions well (Brannigan & Corbett, 2008). Gussett plate, light-weight construction techniques built with truss roofs are always at risk for roof, wall, and/or floor collapse during fire conditions. Moreover, many of today's products are routinely made with petroleum based plastics which burn hotter and off-gas toxic chemicals such as arsenic, cyanide, and formaldehyde (Brannigan & Corbett, 2008). Furthermore, because of energy efficiency techniques, structures are holding the heat, fire, and chemicals inside the home or building better, setting up conditions for dangerous flashover. When you consider the fire service's other response issues, such as vehicle accidents - different threats are present when extricating patients from electric or liquid petroleum gas (LPG) cars - or hazardous materials incidents, it becomes clear that the dangers are not the same as those the previous generation of firefighter's faced. Today's fire officers need to recognize the changing enemy and actively pursue the necessary knowledge on how to best evolve with the new physical conditions.

While a better understanding of emotional intelligence and individual leadership styles are essential for today's fire officer, as the profession continues to progress, a formal education concentrated in leadership concepts and theory will be paramount to successful organizational leadership. Many firefighters have mistakenly adopted the mantra that college degrees don't extinguish fires. While true, no longer is our industry that simple. At the Bachelor's level, a college education should teach a student how to evaluate information, how to effectively research information, how to think critically about information, and how to most effectively communicate that information. Much like the CEO of a \$100 million dollar private corporation, a Fire Chief and his or her senior management staff will be expected to be effective in all the skills associated with formal education. Moreover, at the Fire Chief and Chief Deputy level, their sizable salaries may further drive expectations to the Master's level. In today's fire service, leaders must be able to effectively formulate budgets, apply for and manage hundreds of thousands of dollars in grant funding, communicate with the community leaders, local and national political figures, and the media, as well as make legislative changes to jurisdictional law as appropriate. As we operate in these new arenas, it's no longer acceptable to be under-educated.

French poet, Paul Valéry once said, "Every beginning is

a consequence. Every beginning ends something.” The fire service is currently shifting into a new paradigm and with it, there will be change. In order to effectively adapt to these changing conditions, firefighters and fire officers will have to make the shift to fire service professionals. Not only will this evolution bring opportunity, it will, at some level, end the traditional understanding we have of our profession. As a department, we have a responsibility to help our modern day fire officers make this vital shift. In his article, “Managing Transitions,” Bridges asserts that in order to begin to learn something new, one has to first end what was in its place (Bridges, 2003, pp. 23-37). Unfortunately, most of us find endings emotionally challenging inasmuch as they require us to surrender a part of who we believe we are. These transitions can be quite difficult for people to accept causing individual resistance to be high. It’s imperative that those within the Department who are charged with being change agents have a strong sense of change management theory and principles.

Fire service professionals will be faced with new and different challenges. The roles and responsibilities of our profession are changing and becoming more complex. Many common practices currently done in the fire service today will require innovative solutions in the future. To lead our firefighters, not only into dangerous environments, but through these changing times will require leaders who understand emotional intelligence, individual leadership styles, and leadership theory. This foundation will help today’s fire

officers become tomorrow’s fire service professionals.

REFERENCES

- American Federation of Labor and Congress of Industrial Organizations. (2011). AFL-CIO. In *America's union movement* (About Us). Retrieved January 15, 2012, from <http://www.aflcio.org/aboutus/>
- Brannigan, F. L., & Corbett, G. P. (2008). *Brannigan's building construction for the fire service*. Sudbury, Massachusetts: Jones and Bartlett.
- Bridges, W. (2003). *Managing transitions*. Cambridge, MA: De Capo Press.
- Fitzgerald, I., & Stirling, J. (1999). A slow burning flame? Organisational change and industrial relations in the fire service. *Industrial Relations Journal*, 30(1), 46.
- Goleman, D. (2000, April). Leadership that gets results. *Harvard Business Review*.
- Goleman, D. (2004, January). What makes a leader? *Harvard Business Review*, Best of HBR 1998.
- Heifetz, R. A., & Linsky, M. (2002). *Leadership on the line*. Boston, Massachusetts: Harvard Business Review Press.
- International Association of Fire Fighters. (2011). *IAFF History* (Who we are: By fire fighters, for fire fighters). Retrieved January 15, 2012, from <http://www.iaff.org/about/history/whoweare.htm>
- Northhouse, P. (2010). *Leadership*. Los Angeles: Sage Publications.

UMBC TRAINING CENTERS



1442 S. ROLLING ROAD • BALTIMORE, MD 21227-9935 • 443-543-5400
WWW.UMBCTRainingCENTERS.COM



RESILIENCY SCIENCE INSTITUTES, INTERNATIONAL AT UMBC TRAINING CENTERS is pleased to announce

Certification in Resilient Crisis Leadership

History and current events teach us that the key to survival and even prosperity during crisis is resiliency and resilient crisis leadership. It is a virtual truism that in times of crisis or adversity, people look for guidance. They seek strength, motivation, and direction. With that in mind, we have developed a unique 3-day training program designed to teach leaders at all levels (and those who aspire to leadership positions) how to create a culture of resilience in preparation for, or in the wake of, crisis, economic downturns, down-sizing, disasters, and even terrorism.

WHAT: If ever there was a time to foster resilient leadership at all levels of society, it is now. Participants will learn what we believe are the two "covenants" of resilient crisis leadership as well as the four essential characteristics of resilient crisis leaders. In addition, participants will learn how to avoid the "7 Deadly Sins" that undermine resilient leadership, how to use the evidence-based Resilient Moment Communications Model (RMC), and how to develop "Psychological Body Armor" as a means of enhancing their own personal stress immunity and resilience. The goal of resilient leadership is to build a resilient culture and lead toward opportunity!

WHO: Resilient leadership training is designed for leaders in private industry, government, law enforcement, disaster response, fire suppression, emergency medicine, nursing, and education. Note: tuitions include fees for the certification exam.

WHERE and WHEN: University of Maryland, Baltimore County – UMBC Training Centers, near Baltimore, Maryland (30 minutes from BWI Airport). There are four separate training opportunities currently planned:

March 8 – 11, 2011; May 25 – 27, 2011; September 21 – 23, 2011; November 8 – 11, 2011

FACULTY: George S. Everly, Jr, PhD, ABPP, The Johns Hopkins University

For more information go to www.umbctrainingcenters.com and click on Resiliency or email George S. Everly, Jr., PhD at rsi@umbctrainingcenters.com.

Additional Location: Drury Inn and Suites Riverwalk, San Antonio, Texas April 13-15, 2011.

Faculty: George S. Everly, Jr., PhD, ABPP, The John Hopkins University and Denise J. Thompson, MSW, LISW, Crisis Response Consulting, for more information go to www.crisisresourcesconsulting.com or e-mail Denise at denise@crisisresourcesconsulting.com.

UMBC

AN HONORS UNIVERSITY IN MARYLAND



Training Centers

Introducing Embedded Indigenous Psychological Support Teams: A Suggested Addition to Psychological First Aid in an International Context

Amanda Edwards-Stewart
University of Washington, Tacoma

Zeba S. Ahmad
Seattle Pacific University

John W. Thoburn
Seattle Pacific University

Rich Furman
University of Washington Tacoma

Ashly J. Lambert
Seattle Pacific University

Lauren Shelly
Seattle Pacific University

Ginger Gunn
Seattle Pacific University

Abstract: *The current article introduces Embedded Indigenous Psychological Support Teams (IPST) as a possible addition to current disaster relief efforts. This article highlights psychological first aid in an international context by drawing on mainstream disaster relief models such as The American Red Cross, Critical Incident Stress Management, and Flexible Psychological First Aid. IPST are explained as teams utilizing techniques from both CISM and FPFA with a focus on resiliency. It is currently theorized that in utilizing IPST, existing disaster relief models may be more effective in mitigating negative physical or mental health consequences post-disaster. [International Journal of Emergency Mental Health, 2011, 14(4), pp.289-296].*

Key words: *Indigenous Embedded Psychological Support Teams, disaster relief, psychological support, indigenous support teams, flexible psychological first aid*

Current international disaster relief models are often effective in the culture they were created in but may not

generalize to an international context (Pupavec, 2006; Summerfield, 1999). The two most widely used disaster relief models are the American Red Cross (ARC) and Critical Incident Stress Management (CISM) models. Both models provide effective relief in the context in which they were created; alternatively providing food and shelter as well as stress management for survivors. Further, both consider cultural factors in aid relief but neither is effective across all disaster situations (i.e. natural, manmade, etc.) and across cultures (Deahl, 2000; Litz, Gray, Bryant & Adler, 2002; Roberts & Everly, 2006; Weaver, Dingman, Morgan, Hong & North, 2000). It is currently theorized that such models often provide

Amanda Edwards-Stewart, Ph.D., was a full-time lecturer in Interdisciplinary Arts and Sciences at the University of Washington, Tacoma. Zeba S. Ahmad, M.A., is a doctoral student in the Dept of clinical Psychology at Seattle Pacific University. John W. Thoburn, Ph.D., is a Professor in Dept of Clinical Psychology at Seattle Pacific University. Rich Furman, Ph.D., is a Professor in Dept of Social Work at University of Washington, Tacoma. Ashley J. Lambert, M.A., Lauren Shelley, M.A., and Ginger Gunn, M.A., are doctoral students in the Dept. of Clinical Psychology at Seattle Pacific University. Correspondence regarding this article should be directed to amanda.stewart@northwestu.edu

food and shelter but have an incomplete understanding of the complex relationship between a survivor's cultural, political, religious, and relational life (Thoburn, Bentley, Ahmad and Jones, 2011). Such an understanding is best grasped by members of that culture who are able to deconstruct and untangle such factors, helping to facilitate the provision of aid.

Another model of aid that has made cultural training a large part of its relief work is the National Center for PTSD's Flexible Psychological First Aid (FPFA). FPFA can be seen as improving on other relief efforts in that it offers psychological first aid that is culturally informed and encompasses flexible supportive care. However, it is currently theorized that even when considering cultural context, relief care will always be limited if primarily implemented by expatriates exclusively and not performed, at least in part, by individuals within the culture.

Further, it is not unusual for relief organizations to provide short term services and resources during the acute phases of a disaster, and then move on to the next event. However, after the initial stabilization of medical and social relief efforts, there exists a continuing, long-term effort in dealing with the psychosocial effects of death, injury, grief and loss. Psychological first aid with indigenous volunteers, as those seen in IPST, is a way to create a sustainable mental health presence in regions prone to natural or man-made disasters (Thoburn, Tandy, Bentley & Stewart, 2007).

The purpose of this paper is to introduce the concept of IPST as a possible addition to current disaster relief practices. Such teams would be composed of trained indigenous individuals that could be easily mobilized when disaster occurs and provide help that is culturally appropriate for survivors. This model integrates CISM and FPFA, emphasizing aid in an international context, with the hope of providing a framework for self-sustaining support while reducing the negative mental health consequences of a disaster. The current paper explores the limitations of current disaster relief practices and reviews the support offered by three relief models - ARC, CISM, and FPFA - exploring their strengths and weaknesses and investigates each model as it relates to disaster support in an international context. Further, IPSTs are introduced and discussed as a way of integrating current disaster relief practices in a culturally appropriate way, given by members of that culture previously trained who were not directly affected by the disaster.

Review of ARC, CISM, and FPFA

American Red Cross

Over the past few decades, disaster relief has become more prominent in an international context. In 1900 the United States congress chartered the ARC to provide local and international disaster relief (American Red Cross, 2008a). ARC responds to incidents on a continuum from as small as house fires, heat waves, and winter storms to earthquakes, wildfires, and landslides (American Red Cross, 2008a).

The ARC's mission is to provide services that meet the immediate needs (i.e. shelter, food, health care, mental health care, finding loved ones) of survivors post-disaster, in an attempt to help survivors reestablish their normal lives. Within this mission, the ARC developed a Disaster Mental Health Services (DMHS) program to provide psychological care for victims of disasters, their communities, and other Red Cross workers. ARC DMHS workers provide psychological triage, support, and crisis intervention as well as work with victims on advocacy, casualty support, and referrals to the community. ARC DMHS workers are trained to help victims "lower physiological arousal, clarify the current situation, mitigate dysfunctional thinking and introduce adaptive coping mechanisms" after a disaster (American National Red Cross, 2005).

In an effort to expand their support services internationally, the ARC partners with the International Federation of Red Cross and Red Crescent Societies and deploys its own international response team (IRT) and emergency response units (ERU's), which are Red Cross workers trained for international relief, to disaster stricken areas (American Red Cross, 2008b). Although ARC provides international relief, two major deficits in care are noted: 1) the basis of relief is provided on Western views of what constitutes an immediate need post-disaster and 2) there is a lack of access to mental health services (Weaver et al., 2000).

Critical Incident Stress Management (CISM)

In 1974, the field of CISM began. It was established to diminish post-disaster stress reactions (Mitchell, 2004). Today, CISM is used on a variety of different emergency aid responders and disaster survivors (Mitchell & Everly, 2001). Researchers have established that CISM is beneficial to survivors in many ways (Bordow & Poritt, 1979) and is consistently effective in reducing symptoms of distress post-disaster (Everly, Flannery, Eyler, & Mitchell, 2001).

CISM is considered a comprehensive crisis intervention approach with eight components (Everly & Mitchell, 2000). These components include, (a) pre-incident preparation, (b) disaster/large scale intervention programs, (c) defusing, (d) critical incident stress debriefing (CISD), (e) one-on-one crisis intervention/psychological support, (f) pastoral crisis intervention, (g) family crisis intervention/organizational consultation, and (h) follow-up for assessment and treatment. In the first component, also known as the pre-crisis phase, individuals in disaster-prone areas are taught to identify common stressors, learn stress management techniques, and leaders undergo crisis mitigation training. During the second component, or acute phase, first responders are sent out to engage in crisis management debriefings, consultation, and psychological decompression. The last five components are done in the post-crisis phase, starting with defusing. Defusing refers to small homogeneous group discussions, lasting approximately 45 minutes. Everly and Mitchell (2000) recommend that these groups should be held within hours of the disaster with the purpose being assessment, triage, and acute symptom relief. Another component of CISM is highly structured groups consisting of seven stages with an additional component comprised of one-on-one counseling and psychological support. This also occurs throughout all the phases and is done as needed. The last two components include pastoral, family, and organizational interventions as well as referrals for assessments and ongoing treatment, which are also provided as needed (Everly & Mitchell, 2000).

Some have argued that a limitation of CISM [as well as critical incident stress debriefing (CISD), a component of CISM] is its lack of flexibility due to its “prescriptive approach” (Litz, 2008, p.504), which is needed when offering care in an international context. Litz argues that although CISD can be flexible, CISM is not and endorses the use of Psychological First Aid (PFA) to international agencies. More specifically, while CISM offers a comprehensive multi-component intervention and structured group psychological debriefing to meet the psychological needs of survivors and relief workers, in an international context, more could likely be done to establish indigenous CISM teams in disaster prone countries as expatriate teams are still largely used. For example, survivors will likely seek out their primary care providers and may even prefer their primary care provider over expatriate aid (Hamilton, 2004). Additionally, researchers have found that CISM does not account for community and cultural differences (Deahl, 2000; Roberts & Everly, 2006). Further, CISM does not necessarily involve all members of

the family (Everly & Mitchell, 2000) despite research suggesting the importance of family in healing post-disaster (Allen, 2006; Chow & Yuen, 2000; Wickrama & Wickrama, 2008). Finally, CISM as well as ARC provide short-term follow up before referring individuals out into the community to local providers (Mitchell & Everly, 2001) but not long-term sustainable care. Thus, neither relief model provides care that fully integrates dimensional, ecological, or fully culturally competent aspects of disaster relief. As such, a new model of Psychological First Aid (PFA) and FPFA has been developed in order to account for these deficits.

Flexible Psychological First Aid

Psychological First Aid is a model created to provide supportive intervention to international disaster survivors, largely administered by expatriates (NCTSN & NCPTSD, 2006). This model seeks to provide supportive care (which includes helping survivors find family members, connect with resources such as food, shelter, etc.), not psychological intervention (as in traditional therapy), by mental health professionals post-disaster, including floods, hurricanes, and acts of terrorism. The primary aim of a PFA team is to train individuals without extensive medical knowledge to provide immediate aid without further injury to the survivor. Castellano and Plionis (2006) describe five goals of PFA, including (a) providing information and education, (b) providing comfort and peer support, (c) aid in process of recovery, (d) the promotion of resiliency and decrease in mental health symptoms, and (e) access to continued care. There are five steps of PFA (Everly & Flynn, 2005 as cited in Castellano & Plionis, 2006), including (a) assessment, (b) stabilization - including support, crisis interventions, availability of spiritual leaders, and information, (c) triage, with hourly check-ins, if needed, (d) communication, including information on stress management and other CISD components, (e) a hotline to connect crisis and disaster victims with family members and counseling services. PFA is a flexible approach that provides support and information to facilitate increase in coping post-crisis (Litz, 2008).

Flexible Psychological First Aid is a unique component of PFA, where the focus is on offering supportive care while infusing culture deeply into the helping process. This model is one of the few offering disaster support that attempts to make cultural considerations part of the existing model of care. While researchers and users of both ARC and CISM have had ongoing discussions of how to adapt their relief

efforts to an international context, only FPFA has made cultural considerations a part of its creation. FPFA is defined as providing culturally informed, flexible, supportive care that specifically takes into account the survivors' culture, ethnicity, religious affiliation, race, and differing languages. Further, the manual states that providers of FPFA must help to maintain or reestablish customs, traditions, rituals, family structure, gender roles, and social bonds that may aid the survivor in coping with the situation; and that community cultural leaders should be utilized as resources to aid in the understanding of the differing cultural beliefs and traditions (NCTSN & NCPTSD, 2006, pg. 10).

The FPFA model trains aid teams on a variety of topics that may impact the survivor of a disaster, including differing traditions on the issue of death and being knowledgeable about which religious staff is available to meet with survivors. Even though FPFA is an improvement on PFA, as well as ARC and CISM, FPFA can be taken one step further, based on previous research indicating that individuals may prefer providers from their own cultural backgrounds, which may in turn increase resiliency among survivors (Cowen, 1991; Seligman & Csikszentmihalyi, 2000). FPFA might be made even more effective by training and utilizing indigenous support staff. Further, research suggests that while professional and expatriate resources are useful, disaster survivors are most influenced by indigenous resources that occur through social support (Norris, 2005). As such, training indigenous volunteers in disaster prone countries is proposed in addition to the earlier disaster aid models (ARC, CISM), including FPFA.

Relief in an International Context

The global provision of mental health care varies in its organization and effectiveness from region to region, and is often reactive rather than proactive, creating less than optimal conditions for responsiveness following a disaster. The primary model for disaster relief has been the pathological or deficit model, with a focus on posttraumatic stress. This emphasis on the mitigation of trauma disorder has created a disaster framework that is essentially one-dimensional and individualistically oriented (Kinzie & Edeki, 1998; Nicholl & Thompson, 2004; Reyes, 2006). It has been suggested that the clinical model reflects the "psychologization of human experience" (Pupavec, 2006, p. 17), with therapy the standard response in the West. Such a Western perspective assumes vulnerability while proactively providing mental

health services, irrespective of survivor request for such services (Summerfield, 1999).

Modern formulations of psychology are derived largely from Western concepts. The language for communication of research and practice is almost entirely in English. The majority of scholarly works on psychology are published in the United States. Psychology has a significant presence in only 47 out of 129 countries (Adair, Coêlho, & Luna, 2002; Pettifor, 2004). However, psychology is expanding into other countries and psychologists in non-Western countries are often educated at Western universities where they learn about Western modes of therapy. The issue of multicultural differences and discrepancies in societal emphasis placed on the individual and the collective can create dissonance between expatriate service delivery steeped in one's cultural milieu and the reception of this aid by survivors raised in a different cultural context.

The following story was relayed by the third author regarding the reason why expatriate practitioners are not allowed to practice in India without close supervision illustrates this point. A British psychiatrist with an expertise in couples counseling was invited to lead a couple's therapy group in the Tamil Nadu region of India, where he advised one conflicted couple that there was no hope for their marriage and that they simply needed to divorce. His encouragement was all they needed and when they divorced there was outrage from their respective families regarding the ethics of his intervention, leading eventually to the psychiatrist's ouster from the country and the passing of an ensuing law against outsiders who might offer advice that is radically counter to the collectivist culture of India (Thoburn, 2003). Given this example, it is imperative to understand the culture in which care is given. It is often best given by indigenous populations. This can be even more pronounced in disaster relief.

It is clear that practicing and providing aid with cultural competency is important. Researchers suggest that without knowledge of cultural, social, political, and historical circumstances of the region, well-intentioned aid may actually be more damaging than helpful to disaster survivors and may offend the community or result in rejection of relief efforts (Marsella & Christopher, 2004). For example, communities may feel disempowered if expatriate relief workers fail to understand their organizational traditions, undermine their self-reliance as a community, or if relief workers use their own beliefs and values to make sense of the survivor's tragedies instead of relying on the survivor's beliefs and values

(Allen, 2006). Additionally, being knowledgeable about specific remedies for healing, treating, and understanding trauma within the specific culture is important in order to decrease distress among survivors (Marsella & Christopher, 2004) because psychological responses to trauma may be both individually and culturally influenced. For instance, differing cultures often use somatic terms to explain their distress. Cambodians use the term *khyal*, meaning the wind that flows alongside the blood in the body to indicate high levels of anxiety, while Latin Americans use the term *ataque de nervios* for feeling of loss of control (APA, 2000; Doherty, 1999; Hinton, Pich, Safren, Pollack, & McNally, 2005). Finally, collaborating with community leaders or “gate keepers” is often thought of as a means to becoming more culturally competent and providing more effective aid (Aguilera & Planchon, 1995; Hamilton, 2004).

The disaster aid models discussed so far were created based on Western values and although they attempt to offer culturally sensitive disaster aid, the current authors question if cultural sensitivity training and consideration is enough. In other words, such models assume that training aid workers to consider the culture in which they work is sufficient to providing effective aid after a disaster. This, however, does not have support in research. In a study by Marsella & Christopher (2004), having ethnically or culturally dissimilar first responders may increase the distress that disaster survivors feel. There may be limitations to aid provided by members of another culture and most effective aid may come from training those indigenous to a disaster-prone country. Such indigenous teams might be used to provide first response supportive aid and also help organize outside aid coming into the country following the disaster.

Embedded Indigenous Psychological Support Teams

As most aid is either created and/or distributed under a Western value system, it is difficult for that aid to be applicable across all cultures and thereby reduce negative psychological and health consequences of a disaster. Embedded Indigenous Psychological Support Teams offer an additional way to use current aid practices by and through natives of a particular culture. This is essential, as care that is culturally relevant has been shown to be an important ingredient of success in many helping contexts (Colon, 1996; Furman & Collins, 2005; Harper & Lantz, 1996). To help clarify exactly what IPST are, the terms will be deconstructed. An

Embedded team would be one that is already established in a disaster prone region. In the past, mental health preparedness and aid has been reactive, relatively unorganized, and focused on crisis intervention. This has been seen even in disaster relief in the United States; for instance, in response to the Oklahoma City Bombing in 1995, despite a number of volunteer mental health professionals responding to this disaster, there were not enough professionals to provide psychological support to survivors and their families. Therefore, untrained community members became acting resources for grieving family members. In addition, once the professionals left the area, disaster survivors had few support mechanisms and few opportunities for continued mental health care (Aguilera & Planchon, 1995). Similar problems arose following the September 11, 2001 terrorist attacks. Numerous mental health professionals responded to the disaster but many were untrained in PFA or CISM and as a result, the situation quickly became unorganized (Hamilton, 2004). Hamilton notes that volunteers may put themselves or others at risk if they do not have the appropriate experience and preparation to work in disaster relief, especially if unaware of possible safety or security problems which frequently occur after disasters. Having teams embedded, assembled and prepared, before a disaster would help organize aid and thereby reduce the negative impacts of a disaster (Dunning, 1990). However, it is important to note that multiple teams would be needed across a country so as not to include workers that have themselves experienced the disaster.

Instead of mental health preparedness and aid being reactive, the IPST model of aid hopes to establish embedded teams that are *Indigenous* to disaster prone countries. Having teams that are composed of individuals from within a culture is based on the assumption that those within a culture can best understand survivors needs and help reduce adverse long-term responses to a disaster as well as theoretically be available for long-term support (Norris, 2005). Marsella and Christopher (2004) suggest that this type of community support system can foster the incorporation of several community members such as indigenous healers, primary care providers, and the like. Also, indigenous groups would likely have the greatest knowledge of community resources and be best able to disperse these resources (Thoburn, Tandy, Bentley, & Stewart, 2007). Furthermore, researchers have found that disaster survivors appear to benefit most from helping networks that occur within the context of natural social routines that utilize preexisting social support (Seligman & Csikszentmihalyi, 2000).

Teams that are embedded within a culture, made up of indigenous volunteers, would be trained to provide organized aid that best utilizes the resources of the culture in which it is given. Such teams would provide this aid through *psychological support*. Psychological support is based on a model largely focusing on resiliency, assuming that it is the norm to respond to disasters with shock and, therefore, recovery should focus more on helping survivors mobilize their resources with the least amount of interference or pathologizing of responses possible. Such teams would be on the scene to provide aid in (a) stabilizing the situation by directing aid, (b) mitigating the impact through connecting survivors with the aid they identify needing or disseminating requested information, (c) helping connect survivors with what social support can be found and is still available to them, (d) normalizing reactions to the disaster, and (e) helping restore survivors to adaptive functioning. Consistent with the goals of IPST, teams of volunteers need not be necessarily comprised of mental health professionals. They would be trained in listening skills, stress management, and one-on-one interventions, as well as family interventions (such as those seen in CISM and FPFA). This approach is multifaceted and relies on the key crisis intervention principles of simplicity, brevity, innovation, pragmatism, immediacy, and positive outcome expectancy.

Simplicity is essential in that it keeps volunteers from offering aid that is possibly not needed or asked for by survivors. IPST would be trained to ask a survivor how they can help and what the immediate needs are. In other words, the focus would remain on what survivors are requesting, instead of offering services that may be unnecessary at the time. This relates to the principle of brevity and immediacy, serving to guide teams to offer only the aid that is needed and to do so on the scene to provide stabilization as soon as can be. Aid and stabilization would be highly individualized, here some survivors' immediate needs might be finding loved ones or connecting with other community members while some may need resources to help rebuild fishing boats to reassume their livelihood. Therefore, aid should be innovative and pragmatic, offering to connect individuals with organizations that can best meet their needs or stations that could provide the necessary information they are looking for. Finally, such teams would be trained with positive outcome expectancy. The current authors expect that when given organized aid, focused on cultural needs, resiliency will follow (which would need research support following the establishment

of such teams). For survivors more prone to a disordered response (such as those of certain gender, race, or level or trauma severity; Brewin, Andrews, & Valentine, 2000), such aid would hopefully decrease the negative consequences and serve to connect them with follow-up services and referrals based on their needs. IPST can only be expected to do this when organized and kept functioning through a larger parent organization.

Embedded Indigenous Psychological Support Teams are meant to be part of a parent organization which could help to train, organize, and maintain IPST in disaster prone countries. Research has demonstrated that organizational models of this nature are beneficial in providing services to difficult to reach and historically neglected populations (Furman, Negi, Schatz & Jones, 2008). The organization would need to be involved in training indigenous volunteers in CISM, FPFA, and key crisis intervention principles. Such training should be collaborative in spirit, modifying training curriculum based on what indigenous team members suggest is best applicable to the specific culture and the needs of the survivors. Teams could be developed and maintained by any of the disaster aid organizations listed previously (ARC, CISM, and FPFA) as long as those organizations created branches that operated and were maintained in each disaster-prone country.

In conclusion, IPST are meant to stem negative reactions following a disaster by providing organized, preplanned, culturally appropriate care. IPST would utilize elements of current disaster aid such as CISM and FPFA while helping large organizations such as ARC distribute their aid to those in need of it. IPST ultimately would not replace our current disaster aid organizations but would help make such aid more effective in an international context, offering up aid that is more than culturally sensitive but aid that is given by members of that culture.

REFERENCES

- Adair, J. G., Coêlho, A. E. L., & Luna, J. R. (2002). How international is psychology? *International Journal of Psychology, 37*, 160-170.
- American National Red Cross. (2005) *American Red Cross foundations of disaster mental health participant's workbook*.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., Text-Revision). Washington, DC: American Psychiatric Association.

- American Red Cross 2008a, *Disaster Services*. Retrieved January 2, 2009, from http://www.redcross.org/services/disaster/0,1082,0_319_,00.html
- American Red Cross 2008b, *International Services: Emergency Disaster Response and Preparedness*. Retrieved January 2, 2009, from http://www.redcross.org/services/intl/0,1082,0_443_,00.html
- Aguilera, D. M. & Planchon, L. A. (1995). American Psychological Association- California psychological association disaster response project: Lessons from the past, guidelines for the future. *Professional Psychology: Research and Practice*, 26, 550-557.
- Allen, K. M. (2006). Community-based disaster preparedness and climate adaptation: Local capacity - building in the Philippines. *Disasters*, 30, 81-101.
- Bordow, S. & Poritt, D. (1979). An experimental evaluation of crisis intervention. *Psychological Bulletin*, 84, 1189-1217.
- Brewin, C.R., Andrews, B., & Valentine, J.D. (2000). Meta-analysis of risk factors for Posttraumatic Stress Disorder in trauma-exposed adults. *Journal of Consulting and Clinical Psychology*, 68, 748-766.
- Castellano, C., & Plionis, E. (2006). Comparative analysis of three crisis intervention models applied to law enforcement first responders during 9/11 and hurricane Katrina. *Brief Treatment and Crisis Intervention*, 6, 326-336.
- Chow, R. & Yuen, F. K. O. (2000). From Cambodians to Bosnians: Interventions for refugee families suffering from war trauma. *Early Child Development and Care*, 165, 95-104.
- Colon, E. (1996). Program design and planning strategies in the delivery of culturally competent health and mental health services to Latino communities. In Y. Asamoah (Ed.), *Innovations in delivering culturally sensitive social work services* (pp.164-182). New York: Haworth Press, Inc.
- Cowen, E. L. (1991). In the pursuit of wellness. *American Psychologist*, 46, 404-408.
- Deahl, M. (2000). Psychological debriefing: Controversy and challenge. *Australian and New Zealand Journal of Psychiatry*, 34, 929-939.
- Doherty, G. W. (1999). Cross-cultural counseling in disaster settings. *The Australian Journal of Disaster and Trauma Studies*, 1999-2. Retrieved January 10, 2009 from, <http://www.massey.ac.nz/~trauma/issues/1999-2/doherty.htm>
- Dunning, C. (1990). Mental health sequelae in disaster workers: Prevention and intervention. *International Journal of Mental Health*, 19, 91-103.
- Everly, G. S., & Mitchell, J. T. (2000). The debriefing "controversy" and crisis intervention: A review of lexical and sustentative issues. *International Journal of Emergency Mental Health*, 211-225.
- Everly, G. S., Jr., Flannery, R. B., Jr., Eyler, V., & Mitchell, J. T. (2001). Sufficiency analysis of an integrated multi-component approach to crisis intervention: Critical Incident Stress Management. *Advances in Mind-Body Medicine*, 17, 174-183.
- Furman, R. & Collins, K. (2005). Culturally sensitive practices and crisis management: Social constructionism as an integrative model. *Journal of Police Crisis Negotiation*, 5(2), 47-57.
- Furman, R. Negi, N. J., Schatz, M. C. S & Jones, S. (2008). Transnational social work: Using a wrap-around model. *Global Networks: A Journal of Transnational Affairs* 8(4), 496-503.
- Hamilton, S.E. (2004). Where are we now? A view from the Red Cross. *Families, Systems & Health*, 22, 58-60.
- Harper, K. & Lantz, J. (1996). *Cross-cultural practice: Social work with diverse populations*. Chicago: Lyceum Books.
- Hinton, D. E., Pich, V., Safren, S. A., Pollack, M. H., & McNally, R. J. (2005). Anxiety sensitivity in traumatized Cambodian refugees: A discriminate function and factor analytic investigation. *Behavior Research and Therapy*, 43, 1631-1643.
- Kinzie, J. D., & Edeki, T. (1998). Ethnicity and psychopharmacology: The experience of southeast Asians. In S. O. Okpaku (Ed.), *Clinical Methods in Transcultural Psychiatry* (pp. 171-190). Washington, DC: American Psychiatric Association.
- Litz, B.T. (2008). Early intervention for trauma: Where are we and where do we need to go? A commentary. *Journal of Traumatic Stress*, 21, 503-506.
- Litz, B.T., Gray, M.J., Bryant, R.A. & Adler, A.B. (2002). Early Intervention for Trauma: Current status and future directions. *Clinical Psychology Science and Practice*, 9, 112-134.

- Marsella, A.J., & Christopher, M.A. (2004). Ethnocultural considerations in disasters: an overview of research issues and directions. *Psychiatric Clinics of North America*, 27, 521-539.
- Mitchell, J. T. (2004). Crisis intervention and critical incident stress management: A defense of the field. Ellicott City, MD: International Critical Incident Stress Foundation, website www.icisf.org.
- Mitchell, J. T., & Everly, G. S. (2001). *Critical Incident Stress Debriefing: An operations manual for CISD, defusing and other group crisis intervention services*. (3rd ed.). Chevron Publishing Corporation. Ellicott City, MD.
- National Child Traumatic Stress Network and National Center for PTSD (2006). *Psychological first aid: Field operations guide, 2nd Edition*. Retrieved November 3, 2008 from the World Wide Web: www.nctsn.org and www.ncptsd.va.gov.
- Nicholl, C., & Thompson, A. (2004). The psychological treatment of post traumatic stress disorder (PTSD) in adult refugees: A review of the current state of psychological therapies. *Journal of Mental Health*, 13, 351-362.
- Norris, F. H. (2005). Psychosocial consequences of natural disasters in developing countries: What does past research tell us about the potential effects of the 2004 tsunami? *National Center for PTSD*. Retrieved July 13, 2007. http://www.redmh.org/research/specialized/tsunami_summary.pdf
- Pettifor, J. L. (2004). Professional ethics across national boundaries. *European Psychologist*, 9, 264-272.
- Pupavec, V. (2006). Humanitarian politics and the rise of international disaster psychology. In G. Reyes & G. A. Jacobs (Eds.), *Handbook of international disaster psychology, Volume 1: Fundamentals and Overview* (pp. 15-34). Westport: Praeger.
- Reyes, G. (2006). International disaster psychology: Purposes, principles, and practices. In G. Reyes & G. A. Jacobs (Eds.), *Handbook of International Disaster Psychology, Volume 1: Fundamentals and Overview* (pp. 1-13). Westport: Praeger.
- Roberts, A. R., & Everly, G. S. (2006). A meta-analysis of 36 crisis intervention studies. *Brief Treatment and Crisis Intervention*, 6, 10-21.
- Seligman, M. E. P. & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5-14.
- Summerfield, D. (1999). A critique of seven assumptions behind psychological trauma programs in war-affected areas. *Social Science & Medicine*, 48(10), 1449-1462.
- Thoburn, J.W. (2003). Personal communication with B. J. Prashantham, Christian Counseling Centre, Vellore, India.
- Thoburn, J. W., Bentley, J. A., Ahmad, Z. S., & Jones, K. C. (2011). *International disaster psychology ethics: A social justice model imbedded in a family systems paradigm*. Manuscript submitted for publication.
- Thoburn, J., Tandy, M., Bentley, J. & Stewart, A. (2007). Crossroads in family and disaster psychology. *The Family Psychologist*, 23, 4-7.
- Weaver, J.D., Dingman, R.L., Morgan, J., Hong, B.A. & North, C.S. (2000). The American Red Cross Disaster Mental Health Services: Development of a cooperative, single function, multidisciplinary service model. *The Journal of Behavioral Health Services & Research*, 27, 314-319.
- Wickrama, K. A. S. & Wickrama, T. K. A. (2008). Family context of mental health risk in Tsunami affected mothers: findings from a pilot study in Sri Lanka. *Social Science and Medicine*, 66, 994-1007.

Just Show Up: The Importance of Caring Attachments in Emergency Services

Raymond B. Flannery, Jr

Harvard Medical School and The University of Massachusetts Medical School

Abstract: Caring attachments to others are important for health, well-being, and longevity. This is no less true when EMS are providing needed medical services to victims at a vulnerable moment in the victims' lives. This article reviews the recent medical and behavioral science findings of the psychological and physiological benefits of caring attachments. Special attention is paid to the societal state of anomie and individuals' differing levels of optimal stimulation. The review then focuses on how attachments can be utilized by EMS as they provide services to victims and how these same health benefits may accrue to their colleagues onsite as well. [*International Journal of Emergency Mental Health, 2011, 14(4), pp. 297-300*].

Key words: *anomie, caring attachments, emergency services, optimal level of stimulation, social supports.*

Emergency services personnel (EMS) are thoroughly trained in their various disciplines to serve victims in critical incidents. Most commonly these critical incidents, although stressful at times, are resolved effectively and efficiently according to accepted standards of practice (Allen, 2002). However, at times EMS arrive onsite to encounter extremely complicated situations. Victims that do not respond as expected, situations that are more complex than previously encountered, the need for additional resources that must be summoned are some examples of encounters that require important additional minutes before victim services may be administered. EMS may consider these extra minutes necessary for intervention planning as necessary but wasted time in terms of direct service delivery. Such is not the case.

Raymond B. Flannery, Jr., Ph.D., FAPM, is the Director of the crisis intervention service, The Assaulted Staff Action Program (ASAP) and is on the faculties of Harvard Medical School and the University of Massachusetts Medical School. Correspondence regarding this article should be directed to Raymond B. Flannery, Jr., Ph.D. at email: raymond_flannery@hms.harvard.edu.

The physical and psychological presence of EMS onsite immediately begins the recovery process in victims, even as situation clarity or additional resources are at times awaited.

The purpose of this paper is to document how caring attachments with colleagues, family, and friends strengthen health and well-being and how these same benefits accrue to the victims that EMS are asked to serve, victims that may be complete strangers.

Caring Attachments

Humans are social creatures and it is not surprising that individuals seek to link up with other humans in healthy, socially acceptable ways. Caring attachments or social supports are the name given to these helpful interchanges. Being close to others in good ways enhances good physical and mental health, increases one's sense of well-being, and literally lengthens one's life span (Flannery, 2004; Grant, Patterson, & Yager, 1988; Lynch, 1977, 2000; Regehr, 2010). Caring attachments appear to be an important component of

human resiliency (Everly, Smith, and Lating, 2009).

The Psychology of Caring Attachments

There are several psychological benefits from caring attachments. The most common ones are companionship, emotional support in good times and bad, information from others about solving life's stressful problems, and instrumental favors in the forms of money or political influence on our behalf (Flannery, 2012). These caring interchanges are encountered in two basic formats. The first are networks and refer to groups of persons that we find ourselves embedded in such as family, work, schooling, or community clusters. The second format is known as buffers. In these cases individuals encounter people not routinely in their networks but are brought in to buffer or assist with specific life events. Common examples include the accountant at tax time, the minister at a wedding, or the car mechanic for needed repairs.

Other types of attachments may prove to be harmful. Included here would be physical and/or sexual abuse, emotional over involvement in the lives of others, emotional demanding-ness by one party, interpersonal skill deficiencies in forming and sustaining helpful attachments, and clashes in fundamental values in the parties involved.

In today's age, potential helpful attachments are further complicated by changes in society at large. We live in what is known as an anomic age (Durkheim, 1997). Durkheim noted that every society is composed of five basic institutions that govern how people are to behave with each other and rear their children. These institutions include families, schools, businesses, governments, and religious-faith traditions. When these five institutions are in agreement on a society's socially acceptable basic values, the society's members know how to behave and rear their children and a sense of community cohesion is present. However, when a society is impacted by a major cultural event, the five basic institutions do not have a common set of values and the sense of community cohesion for one another is lost. This lack of social cohesiveness is known as *anomie*. Societies marked by these major cultural shifts experience sharp increases in mental illness, suicide, substance abuse, and violence.

Today's age is one of anomie, as the culture has been impacted by the ubiquitousness of computers and the emergence of the globalized market place. Competition is intense for employment, finances, and material goods. The common set of values in an earlier age of concern for the welfare of

others has been upended and the five basic societal institutions have lost their earlier commonly agreed upon value system. The current age emphasizes the differing values of material acquisition, and instant gratification of self. All of these recent values have resulted in confusion in the basic social institutions, disagreement on basic values, and a resulting anomic state with diminished opportunity for rich, supportive caring attachments. (See Flannery, 2009, for a detailed discussion of the current state of anomie.)

The Biology of Caring Attachments

A psychiatrist named Dr. Rene Spitz did a very interesting study after the Second World War when the social fabric in Europe and North America had been disrupted by that war (Lynch, 1977). He studied ninety-one infants in orphanages in Canada and the United States. All of them were well-cared for by staff but thirty-four died during the last three months of their first year of life. Spitz wondered if the absence of biological parents in some way contributed to their death.

Extensive research by physiologist, Dr. James Lynch, has confirmed Dr. Spitz's hypothesis. Caring attachments give life not only to neonates but to adults as well (Lynch, 1977, 2000). In studying helpful, supportive caring attachments, he found that a person's cardiovascular system (blood pressure and pulse), the person's immune system to fight upper-respiratory infections, and the person's endorphin endogenous opioid system (chemicals in the brain that make us feel good) were all strengthened in the presence of caring attachments and that these resulted in good physical and mental health and a sense of well-being.

Unfortunately, the reverse was true for socially isolated people. He found that divorced or single people had worse physical and mental health than happily married people, that school drop outs who lost their school classmates by withdrawing died many years earlier than those who had completed school, and that single men at age fifty-five died ten years earlier than married men at age fifty-five. The absence of caring attachments resulted in premature death.

Given the importance of caring attachments, an obvious question arises: how many friends should one have? Do more friends equal better health, well-being, and longevity? The answer in part is again biological in nature.

The human body takes in information through its various senses such as sight, hearing, and touch. A person's nervous

system is wired to take in this information, process it in the cortex, and make an appropriate response to one's immediate environment. Recent research has demonstrated that an individual's nervous system for processing this information input/output has an optimal point of functioning (Scitovsky, 1976). If this optimal level of stimulation is exceeded, the individual will become overwhelmed, angry, and irritable. If the optimal level of stimulation is greatly reduced, the individual will become bored and irritable. Thus, the goal is to maintain an optimal level of information, a balance of information input and output.

Science has also found that individuals have one of two biologically determined set points for optimal levels of stimulation. Some people need very little stimulation to reach their optimal level. These people are quiet, interested in nature, are reflective, and have a few very close friends. Others need a good deal of stimulation to reach their optimal level. Their lives are characterized by much activity, constant involvement, and many close friends.

Thus, the number of caring attachments that one will have in life varies by one's biological level of sensory stimulation. More friends is not necessarily better; it is the supportive nature of any caring attachment that matters most.

The implications of these findings for EMS are several and may occur both onsite and in transit to the site.

Onsite

As EMS arrive onsite, it is helpful to remember that this victim like any ordinary citizen is living in a period of anomie with its concomitant loss of cohesiveness with others. Given this, EMS should immediately assess for the issues that arise in anomic periods: mental illness, suicide, substance abuse, and potential violence. Even if the victim does not manifest these characteristics, he or she will be experiencing the lack of societal social cohesiveness to some degree and EMS presence immediately helps to mitigate this state of aloneness in the victim's time of crisis.

Apart from specific EMS trained skills, EMS presence will begin immediately to physiologically regulate the cardiac, immune, and opioid systems of the patient in the beneficial ways noted above. Knowing that individual optimal levels of stimulation differ, gauge the number of EMS personnel needed to interact directly with the victims

so that victims with low levels of optimal stimulation will not become overwhelmed and more disorganized.

During this early encounter, EMS presence will also be offering the psychological resources of support, companionship, information, and assistance in a difficult moment in the patient's life. These helpful benefits occur even in down times when the need for clarity of information or needed additional resources is awaited. EMS physical presence has begun the healing process, a process which is then greatly increased significantly by whatever interventions EMS may implement.

In Transit

Every benefit that EMS physical presence presents to the victim is equally true for EMS colleagues. The presence of colleagues in transit and onsite stimulates the healthful physiological and psychological outcomes in each other, even as EMS minister to the victims(s).

The presence of EMS engenders health in everyone involved in the critical incident. EMS only need to just show up.

REFERENCES

- Allen, M.H. (Ed.). (2002). *Crisis intervention handbook: Assessment, treatment, and research*. Second Edition. New York, NY: Oxford University Press.
- Durkheim, E. (1997). *Suicide: A study in sociology*. Trans. Spaulding, J., & Simpson, G. New York, NY: Free Press.
- Everly, G. S., Smith, K.J., & Lating, J.M. (2009). A rationale for cognitively-based resilience and psychological first aid (PFA) training: A structural modeling analysis. *International Journal of Emergency Mental Health, 11*, 249-262.
- Flannery, R.B., Jr. (2004). Disrupted caring attachments: Implications for long-term care. *American Journal of Alzheimer's Disease and other Dementias, 17*, 227-231.
- Flannery, R.B., Jr. (2009). *The violent person: Professional risk management strategies for safety and care*. New York, NY: American Mental Health Foundation.
- Flannery, R.B., Jr. (2012). *Posttraumatic stress disorder: The victim's guide to healing and recovery*. New York, NY: American Mental Health Foundation.

Grant, I., Patterson, T.L. & Yager, J. (1988). Social supports in relation to physical health and symptoms of depression in the elderly. *American Journal of Psychiatry*, 145, 1254-1258.

Lynch, J. (1997). *The broken heart: The medical consequences of loneliness*. New York, NY: Basic Books.

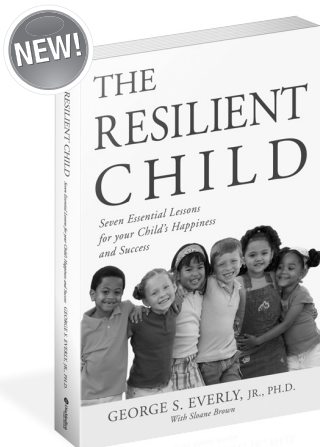
Lynch, J. (2000). *A cry unheard: New insights into the medical consequences of loneliness*. Baltimore, MD: Bancroft Press.

Regehr, C. (2010) Social support as a mediator of psychological distress in firefighters. *The Irish Journal of Psychology*, 30, 87-98.

Scitovsky, T. (1976). *The joyless economy*. London, UK: Oxford University Press.

Seven Essential Steps To Preparing Children for Tomorrow's Challenges

 **DiaMedica**
BOOKS ON HEALTH AND WELLNESS



ISBN: 978-0-9793564-5-2
Softcover • 160 pages • \$14.95

All DiaMedica publications are available at online bookstores, including Amazon.com and Barnesandnoble.com, as well as in your local bookstores. You can also visit our website at www.diamedicapub.com, or e-mail us at marketing@diamedicapub.com.

The Resilient Child

Seven Essential Lessons for Your Child's Happiness and Success

George S. Everly, Jr., Ph.D.

“...This delightful and informative book is designed to help busy caregivers and parents guide their children to view their lives as ‘half full’ even in the face of adversity and the bumps along life’s journey.” — Alan M. Langlieb, MD, MPH, MBA, The Johns Hopkins Hospital

“...All parents who struggle to prepare our children to make the most of their lives and to be good world citizens will find something helpful in this book.”

—Rear Admiral Brian W. Flynn, EdD, Assistant Surgeon General (USPHS, Ret.)

The Resilient Child teaches parents the key responses that all children need to learn in order to effectively cope with life's adversities. Dr. Everly teaches readers how to live a stress-resilient life that will lead to happiness and success. These skills are presented as seven essential lessons:

- Develop strong relationships with friends and mentors.
- Learn to think on the bright side and harness the power of the self-fulfilling prophecy.
- Learn to make difficult decisions.
- Believe in something greater than you are.
- Learn to take responsibility for your own your actions.
- Learn to follow a moral compass: Integrity
- Learn that the best way to help others, and yourself, is to stay healthy.

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.

Selected Annotated Journal Resources

Catherine Ruscitti, M.S. and Jessica Batinjane, M.S.

Rosenkranz, S. E., Muller, R. T., & Henderson, J. L. (2013). The role of complex PTSD in mediating childhood maltreatment and substance abuse severity among youth seeking substance abuse treatment. *Psychological Trauma: Theory, Research, Practice, and Policy*. Advance online publication. doi: 10.1037/a0031920

TYPE OF ARTICLE

- Original empirical investigation.

OBJECTIVE/PURPOSE OF THE STUDY

- To increase understanding of how childhood maltreatment is associated with youth substance use problems. Maltreatment was defined as emotional abuse, emotional neglect, domestic violence, physical abuse, and sexual abuse.
- To determine if complex posttraumatic stress disorder (Complex PTSD) mediates the association between maltreatment and substance use problem severity.

METHODS

Participants

- Two hundred and sixteen participants were recruited.
- All participants were entering an outpatient substance abuse program.
- The sample was predominately male (67%) and ranged in age from 16 to 24 years.

Materials

- Substance use problem severity was measured using the Alcohol Use Disorders Identification Test (AUDIT) and the Drug Abuse Screening Test-20 (DAST-20).

- Exposure to maltreatment was evaluated via the Traumatic Antecedents Questionnaire (TAQ). The TAQ assessed for emotional abuse, emotional neglect, domestic violence, physical abuse, and sexual abuse.
- To assess for Complex PTSD, a single scale was used to assess each of the six domains of the Complex PTSD construct:
 - o The Self-Criticism scale of the Cognitive Distortion Scale (CDS) was used to represent the self-perception domain.
 - o The Hopelessness scale of the Cognitive Distortion Scale (CDS) was used to represent the systems of meaning domain.
 - o The Abandonment Concerns scale of the Inventory of Altered Self-Capacities (IASC) was used to represent the relations with others domain.
 - o The Affect Dysregulation scale of the Inventory of Altered Self-Capacities (IASC) was administered to represent the affect dysregulation domain.
 - o The Dissociation scale of the Trauma Symptom Inventory (TSI) was used to represent the dissociations domain.
 - o The Somatic Complaints scale of the Achenbach Youth (YSR) and Adult Self-Report (ASR) was used to represent the somatization domain.

Procedure

- Participants completed questionnaires as part of a clinical assessment package during initial session.

RESULTS

- Results indicate that 83% of participants experienced maltreatment.

- Participants who were maltreated had significantly higher scores on all Complex PTSD scales compared those without maltreatment history.
- Those who were maltreated had significantly higher scores on measures of alcohol and drug use.
- Maltreatment was directly related to higher levels of Complex PTSD symptoms, and Complex PTSD symptoms were directly related to higher levels of substance abuse severity.
- The direct path from maltreatment to substance use problem severity was not significant, whereas the indirect path through Complex PTSD was significant, indicating full mediation of Complex PTSD on the association between maltreatment and substance use problem severity.
- Because these paths have similar standardized estimates, it may be more appropriate to consider Complex PTSD a partial mediator of the relationship.
- Results indicated partial mediation of maltreatment on substance use problem severity through Affect Dysregulation, Self-Criticism, Hopelessness, Dissociation, and Somatic Complaints and full mediation through Abandonment Concerns.

CONCLUSIONS/SUMMARY

- Results indicate support for a model in which Complex PTSD partially mediated the association between maltreatment and substance use problem severity among a clinical sample of youth seeking treatment for substance abuse.
- Results also indicate that disrupted interpersonal functioning, defined as Abandonment Concerns, may be a particularly salient mediator.

CONTRIBUTIONS/IMPLICATIONS

- These results support and emphasize the importance of implementing trauma-informed substance abuse treatment.
- These findings also provide preliminary support for the potential benefits of augmenting youth substance abuse treatment with methods that address Complex PTSD for those with maltreatment histories.
- Additionally, the focus on enhancing attachment security may be a particularly salient component of Complex PTSD for these youth.

Lilly, M. M., & Pierce, H. (2013). PTSD and depressive symptoms in 911 telecommunicators: The role of peritraumatic distress and world assumptions in predicting risk. *Psychological Trauma: Theory, Research Practice, and Policy*, 5, 135-141. doi: 10.1037/a0026850

TYPE OF ARTICLE

- Correlational & cross-sectional design

OBJECTIVE/PURPOSE OF THE STUDY

- To examine current symptoms of PTSD and depression in telecommunicators and the extent to which peritraumatic distress, defined as emotional distress experienced during a traumatic event, and world assumptions interact to predict psychopathology.

METHODS

Participants

- In total, 171 911 telecommunicators across the U.S. completed the survey.
- The sample was predominately female ($n = 126$) and European American ($n = 131$) with an average age of 38.85 years ($SD = 9.61$).
- All participants were currently working as a telecommunicator with an average of 11.85 years ($SD = 8.16$) of service.
- Participants were recruited to complete the survey through letters sent to randomly selected agencies, professional association list serves, professional organization online forums, and social networking interest groups.

Materials

- The Posttraumatic Stress Diagnostic Scale (PDS) was used to assess severity of PTSD symptoms in the last month.
- The Depression subscale of the Symptom Checklist-90-R (SCL-90-R) was used to assess depressive symptoms.
- The Peritraumatic Distress Inventory (PDI) was used to assess emotional distress during and immediately after the participants' most upsetting experience at work.
- The World Assumptions Scale (WAS) is a 32-item measure that assesses participants' cognitions about

the world and self. Of the original 8 subscales, only the self-worth (SW), benevolence of the world (BW), and controllability (CONT) subscales were used.

- The Potentially Traumatic Events Questionnaire was used to assess participants' exposure to different types of work-related calls.

Procedure

- The examiners presented the option to complete the survey online or via hard copies presented in person.
- The volunteers did not receive incentives for their participation.

RESULTS

- The sample reported exposure to an average of 15.32 different types of potentially traumatizing calls, in which 75% of participants reported exposure to at least one type of call.
- Despite a high rate of exposure to potentially traumatizing duty-related events, current PTSD symptom reports in the last month were low ($M = 7.07$, $SD = 8.13$).
- Peritraumatic distress was positively related to PTSD symptoms, depressive symptoms, and self-worth.
- Current PTSD symptoms were negatively correlated with self-worth and benevolence of the world.
- Depressive symptoms were negatively correlated with self-worth and benevolence of the world.
- Moderation analyses showed main effects for greater peritraumatic distress and more negative benevolence of the world, with each uniquely predicting variance in PTSD and depressive symptoms.
- Benevolence of the world served as a significant moderator of the relationship between peritraumatic distress and both current PTSD and depressive symptoms.
- Peritraumatic distress was most strongly associated with depressive symptoms in the presence of more diminished self-worth.
- Contrary to what was hypothesized, greater peritraumatic distress was positively correlated with depressive and PTSD symptoms in individuals that had more positive assumptions about the controllability of the world.

CONCLUSIONS/SUMMARY

- The authors suggest that telecommunicators whose assumptions about the world are less diminished in the presence of trauma have less depression and PTSD symptoms, even if they have experienced significant peritraumatic distress during duty-related events.
- Individuals at greatest risk for depression symptoms were those who reported both heightened levels of distress and more diminished self-worth.
- Controllability and peritraumatic distress are related in predicting PTSD, such that having more positive assumptions about one's control over the world heightened the risk for current depression and PTSD symptoms.
- The authors attempted to explain these unexpected findings by suggesting that se counter theoretical findings may be explained by controllability might havehaving a different role in this unquespecific population. Telecommunicators attempt to calm callers in order to gather information. They may, however, experience peritraumatic distress in reaction to calls over which they attempted greater control, but were unablednot able to do so. Thus, Tthis may result insignificantly enhanced risk for depression and PTSD, as they may feel responsible for how events unfolded or ruminate over what they could have've done differently.

CONTRIBUTIONS/IMPLICATIONS

- The results of this study emphasize the emotional impact on a unique population of workers frequently exposed to potentially traumatic events.
- The findings show preliminary support that strong peritraumatic reactions regarding an upsetting duty-related event should be targeted for early intervention.
- Pre-incident preparation and prevention efforts should focus on assessing and fostering telecommunicators' cognitions and beliefs about the benevolence of the world, self-worth, and control.
- Further research should examine world assumptions theory and the differences in predicting emotional health depending on the context of the trauma and level of distress experienced.



International Critical Incident Stress Foundation, Inc.

The Source for Information and Training
in Comprehensive Crisis Intervention Services

ICISF TRAINING OPPORTUNITIES

2013 REGIONAL CONFERENCES*

April 11-14, 2013
Atlanta, GA
GACISF

May 16-19, 2013
Albuquerque, NM

June 5-9, 2013
San Francisco, CA

July 15-19, 2013
West Nyack, NY

July 25-28, 2013
Denver, CO
Mayflower Crisis Support Team

August 1-4, 2013
Des Moines, IA
Polk County Health Services, Inc
Polk County Mental Health Response Team

September 19-22, 2013
Seattle, WA
WA State CISM Network

October 17-20, 2013
Phoenix, AZ
Crisis Preparation & Recovery, Inc

November 6-10, 2013
Columbia, MD

December 5-8, 2013
Nashville, TN
Centerstone

December 5-8, 2013
San Diego, CA
San Diego CISM Team



**Course schedule to be determined*

Bring ICISF training to your area

Speakers Bureau Program

- Dynamic speakers
- Avoid travel costs - train your staff at your site
- Highest quality professional programs
- Wide variety of stress, crisis intervention and disaster psychology courses
- Specialized topics to suit your needs
- Keynotes, General Sessions and Breakouts

Host an ICISF Regional Conference

- Earn Scholarships to attend courses
- Choose courses to suit your training needs
- Earn a portion of the conference net profit
- Network with other CISM Practitioners from around the World
- Discuss issues facing you or your team with ICISF faculty & staff

3290 Pine Orchard La, Ste 106
Ellicott City, MD 21042
www.ICISF.org (410) 750-9600

Treating PTSD in Military Personnel: A Clinical Handbook

Moore, B. A. & Penk, W. E. (Eds.). (2011).

New York: Guilford

Reviewed by: Glenn Schiraldi Ph.D., LTC (USAR, ret.)

Introduction

This superbly organized and executed work will greatly benefit mental health professionals who are striving to more effectively serve current and former military service members. It will especially benefit civilian mental health professionals who lack experience with the military culture. The editors and contributors bring together an impressive array of skills and experiences.

The book acknowledges that PTSD rarely presents individually, but is often comorbid with depression, substance use disorders, traumatic brain injury, insomnia, aggression, chronic pain, and other psychological and medical complaints. The challenge is huge for military and VA clinicians, most of whom have not been trained in evidence-based cognitive-behavioral therapies, while the lack of familiarity of civilian practitioners with military culture interferes with rapport building and credibility.

The chapters provide an overview of the treatment modalities, review of relevant literature/research, strengths and limitations of the modalities, advice on the best assessment tools and treatment manuals, case studies, and practical advice/therapeutic considerations for clinicians. It is organized as follows:

Part I

After valuable chapters on understanding and working within the military culture and on assessment issues in military personnel, this part explores the evidence-based psychosocial and pharmacological treatments currently in use—prolonged exposure, cognitive processing therapy, eye movement desensitization and reprocessing, virtual reality exposure therapy, psychodynamic psychotherapy, group therapy, couple/family therapy, psychopharmacotherapy, and psychosocial rehabilitation.

Part II

This part explores common clinical issues and co-occurring problems associated with PTSD, with chapters on: affective and anxiety disorders, substance use disorders, traumatic brain injury, military sexual assault, sleep disorders, suicidal ideation, and anger/aggression/violence.

Final Chapter

No exploration of treating PTSD is complete without addressing prevention. As has often been observed, no disorder affecting large numbers of the population has ever been effectively managed by treatment efforts alone. The ultimate answer to PTSD and its co-occurring disorders lies in preventive efforts that are as comprehensive as PTSD is complex. Admirably, this work's final chapter, written by respected psychologist Donald Meichenbaum, takes a look at resilience.

As the author notes, resilience refers to adaptation in the face of adversity, and incorporates the ability to bounce back, bend without breaking, and persevere amidst adversity. It develops over time, often slowly, and usually with continual practice of resilience-engendering activities. Meichenbaum argues for comprehensive resilience training programs for service members, their family members, and leaders at all phases of military life.

Appendices

Appendices provide a wide range of written, web-based, and programmatic resources.

In short, this is an invaluable resource for anyone concerned with the well-being of service members and their families. As well-conceived and written as it is, we eagerly await the sequel or second volume, with more related to:

- Overcoming treatment resistance and fear of stigma
- Factors known to influence brain health/performance, mood, cognitive function, performance, and metabolism—including medical issues, nutrition, exercise, sleep hygiene (unit and individual), and hydration
- Prevention (Along with identifying and intervening with those who are ready to “break,” psychological inoculation efforts will ideally target all. Preventive efforts will ideally strengthen both individuals and the organization—going beyond the identified patient to strengthen the system, to borrow the family systems metaphor.)
- Promising complementary treatments, such as mindfulness
- Proper preparation of clinicians (Regarding treatment, the question is not which modality is best, but which tools a clinician should be equipped with, so that if one modality is unsuccessful, another might be tried. Clearly, our graduate programs must better prepare students to treat trauma.)

Bottom line: This is a truly excellent resource for clinicians and a valuable text for graduate courses on trauma. Highly recommended.

Criminal Psychology: Nature, Nurture, Culture

Laurence Miller, Ph.D. (Springfield, IL: Charles C. Thomas, 2012)

Reviewed by: Richard L. Levenson, Jr., Psy.D

Every so often an author appears with an uncanny knack for making difficult, higher order concepts easily translatable to simple, comprehensible information. This rare talent takes incredible skill, a keen understanding of both the subject matter and knowledge of how to convey it in a manner making it an effortless and extremely interesting read.

Such is the case with Dr. Laurence Miller and his latest book, *Criminal Psychology: Nature, Nurture, Culture*, (2012, Charles C. Thomas, Publisher). Dr. Miller is the author of many well-received, peer-reviewed, scholarly articles as well as books on his work with police psychology, human relations, and other applied aspects of clinical and forensic psychology. He is also affiliated with various police agencies as a psychologist, and teaches psychology at the university graduate and undergraduate levels. This time, his *Criminal Psychology* breaks new ground by weaving together the fields of law enforcement, criminal justice, mental health, and forensic psychology.

Dr. Miller’s tome (588 pages) is an embarrassment of riches on these topics, and they are each carefully delineated and presented with simple, pragmatic language resulting in a book that should be viewed as “The Bible” for those interested in the field of criminal psychology.

Criminal Psychology is divided into five major parts. In Part I, Dr. Miller thoroughly covers the nature and origins of criminal behavior and includes theoretical perspectives,

empirical support, and his own clinical acumen in discussing the biological and psychosocial theories of criminal behavior. There is an excellent, comprehensive discussion, in particular, of the various parts of the criminal justice system and the interplay of clinical and forensic psychology within it.

In Part II, Dr. Miller focuses on personality, psychopathology, and crime, and provides critical information on brain syndromes and substance abuse, schizophrenia and psychotic disorders, anxiety and mood disorders, personality disorders, and antisocial personality disorder and the psychopath. Here, in particular, Dr. Miller is particularly adept at explaining the interplay between brain and behavior relationships, and relates how brain disease and/or traumatic injury can evolve into violent, criminal, and unstable behavior which may be causative in an individual’s involvement with unlawful activities. Especially interesting for example, are Dr. Miller’s discussions of the relationships between types of epilepsy and various clinical syndromes resulting in criminal behavior. In this section, there are also important discussions of traumatic brain injury, sleep disorders, and developmental disorders and how brain syndromes may be associated with criminal behavior.

Parts III, IV, and V, in particular, seem most relevant in today’s world. In Part III, Dr. Miller discusses homicide, serial homicide, and mass homicides and violence in the workplace, schools, and terrorism and political violence. There is an excellent delineation of the different subtypes

of homicides, including prosecutable and nonprosecutable homicides, with further discussions elaborating serial killers, spree killers, and mass murderers. Demographics of homicides, including biological, neuropsychological, and sociocultural theories are presented via empirically-based support. Dr. Miller then astutely weaves his professional experience and learned clinical and forensic psychological background with how mental disorders, personality disorders, and brain syndromes may have causative roles when a homicide occurs. Of particular interest and a “hot topic” in schools today is bullying, and Dr. Miller’s discussion of bullying and peer victimization includes types of bullies as well as types of victims, and factors that contribute to bullying as well as theoretical considerations are well thought out and should be considered mandatory reading by school personnel such as principals and assistant principals, school psychologists, school social workers, and school counselors.

Part IV of *Criminal Psychology* concerns sex crimes and family crimes. Rape and sexual assault are discussed with emphasis on the psychology and psychopathology of rapists, their psychological dynamics, and topics such as sexual sadism and the perversions or paraphilias. The influence of substance abuse on sexual crimes and theoretical perspectives such as neuropsychological, psychodynamic, behavioral, feminist, and evolutionary theories make for an interesting and informative discussion. With respect to family crimes (i.e., child abuse and domestic violence), Dr. Miller again is timely with discussions on child sexual abuse by clergy, pedophile typologies, child battery and murder, and

eloquent discussions on the psychology of parents, caregivers, and guardians who murder children. There is a section on “Parricide,” the killing of parents by their children with extensive background coverage of the family dynamics as well as the psychosocial contributory factors leading children to commit such crimes.

In Part V of *Criminal Psychology*, Dr. Miller discusses stalking and harassment and provides us once again with an excellent discussion of stalker typologies, behaviors, commonalities, and then reviews how the psychology of stalking fits with specific clinical syndromes. Particularly important are stalker violence, effects of stalking on victims as well as cyberstalking. Part V also contains sections on juvenile offenders and their crimes, hate crimes, arson and pyromania, and mentally ill offenders and whether or not the intervention of psychological treatments may be effective.

Overall, we have here a “must read,” or the “Gold Standard” of criminal psychology, and this book will be used and referred to again and again by federal, state, and local law enforcement agencies, clinical and forensic psychologist-specialists in psychology and social work, undergraduate and graduate students with an interest in criminal psychology, and in university and public libraries for public consumption. The Bibliography, alone, is a valuable, 200 page reference guide for those studying criminal, forensic, clinical, and school psychology. Dr. Miller’s *Criminal Psychology* presents a wealth of information that is up-to-date, less hypothetical and mostly empirical, and will be used for years to come as an extraordinary clinical reference tool in understanding human behavior.



Association of Traumatic Stress Specialists

An International Organization

Recognizing Standards of Excellence in Response, Treatment & Services

ATSS is an international organization dedicated to serving the needs of professionals working with the traumatized. Our members benefit from networking, resource linkage and certification.

ATSS offers three certifications:

1. **Certified Trauma Specialist** for those involved in ongoing individual/group work;
2. **Certified Trauma Services Specialist** for those who provide crisis intervention;
3. **Certified Trauma Responder** to those providing posttraumatic stress reduction groups/interventions.

Certifications entitle members to be recognized as having met a rigorous standard of educational and experiential requirements in the field of trauma provision.

Membership: ATSS members represent, emergency responders, peer counselors, victim assistance staff, emergency preparedness and disaster workers, child and adult victim advocates, grief counselors, fire fighters, the clergy and chaplaincy, public safety officers, addictions specialists, psychiatrists, psychologists, social work, marriage and family counselors, hospice staff nurses, school and college counselors, employee assistance and others engaged in helping victims and survivors heal. ATSS members are actively involved in crisis intervention and disaster management, victim services, emergency and trauma response and longer-term treatment of Post Traumatic Stress Disorder (PTSD) and other disorders.

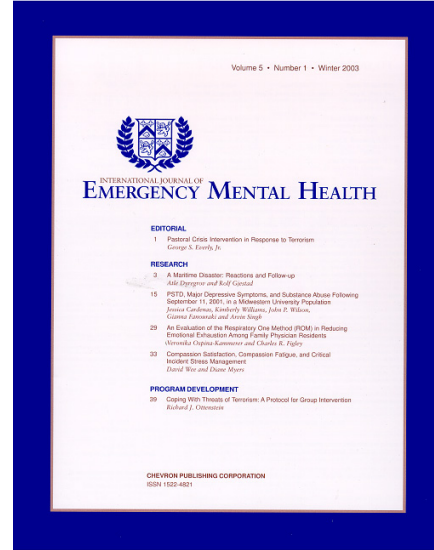
A few Individual Member Benefits:

- *International Journal of Emergency Mental Health* Subscription Discount
- International Board Certification Options For Eligible Application and Recognition as a Certified Trauma Responder (CTR), Certified Trauma Specialist (CTS), and Certified Trauma Services Specialist (CTSS)
- Searchable Online ATSS Membership Directory
- Discounts for ATSS Conference
- ATSS e-Newsletter, Trauma Lines
- Affiliation with an International Professional Network of Skilled Trauma Specialists

For more information please visit our website: www.atss.info

Subscribe Now!

**INTERNATIONAL JOURNAL OF
EMERGENCY
MENTAL HEALTH
and
HUMAN RESILIENCE**



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. Published quarterly, topics include: psychological trauma, disaster psychology, traumatic stress, crisis intervention, emergency services, critical incident stress management, war, occupational stress and crisis, employee assistance programs, violence, terrorism, emergency medicine and surgery, emergency nursing, suicidology, burnout and compassion fatigue.

Check one only:

Individual Subscription (Four Issues)

- USA Only \$ 82.00 / year
- International \$128.00 / year

Institutional Subscription (Four issues)

- USA Only \$390.00 / year
- International \$485.00 / year

Subscribe by returning this form with your payment to Resiliency Science Institutes, 702 Severnside Avenue, Severna Park, MD 21146; fax this form with a purchase order to [410.987.0850]. No company or institution checks can be accepted for individual subscriptions.

Subscription For

(Please Print Clearly):

Name/Institution _____

Address _____

City/State/Zip/Country _____

E-Mail (for confirmation) _____

Method of Payment

Check or Money Order (in U.S. funds)
(Payable to Chevron Publishing Corp.)

MasterCard VISA AMEX

Expiration Date: _____

Name on Card: _____

Card No.: _____

Security Code: _____

Signature: _____

Instructions For Contributing Authors

1. The *International Journal of Emergency Mental Health* provides a peer-reviewed forum for researchers, scholars, practitioners, and administrators to report, disseminate, and discuss information relevant to the goal of improving practice and research within the field of emergency mental health. Editorials, special articles or invited papers may not be peer-reviewed.
 2. The *Journal* publishes manuscripts on topics relevant to emergency mental health including psychological trauma, disaster psychology, traumatic stress, crisis intervention, rescue services, Critical Incident Stress Management (CISM), war, terrorism, emergency medicine and surgery emergency nursing, burnout and compassion fatigue, occupational stress and crisis, employee assistance programs, suicidology and violence.
 3. The *Journal* publishes manuscripts which fall into eight major categories:
 - original research
 - book reviews
 - case studies
 - empirical reviews
 - commentaries
 - theoretical reviews
 - continuing education updates/reviews
 - program development
 4. The *Journal* will not consider manuscripts which are under concurrent review for publication elsewhere, or manuscripts which have been previously published.
 5. For purposes of author-editor communication, a phone number, fax number, e-mail address, and a postal address should be included with the manuscript. Manuscripts without this contact information may not be accepted for review.
 6. **The following guidelines must be followed for manuscript preparation:**
 - **Manuscripts must be double spaced and prepared in accordance with the most current *Publication Manual of the American Psychological Association*.**
 - **Manuscripts must include a 100 to 200 word abstract and a suggested running headline.**
 - **A list of three to seven key words or phrases must be provided for indexing purposes.**
 - **The corresponding author must be clearly indicated with the street address, telephone number, fax number, and email address.**
 - **Camera-ready figures and illustrations must be provided separate from the text.**
 - **Generic or chemical names should be used when indicating specific medications.**
7. Authors are responsible for all statements made within the manuscript. They are responsible for the accuracy of their work and for obtaining any necessary permissions prior acceptance.
 8. Upon acceptance, all authors must assign the copyright for the manuscript to the publisher.
 9. Blind review for manuscripts is available upon the specific request of the author.
 10. Upon acceptance, all manuscripts will be retained by the publisher.
 11. Authors will receive page proofs for review prior to publication. For timely publication, page proofs must be returned within three days.
 12. There are no page publication charges.
 13. Reprints may be ordered directly from the publisher. A reprint order form will be included with the page proofs.
 14. Manuscripts should be submitted in electronic version in Word format should be sent as an attachment to Victor Welzant, Psy. D. at
drwelzant@verizon.net.

The email should be clearly labeled with the author(s)' name, manuscript title, and date.

