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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.

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Editorial

The title of this journal is no accident. The field of emergency mental health must, by its very nature, be an *international* endeavor for three important reasons: First, response teams often have to be ready to spring into action anywhere in their hemisphere – and sometimes anywhere on the globe – at a moment's notice. Second, in many countries, first responders are confronted with a mélange of ethnoculturally diverse populations who may not all share a homogeneous view of what constitutes effective rescue, care, and treatment. And third, many of these culturally diverse environments are no further than the responder's own neighborhoods; in most major cities in the U.S., you need only walk a few blocks in any direction to encounter a wide variety of languages, beliefs, customs, and cultural mind-sets.

That's why it's so important to try to speak the language – in every sense of the term – of the populations we serve. As James Greenstone points out in this issue, adequate translation does not merely involve a dry transliteration of words, but the ability to convey and assimilate a feeling for the values and cultures of the distressed population. This is the essence of *communication* – showing the people we're trying to help that we "get it" about their values and the nature of the world they live in, or at least that we're sincerely trying to do so. Such linguistic-cultural communication can have life-and-death repercussions in a crisis-immersed environment.

As noted above, cultural diversity may exist no farther than the next desk over, in the case of schools that have to deal with critical incidents affecting their students and faculty. In their article, Ronald Miller & Carl Grueninger report on a CISM-based model intervention program at a school, following the police shooting of a student which generated a high level of rage and despair within the student body. Here, cultural diversity also includes the age factor, as adult counselors had to deal with distressed and angry adolescents, in order to allow students to grieve while preventing school violence.

We many never fully understand the factors that led that police officer to shoot that student, but among responders, police officers are the only professionals that are mandated to use deadly force as an essential contingency of their job. While the media focus is typically on cops who kill civilians, proportionately more officers are killed by members of the general public than the other way around. An even greater number die in work-related accidents. And a few succumb to professional and personal stress and take their own lives. But how many? John Violanti points out that we owe it to the honor and memory our law enforcement colleagues to determine how many "undetermined" deaths are really self-inflicted, so we can design effective proactive intervention services for officers in distress.

One such intervention strategy is the Badge of Life program presented by Richard Levenson and colleagues, that utilizes peer support as a primary vehicle for officer suicide prevention. Many law enforcement officers are reluctant to seek help from outsiders (i.e. "anyone who ain't a cop"), and yet may be embarrassed to talk to their colleagues (i.e. "anyone who is a cop"), creating the need for a cadre of experienced senior officers with both a law enforcement background and adequate mental health training to reach out to their colleagues in dire need. This article explains how to do it.

But peer support is important for a far greater range of reasons than suicide prevention. One of the key factors in psychological resilience – the ability to withstand physical and psychological stressors and still keep going forward – is the knowledge that your peeps have your back: maybe not actually physically in back of you, but supporting your efforts from a few yards to a few thousand miles away, and both in the immediate crisis situation and from the memories and assimilation of supportive experiences of years ago within the family context. Such secure attachment may be vital in

minimizing the secondary or vicarious traumatization that is often experienced by emergency mental health and other responders, as demonstrated by Carol Tosone and colleagues in the case of social workers who responded to the 9/11 terrorist attacks.

But what if we didn't have to rely on chance factors of developmental upbringing or situational opportunity to encourage and reinforce resilience? Wouldn't it be great if we could take a course in this subject that would teach practical resilience-building skills? We now can, thanks to an innovative resilience-training curriculum developed by Glenn Schiraldi and colleagues. While no serious behavioral scientist will deny that natural differences occur among people in everything from verbal skill, to artistic talent, to athletic ability, to stress-resilience, almost all would agree

that just about anybody can learn to read, draw, throw a ball, or deal with stress at least a little better than they do now. The author's semester-based course would fit nicely into the curricula of most college programs in psychology, mental health, and biomedical sciences.

Thus, from communicating clearly in a linguistically and culturally diverse environment, to handling stress in the face of a chaotic crisis situation, the articles in this issue start practical and end practical, exemplifying *IJEMH*'s mission of presenting effective, science- and experienced-based solutions to the real-world tasks of hard-working emergency responders.

Laurence Miller, PhD

August 28, 2010

Use of Interpreters With Crisis Intervention Teams, Behavioral Health Units, and Medical Strike Teams: Responding Appropriately and Effectively

James L. Greenstone

Fort Worth, Texas

Abstract: *The methods of using an interpreter during crisis intervention, medical, and psychological procedures with a non-English speaking patient are often compromised by lack of proper training for both primary healthcare personnel and potential interpreters, and by misunderstandings about effective procedural guidelines. Training is paramount and not everyone can do this important job. Being a fluent speaker of several languages does not in itself make one an effective interpreter. The purpose of this paper is to offer specific guidelines on what may be required in order to do successful interpretation. [International Journal of Emergency Mental Health, 2010, 12(2), pp.79-82].*

Key words: Interpreters; crisis intervention; emergency mental health; behavioral health; disaster intervention; translators.

Interpreters are of value only if they, or their agency, can be trusted, and if their contribution to the healthcare procedures fosters team involvement and successful patient treatment. Specific training is required to make this process work effectively.

One common mistake is allowing the interpreter to conduct the medical examination, the interview, or other procedures simply because they speak the language of the patient. Regardless of the languages spoken and interpreted, the physician, physician extender, behavioral health provider, or crisis intervener must conduct the actual professional interaction with the patient or crisis victim. This is true even if the interpreter happens to be a trained medical provider. Interpreters are interpreters only. The only exception might be when the healthcare provider is fluent in the non-English speaker's language. The problem here is that if the interaction is conducted completely in another language by the healthcare provider and the patient, the rest of the treatment team, who may not speak the alternate language, are excluded from the valuable information being transmitted. Primary treatment providers should not be interpreters for their own cases, and interpreters should not be primary treatment providers. Exigent circumstances may be cause to evaluate this rule.

Background

The context for this manuscript is the extensive experience of this author in the development, utilization, and

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observation of the specific guidelines presented herein. The author's background as a police officer and as a trainer of hostage and crisis negotiators, including utilization of these procedures under hostage and barricade situations, form a basis for what follows. Additionally, the military medical experience of the author as the Chief of Behavioral Health Services for a Medical Brigade is significant. The observations of medical providers' utilization of, and problems with, interpreters when dealing with medical and behavioral health patients spurred the further development of this material in this context. (Greenstone, 2005; Greenstone, 2008). This author has extensive experience with, and in the development of, crisis intervention training and procedures. Interpreting is an important area of concern - an area not often addressed in the context of emergency mental health and critical incidents. (Greenstone & Leviton, 2011).

Recently, this author became aware of the Certification Commission for Healthcare Interpreters. While in their early stages of development, they will undoubtedly benefit the overall healthcare industry. They distinguish between interpreters and translators and are not focused on crisis or emergency situations as in this offering. While translators and interpreters have been used in various commercial and legal venues, the novelty of this article is the specific development and utilization of interpreter practice guidelines essential in crisis, behavioral health, medical, and military circumstances. (CCHI, 2010).

Please note: The primary focus of this article is non-English speaking patients and examinees. The same presented principles are applicable in any circumstance where the provider and the patient do not speak the same language.

Specific Guidelines

- Interpreters must be chosen carefully prior to actual healthcare involvement. If this person can participate in training scenarios, so much the better. This will increase effectiveness and reduce initial clumsiness with the system.

- If possible, interpreters should be recruited from reputable agencies that provide such services and have interpreters readily available and properly trained according to these guidelines. Additional training may be needed on-the-job even if the agency is reputable. Not all understand these guidelines for effective patient interaction.

- In the alternative to an agency, a specific person with the required skills should be sought, evaluated, and trained by the healthcare team.

- The interpreter only acts as a "word machine" for the primary provider - nothing more.

- The interpreter does not conduct the ongoing dialogue with, or examination of, the patient or examinee. The interpreter will not engage the patient in conversation, leaving such interaction to the healthcare provider who will make all introductions and explanations to the patient. The interpreter will respond as these guidelines require.

- Interpreters must say to the person exactly what the healthcare provider says and in the same way as the provider says it - word for word.

- Similarly, the interpreter must say to the primary healthcare provider exactly what the patient says and in the same way that the patient says it. No deviations are permitted.

- Interpreters should not paraphrase what either the healthcare provider or the patient says. Do not say, "What he said was….," or, "What she is trying to say is…" Just repeat word-for-word what is said on either side of the conversation. If another healthcare provider joins the conversation, the same would apply for the interpreter. Let the healthcare provider interpret the patient's response and ask additional questions to clarify as needed.

- Information about the patient's tone, inflection, cultural meanings, etc., will be given directly to the healthcare provider if such nuances may not successfully cross cultural boundaries. The interpreter should be instructed to do this by the primary healthcare provider. This is vital to the provider in order to make accurate assessments of the situation.

- Interpreters should not add personal interpretations about what the patient or healthcare provider is saying. If asked by the healthcare provider to do so, they may provide their personal interpretations to the degree needed.

- The interpreter should be fluent specifically in English and in the language of the non–English-speaking person. Healthcare providers must confirm this dual fluency prior to using the interpreter. Quasi-fluency in

either language is unacceptable. Such lack of fluency can put the patient /sufferer and healthcare provider in jeopardy.

- The interpreter should have no conflicts of interest that would prevent him or her from relating information accurately, or from working with the crisis intervention team, medical strike team, or behavioral health unit in the intervention, examination and/or treatment of any patient. This must be explored before the interpreter is used.

- When using the interpreter, the primary healthcare provider should speak in short phrases in order to allow for accurate translations. This procedure is called c*hunking*. This takes practice and a little more time to do. It will be worth the effort.

- The healthcare provider should always speak directly to the patient and maintain eye contact. Be aware that eye contact is not always culturally acceptable. When speaking to the patient, do not look at the interpreter. The conversation must always be between the healthcare provider and the patient even though two different languages are being used.

- The interpreter should translate in short phrases utilizing the concept of chunking.

- The interpreter is not part of the healthcare team unless specifically needed in that capacity.

- Always remember: The interpreter only translates. Nothing more.

- These same procedures are easily adaptable to telephone interactions with non-English speakers. For telephone translations, a secondary phone line attached to the primary phone will be needed so that the interpreter can hear both sides of the conversation. The interpreter should sit near the healthcare provider who is on the phone with the patient to facilitate the transfer of information.

- Interpreters should not be used in situations within which they may feel uncomfortable or threatened. Such concerns may compromise the translations and the meaningfulness of the healthcare provider/ patient interactions.

- If you have concerns regarding the accuracy of a interpreter or of a translation, have the interaction verified by another person fluent in both languages or by another bona fide, appropriately trained interpreter. (Greenstone, 2005; Greenstone, 2008; Greenstone & Leviton, 2011)

- The healthcare provider should confirm the patient's ability to speak English. This can be done by checking with others who may know the patient or merely by speaking to the patient in English. If the patient speaks at least some English, communicate directly in English, and have the interpreter stand-by to assist if needed.

- Speaking with someone who only speaks some English will tend to slow down the conversation and examination. It may also provide for added accuracy because the patient or examinee must consider their responses more carefully before speaking.

- .Interpreters must convey to the healthcare provider idiomatic nuances in the verbal exchanges that may not be obvious to the listener. This should be done directly to the provider.

- The interpreter should not insert his or her own beliefs or possible alternative approaches to the patient's problems or difficulties. This may be more of a problem for a interpreter with more experience. Resist the temptation.

- The interpreter should not editorialize or express personal opinions or emotions except as requested by the healthcare provider - never to the patient. (DiVasto, 1996).

Conclusion

Do not underestimate the power, importance, and impact of these procedures in developing the needed relationship between the healthcare provider and the patient. It is possible to carry on in-depth conversations just as one would if all parties were speaking the same language. Such abilities will allow for the highest level of treatment and patient care.

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Critical Incident Stress Management in a School Setting Following Police Shooting of an Adolescent

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Abstract: *Cincinnati Public Schools Critical Incident Stress Management Team responded when a teenager who was in possession of a pellet gun was killed by police. The themes that emerged had more to do with rage than typical bereavement or trauma responses. The primary objective was the prevention of school and community violence. Strategic planning was critical in preventing violence and responding to the changing needs of students, staff, and families during the weeks following this tragedy. Team members had to consider cultural differences related to interpretation of events, grieving rituals, and expectations for appropriate behavior when planning and providing interventions. [International Journal of Emergency Mental Health, 2010, 12(2), pp. 83-88].*

Key words: *crisis intervention, crisis counseling, critical incident, rage, school violence, police, violence prevention, strategic planning*

When teachers at a Cincinnati high school were confronted with upset students who refused to go to class first thing in the morning, they called for assistance from the school psychologist and school counselor who are the authors of this case study. Many students were receiving text messages and phone calls telling them that their friend was killed while others heard that he was still alive. Since the student in question moved to another city earlier in the year, it took

some time to determine what had happened. Internet news sources reported numerous shootings the previous evening in the metropolitan area where the student lived. The school counselor eventually corroborated the story by a telephone conversation with the student's mother. The student had been in possession of a pellet gun that resembled a semi-automatic pistol when police officers, who were responding to an emergency call, shot and killed him.

When students first heard the story, some were crying, angry, and otherwise visibly upset. One of their first responses was to say that school staff were not listening to them. Through experience working in urban schools, the authors recognized the potential for students to react with anger or violence if the students believed that adults did not respect their grief or tried to force them to separate from their friends and return to class. It was apparent that crisis counselors needed to first deal with rage responses before ad-

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dressing the more typical bereavement responses of students. Cultural differences in attributions of causality, assumptions about relationships, and acceptable ways of handling personal reactions were key factors in designing a response to the crisis. The following discussion illustrates the importance of understanding rage responses, cultural competence, and ideographic use of resources when crisis counselors respond to critical incidents.

Rage

When confronting an enraged and aggressive individual, Braithwaite (2001) recommended communicating both concern and involvement by first addressing the present behavior, stating the impact of the behavior upon the speaker, setting a clear boundary by asking that the aggressor stop the behavior, and then returning to the task of trying to resolve the present concern. The goal is to first stop or prevent violence and then immediately begin trying to resolve the problems that are driving the violent behavior. Braithwaite also suggested that aggression can be managed by changing the environment to make it more likely that the aggression will be defused and to make it easier to address the factors that contribute to the aggression. Schouter (2008) observed that the challenge is to design an intervention that decreases the immediate risk of violence, maintains the safety of all concerned, and decreases the risk going forward.

The challenge becomes more complex when confronting a group of enraged individuals. When discussing rage response during race riots, Lieberson and Silverman (1970) described riots in the 1960s that were triggered by a precipitating incident following grievances that could not be resolved under the existing arrangements of local and community governmental institutions. They suggested that these particular riots were an outcome of racial difficulties that were not adequately addressed by the existing social institutions. Cincinnati experienced racial rioting in the weeks following the shooting of an unarmed African-American man in the spring of 2001. Every conceivable individual and institution was blamed for the violence and the memory is still vivid for those who live in the city.

When bad things happen to large groups of students, the situational factors, social dimensions, and psychological reactions overwhelm the existing school resources, fitting the definition of a disaster (Moeller, 2008). Because schools educate students who exist in a range of living situations and

emotional states, school staff members constantly address the interplay between situational factors and the personal reactions of students. Schools use individual education plans and functional behavioral assessments to address the needs of individual students who have chronic disabling emotional conditions that sometimes include frequent rage responses. The interventions that effectively address rage reactions in groups of students, however, still need further investigation and research.

Cultural Differences

Critical Incident Stress Management (CISM) training materials describe how cultural diversity plays a role in basic communication and in the presentation of crisis symptoms (Mitchell, 2006; Everly, 2006). Cultures differ with respect to what is stressful as well as how stress, traumatic reactions, and grief are expressed. There are differences in language, terms used to describe events and reactions, and the ways in which people give and receive support (coping, healing, and funeral customs). The responses of students and families in the weeks following the police shooting revealed additional cultural differences that had a significant impact on the provision of crisis intervention: different attributions of causality, assumptions about relationships, expectations of service organizations, and beliefs about acceptable and unacceptable ways of handling reactions.

Students and staff had different beliefs about what caused the shooting. Students were more likely to believe that police had malicious intent, whereas school staff members were more likely to attribute the cause of the tragedy to the student being in possession of a pellet gun.

Crisis counselors were quickly confronted with students' assumptions about relationships. Adolescents may doubt that adults understand their perspective or their life situation. One of the early challenges was encouraging students to open up even though they were distrustful that counselors could understand their perspective and experiences.

Students and parents expressed diverse expectations of mental health professionals, police, and school staff. Students and parents were initially hesitant to trust crisis counselors because they represented mental health professionals. This hesitancy changed during the course of events; parents began calling the school counselor, school psychologist, and school resource officer (SRO) more frequently to help resolve problems in the weeks that followed the tragedy. Many students

expressed anger toward police officers and described personal experiences of harassment from the police. Parents expressed concerns about how school officials were handling students' reactions and expressions of grief.

There were different beliefs about acceptable and unacceptable ways to express and handle personal reactions. Although loud expressions of sobbing and wailing are acceptable indications of grief for many cultures, it can be unsettling for those who believe that emotions should be internalized. School staff and CISM team members addressed different beliefs regarding how to express outrage at a police shooting of a teenager. Although many high school students said that rioting and destruction of community or school property were desirable, their parents and school staff were united in communicating that this was not acceptable.

School staff and students demonstrated differences in bereavement rituals. After the funeral, many students wore T-shirts and headbands bearing pictures of the deceased student. Staff were divided on whether this was an acceptable mourning ritual or an expression of gang affiliation. It soon caused disruption among students who claimed that some did not know him well enough to wear the T-shirt. Although the school administration first allowed students to wear these T-shirts at school, this was soon disallowed. It became apparent that the shirts were causing arguments among students due to personal grudges and expressions of resentment rather than respect for the deceased.

Strategic Planning

Even before the National Incident Management System (NIMS) was introduced in schools, the school principal was the recognized authority responsible for the safety of all students and staff. As the incident commander, the principal activates resources to evaluate and intervene in a crisis situation. As is common for organizations that are not emergency management agencies, principals frequently receive information from a variety of sources and then rely on trusted individuals whose expected roles do not always match their job descriptions. In the current case study, the principal met with the school psychologist and school counselor as soon as the facts of the tragedy were confirmed. These individuals met several times the first day and frequently in the following weeks to assess the current situation and underlying influences, to theorize what could happen next, and then identify existing needs and interventions. Other school staff

contributed to these discussions as they had information or interventions to contribute.

Because the Cincinnati Public Schools CISM team responds to school incidents, most team call-outs are responses to an unexpected death of a student or school staff member. These events typically require a large number of CISM team members for one or two days. The police shooting, however, required different interventions provided by different team members for a longer period of time. Adjusting the type and timing of CISM elements enabled team members to prevent school and community violence, support those experiencing grief and trauma reactions, and facilitate resiliency for students and staff.

Crisis Intervention

The initial interventions focused on providing a safe place for students to express their reactions and reinforcing security measures to maintain the physical safety of students and staff. After ensuring physical safety, the next challenge was making students and staff feel emotionally safe and respected. Although students tended to wander the halls at a much higher rate than usual, providing a location for crisis counseling allowed school security to direct students to the counseling center rather than goading them into returning to class.

On the morning that students were informed of the death, few students spoke to crisis counselors. Of the students who spoke to the school counselor, one group asked why he had to sit with them. He told them that an adult had to be present to supervise them and to give everyone a chance to tell their story. When the students said that he could not understand them, he asked them to try to help him understand. As the students began sharing, they first looked only at each other when they spoke but soon included the school counselor non-verbally by looking at him as they told their stories.

During lunch a large group of agitated and rowdy students came into the counseling center. CISM team members addressed the behavior and told students that the counseling center was a place for students to share their stories without the situation deteriorating into calls for violence or riotous behavior. Although a few group interventions were provided to students during the afternoon, many additional interventions were provided in the days and weeks that followed. Some of the later interventions proved to be more effective in helping students tell their stories. The trust required for

the students to share their experiences and reactions was not automatically present the first day. It took time for students to trust the crisis counselors so that these interventions could be successful.

There was an increase in arguments and fights between students after the funeral. This led crisis counselors to provide mediation with students and to spend additional time talking to parents. Mediation and problem solving helped maintain and restore discipline. The threat of these situations came from the intense and complicated emotions of the students and their personal experiences. When crisis counselors and school staff were effective in resolving these conflicts, it supported the belief that the school organization was effectual and worthy of trust.

The role of the SRO was critical in the weeks following the shooting. Students usually approached the SRO in groups to talk about what happened. They often did not trust him enough to approach him individually without the support of their friends. He was able to share police procedures for confronting an individual with a gun and he provided a police officer's perspective about use of lethal force. He was an authority figure who tried to help answer difficult questions amidst a dearth of information. He cared about their confusion and pain and helped students find some insight into the tragedy.

Limitations and Assumptions

As a case study, any implications and recommendations are limited by the setting and situational variables of this incident. This response occurred in an urban Midwestern high school in response to the death of a teenage African American male who had moved to another city and was killed by police while in possession of pellet gun. The school is composed of 750 students who are 46% African American and 52% White non-Hispanic and 44 full-time teachers who are 16% African American and 82% White non-Hispanic.

All crisis counselors were school psychologists, school counselors, or school social workers employed by Cincinnati Public Schools and all were trained in CISM. The purpose of using crisis counselors trained in CISM was to guide the discussions utilizing CISM interventions, dispel or confirm rumors, and start to build trust between students and school staff. Of the five crisis counselors who participated in the response, four were White non-Hispanic and one was African American.

The authors assumed that homogeneous groups led by trained crisis counselors would result in a beneficial effect. Homogeneous groups (some groups were composed of those who knew the student a long time, some were only boys and some were only girls) were used for several interventions, assuming that students would have different issues and be better able to relate to group members with similar backgrounds, express their thoughts and feelings more freely, and experience a better de-escalation. The authors assumed that giving students an opportunity to express themselves would allow them to begin dealing with the issues underlying their agitation and anger. They also assumed that this would result in a return of school discipline.

Criticisms expressed during the incident included the allegation that CISM team members allowed students to make more of the incident than it deserved and may have contributed to the decay in school discipline. Other criticisms were that the school team responded too soon, too late, or should not have intervened at all. Given the nature of students' statements and behavior at the beginning of the first day and improvement in school discipline over time, the authors and school administration believed that the interventions were an effective means of restoring discipline.

Future Directions

The current case study raises questions related to the most effective use of school resources to deal with critical incidents. What resources and interventions could be effective in dealing with groups of enraged individuals? What resources, including number and types of staff members, location of crisis counseling and type of interventions, are most effective when responding to critical incidents involving diverse cultural factors in schools? What is the most effective way of maintaining open communication not only with students but also staff, parents, and community members?

Although there are many case studies describing school crisis responses, there are no large-N studies indicating the types of reactions students are likely to demonstrate following a given critical incident. Discipline, student and staff attendance and absence rates, grades, test performance, and perceptions of school safety by students and staff can all be affected by death, natural disaster, school violence, or other crisis events. These reactions may impact students, families, and staff as well as the organizational stability of schools and the well being of communities. Studies that indicate the

degree of intensity and duration to which these factors are likely to be affected by different events would be a benefit to the field of study.

Conclusion

The response to a police shooting of an adolescent focused on controlling rage before CISM team members could address more typical grief and trauma reactions of students. Although traditional CISM techniques such as defusing and one-on-one crisis interventions were necessary and effective, strategic planning was the most critical component of the crisis response. Strategic planning included consideration of situational factors, cultural differences and many underlying issues when planning interventions. In the months following the tragedy, parents and students increasingly called upon the school counselor, school psychologist, and SRO to assist with personal and school problems. Many expressed a higher level of trust when their concerns were addressed in a respectful and helpful manner.

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Suicide or Undetermined?
A National Assessment of Police Suicide Death Classification

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Abstract: *The validity of police suicide rates is questionable. The objective of this paper is to compare national police suicide rates with "undetermined" death rates and compare across occupations similar in exposure. An additional objective is to compare police suicide and undetermined rates in female and minority officers. Results indicated that male police officer deaths had a 17% increased risk of being misclassified as undetermined (Proportionate Mortality Ratio (PMR) =117, 95% CI=110,123, significant at p <0.01). The risk was higher than both firefighter and military occupations (PMR=101 (1% risk), 95% CI=89,114; PMR=108 (8% risk), 95% CI=104,113 respectively). A high risk of misclassification was also seen in female and African American officer deaths (PMR=198 (98% risk), 95% CI=151-255, sig. p <0.01 and PMR=344 (344% risk), 95% CI=178-601, sig. p <0.01 respectively). The significantly higher ratio of police deaths classified as undetermined is interesting, given the high profile of law enforcement in society and the generally thorough investigations of police officer deaths. Also of interest is the suggestion that police misclassification risk is higher for police than other similar occupations. Future research should suggest possible ways to increase the validity of police suicide rates through methods such as post-suicide psychological autopsies. [International Journal of Emergency Mental Health, 2010, 12(2), pp. 89-94].*

Key words: *Police, suicide, suicide rates, national data, death misclassification*

The validity of suicide rates is questionable; such suicides may be routinely misclassified as accidents or undetermined deaths (Phillips & Ruth, 1993; Aldridge & St. John, 1991; O'Carroll, 1989; Pescosolido & Mendelsohn, 1986). The validity of rates in occupations where the stigma of suicide has an even greater impact may be subject to increased risk of misclassification. The police are one such occupational group (Violanti, 2007). Due to the cohesive-

ness of the police occupation, suicides of police co-workers may often be classified as "undetermined" in order to protect survivors from the stigma of suicide. Police investigators at the scene of a co-worker suicide are in a position to make investigative determinations which may influence medical examiners or coroners decisions to classify a death. In effect, the initial police investigator is the gatekeeper of information at the scene, and medical examiners have only secondary level discretion in the classification process. For example, a study of the Chicago Police department by Cronin (1982) found fifteen cases of suspected suicide in the Chicago police department that had been officially listed as accidental gunshot wounds.

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Violanti, Vena, Marshall and Petralia (1996) conducted a first attempt to establish a proportional risk estimate for misclassified police suicides. The study was part of an epidemiological retrospective mortality database study of 11,760 city workers, which included police officers and municipal workers (Vena, Violanti, Marshall, & Feidler, 1986; Violanti, Vena & Petralia, 1998). Undetermined death classifications were selected in addition to suicides because suicide has been shown to be systematically misreported within these categories (O'Carroll, 1989; Pescosolido & Mendelsohn, 1986). Information on each officer was compiled from death certificates, medical examiner reports, autopsies, police investigative reports, newspaper accounts, and obituaries and given to an independent panel of medical examiners to consider official death classifications. Seventeen percent of police suicides, as opposed to 8% of suicides in other occupations, were considered misclassified as "undetermined" by the medical examiner board.

The objective of this paper was to compare national police suicide rates with police rates classified as "undetermined" and to compare such rates across occupations similar in exposure. Firefighters and military personnel were considered as most closely resembling police personnel. Firefighters are exposed to many traumatic events in their work that are similar to those which police officers experience (Corniel, Beaton, Murphy, Johnson, & Pike, 1999). Examples are dead bodies, severely injured persons, and human misery. Military personnel are similar to police in that they must be under constant vigilance for the enemy and in danger of death from unsuspected sources. They are also under similar types of rank structure and have ready access to firearms (Mahon, Tobin, Cusack, Kelleher, & Malone, 2005). An additional objective is to examine national police suicide and undetermined rates in female and minority officers, as little is known about gender and ethnic differences in police suicide.

METHODS

The National Occupational Mortality Surveillance (NOMS) database developed by the National Institute of Occupational Safety and Health (NIOSH) was the descriptive data source for this study (Burnett, Maurer, Rosenberg, & Dosemeci, 1997). NIOSH maintains the NOMS System database of death certificate data with standard coded occupation and industry information. Twenty-eight states (Alaska, Colorado, Georgia, Hawaii, Idaho, Indiana, Kansas, Kentucky, Maine, Missouri, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Utah, Vermont, Washington, West Virginia, and Wisconsin) have participated in the project for two or more years from 1984 -1998. NOMS includes over 8.5 million death certificates collected during that period. Although the NOMS database lacks information on length of employment, specificity of job description, or estimates of workplace exposures, its advantages include its size, its broad geographic coverage, and the recent date of death of cases. Depending on date of death, the usual occupation of the decedent is coded according to the 1980 and 1990 Bureau of the Census classification system (U.S. Bureau of Census, 1990). Cause of death is coded according to the 9th Revision of the (ICD-9) International Classification of Diseases (World Health Organization, 1977).

We limited our examination to ICD-9 external based deaths and to the occupational categories "police and detectives" and "police supervisors" (occupation codes 414, 418-424), "firefighters" (occupation codes 413,416, 417), and "military personnel" (occupation code 905). ICD codes 950-959, 9th revision, "suicide and self inflicted injury" were used for suicide classification across the three occupational groups. To compare suicide with a death category for which suicide is commonly misclassified, we examined ICD-9 categories E-980-E-989, "injury undetermined whether accidentally or purposely inflicted" in the NOMS database (O'Carroll, 1989). This category is used when a medical examiner, coroner, or other legal authority cannot determine whether deaths are accidental, suicidal, or homicidal. They include self-inflicted injuries when not specified as accidental or as intentional.

The measure of association used with NOMS data is the proportionate mortality ratio (PMR) (Kupper, McMichael, Symons, & Most, 1978). The PMR indicates whether the age-standardized proportion of deaths from a specific cause of death for a particular occupation appears to be higher or lower than the expected proportion for that particular occupation. To test for statistical significance of the PMR, two-sided 95% confidence intervals (95% CI) were calculated, based on the Poisson distribution for observed deaths and using the normal approximation to the Poisson for large numbers. A PMR greater than 100 indicates that more deaths than expected were associated with the condition in an occupation.

RESULTS

As table one indicates, the male police PMR for undetermined death classification (PMR=117, 95% CI=110,123, significant at p <0.01) was higher than expected in the police occupation. It was also higher than undetermined death PMR's found among firefighters (PMR =101, 95% CI =89,114) and military personnel (PMR =108, 95% CI=104,113). In terms of percentages, this equates to a 17% increased risk of possible misclassification for police, 1% for firefighters, and 8% for the military. For male police, the PMR for undetermined deaths was nearly equal to the PMR for suicide (PMR =120, 95% CI =113-128, p <0.01).

Even higher proportionate ratios of undetermined deaths were seen in female and African American officers (PMR=198, 95% CI =151-255, sig. p <0.01 and PMR =344, 95% CI =178-601, sig. p <0.01 respectively). Ratios also paralleled suicide rates in these groups. This result equates to a significant 198% increased risk for female police, and a 344% increased risk for African-American police of being classified as undetermined. Compared to fire and military occupations, there was a near two-fold risk of an undetermined death classification for Caucasian policewomen and more than a three-fold risk for African American policewomen.

In terms of raw numbers, almost as many police deaths were classified as undetermined as were classified suicides (n =1036 undetermined vs. n =1148 actual suicides). This was also true for firefighters and military personnel; however, the ratio of misclassification (PMR) was higher for the police than either the firefighters or military.

DISCUSSION

The results suggest that the proportionate mortality ratio of police deaths classified as "injury undetermined whether accidentally or purposely inflicted" was significantly higher than expected in police work. Additionally, the risk of undetermined death classification nearly equaled that of suicide in the police. For male officers (PMR=117, 95% CI=110,123, sig p <0.05) this equates to a significant 17% higher risk for police deaths being classified as undetermined. For female and African American officers, a near two-fold significant risk of undetermined death classification is suggested (PMR =198, 95% CI =110,123, sig p <0.05 and PMR =206, 95% CI =162,158, sig. p <0.05 respectively). Due to the smaller numbers of suicide among women and minority officers,

these rates may appear somewhat inflated. The present results do suggest, however, that further suicide research is necessary among women and minority officers.

Just how many suicide cases classified as undetermined were actually suicides is not possible to determine without conducting further comprehensive and detailed psychological autopsies. Such information was not available in the NOMS database. The significantly higher ratio of police deaths classified as undetermined is interesting, given the high profile of law enforcement in society and generally thorough investigations of police officer deaths.

There are limitations to the present study. NOMS data is presently available only up to 1998 and is presently being updated. Additional national data is available through The National Violent Death Reporting System (NVDRS) through the Centers for Disease Control. This database has death information for 7-17 states for 2003-2007 and includes occupational codes. This may be an additional source for future studies on occupational suicide.

We cannot accurately predict trends of police suicide misclassification beyond the data available. Updated national data will also add information for military suicide. The present NOMS data covers military personnel in an essentially peacetime environment. Since 1998, the United States has been in several wars and this may impact suicide numbers. Additionally, police officers in the military reserve returning from war zones may also be at increased suicide risk. (Hoge, Castro, Messer, McGurk, Cotting, & Koffman, 2004)

A second limitation concerns PMRs. Although suggestive of risk, a statistically significantly elevated PMR should be interpreted cautiously. When a large number of PMRs are tested for statistical significance, many of the elevated or decreased PMRs will occur due to chance. Other elevated PMRs may be due to confounding factors. A lack of significantly increased PMRs may represent the selection of healthy workers for particular occupations.

Work exposures of police officers are confounders that add considerable weight to an analysis of suicide. Incidents such as witnessing death, encountering abused children, and street combat weigh heavily as precipitants to depression, alcohol use, and suicide. There is not information available in NOMS to adequately address this problem. Coroner or medical examiner determinations of death are dissimilar across various jurisdictions, which may to some degree account for discrepancies in classification. Lastly, this study

Table 1.
Proportionate Mortality Ratios – Suicide and Undetermined Deaths (Police, Firefighters, and Military) by Gender and Ethnicity, NOMS, 1984-1998.

| Occupation | Caucasian | | | | | | African-American | | | | | |
| | Males | | | Females | | | Males | | | Females | | |
	N	PMR	95% CI	N	PMR	95% CI	N	PMR	95% CI	N	PMR	95% CI
POLICE AND DETECTIVES												
Undetermined Deaths	1036	117**	110-123	59	198**	151-255	76	206**	162-258	12	344**	178-601
Suicide Deaths	998	120**	113-128	59	206**	157-265	80	203**	161-252	11	415**	207-742
FIREFIGHTERS, FIRE PREVENTION OCCUPATIONS												
Undetermined Deaths	271	101	89-114	5	259	84-604	85	195**	155-241	12	212**	145-432
Suicide Deaths	260	103	91-116	5	243	79-567	18	228**	135-160	--	--	--
MILITARY PERSONNEL												
Undetermined Deaths	1820	108**	104-113	55	168**	127-219	220	165**	144-188	6	189	69-411
Suicide Deaths	1734	110**	105-114	52	178**	133-234	201	175**	151-201	6	189	69-411

**- P < 0.01
Military deaths N=74,860
Police deaths N=40,188
Firefighter deaths N=14,184

is descriptive. Other than PMRs, direct comparisons using standardized methods could not be employed because we did not have full access to NOMS data, but an aggregate of the number of suicides across the three occupations. This descriptive data limited our analysis to the use of percentages and PMRs, and we were not able perform more sophisticated statistical analysis such as that found in Stack and Kelly (1994). Our present analysis thus provides only a basic level view of suicide in these occupations.

A positive point is that this study involves 1148 police suicides, more than many previous studies.

The significantly increased risk of police deaths being classified as undetermined may mask the true suicide rate in police work. While there is not yet an apparent solution to this problem, there is a concerted effort to further standardize medical examiner determination of suicide. The Operational Criteria for the Determination of Suicide (OCDS) was one such effort (O'Carroll, 1989). This form would assist medical examiners and coroners to conduct a standardized investigation of suicide.

Adding to the problem of standardization is the influence of police subculture. The stigma of suicide in police work appears to be a strong force which denies such deaths could possibly occur in this occupation. Stigma may prevent many officers from seeking professional mental health help with their problems, believing that doing so would jeopardize their careers and stigmatize them as "weak" and unable to do police work. If a suicide does occur, investigating officers may make efforts to avoid a classification of suicide in order to protect the family and avoid even further stigma (Violanti, 2007).

While we cannot yet be certain that police work in and by itself is a suicide risk factor, we can with some assurance state that it serves as a fertile arena for suicide precipitants, including relationship problems, culturally approved alcohol use and maladaptive coping , firearms availability, and exposure to psychologically adverse incidents (Violanti, 2007). Contextually, police work is likely a probable part of the causal chain of suicide; however misclassification of suicide deaths muddles accurate assessment of this tragic problem. We will be better informed for preventive actions if we know the true rate among those in this difficult and unforgiving occupation.

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The Badge of Life Psychological Survival for Police Officers Program

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Abstract: *Worldwide, there is no more consistently stressful job than that of the police officer. In the United States, police officers are more likely to die by suicide than by any type of criminal or criminal activity. This article discusses the Badge of Life Psychological Survival for Police Officers Program (BOL), founded in 2008, with the goal of developing an effective police officer suicide primary and secondary prevention program. Such a program is not a regular entity within the majority of accredited law enforcement agencies. Along with standard suicide prevention protocols typically used in other programs, an Emotional Self-Care Program (ESC) was designed to focus on the officer's ability and responsibility to care for his own emotional well-being. The model relies on teaching the factor of resilience as a significant component of stress-resistance (Everly, Welzant, & Jacobson, 2008). Selected for their credibility and trust level, peer support officers conduct the actual annual training workshops, set the example, and encourage involvement at all levels. A "cradle-to-the-grave" program (i.e., rookies to retirees), ESC calls upon departments to begin teaching their personnel about the effects of job-related stress and trauma while they are still in the academy, emphasizing the importance of voluntary, confidential "annual mental health checks." Representatives of BOL now lecture regularly across the United States and Canada. All consultations, lectures, educational and training workshops, services, and referrals are free, as are original training materials developed and approved by the BOL Board of Directors. [International Journal of Emergency Mental Health, 2010, 12(2), pp. 95-102].*

Key words: *Badge of Life, police suicide prevention, police suicide program, suicide prevention program, suicide in law enforcement*

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Overview

That police officer stress is unique in its intensity and duration is widely known in research on law enforcement personnel (Anderson, Litzerberg, & Plecas, 2002; Brown & Campbell, 1994; Collins & Gibbs, 2003; Copes, 2005; Van Hasselt, Sheehan, Sellers, Baker, & Feiner, 2003). It is not only a significant problem in the United States and Canada but in other countries as well (McNally, 2006). In fact, worldwide, there are no more consistently stressful jobs than that of the police officer (Chamberlain, 2000; Delprino & Bahn, 1988; Greenson, 2000; Henry, 2004; Levenson, 2009; Levenson & Dwyer, 2003; Miller, 1995; Miller, 2006; Mitchell & Levenson, 2006; Violanti, 1999; Violanti & Aron, 1994). Evidence suggests police officers lead shorter and sicklier lives than the general population (Gershon, Lin, & Li, 2002; Kerley, 2005; Mayhew, 2001; Violanti, 2005; Richmond, Kehoe, Hailstone, Wodak, & Uebel-Yan, 1999; Stellman, 1998; Violanti, 2009). Shift work alone is associated with an increased incidence of stroke, cardiovascular disease, metabolic-syndrome, memory problems, fatigue, and decreased family and community activities, productivity, and morale (Violanti, 2009).

In that regard, police officers may take more time off from work than those in the private sector as a result of anxiety disorders and related issues (Levenson & Dwyer, 2003) and engage in more illegal or deviant behaviors related to occupational stress (Arter, 2008). It is not atypical for officers to describe a lifestyle in which they are maintaining a family, working rotating shifts, experiencing the well-known "nights of boredom and sudden moments of terror," and the challenges of masking problems and resultant marital issues.

Upon graduation from the police academy, officers are, in some ways, psychologically healthier and better prepared in general, for stress and trauma than the general population (Ghazinour, Lauritz, DePreez, Casimijee, & Richter, 2009). Academy and subsequent police training emphasize the legal aspects of policing (i.e. search and seizure, laws of arrest, etc.) and surviving lethal force encounters. While these areas are important for officers to carry out their sworn duties, there is a pervasive lack of training addressing the impact a career in law enforcement has on officers and their families. As a result, officers are woefully unprepared to manage the stress of "the job."

Police officers gravitate toward *avoidant* coping strategies (Levenson & Dwyer, 2003), such as consumption of alcohol, in an attempt to block out the unpleasant feelings associated with stress and trauma. In police officers, avoidant coping has been associated with anxiety, trauma, depression, perceived work stress, health problems, risk-taking behaviors, and partner abuse (Burke, 1998; Essex & Scott, 2008; Gershon, Barocas, Canton, Li, & Vlahov, 2009). Police culture dictates that one "suck-it-up" if something happens, and talking about it and the "touchy-feely, warm and fuzzy" approach is definitely not the way to go. Rather, after the shift is over, congregating at the local bar to tell war stories and drink excessively to hide the pain by self-medicating through alcohol is tantamount to a faulty group "therapy" where no one gets better – ever.

Avoidant coping does not offer a solution for managing ongoing work-related stressors or traumatic events and is, therefore, reactionary rather than of a proactive nature. This distinction is important because one's subjective sense of wellness and objective health are strongly influenced by how officers manage, or fail to manage, the stress in their lives. While most would believe that stress would be caused alone by the police officer's role and function, informal contacts with literally thousands of police officers indicate that the most severe stress comes from "the job" itself, and that the internal work environment is the most potent, negative stressor affecting attitudes, family relationships, abuse of alcohol, and physical and mental health. One might imagine that the more typical every-day stressors tax an officer's positive outlook, coping skills, and professional training. Yet, even the lack of appreciation in their role, disrespect, lack of common courtesy, undercover assignments, crime scene investigations, repeated exposure to homicide, violence, and countless forms of human misery, violent and sex crimes against children, the prospect of using deadly physical force and/or being killed on the job do not compare to a work environment where favoritism, "higher-up" contacts, vengeful superiors – all components of a caustic work environment – make equal contributions to negativity, isolation, and withdrawal into a police-only culture that serves to alienate officers from interacting with civilians who just don't understand their everyday life. Still, officers' perception of potentially traumatic incidents can differ, too (Colwell, 2009).

Suicide among police officers is a serious problem and, as Miller (2006) noted, one that has been on the increase since data collection began in the 1920s. Current data suggests that, on average, 145 police officers commit suicide every

year (O'Hara & Violanti, 2009), but this number is likely to be an underestimate. As Miller (2006) stated, police officers are more likely to die by suicide than by any type of criminal or criminal activity.

Regardless, the number of police suicides is thought to be higher than those reported, since in police culture such behavior represents cowardice and brings shame on the officer's department. Attitudes toward suicide in general may lead some departments to offer an alternative explanation to the family and to keep the news of such a death out of the media. A 1998 study found that 17% of police officer suicides later reviewed by medical examiners were misclassified, compared to 8% of other municipal workers (Violanti, Vena, & Petralia, 1998). Worse, departments do not take responsibility for an officer's suicide, preferring to state the cause was due to marital or financial difficulties or alcohol abuse. O'Hara and Violanti (2009) found, in their two-year study of police suicides in the United States during 2008 – 2009, no single case in which a department acknowledged that work-related stress, trauma, or PTSD was involved. On the positive side, as Miller (2006) reports, about 70% of people (including police officers) suffering from depression and thoughts of suicide recover, indicating that "mental health critical care" (Levenson, 2005) may avert a tragedy of epic proportions to the office, work colleagues, and family members.

If "the best form of crisis intervention is crisis prevention" (Miller, 2006, p. 9), then stress management and proactive efforts to prepare for stressful and traumatic life events in policing must be at the forefront of training. This statement has implications for training recruits when they step foot in the academy, with mental well-being seen in a matter-of-fact way, and on the same level of importance as general policing procedures.

The Role of Peer Support

Peer Support in law enforcement has been widely accepted but only fairly utilized and is still not a regular part of accepted practice in law enforcement training and response (Levenson, 2007; 2009). Peer Support has its roots in "paraprofessional" work (Carkhuff and Truax, 1965), wherein officers who have an interest in mental health and wellness as applied to law enforcement learn the basic skills of dealing with other law enforcement officers who experience severe duress or show signs of inadequate coping. With respect to law enforcement, active- and retired-duty officers become "peers" after attending training programs typically run by psychologists with backgrounds in law enforcement together with more experienced officers with extensive training and experience in peer support programs.

The role of the Peer Support Officer is to listen, assess, and refer (Finn & Tomz, 1998), with *active listening* being a key technique for the peer support officer (Slatkin, 2010). Training consists of learning the basic signs of job-related psychopathology (e.g., anxiety, depression, burnout, alcohol and substance abuse, excessive sick leave, and stress-related physical illnesses, such as ulcers and migraine headaches). Signs and symptoms of posttraumatic stress disorder (PTSD) and other severe conditions are also taught, and peer support officers come to learn the warning signs that signal more serious dysfunction warranting immediate intervention, such as those who are at risk for suicide and homicide. Acceptance of the tenets of Critical Incident Stress Management (CISM; Mitchell & Everly, 1995) and an understanding of the continuum of services, from a quiet, confidential conversation all the way to referral for in-patient treatment is key. When confronted with an officer in severe crisis, peer officers often work in teams and schedule a personal visit with the officer requesting intervention. It is accepted that peer support in law enforcement is effective because, in police departments that utilize peers support officer programs, the number of sick days has decreased while specific indicators of job performance have increased (Freeman, 2002). Most importantly, peer support officers bring credibility to their roles as both officers and helpers, and there is less stigma attached to speaking with a peer rather than with a licensed mental health professional, sometimes referred to as a "shrink." If a referral is needed, peer support officers can act as a "bridge to professionals" (Finn & Tomz, 1998, p. 10) for officers needing more in-depth intervention and mental health care. Police peer support programs are in existence in the United States, and have been cited for positive practices and improvements in officers' mental well-being, job satisfaction, and job performance (Levenson & Dwyer, 2003). Having roots in the Federal Bureau of Investigation's Behavioral Science Unit, Sheehan (1999) showed that stress management and stress reduction helped Special Agents work through critical incidents. In addition, peer support programs utilizing techniques of CISM (Mitchell & Everly, 1995) have been overwhelmingly accepted. Estimates are that well over 10,000 law enforcement personnel have undergone such techniques as a CISM debriefing following their involvement

in a large-scale critical incident (e.g., Dowling, Moynihan, Genet, & Lewis, 2006; Levenson & Dwyer, 2003). Peer support officers need support, too, after they have had a formal encounter with a police officer in crisis, as proximity in crisis work may affect those in the helping professions (Dimaggio, Galea, & Emch, 2010; Gill & Gershon, 2010).

The Badge of Life Psychological Survival for Police Officers Program

The Badge of Life Psychological Survival for Police Officers Program (BOL) was founded on January 1, 2008. Its date of foundation followed ten months, during 2007, of organization, discussion, meetings, and evolving presentations made with the support of the National Alliance on Mental Illness (NAMI), the Sacramento County Sheriff's Health and Wellness Program, and the Star 6 Memorial Foundation. A 501(c) (3) nonprofit organization, BOL was formed by two retired California Highway Patrol officers whose careers had ended as a result of critical incidents and formal diagnoses of posttraumatic stress disorder. In one of these cases, there was a near suicide.

Immediately, the goal of the BOL founders was to develop an effective law enforcement officer suicide primary and secondary prevention program. Such a program was not, and still is not, a regular entity within most law enforcement agencies. Based on personal experience and that of other police officers, it seemed increasingly apparent that a far more proactive approach to mental health in law enforcement was needed, instead of merely waiting for officers to reach the point of crisis in order to act. At the same time, BOL staff found that one of its most effective tools was the internet. Because all of the organization's services and materials are free, its website became more than merely an advertising or attention-getting medium. In short time, through effective use of linking as well as the addition of satellite websites, BOL began giving website users free videos, power point presentations, lesson plans, and articles on a wide variety of useful topics that included not only its own programs but those from multiple other resources. Materials that were too large for inclusion on the website were provided free by DVD/mail on request. In short, the Badge of Life website (www.badgeoflife.com) became not only an introduction to the organization's program, but a "virtual classroom" on mental health and emotional well-being, suicide prevention, survivor care, peer support, and retirement issues.

In the BOL program development phase, it was decided that peer support officers would be utilized to achieve credibility and acceptance with active-duty and retired officers who contacted the program. Emotional decompensation as a result of ongoing or cumulative job stress remains a potential danger in a career fraught with tension and conflict, and peer support officers have already proven their value as guides and pathfinders through which troubled officers can find access to mental health assistance.

What was found lacking in police culture, however, was a meaningful focus on long-term career emotional health for police officers. Instead of teaching officers to deal more effectively with potential emotional stressors and traumas *before* they occurred, suicide prevention programs focused exclusively on those officers who were already in a severe emotional crisis. Case after case illustrated that the "old" model was often too late. Further, for every police suicide, there are many hundreds of police officers still working and suffering either from undiagnosed depression, posttraumatic stress disorder, and/or other anxiety disorders as a result of their work experiences.

To address these concerns, BOL developed the *Emotional Self-Care* (ESC) Training Program. Along with standard suicide prevention protocols typically used in other programs, ESC was designed to focus on the officer's ability and responsibility to care for his own emotional well-being. The model relies on teaching the factor of resilience as a significant component of stress-resistance (Everly, Welzant, & Jacobson, 2008). A "cradle-to-the-grave" program (i.e., rookies to retirees), ESC calls upon departments to begin teaching their personnel about the effects of job-related stress and trauma while they are still in the academy, emphasizing the importance of voluntary, confidential "annual mental health checks." Through these health checks, officers are encouraged to schedule an annual visit with a licensed mental health clinician. The purpose of these sessions is to review the past year, apply its lessons to the next, and work on personal strengths and resiliencies. Employee assistance programs are offered as an option, but those officers who are suspicious (Miller, 2006) of that option are encouraged to seek their own private therapist, preferably one with experience working with law enforcement officers. The key element is the importance of "healthy choices" and the preventive nature of the process ("whether you think you need it or not"). The goal is that officers will be well prepared for

difficulty and emotional crisis *before* they arise—and not be left floundering for help afterward.

Peer support officers were identified as key players in the success of the Emotional Self-Care training program and its practice. Selected for their credibility and trust level, peer support officers conduct the actual annual training workshops, set the example, and encourage involvement at all levels. Management participation and support is also a key to the success of the program as leadership by example is always a necessary component. To this end, countless examples of the cost-effectiveness of maintaining employee health, in addition to the cost of replacing officers, are provided to management by BOL as encouragement for the importance and adoption of the program.

During the formative stage of BOL, an additional concern was the lack of valid information on police suicides. Throughout the law enforcement culture, and promoted by numerous speakers, were a plethora of "urban myths" about suicide numbers, causes, rates of substance abuse and divorce. In plain terms, departments did their best to deflect the responsibility of "the job" as a cause of officer suicide. A significant worry was that popular but overinflated statistics had the potential for misleading program planners and causing harm to those in need of help. BOL staff carefully identified these myths, researched them, and published the findings (O'Hara & Violanti, 2009). Additionally, with the assistance of John Violanti, Ph.D. of the University of New York at Buffalo, BOL staff embarked upon an intensive national study to determine, as closely as possible, a scientifically-based approximation of police suicides occurring annually. A follow-up study was conducted in 2009 and confirmed the results of O'Hara & Violanti (2009).

BOL also committed itself to the fair and compassionate treatment of survivors of law enforcement suicide. Believing that a large percentage of police suicides are clearly related to work-related stress and trauma, BOL has provided a voice to the families and children that have been shunned and ignored by departments so undeservingly.

Recognizing the active roles and value that police officer retirees were already playing in its own training activities, BOL began developing two programs that focused on effective utilization of police officer retirees by departments and academies. First, a *Retiree Mentoring Program* matches a newly hired officer with a selected retired officer in the community (whether from the same department or not) to

act as a support resource — a mentor, if you will — prepared by the department to act as an independent and confidential resource that the officer can turn to for emotional, stress-related, adjustment, and non-policy issues during the formative adjustments of a training period, or for as long as that officer wishes. In addition, based on the experience that many police academies are reluctant to utilize retirees in recruit training, BOL began long-term efforts to bridge the gap by demonstrating not only their wealth of value in mental health programs, but by providing a structured means by which departments can feel more comfortable taking advantage of these rich-in-experience resources.

Since its formation, BOL has grown with alacrity. Its Board of Directors is a diverse one, and includes police officers, both active-duty and retired, a psychiatrist, psychologist, social worker, marriage and family therapist, and survivors of police suicide attempts. BOL's membership is represented by police administrators, "road cops," officers who suffer from PTSD, and parents and wives who have lost their loved ones to suicide.

BOL in Canada

From the outset, it was apparent that Canadian law enforcement shared a close kinship with its American counterpart, not only in contiguity, culture, and heritage, but in the nature of their work and the problems confronting personnel in the area of police mental health. In only a short time, Canadian police officers contacted BOL and formed a branch of the organization in order to provide Emotional Self-Care training and other elements of the BOL emotional health program to their country's city and provincial police officers.

The influence of BOL in Canada has grown rapidly as representatives speak before prestigious groups such as the Alberta Federation of Police Associations, the Tema Conter Memorial Foundation, and many other police groups. Recognizing the important interrelationships of American and Canadian law enforcement and the mutual value each has to the other, a significant portion of the BOL website and educational materials are directed at that country's police personnel.

Because the Toronto Workers Compensation Board was the first in North America to recognize a police suicide as "a line of duty death," BOL representatives arranged for the Commissioner of the Ontario Provisional Police Force

to travel to the United States to address a conference on the topic of police officer suicide resulting from work-related trauma. Promotion of this issue, the recognition of officer deaths due to the stress and trauma of their work, is the organization's primary mission in both countries.

Representatives of BOL now lecture regularly across the United States and Canada. All consultations, lectures, educational and training workshops, services, and referrals are free, as are original training materials developed and approved by the BOL Board of Directors. Among the materials regularly requested are lesson plans, videos on a variety of topics, and power point presentations. BOL continues to be a strong, innovative voice in the formulation of new ideas to improve the emotional well-being of law enforcement officers throughout the United States and Canada. Training and education in police officer suicide prevention remains the core of BOL, while parallel issues currently under study are the recognition and acceptance of what we term the *Line of Duty Suicide* (LODS) by police administrators and police officers, in general.

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New York City Social Workers After 9/11:
Their Attachment, Resiliency, and Compassion Fatigue

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Abstract: *This study examines the relationship between attachment classification, resiliency, and compassion fatigue in New York social workers following 9/11. We used single occasion, quasi-random sampling, surveying 481 social workers living in Manhattan. Hierarchical regression analyses revealed that secure attachment is predictive of the ability to cope with secondary traumatic stress as well as capacity for resilience, explaining approximately 7% of the variance in both compassion fatigue and resiliency. These findings suggest that secure attachment may serve as a source of resilience for social workers, immunizing them from significant compassion fatigue. Such findings have significant implications for clinicians working with traumatized populations. [International Journal of Emergency Mental Health, 2010, 12(2), pp. 103-116].*

Key words: *attachment, social workers, compassion fatigue, emergency mental health, resilience*

Secondary traumatic stress (STS) symptoms are psychological symptoms that imitate symptoms of post-traumatic stress disorder (PTSD; Baird & Kracen, 2006). They are behavioral and emotional responses to knowledge about traumatizing incidents suffered by a significant other or from helping or wanting to help a traumatized person (Figley, 2002). The term *secondary traumatic stress* has been

employed to describe mental health professionals' traumatic responses to a single client's traumatic narrative as well as to multiple such exposures (Stamm, 1995).

Authors use a number of terms to describe this and similar responses. For example, Figley (1995) identified *secondary catastrophic stress reaction*, the empathic response of a family member's experiences resulting in significant emotional upset, and *compassion fatigue*, a secondary traumatic stress reaction that involves emotional and physical exhaustion resulting from long term exposure to demanding situations. Herman (1992) developed the concept of *traumatic countertransference*, when a therapist experiences the same traumatic emotions as the patient but to a lesser degree. McCann and Pearlman (1990) defined *vicarious*

traumatization as the negatively transformed inner experience of the therapist empathically engaged with the client's trauma material.

While these terms have different implications, they all encompass the experiences of individuals dealing with others' extreme emotional upsets. Research and clinical reports employ different terms to describe these secondary traumatic phenomena and these terms are sometimes used interchangeably in the literature. When referring to research, we report on the specific term used for each study. But for purposes of the present study, we employ the comprehensive term *compassion fatigue* to capture the cumulative stress resulting from direct clinical practice with traumatized populations. Adams, Figley, and Boscarino (2008) define compassion fatigue as "a hazard associated primarily with the clinic setting or among first responders to traumatic events and is composed of at least two components – secondary trauma and job burnout" (p. 239).

While this study is primarily concerned with compassion fatigue, Stamm (2002) notes, "to understand the negative 'costs of caring,' it is necessary to understand the credits or positive 'payments' that come from caring" (p. 109). Certainly, even as there are "costs" such as compassion fatigue to mental health workers, there are also gains from such caring work. While such gains are beyond the scope of this study, considering the benefits as well as the costs of caring work is important.

The number of people exposed to traumatic events throughout their lives is substantial. It is even higher for the population seen by social workers (Bride, 2007). For many social workers in direct practice with trauma survivors, compassion fatigue responses are occupational hazards (Adams, Boscarino, & Figley, 2006; Figley, 2002). While learning about the trauma experienced by the client, the therapist strives to understand and identify with the experience. This process may cause the therapist to experience emotions and symptoms similar to those of the victim (Pulido, 2007). In fact, social workers are twice as likely as people in the general population to experience symptoms of PTSD (Bride, 2007).

Pulido (2007) sampled social workers directly involved with responding to victims of the 9/11 terrorist attacks in New York City. The social workers in this study reported intrusive, avoidant, and hyperarousal symptoms, describing feelings of anger and irritability during and after client sessions. Some reported feeling numb about events, while others reported

crying following client sessions (Pulido, 2007). Some social workers were exposed to the same 9/11 traumatic events as their clients, compounding the effects of compassion fatigue (Pulido, 2007; Racanelli, 2005).

Other studies report similar findings for therapists working with victims of sexual abuse (Brady, Guy, Poelstra, & Brokaw, 1999; Schauben & Frazier, 1995). Brady and colleagues (1999) surveyed 446 female therapists working with sexual abuse survivors to examine therapists' vicarious traumatization. The authors found a positive correlation between the trauma symptoms that therapists reportedly experienced and the number of sexual abuse survivors on their caseload or the number of sexual abuse survivors that they had seen over the course of their careers (Brady et al., 1999).

Similarly, Schauben and Frazier (1995) analyzed questionnaire data from 148 female respondents, members of an organization of women psychologists and sexual violence counselors in a Midwestern state. Like Brady and colleagues (1999), Schauben and Frazier (1995) found that counselors in their sample who saw a higher number of sexual abuse survivors reported more trauma-related symptoms such as PTSD and vicarious traumatization. Bride (2007) surveyed 282 Licensed Social Workers to investigate the prevalence of secondary traumatic stress. Of the 282 participant social workers, 97.8% reported that their clients were mildly traumatized and 81.7% moderately traumatized. Fifty-five percent of the social workers in the study met criteria for one of the core PTSD symptom clusters, while 15.2 % met full criteria for a PTSD diagnosis. Such findings suggest that mental health counselors working with traumatized populations are vulnerable to significant traumatization themselves.

Research proposes a number of variables as potential influences on the development of secondary symptoms associated with exposure to others' trauma (Racanelli, 2005). Creamer and Liddle (2005) looked at STS in counselors who responded to the 9/11 terrorist attacks in New York City. Study participants were 80 mental health workers, most of whom served with the American Red Cross. They examined the relationship between STS symptoms and therapist characteristics. The authors considered the therapists' own trauma histories, prior work with traumatized clients, therapists' gender, age, experience, years since first training, education level, hours per week spent in religious services, and mental health discipline (for example, social worker versus psychologist). Results showed a positive relationship between therapists' own histories of trauma and STS symptoms.

However, this was only significant for therapists who had discussed their trauma histories in their own therapy in the past; these individuals reported more STS symptoms. This study also showed significant positive correlation between the hours spent working with trauma clients and STS symptoms. The only other significant findings concerned the age of the worker and the number of years of experience since first licensure. Older workers and those with more years of experience reported fewer STS symptoms (Creamer & Liddle, 2005), suggesting that time and experience serve as protective factors.

Similarly, Adams and colleagues (2008) looked at the compassion fatigue and psychological distress of 236 master's level social workers working with traumatized clients. The authors defined compassion fatigue as "the formal caregiver's reduced capacity or interest in being empathic…" (p. 239). They asserted that compassion fatigue is comprised of two components: secondary trauma and job burnout. All of the participants were New York City members of the National Association of Social Workers. The authors found that counselors who worked directly with clients affected by the World Trade Center Disaster (WTCD) were at higher risk for compassion fatigue. Of their sample, 19.1% had heavy involvement with treating people who affected by the WTCD; of that group, 40.5% scored high on secondary trauma. Interestingly, the author noted that if participants scored high on secondary trauma, they were also likely to score higher on job burnout and more prone to suffer from psychological stressors.

Resiliency

Resiliency is a theoretical construct explored widely in recent years. Recent authors note an incongruence in the usage and definition of the term *resilience* among researchers (Glantz & Johnson, 1999; Mandleco & Peery, 2000). Some researchers use an outcome-based definition of resilience, claiming that it is the absence of pathology in the face of multiple traumatic events or adversity (Glantz & Johnson, 1999; Bonnano, Galea, Bucciarelli, & Vlahov, 2006). Among the outcomes used to define resiliency, however, there is wide variability. Cichetti and Garmezy (1993) point out that most resiliency measures only assess one point of pathological absence in their outcomes. For example, school studies often measure the absence of failing grades as a characteristic of resilient children, while leaving out other areas in which

children can be affected by trauma such as social, emotional, or physical realms (Cichetti & Garmezy, 1993). Other studies use the absence of psychopathology, such as PTSD, as the indicator of resilience while failing to consider other outcome variables (Yehuda, 2004). This absence unfortunately is a common characteristic of the resiliency research (Bonanno, Galea, Bucciarelli, & Vlahov, 2006; Marcus, Dubi, Walz, Bleuer, & Yep, 2006).

Other researchers define resiliency as a series of character traits determined by either personality or genetics that allow people to better cope with trauma and adversity (Glantz & Johnson, 1999). Researchers term this type of resilience *hardiness* in several prominent works (Glantz & Johnson, 1999; Kobasa, 1979). Examples of such character traits include: flexibility, adaptational potential, innate ego strength, creativity, personal attractiveness, high IQ, social cognitive abilities, locus of control, temperament, and other variables (Cohler, 1987; Masten, Best, & Garmezy, 1990; Rauh 1989). Other research defines resiliency as one's capacity to recover from trauma (Hauser, 2005).

Luthar and Cicchetti (2000) define resilience as "a dynamic process wherein individuals display positive adaptation despite experiences of significant adversity or trauma" (p. 858). The authors define adversity as negative life events that make regulating life in a normal state difficult. They explain positive adaptation as meeting the demands of current life stages successfully. The authors acknowledge that protective factors and vulnerability are aspects of resiliency, and that self esteem, self-efficacy, and social support play a role in one's protective factors and vulnerability. However, they define these constructs as only a part of the whole that make up one's resiliency.

For the purposes of this study, we define resiliency using the character trait perspective and operationalize it using the Connor-Davidson Resilience Scale (see Method section for more detail). Masten, Best, and Garmezy (1990) provide a useful definition of resilience based on the character perspective, describing resilience as "the process of, capacity for, or outcome of successful adaptation despite challenging or threatening circumstances" (p. 426). Walsh (2003) proposed a similar definition in describing resiliency as "the ability to withstand and rebound from disruptive life challenges. Resilience involves key processes over time that foster the ability to 'struggle well,' surmount obstacles, and go on to live and love fully" (p. 1).

Resiliency and Attachment

Research linking resiliency and attachment is sparse (Atwool, 2006; Shannon, 2009). Bartley, Head, and Stansfeld (2007) link the two concepts thus: "Secure attachment is…a possible 'resilience factor,' emerging early in life, which may protect individual wellbeing in the face of risk and adversity, because it is regarded as reflecting the ability to effectively regulate and mitigate the strength of emotional responses to adverse personal or health events" (Bartley, et al., p. 767). Bartley and colleagues conclude, "quality of family relationships may provide a source of resilience in the face of social or economic disadvantages" (p.773). Thus, the authors frame security of attachment as providing a potential source of resiliency, resistance to difficulties in life.

Atwool (2006) argues that quality of attachment is critical in the four primary areas she defines as components of resilience: individual characteristics, supportive family relationships, positive connections with other adults, and culture. For example, Atwool asserts that the individual characteristics that make one resilient are "unlikely to develop in a child without a relationship with at least one other adult in which they feel worthy and loveable" (p. 322). Similarly, Gerber (2006) explains, "resiliency is fundamentally related to the quality of early and long standing relationships" (p. 586). He asserts, "the individual, environmental, and social factors most causally linked to resilience promote secure bidirectional attachment relationships" (p. 587). Atwool frames attachment as a factor that underlies all elements of resiliency. Only a few studies show positive correlations between attachment and resiliency through the moderator variable of self-esteem (Kidd & Shahar, 2008).

However, little research considers the correlation between attachment and resilience. Like all human characteristics, resiliency can be thought of as derived from external protective factors and internal personality and/or genetic factors. External factors that foster resilience are caring attachment relationships, membership in a church, a sense of spirituality in one's life, the aforementioned supportive and concerned home environment when growing up, among other factors (Masten, Best, & Garmezy, 1990; Schoon, 2006; Shapiro & Levendosky, 1999).

While researchers have devoted little attention to the connection between attachment and resilience, they have devoted even less attention to the relationship between re- silience and compassion fatigue. A comprehensive search of 8 different databases (Academic Search Premier, ERIC, Medline, PsychInfo, CINAHL, Pubmed, and Social Work Abstracts) in the Ebsco and Ovid search engines yielded only one study on the cross reference: Racanelli's (2005) study of attachment as a possible mediator of compassion fatigue among American and Israeli mental health clinicians working with terrorism victims. She concluded that low attachment anxiety and sufficient clinical experience with trauma victims were the strongest predictors of compassion satisfaction; conversely, limited clinical experience, limited experience with trauma victims, and avoidant attachment style linked to burnout. Notably, Racanelli links attachment with compassion fatigue by noting, "[U]nderlying the ability to regulate personal affect, maintain emotional boundaries, and thereby minimize vulnerability to vicarious trauma or secondary stress is a secure attachment style" (p. 116).

Our study then likely stands the only one to examine the link between the constructs of attachment, resilience, and compassion fatigue. We propose that secure attachment serves as a protective factor in social workers responding to traumatic events, improving their resilience and immunizing them from significant compassion fatigue.

Attachment Theory

Attachment theory asserts that children use caregivers as a protective factor, mediating threat and loss (Bowlby, 1969/1982, 1973). Children will rely on attachment relationships to protect them against perceived threat by maintaining proximity to nurturing adults who help to manage distress and maintain a sense of safety (Bowlby, 1969/1982, 1980). For example, a securely attached child learns that, when in distress, the caregiver will be responsive to her needs while allowing her to safely explore the environment and negotiate fearful situations. She eventually sees herself as competent and capable of dealing with stressful events as they arise.

As we mature into adulthood, internal representations of relational experiences serve as road maps for interpreting and responding to others and for coping with stressful life events (Bowlby, 1988). Attachment representations established over years of experience influence the evaluation of options for dealing with stressful events, activating attachment behaviors to deal with threatening conditions (Bowlby, 1988; Sable, 2008).

Attachment and Compassion Fatigue

Some researchers have pointed to a similarity between attachment characteristics and the psychological disruptions associated with working with victims of trauma (Marmaras, Lee, Siegel, & Reich, 2003; Racanelli, 2005). Racanelli (2005) notes that attachment insecurity and compassion fatigue share several components and manifest in similar ways. For example, affect-regulation, accurate appraisal of threatening events, and healthy boundary recognition are characteristics with which both insecurely attached adults (Bowlby, 1988; Mikulincer, Shaver, & Pereg, 2003) and individuals dealing with STS (Bride, 2007; Racanelli, 2005) struggle.

Repeated exposure to clients' trauma heightens the therapist's sense of vulnerability and creates a sense of empathic helplessness (Herman, 1992). Insecurely attached adults tend to demonstrate less awareness of their feelings and are less effective at regulating their affect (Hazan & Shaver, 1987; Ligiéro & Gelso, 2002). These are both qualities that underlie the therapist's ability to minimize their vulnerability to compassion fatigue (Racanelli, 2005). Notably, Woodward, Murrell, and Bettler's (2005) study suggests that interpersonal style, including attachment style, "…is a key variable in the magnitude of traumatization experienced by someone who has vicariously witnessed an extreme act of violence and in the level of empathy manifested by that person" (p. 20). The authors further suggest that "interpersonal/attachment style may function as predictor, as well as a mediator of vicarious traumatic stress responses" (p. 20). Such findings indicate that securely attached clinicians may be more likely to access the internal and external resources necessary to cope with vicarious traumatization.

Many social workers that counseled victims of the 9/11 terrorist attacks suffered from some compassion fatigue symptoms (Creamer & Liddle, 2005; Pulido, 2007; Woodward, Murrell, & Bettler, 2005). While 9/11 directly impacted many of these social workers personally, the secondary symptoms they experienced were likely compounded by the combination of their clients' distress as well as their own. Some studies hypothesize that secure attachment acts as a protective factor against vulnerability to adverse situations (Cameron, Ungar, & Liebenberg, 2007). However, few studies have considered the relationship between attachment classification and resiliency to compassion fatigue (Marmaras et al., 2003; Racanelli, 2005). In this study, we examine the relationship between attachment classification, resiliency, and compassion fatigue in New York social workers following 9/11, proposing that secure attachment serves as a protective factor in social workers responding to traumatic events, improving their resilience and immunizing them from significant compassion fatigue.

METHOD

The research design is a single-occasion, cross-sectional survey design. We hypothesized that social workers in New York with more secure attachment, as evidenced by lower ambivalent and avoidant attachment scores on the Adult Attachment Questionnaire (AAQ), would report less compassion fatigue and greater resiliency. We also hypothesized, based on findings in the literature, that potential protective factors associated with lower levels of compassion fatigue and higher levels of resiliency would include: gender (Bonanno, Galea, Bucciarelli, & Vlahov, 2007), years in the social work field (Creamer & Liddle, 2005; Pearlman & Mac Ian, 1995), personal living arrangement (cohabitation), and theoretical practice orientation. We also hypothesized that some risk factors would be associated with higher levels of compassion fatigue and lower levels of resiliency; these risk factors include witnessing the events of 9/11 first-hand, experiencing a major loss due to the events of 9/11, and providing mental health services to victims of 9/11 (Pulido, 2007). As our primary interest was in attachment styles of therapists, ambivalence and avoidance were included in the very last step of the analysis in order to see their contribution above and beyond therapist demographics and other variables.

Sample

The population studied was a selective sample of social workers living in Manhattan who chose to respond to a request to complete our packet of surveys, the Post 9/11/01 Quality of Professional Practice Survey (PQPPS). The sampling frame included current National Association of Social Work (NASW) social worker members (excluding students and BSW's) who were classified as being in direct practice and/or supervision at the time of the survey and identified themselves via zip codes as living in Manhattan. Retired social workers who were not practicing at the time of the survey, social workers who were not direct practitioners or supervisors, or not identified in an NASW database as having a Manhattan zip code were excluded. Thus social workers

who may have provided services in the post 9/11 environment but were no longer living or working in Manhattan are not represented in the sample. The mailing list was provided by InFocus Media, the marketing firm used to manage the NASW mailing list.

Data Collection Procedures

We employed a quasi random sampling method: 32 out of 93 Manhattan zip codes were randomly selected, exclusive of zip codes identified as primarily non-residential areas. Of the 1297 addresses forwarded by InFocus, twenty-five were deemed unusable due to postcards and surveys being undeliverable. Additionally, three social workers not on the InFocus list but who learned about the study from colleagues and who met the selection criteria were added, bringing the total number of addresses in the sample to 1275. Data collection began following approval of the study by the University Committee on Activities Involving Human Subjects at New York University, which is the affiliation of the primary author.

We first mailed surveys in early July 2007. To increase the response rate, we used first class mailing and prepaid, addressed return envelopes. First, a postcard was sent to inform potential study participants that a survey regarding their experience with the 9/11 event would be following. Within two weeks of the postcard mailing, the survey was sent with a letter of invitation explaining the intent of the study. Respondents were encouraged to be candid and were assured that their responses were anonymous.

All mailing envelopes were hand addressed to personalize the invitation to participate. Within four weeks of the first mailing, a follow-up letter was sent with a second survey and a stamped, self-addressed return envelope. Since the survey was completely anonymous, follow-up letters were sent to all potential respondents. The follow-up letter made reference to the initial mailing and requested completion of the survey, with a brief description of the study. Ultimately, 507 surveys were returned, representing an overall response rate of 39%. However, 26 were excluded due to participants' retirements from the field. This left 481 useable surveys (38%) that were reviewed, coded, and entered into the database.

Although the representativeness of the current sample cannot be rigorously tested because we decided to maintain complete anonymity of the participants (i.e., not retain any identifying information including zip codes of respondents), our response rate is typical of that expected from mail surveys

(Dillman, 2000). Sample characteristics in this study appear consistent with three other studies on clinicians in the New York City area who are members of NASW in Manhattan (Adams, Figley, & Boscarino, 2008; Boscarino, Figley, & Adams, 2004; Bride, Robinson, Yegidis, & Figley, 2004).

Measures

The PQPPS survey consists of several established research measures, as well as demographic, practice, supervisory, training, and clinician 9/11-related experience questions. Demographic questions included gender, age, ethnicity, marital status, living arrangements, religious affiliation, and annual income. Attachment style, resilience, and compassion fatigue were assessed using scales described below.

Attachment style

Attachment style was operationalized by the Adult Attachment Questionnaire (AAQ; Simpson, Rholes, & Nelligan, 1992; Simpson, Rholes, & Phillips, 1996), a 17-item, five-point Likert-type self-report measure. The AAQ consists of two subscales, ambivalence (nine items) and avoidance (eight items). Higher scores on each of the scales reflect higher ambivalence and avoidance. Both items indicating ambivalence and avoidance were adapted from Hazan and Shaver's (1987) vignettes, and the factor structures were confirmed by principal axis factor analysis (Simpson et al., 1996). For both ambivalence and avoidance subscales, Cronbach's alphas ranged from .70 to .76 in Simpson and colleagues' (1996) study. In the current study, Cronbach's alphas were .79 and .80 for ambivalence and avoidance, respectively.

Resilience

Resilience was operationalized by the Connor-Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003), a 25-item, five-point Likert-type self-report scale that measures adaptability and coping in relation to resilience. The CD-RISC was conceptualized based on works of Kobasa (1979), Rutter (1985), and Lyons (1991), and strongly converged with the Kobasa Hardiness Scale (Kobasa, 1979, as referenced in Connor & Davidson, 2003) and the Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) in the theoretically consistent direction. Connor and Davidson (2003) reported that their factor analysis yielded five factors, notably "personal competence, high standards, and tenacity," "trust in one's instincts, tolerance of negative affect, and strengthening

effects of stress," "positive acceptance of change, and secure relationships," "control," and "spiritual influences" (p. 80). They reported a Cronbach's alpha of .89 and a test-retest intraclass correlation coefficient of .87. The Cronbach's alpha for the current study was .91.

Compassion fatigue

Compassion fatigue was operationalized by the compassion fatigue subscale of the Professional Quality of Life Scale Revised (ProQOLR-IV; Stamm, 1997). The ProQOLR-IV is a 30-item, six-point Likert-type self-report measurement that includes three subscales examining work-related compassion satisfaction, compassion fatigue/secondary traumatic stress, and burnout, each consisting of 10 items. The present study only used the subscale pertaining to compassion fatigue as a dependent variable. Although convergent and divergent validity is currently being assessed for the current version of the scale (Stamm, 2005), data reported in Jenkins and Baird (2002) suggest that the earlier version of this scale, notably the Compassion Fatigue Self Test (Figley, 1995), has adequate divergent validity from related constructs while maintaining positive correlation with general distress. Stamm reported a Cronbach's alpha of .80 for the Compassion Fatigue subscale; for the current study, Cronbach's alpha was .79.

Data Analyses

Two hierarchical regression analyses were conducted for each dependent variable, namely compassion fatigue and resiliency. For each regression, we were interested in testing whether or not ambivalence and avoidance significantly contributed to compassion fatigue and resiliency above and beyond other variables that are likely to contribute, such as therapists' experience with 9/11 (providing services at time of 9/11, witnessing 9/11 firsthand, and major loss due to 9/11), trauma training prior to 9/11, and percentage of time with clients addressing trauma. Although we hypothesized that all of the above would contribute to compassion fatigue and resiliency, we evaluated the zero-order correlations to screen out variables that do not correlate significantly with the dependent variables. As a preliminary control, we included the number of years in the field as the initial step in both analyses so that we could control for any differences in compassion fatigue and resiliency due to professional experience.

Zero-order correlations indicated that providing services at the time of 9/11, major loss due to 9/11, and trauma training prior to 9/11 were not significantly correlated with compassion fatigue ($r < |.049|$, $p > .365$); witnessing 9/11 in person and trauma training prior to 9/11 did not significantly correlate with resiliency ($r < |.042|$, $p > .439$). Therefore, with compassion fatigue as the dependent variable, percentage of time spent with clients addressing trauma and years of experience was entered as the first step, whether or not the therapist witnessed 9/11 in person was entered as the second step, and avoidance and ambivalence was entered as the third step. With resiliency as the dependent variable, percentage of time spent with clients addressing trauma and years of experience was entered as the first step, whether or not the therapist was providing services at the time of 9/11 and whether or not the therapist had a major loss due to 9/11 were entered in the second step, and avoidance and ambivalence was entered as the third step.

A statistical power analysis was performed to determine the power that the current sample size has to detect hypothesized effects (Cohen, 1988, 1992; Harlow, Mulaik & Steiger, 1997; Rubin & Babbie, 2007). The current sample size of $N = 481$ has the power of over .995 to detect a correlation of medium effect size ($r = .30$) at .05 significance level. A power analysis specifically for the hierarchical linear regression was not conducted because previous literature provided no foundation for estimating the impact of each of the demographic and attachment variables on compassion fatigue and resilience, individually and as a whole.

RESULTS

Demographics

Of the 481 respondents (out of the 1275 valid addresses, described previously), 383 (79.6%) were female, 94 (19.5%) were male, and 4 (0.8%) did not report their gender. Mean age was 59.83 ($SD = 9.3$). Participants' reported race/ethnicity was White ($n = 446$, 92.7%), Hispanic or Latino ($n = 9$, 1.9%), mixed race ($n = 7$, 1.5%), African American/Black ($n = 6$, 1.2%), Asian/Pacific Islander ($n = 3$, 0.6%), and other ($n = 3$, 0.6%); seven participants did not report their race/ethnicity. The majority of the respondents reported their religious affiliation as Jewish ($n = 213$, 44.3%), followed by none ($n = 80$, 18.7%), Christian ($n = 81$, 16.8%), Catholic ($n = 45$, 9.4%), Protestant ($n = 36$, 7.5%), other ($n = 40$,

8.3%), atheist ($n = 28$, 5.8%), and Buddhist ($n = 14$, 2.9%). Participants' reported relationship status were partnered or married ($n = 271$, 56.3%), separated/divorced/widowed ($n = 117$; 24.3%), or single ($n = 84$, 17.5%). Approximately half of the participants ($n = 226$, 47.0%) reported an annual income greater than $100,000.

A majority of the participants ($n = 392$ (81.5%) had completed a master's degree and 77 (16.0%) had completed a doctoral degree. The average number of years in the field was 26.35 ($SD = 9.77$). The majority ($n = 295$, 61.3%) of the participants reported a psychoanalytic training background, with integrative/eclectic following at $n = 114$ (23.7%); others reported cognitive-behavioral ($n = 30$, 6.2%), family systems ($n = 14$, 2.9%), and general systems ($n = 11$; 2.3%). Among the participants, 293 (60.9%) reported that they provided therapeutic services during 9/11. Out of 289 non-missing data, 72 (24.9%) reported that they had trauma-specific training. Similarly, out of 419 non-missing data respondents, the average percentage of traumatized clients on their caseload was 26.74% ($SD = 22.83$%).

Hierarchical Regression

Tables 1 and 2 summarize the hierarchical regression results. The correlation between the dependent variables of the two regressions, namely compassion fatigue and resiliency, was $r = -.168$ ($p < .001$). Although statistically significant, the magnitude of the correlation suggested that the two were different constructs, sharing less than 3% of the variance.

With regard to compassion fatigue, avoidance was positively and significantly correlated after controlling for percentage of time with clients addressing trauma, years in field, and whether or not the therapists witnessed 9/11 directly ($\beta = .179$, $t = 4.052$, $p < .001$). The semipartial correlation coefficient indicated that the correlation between compassion fatigue and avoidance was $sr = .214$ after controlling for the above factors, indicating that approximately 4.6% of the variance in compassion fatigue was uniquely explained by avoidance. **Ambivalence was also positively and significantly correlated with compassion fatigue after controlling for the above factors** ($\beta = .093$, $t = 2.784$, $p = .006$). The semipartial correlation coefficient between compassion fatigue and ambivalence was $sr = .147$, suggesting that 2.2% of the variance in compassion fatigue was uniquely attributed to ambivalence. Thus, both ambivalence and avoidance significantly contributed to compassion fatigue, with a total of approximately 7% in unique variance explaining compassion fatigue. After controlling for percentage of time spent with clients addressing trauma and years in field, witnessing 9/11 in person did not significantly contribute to compassion fa-

	B	SE(B)	t	p	r	sr	R^2	ΔR^2	$p(\Delta R^2)$
Table 1. Effect of Avoidance and Ambivalence on Compassion Fatigue (n= 305)									
Step 1									
% Trauma Case	0.042	0.013	3.215	.001	.182	.182	.033	.033	.001
Step 2									
% Trauma Case	0.042	0.013	3.187	.002	.182	.179	.043	.010	.072
Witnessed 9/11	−1.122	0.622	−1.803	.072	−.105	−.102			
Step 3									
% Trauma Case	0.036	0.012	2.947	.003	.182	.156	.161	.118	<.001
Witnessed 9/11	−1.120	0.585	−1.916	.056	.105	.101			
Avoidance	0.185	0.044	4.199	<.001	.318	.222			
Ambivalence	0.094	0.033	2.817	.005	.274	.149			

Note: % Trauma Case= percentage of time spent with clients addressing trauma.
sr = semipartial correlation. ΔR^2= change in R^2. $p(\Delta R^2)$= significance associated with the change in R^2.

	B	SE(B)	t	p	r	sr	R^2	ΔR^2	$p(\Delta R^2)$

Table 2.
Effect of Avoidance and Ambivalence on Resiliency (n= 314)

	B	SE(B)	t	p	r	sr	R^2	ΔR^2	$p(\Delta R^2)$
Step 1									
% Trauma Case	0.072	0.028	2.587	.010	.145	.145	.021	.021	.010
Step 2									
% Trauma Case	0.066	0.028	2.405	.017	.145	.134	.045	.024	.022
Provided Service	−3.031	1.328	−2.282	.023	−.143	−.127			
Major Loss	−2.960	2.094	−1.414	.158	−.091	−.078			
Step 3									
% Trauma Case	0.080	0.026	3.089	.002	.145	.160	.171	.127	<.001
Provided Service	−2.599	1.243	−2.092	.037	−.143	−.108			
Major Loss	−2.500	1.967	−1.271	.205	−.091	−.066			
Avoidance	−0.379	0.093	−4.086	<.001	−.312	−.212			
Ambivalence	−0.232	0.069	−3.352	.001	−.279	−.174			

Note: % Trauma Case= percentage of time spent with clients addressing trauma. sr = semipartial correlation.
ΔR^2= change in R^2. $p(\Delta R^2)$= significance associated with the change in R^2.

tigue. The percentage of time spent with clients with trauma issues remained significant in the final model, including avoidance and ambivalence (β = .167, t = 3.136, p = .002), uniquely explaining approximately 2.7% of the variance in compassion fatigue.

With regard to resiliency, avoidance was negatively and significantly correlated after controlling for percentage of time spent with clients addressing trauma, years in field, providing services at the time of 9/11, and experiencing major loss due to 9/11 (β = −.223, t = −3.896, p < .001). The semipartial correlation coefficient indicated that the unique correlation between resiliency and avoidance was sr = −.201 after controlling for the above factors, suggesting that avoidance uniquely explained approximately 4.0% of the variance in resiliency. Ambivalence was also negatively and significantly correlated with resiliency after controlling for the above factors (β = −.196, t = −3.433, p = .001). The semipartial correlation coefficient between resiliency and ambivalence was sr = −.177, indicating that 3.1% of the variance in resiliency was uniquely attributed to ambivalence. Thus, resiliency was significantly related to lower ambivalence and

avoidance, with a total unique contribution of approximately 7.1%. Percentage of time spent with clients addressing trauma remained significant (β = .157, t = 2.998, p = .003) and positively contributed to resilience, but experiencing major loss due to 9/11 or providing services at the time of 9/11 were not statistically significant.

DISCUSSION

What qualities enable clinicians to cope more effectively with extreme traumatic situations and to help others? This study sought to respond to this question by examining the role of attachment in relation to resiliency and compassion fatigue. Our results indicate that secure attachment is highly predictive of social workers' ability to cope with compassion fatigue as well as their capacity for resilience, explaining approximately 7% of the variance in both compassion fatigue and resiliency. These findings suggest that attachment style may serve an affective regulatory function in resiliency from or proclivity toward compassion fatigue. Our findings lend support to Racanelli's (2005) assertion: "It is expected that

environmental factors surrounding terrorist events, as well as internal factors such as attachment, which may serve as adaptive or regulatory mechanisms to affective reactions, both serve as influential factors to resiliency from, or vulnerability to, compassion fatigue" (p. 116).

These results suggest an important link between the concepts of attachment, compassion fatigue, and resilience. Our data suggest that attachment contributes to resilience, as well as resistance to compassion fatigue. Importantly, research suggests that attachment style may not be a permanent state, but can be modified by either negative life events or positive ones (Hamilton, 2000; Lewis, Feiring & Rosenthal, 2000; Weinfield, Whaley, & Egeland, 2004). Insecurely attached social workers may be vulnerable to changes in attachment representations; for example, after witnessing major or multiple traumas, a securely-attached social worker's view that the world is a safe place may be challenged. Our study shows that secure attachment predicts both resilience and resistance to compassion fatigue in social workers. This finding fits well with Racanelli's (2005) assertion, "[U]nderlying the ability to regulate personal affect, maintain emotional boundaries, and thereby minimize vulnerability to vicarious trauma or secondary stress is a secure attachment style" (p. 116). Secure attachment style in social workers can predict some of the resiliency and resistance to compassion fatigue, making attachment a critically important concept to social work settings.

Our results on attachment and compassion fatigue are consistent with findings on attachment and vicarious trauma (Lowe, 2002; Marmaras et al. 2003). In a study of female therapists working with adult survivors of childhood sexual abuse, Marmaras and colleagues found that insecure attachment was associated with symptoms of intrusion, hyperarousal, and avoidance. Fearful-avoidant attachment, in particular, was found to be predictive of distress symptoms and cognitive disruption. Lowe (2002) also found that insecurely attached emergency room personnel were more likely to suffer from vicarious traumatization than their securely attached counterparts. These collective findings suggest that secure attachment may protect against the development of compassion fatigue and vicarious traumatization, and that this association is relevant across settings and client populations.

Our findings also inform the research on attachment style and PTSD related to 9/11. Fraley and colleagues (2006) examined psychological adaptation in a sample of direct exposure survivors of the World Trade Center disaster and found

that securely attached participants evinced fewer symptoms of PTSD and depression than those with insecure attachment styles. In our study, insecure attachment style was associated with higher levels of compassion fatigue. This result, coupled with those studies mentioned previously, suggest that secure attachment may serve as a protective factor or source of resilience for both primary and secondary types of traumatization. Additional research should explore the clinician's attachment style in relation to both their primary exposure as a survivor and secondary exposure as witness to the client's trauma.

In our study, resiliency was significantly associated with lower levels of ambivalent and avoidant attachment. While there is a dearth of literature considering resiliency in relation to attachment style, Connor (2006) noted that "resilient people are capable of engaging the support of others, forming close, secure attachments with both personal and social networks" (p. 47). Notably, secure attachment is associated with *compassion satisfaction*, a term describing the pleasure a helping professional derives from assisting others (Racanelli, 2005).

These findings begin to fill in the gaps present in current research and suggest that clinicians' attachment styles may be associated with their level of resilience as well as their level of compassion fatigue. Our findings also reinforce research on the relationship between attachment and secondary traumatic stress.

Limitations

We note that, because this study was correlational and not causative, our results are tentative. A possible third variable might mediate the relationships between attachment, resilience, and compassion fatigue. In addition, because this research dealt with a specific population, social workers working with clients in a society recovering from a high-fatality terrorist attack on U.S. soil and there was no comparison group, our findings may not be generalizable to all mental health clinicians. Also, while a number of respondents reported participating in volunteer and/or paid work experience related to 9/11, we did not screen for specific work settings and therefore do not know the nature and quality of their disaster-related experiences. While many facets of compassion fatigue in post-9/11 New York are similar to compassion fatigue in other settings, there is no way to determine what percentages of the factors are unique, and

what percentages are common, thus leading to the question of applicability. Future research should explore whether or not there is also a strong correlation between attachment and compassion fatigue or resilience and compassion fatigue in day-to-day social work settings.

Furthermore, because the surveys explored the long-term impact of 9/11 on clinicians, participants' recall may have been affected by the passage of time. While certainly the anonymity of responses helps to ameliorate the concern of self-report bias, there is no way to determine its impact on results. Additionally, social work clinicians who may have provided services in a post-9/11 practice environment but no longer live or work in Manhattan are not represented in the sample.

Finally, our sample was relatively homogeneous in nature, mostly older Jewish female clinicians with an average of 26 years of practice experience. Although these respondents are similar to the non-respondents in terms of demographic variables for direct practice, NASW member social workers in Manhattan, these demographics threaten the generalizability of our findings to other clinician populations.

Implications for Practice

Despite these limitations, the results have important implications for practice and supervision. The findings suggest that social workers' attachment styles contribute to their resiliency towards compassion fatigue. Thus, supervisors may consider identifying social workers who will be more resilient in the face of trauma and less likely to suffer from significant compassion fatigue. Adams and colleagues (2008) advocate "anticipating the practitioner's vulnerabilities to working with vulnerable clients" (p. 248). Identifying vulnerable workers and providing additional support for those workers may decrease burnout and STS.

Stamm (2002) asserts that workers who create time to connect with others and attend to self-care tasks are more resilient in the face of caregiving strains. Stamm also suggests that "positive collegial support" (p. 109) as well as agency-level accommodations that can enhance workers' personal sense of control are likely to support workers' resistance to compassion fatigue. Figley (2002) states, "Stress management and self-soothing techniques are critical for surviving modern work—no matter the focus of the work" (p. 1440). Supervisors, peer suppprt, and agency supports can play a critical role in helping less resilient workers (Adams et al.,

2008). Supervisors can coach workers in the above tasks, as well as implement agency-wide interventions that support-workers' resiliency in the face of compassion fatigue. Workers in private practice settings should consider utilizing peer supervision regularly, as supportive co-worker relationships may support greater resiliency against compassion fatigue. Mental health workers certainly cannot be impervious to compassion fatigue, but can be encouraged to utilize healthy coping skills to resist it.

In conclusion, this study addressed the relationships among attachment, resilience, and compassion fatigue in social workers responding to 9/11. The study forms an important cornerstone upon which future research can build in order to better understand compassion fatigue and mitigate its effect in emergency mental health settings.

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Resilience Training for Functioning Adults:
Program Description and Preliminary Findings from a Pilot Investigation

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Abstract: *It has previously been asserted that the construct of resilience holds great promise for diverse high-risk populations and that resilience may be an attribute that can be acquired through training. A rich body of literature suggests the strengths that comprise resilience. This paper describes a resilience training program based upon the identified strengths of resilience and provides additional preliminary data from a pilot investigation which lend support to the idea that resilience can be acquired through training. Suggestions for future research are provided. [International Journal of Emergency Mental Health, 2010, 12(2), pp. 117-130].*

Key words: *resilience, mental health, intervention*

Everly and colleagues (Everly, Welzant, and Jacobson, 2008) have asserted that the construct of resilience holds great potential for diverse high-risk populations (such as law enforcement, fire suppression, emergency medical services, and the military) and suggest, based upon their preliminary data related to perceived confidence and preparedness, that resilience may be an attribute that can be acquired through training. They write (p. 262): "Resilience may be thought of as the ability to positively adapt to and/or rebound from

significant adversity and the distress it often creates…[A]n emerging field of research [has focused] on studying resiliency from the true perspective of primary prevention, with the goal of determining characteristics that support or improve resilience prior to exposure to stressful or traumatic event." This paper describes a resilience training program designed to build its foundational strengths, and offers further support for the idea that resilience might be enhanced through training.

The Importance of Resilience

The high prevalence rates of stress-related mental illnesses in community samples are well documented. For example, according to the National Co-morbidity Survey and its more recent replication (NCS-R), nearly one in two adults in the U.S. will experience a mental illness, principally anxiety, impulse control, mood, or substance abuse disorders (Kessler et al., 1994; Kessler, Berglund, et al., 2005). Find-

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ings from the NCS-R indicated that younger adults (18-29 and 30-44) had the highest prevalence of mental disorders (52.4 and 55.0%, respectively; Kessler, Berglund, et al., 2005). Despite the high prevalence, Kessler, Demler, and colleagues (2005) reported that many with mental disorders are not seeking any form of treatment.

Further, researchers have found evidence of increasing mental distress in individuals following exposure to terrorism, natural disasters, and other traumatic events (American Red Cross, 2001; Agronick, Stueve, Vargo, & O'Donnell, 2007; Beaton, Murphy, & Corneil, 1996; Calderoni, Alderman, Silver, & Bauman, 2006; Centers for Disease Control and Prevention, 2002; Corneil, 1993; Davis & Macdonald, 2004; Krug et al., 1998; Moline , Herbert, & Nguyen, 2006; North et al., 1999; Schlenger et al., 2002; Schuster et al., 2001; Silver, Holman, McIntosh, Poulin, & Gil-Rivas, 2002; Weiss, Marmar, Mezler, & Ronfeldt, 1995). In a recent study, Hoge and colleagues (2004) reported significantly higher rates of mental disorders, especially post-traumatic stress disorder (PTSD), among soldiers and Marines returning from Iraq compared to pre-deployment rates.

While the suffering caused by stress-related mental disorders is widely recognized, most who need the services of mental health professionals will not receive them for a variety of reasons (stigma, inability to pay, supply/demand imbalance, etc.). Thus, the Surgeon General's 1999 Mental Health Report called for preventive education interventions to reduce the impact of risk factors for mental disorders, indicating that individuals welcome diverse self-managed interventions (Department of Health and Human Services, 1999). Earlier, it has been argued that only widespread inoculation approaches to prevention will effectively decrease rates of not only physical diseases but mental illness as well (Albee & Gulotta, 1986; DeArmond & Marsh, 1984). Resilience training "vivifies an emerging paradigm shift in mental health, built around the intriguing possibility that psychological dysfunction can be better approached through prevention than by struggling, however valiantly and compassionately, to undo deeply-rooted damage" (Cowen, Wyman, Work, & Iker, 1995, p. 248).

Conceptualizing Resilience

In this program, resilience was conceptualized as those psychological strengths (i.e., strengths of mind and character) that help to prevent the occurrence of, reduce the severity

of, and hasten rebounding from symptoms of stress-related mental illnesses and psychological distress, as well as promote growth and adaptive functioning under duress across the lifespan (Schiraldi, 2007b). This definition incorporates three concepts frequently associated with resilience: *resistance* (Bonanno, 2004; Yi, Smth, & Vitaliano, 2004), *rebounding* (buoyancy), and *adaptation/competence* (Block & Block, 1980; Block & Kremen, 1996; Carver, 1998; Lazarus, 1993; Luthar & Cicchetti, 2000; Richardson, 2002; Werner & Smith, 1992). From a practical viewpoint, many of the same skills that facilitate prevention are generally thought to promote optimal performance, adaptation, rebounding, and growth both under duress and across the lifespan. In research, resilience is often measured with a valid and reliable scale (e.g., Wagnild & Young, 1993).

Purpose

While some promising studies suggest that at-risk children can be strengthened through resilience interventions (Cowen et al. 1995; Seligman, 1995; Stallard et al. 2005), less is known about developing resilience across the lifespan (Werner, 2005). Although Hines, Meringer, and Wyatt (2005) state that resilience behavior can occur at any development stage, the majority of resilience research has been conducted among younger populations with minimal knowledge about how this concept operates in adulthood (Campbell-Sills, Cohan, & Stein, 2006). College students represent a valuable starting point for resilience training research among adults. Still in their formative years, and open to exploring mental health issues (DeArmond & Marsh, 1984), they are also convenient to test over the course of a semester. Earlier research indicated that symptoms of mental distress could be reduced in functioning college students through a cognitive-behavioral small-group course (Schiraldi & Brown, 2001a; 2001b).

The primary purpose of this paper is to describe a semester-long, small-group format college course for functioning adults organized around cultivating and reinforcing the strengths of resilience.

Program Development and Description

From a thorough review of the literature concerning resilient survivors (e.g., Dicks, 1990; Frankl, 1959; Parker, Cowen, Work, & Wyman, 1990; Schiraldi, 2007b; Werner & Smith, 1992; Wolin & Wolin, 1993; also see Everly, Welzant,

and Jacobson, 2008 for overview) fourteen strengths comprising resilience were identified: (1) calm under pressure (calm focus, concentration, and functioning; absence of malice and impulsivity; composure); (2) rational thinking; (3) self-esteem; (4) sociability (interpersonal skills); (5) comfort with emotions (and the other aspects of emotional intelligence, such as ability to name and regulate emotions); (6) active/adaptive (flexible and creative) coping; (7) balanced living (physical health, varied interests, etc.); and seven philosophical and spiritual strengths—(8) meaning and purpose; (9) integrity; (10) optimism; (11) humor; (12) love/altruism; (13) faith; and (14) a long view of suffering (e.g., finding growth opportunities in adversity). Theoretically, teaching principles and skills to promote these strengths could result in increases in resilience and related variables, and decreases in symptoms of mental distress.

The course met twice weekly, 75 minutes each session, in small groups of twenty or fewer, for fifteen weeks. Taught by a Ph.D. level instructor, the course was patterned after the stress inoculation training model (Meichenbaum, 1985), consisting of three phases: (1) a relatively short didactic phase, (2) cognitive-behavioral skills acquisition and rehearsal phase, and (3) in-vivo application phase. The format of typical sessions included processing homework assignments (in-vivo application), introducing new principles (didactic) and skills (CBT skill acquisition), and assigning out-of-class activities (in-vivo application). Since journal writing has been associated with improvements in mood (Pennebaker, 1997), participants made a journal entry reflecting their experience with the skills and principles discussed and practiced, and how they were faring generally between each class. Journal entries also provided invaluable feedback to the instructor with regard to the effectiveness of the various skill practices. Although assigned readings explored all fourteen strengths of resilience, time did not permit principles and skills related to some of these strengths to be specifically explored. Instead, priority was given to principles and skills that: overlap across many of the fourteen strengths; were related to strengths consistently emphasized in the literature; and/or were evidence based. While the instructions for the principles and skills taught in this intervention are detailed elsewhere (Schiraldi, 2000; 2001; 2002; 2007a), they are overviewed below (a simplified overview is at Table 1).

- Session 1-3 discussed theory and key studies. Because mental functioning is influenced by physical functioning, participants developed and implemented a physical health plan, including sound nutrition, regular exercise, and regular, sufficient sleep.

- Sessions 4-9 focused on calm under pressure and rational thinking principles and skills. Marra (2005) has described the numerous common symptoms of arousal in the so-called disorders of arousal (depression, anxiety, posttraumatic stress disorder, anger, impulse control disorders, and addictions), and Lipsky, Kassinove, and Miller (1980) have shown that generic cognitive therapy reduces symptoms of depression, anxiety, neuroticism, and hostility, irrespective of individual diagnoses. Consequently, participants were taught various ways to control arousal: breath control, progressive muscle relaxation, heart coherence, and, following the pattern of Beck (1995) and Ellis and Harper (1975), cognitive restructuring.

- Sessions 10-15 focused on solidifying self-esteem, because self-esteem has been found to be strongly related to resilience and well-being in various cultures and age groups (Brown, Schiraldi, & Wrobleski, 2003; Hobfall & London, 1986; Hobfall & Walfisch, 1986; Lee, Brown, Mitchell, & Schiraldi, 2007; Parker et al., 1990; Zhang, 2005). Self-esteem was defined as a realistic, appreciative opinion of self, based upon a sense of unconditional worth as a person, unconditional love, and growth. Following a number of awareness-raising exercises, participants were taught eleven self-esteem skills that had been previously developed and tested (Schiraldi, 2001; Schiraldi & Brown, 2001a; Schiraldi & Brown, 2001b). These skills helped participants to realistically recognize innate strengths and unique combinations of strengths, separate worth as a person from externals (e.g., imperfect performance, wealth, or appearance), experience wholesome compassion, and actively plan to cultivate character and personality strengths.

- Sessions 16-17 further developed emotional intelligence by teaching ways to acknowledge distressing emotions and manage intense anxiety. Anxiety was defined as worry plus emotional arousal. Participants were led through a costs/benefits analysis of worry in order to raise awareness and reduce resistance to change. They then developed lists of the positive consequences of worrying less, and the opposites of worry. Worry management skills were then practiced

Sessions	Key Concepts Taught	Activities
	Table 1. **Overview of the Cognitive-Behavioral Intervention**	
1-3	• Introductory sessions: Overview of theory and key studies	• Participants developed and implemented a physical health plan, which included proper nutrition, regular exercise, and sufficient sleep
4-9	• Calm under pressure • Rational thinking principles and skills	• Arousal control techniques ° Breath control, progressive muscle relaxation, heart coherence, and cognitive restructuring
10-15	• Self-esteem • Identify inner strengths and unique combinations of strengths • Compassion and character	• Awareness-raising exercises • Self-esteem skills
16-17	• Recognize distressing emotions • Management of intense anxiety	• Cost/benefits analysis of worry • Worry management skill building • Confiding emotional wounds (including traumatic memories)
18-25	• Mindfulness	• Mindfulness skill building ° Included mindfulness-based cognitive therapy, mindfulness meditations, Acceptance and Commitment Therapy (ACT) defusing skills
26	• Realistic optimism	• Analyzed pessimistic and optimistic explanations for negative outcomes • Self-instruction training • The "At Least" optimism exercise
27-29	• Resilient survivors	• Analyzed books about resilient survivors
30	• Final session • Review of material	• Reflected on most useful components of classes • Discussion of personal resilient strengths/weaknesses • Presentation of lifetime resilience plan

and assigned. Participants journaled the facts and feelings surrounding their present worries, a method which Borkovec, Wilkinson, Folensbee and Lerman (1983) found to significantly reduce worries in adults. They then confided in writing the facts and feelings surrounding emotional wounds from the past. Pennebaker (1997) found that this method improved mood and immunocompetence after a few days, with practitioners indicating that such processing of traumatic memories helped them to gain perspective,

understanding, and distance from traumatic memories.

• Sessions 18-25 were devoted to mindfulness training, following the pattern of the Mindfulness-based Stress Reduction program (Kabat-Zinn, 1990). Mindfulness training, which is increasingly used in U.S. military settings ranging from training to treatment (Hufford, Fritts & Rhodes, 2010), teaches people to calmly exist with the full range of emotions, treating all emotions

the same—responding with acceptance, patience, compassion, openness, non-judgment, good humor, non-attachment, dignity, and humility. Research has shown that mindfulness training increases activation in the left pre-frontal cortex, the area of the brain associated with optimism, positive emotions, more adaptive responding to distressing events, and other attributes related to resilience (Davidson et al., 2003). Mindfulness training also appears to improve gamma-band synchronization in the brain, which is thought to relate to beneficial attention and affective processes (Lutz, Greischar, Rawlings, Ricard, & Davidson, 2004). In addition to reducing diverse psychosomatic symptoms, mindfulness practice is often reported as helping people feel calmer, more confident in managing intense feelings, more empathic, and "more comfortable in their own skin" (Andresen, 2000; Kabat-Zinn, 1990). Like cognitive therapy, mindfulness seems to be a useful generic tool for improving mental health. However, instead of teaching people to fight their distressing thoughts, mindfulness teaches people to simply acknowledge them and then go beneath them. The mindfulness skills, including mindfulness-based cognitive therapy (Segal, Williams, & Teasdale, 2002), various mindfulness meditations, and related Acceptance and Commitment Therapy defusing skills (Hayes & Smith, 2005) are further detailed in Schiraldi (2007a).

Session 26 was devoted to building realistic optimism, the attitudinal underpinning of active coping, which has been related to better mental, physical, and occupational health (Peterson & Bossio, 1991). Optimism was conceptualized as the attitude that doing one's best will cause things to turn out as well as possible, that one can rise above temporary defeat, and that one can find something to enjoy, grow from, and anticipate in even the most dire circumstances. The optimistic explanatory style (Peterson & Bossio, 1991) was explained and participants practiced assigning and contrasting pessimistic and optimistic explanations for negative outcomes in their lives. Self-instruction training asked participants to anticipate a difficult situation (defeats, traumas, failures, etc.) and then identify optimistic thoughts for before, during, and after the difficult situations. The At Least exercise stimulated optimism, curiosity, and a longer

view of suffering, requiring participants to look beyond negative outcomes to see what is still right and what growth and enjoyment might still transpire. For example, a veteran might think "I lost a leg, but at least I didn't lose an eye" (Hendin & Haas, 1984). Another might think, "At least I learned that I can survive almost anything," and realize a greater sense of confidence. Forgiving was explored as a new way to view the past.

- Sessions 27-29 encouraged analysis on three books about resilient survivors: *Man's Search for Meaning* (Frankl, 1959; about surviving the Holocaust), *Days of Grace* (Ashe & Rampersad, 1993; about surviving prejudice and innocently-contracted AIDS), and *Deep Survival* (Gonzales, 2003; about surviving wilderness and other crises). These works provide profound insights into the diverse resilience themes, including:

  - Having a sound plan, but not being wed to the plan (active planning, flexibility)

  - Being mindful, paying attention, focusing, remaining calm under pressure

  - Having a flexible/beginner's mind (not being unduly influenced by one's mental map or predeterminations)

  - Altruism

  - Determination, perseverance

  - Meaning and purpose

  - Lack of bitterness, forgiveness

  - Character and morality; spirituality

  - Humor, finding joy amidst difficult circumstances

  - Traumatic growth

- The final session afforded the opportunity to summarize and reinforce learning. Rather than passively receiving a review from the instructor, participants were asked to review all classes and then identify and present the principles and skills that they found most useful, relevant, and/or meaningful. They discussed the resilience strengths that they felt had improved and which still need strengthening. Finally, they each presented a lifetime resilience plan, including the principles and skills that they will continue to apply or improve upon.

A Pilot Investigation

Theoretically, increasing the protective factors of resilience would be expected to result in increases in resilience and other indicators of adaptation and mental well-being (self-esteem, optimism, happiness, and curiosity), while decreasing symptoms of mental distress (depression, anxiety, and anger)—as measured by standardized scales. In order to partially test this premise, preliminary data from a pilot investigation is reported herein.

METHOD

A within-subjects pre-test and post-test design was utilized with a total of 37 participants in two separate trainings (two sections offered in consecutive semesters in a school of public health at a large, public university in the mid-Atlantic). Students chose this course from a list of offerings in interdisciplinary and emerging issues in order to fulfill a graduation requirement. Course enrollment was limited to no more than twenty students, a size that is amenable to small-group processes. Following procedures approved by the university's Institutional Review Board, participants were administered the same assessment at pre- and post-test.

A total of 40 students were enrolled in the course during the two administrations. During the first course administration, 18 of 20 students completed the post-test (90% of initial sample; two students being absent at post-test). During the second course administration, 19 of 20 students completed the post-test (95% of initial sample; one student dropped at the beginning of the semester). The final pooled sample of 37 students represented 95% of those who participated in the course. Regarding attendance, one student missed three sessions; all others missed no more than two. The final sample was nearly 60% female, largely white (87% white, 5% black, 5% Hispanic, 3% Asian) and traditionally aged (18-21).

The 107-item assessment, administered at pre- and post-test, measured participants on a variety of mental health constructs as well as demographic variables that could be used for statistical control in analyses (e.g., gender, age). Reliable and valid measures were used to assess resilience, optimism, happiness, self-esteem, curiosity, anxiety, depression, and anger (See Table 2).

RESULTS

Table 3 shows pre-test means, post-test means, mean differences between time periods, dependent t-value with associated p, and Cohen's standardized effect sizes (Cohen, 1973). Cohen's d values were calculated using the mean differences and pooled variance from pre- to post-test rather than t value and degrees of freedom so as to not artificially inflate the effect sizes. Mean differences for all constructs were statistically significant at α =.05, and all means differed from pre- to post-test in the hypothesized direction. Thus, results suggest statistically significant changes on all variables resulting from completion of the training program. This is noteworthy because pre-test averages for depression, anxiety, and anger were already low and pre-test averages for the five scales measuring positive adaptation and well-being were already high in this apparently healthy group. [Curiosity has been linked to resilience by several researchers, including Block and Kremen (1996), Klohnen (1996), and Tugade and Fredrickson (2004), theoretically being related to active and creative coping.] Also, to our knowledge this is the first investigation to show that a semester's course might enhance resilience, as measured by a standardized scale. As one would expect, then, resilience training, as implemented in this program, appeared to increase subjective indicators of positive adaptation, while reducing subjective indicators of mental distress.

Intervention effects ranged from very large to small, with the largest effects observed for resilience, optimism, and one of the two measures of self-esteem, a moderate effect observed for curiosity, and small effects observed for the two happiness scales, the second self-esteem scale, anger, depression, and anxiety. Effect sizes of .2 were considered small, .5 moderate, and .8 large, in accordance with Cohen (1988). Additional analyses indicated that the observed intervention effects did not differ significantly by gender or across treatment periods. Of heuristic interest, Walter and colleagues (2010, p. 108) have noted that in evaluating resilience programs, "even seemingly small effect sizes can have meaningful effects when (a) the process is cumulative and (b) when large populations are involved…Intervention programs…are often designed to be cumulative—teaching skills that generalize across time and situations," and thus might potentially benefit large segments of the population.

		Table 2. Scales Used on Pre- and Post-test Assessment		
Construct of Interest	**Number of Items**	**Response Option Scale Format**	**Reliability (Alpha)**	**Citation**
Resilience	25	7-point Likert (Disagree-Agee)	.91	Wagnild & Young, 1993
Optimism	12 (8 for analysis)	5-point Likert (Strongly Disagree-Strongly Agree)	.76	Scheier & Carver, 1985
Happiness	1	Scale of 0 to 10 (Extremely unhappy-Extremely happy)	N/A*	Fordyce, 1988
	1	% of time one feels happy	N/A*	Fordyce, 1988
Self-esteem	10	4-point Likert (Strongly Disagree-Strongly Agree)	.77	Rosenberg, 1965
	12	4-point Likert (Strongly Disagree-Strongly Agree)	.96	Schiraldi, 1999
Anxiety	10	4-point frequency (Almost Never-Almost Always)	.91-.92	Spielberger, 1979
Depression	10	4-point frequency (Almost Never-Almost Always)	.91-.93	Spielberger, 1979
Anger	10	4-point frequency (Almost Never-Almost Always)	.94	Spielberger, 1979
Curiosity	10	4-point frequency (Almost Never-Almost Always)	.96	Spielberger, 1979

* *Strong reliability and validity data (Fordyce,1988) suggest that these are among the best single-item indicators of happiness.*

DISCUSSION: STRENGTHS AND LIMITATIONS

The limitations of any study, especially a pilot investigation, must be seriously considered before results are interpreted and future studies are planned. In this study, the absence of a control or comparison group does not rule out the effects of threats to internal validity (history, maturation, Hawthorne effect). To increase confidence in the findings, future research must utilize controlled, randomized conditions, more subjects, and long-term follow-up results. Given the conceptual complexities of resilience, future studies must also answer two key questions: (1) Does resilience training actually decrease the incidence of stress- related mental disorders, including PTSD, depression, and anxiety? (2) Does resilience training actually promote adaptation (including the optimization of performance and mental health) under condi-

	Mean	S.D.	Mean Difference	t	p (2-tailed)	Cohen's d
Table 3. Key Statistics for Constructs of Interest (*n* = 37*)						
Wagnild Resilience Scale (higher score = higher resilience)						
Pretest	136.811	11.105	10.297	5.725	0.000	0.984
Posttest	147.108	9.786				
Scheier & Carver Life Orientation Test: Optimism (higher score = positive orientation)						
Pretest	29.281	3.920	3.531	6.014	0.000	0.975
Posttest	32.813	3.297				
In general, how happy or unhappy do you feel? (higher score = more happy)						
Pretest	7.459	1.386	0.514	2.918	0.006	0.423
Posttest	7.973	1.013				
What percent of the time do you feel happy?						
Pretest	71.081	20.625	8.568	3.007	0.005	0.486
Posttest	79.649	14.016				
Rosenberg Self-Esteem Scale (higher score = higher self-esteem)						
Pretest	34.618	4.539	1.824	3.050	0.004	0.401
Posttest	36.441	4.554				
Schiraldi Self-Esteem Check-Up (higher score = higher self-esteem)						
Pretest	42.440	3.809	3.240	4.503	0.000	1.052
Posttest	45.680	2.116				
STPI Anxiety Subscale (higher score = higher anxiety level)						
Pretest	17.400	4.230	-1.543	-2.524	0.016	-0.368
Posttest	15.857	4.145				
STPI Depression Subscale (higher score = higher depression)						
Pretest	15.912	4.107	-1.824	-3.328	0.002	-0.477
Posttest	14.088	3.519				
STPI Anger Subscale (higher score = higher anger level)						
Pretest	18.629	4.716	-1.543	-2.388	0.023	-0.388
Posttest	17.086	3.062				
STPI Curiosity Subscale (higher score = higher curiosity)						
Pretest	29.618	4.465	2.765	4.445	0.000	0.620
Posttest	32.382	4.459				

Cases where any items were missing were omitted from analysis of that scale.

tions of extreme adversity? Additionally, future research must attempt to uncover the most effective "active ingredients" of resilience training in order to possibly shorten the length of the program, thus making resilience training more useful to a wider range of high risk groups. Finally, future research must determine if resilience training is effective for diverse high-risk groups.

While the results are only preliminary, our impression is that three factors might account for the promising gains and suggest heuristics for resilience training. First, the small-group format used in this intervention lends itself to team building and the cultivation of a sense of comfort, in a way that large lectures and individualized study typically do not. The many opportunities to discuss successes and failures promote the idea that all participants are in "the same boat" and are growing as a team in the acquisition of important coping skills. Hearing peers report successes with skills practice can be motivating, while discussing difficulties in applying resilience skills can stimulate fruitful problem-solving discussions.

Second, we have observed that the stress inoculation training model has an intrinsic appeal as regards skills acquisition. Participants readily recognize that simply hearing a principle or hearing about a coping skill does not guarantee mastery and the ability to successfully apply that skill under pressure. Rather, the skill must be practiced repeatedly, until it can be applied successfully under pressure. Participants readily recognize parallels with skilled and confident performance in athletic, acting, or high-stress professional arenas. The stress inoculation approach also saves valuable class time by assigning out-of-class practice. Further, the process of mastering coping skills through experiential repetition enables participants to become resources for others in various settings.

Third, our impression is that resilience training builds a rich range of coping skills that go well beyond traditional stress management training and produces individuals with a broader and deeper coping repertoire. For example, the inclusion in resilience training of optimism, self-esteem, and mindfulness and other methods of emotional regulation teaches emotional intelligence skills (Bar-On, 1997; Mayer & Salovey, 1997) that are potentially useful across the lifespan.

Conclusion

The development and initial indicators of success for the resilience training program reported in this paper, which was designed to improve self-reported resilience by cultivating its foundational strengths, lends some support to the notion that resilience can be acquired and/or strengthened in functioning adults, in this case, in a classroom setting, through a program that emphasizes preventive principles and skills. This paper has described a semester-long course in resilience training. Preliminary data indicates that the course led to improvements in the hypothesized directions for resilience and related indicators of adaptation and mental well-being (self-esteem, optimism, happiness, curiosity, depression, anxiety, and anger).

Everly and colleagues (Everly, Welzant, and Jacobson, 2008, p. 261) call resilience and resistance the "final frontier in traumatic stress management." Resilience training might ultimately be offered in a wide range of settings, including school, community, and workplace settings (Institute of Medicine, 2003). Although it is important to minimize physical risks, such as terrorism, and to train for the continuity of post-disaster operations as they relate to technology and infrastructure (Everly, Welzant, and Jacobson, 2002), equipping people preventively with emotional survival skills to mitigate psychological distress seems equally important. Because resilience training has the potential to help individuals respond optimally to predictable traumatic events, future research must uncover the most effective, economical ways to provide it to diverse populations.

Should future research confirm the effectiveness of resilience training in university settings, it would then be important to determine if similar training would have beneficial effects among other populations (e.g., military, community, firefighters). Potentially, rigorous resilience training might be of use in military basic training, fire and police academies, and/or when presented in modules at various points of continuing professional development, as the Australian Defence Force has begun to do (Cohn & Pakenham, 2008).

Vaillant (1977) found that mental health in college predicted medical health decades later, while Tugade and Fredrickson (2004) found that resilient individuals bounce back not only psychologically, but physiologically faster. These findings possibly suggest medical benefits from resilience training. Future research, then, might explore the relationship between increases in resilience through resilience training and medical health. Adding a resilience instrument to standard health risk assessments that already exist in medical settings might further clarify the relationship between resilience and medical health.

The authors are currently exploring whether incorporating partial peer-facilitation into resilience training yields results comparable to this study. If this approach is effective, it might suggest an auxiliary role for peers in resilience training. This would not only be a cost-effective way to stretch

limited training resources, but research suggests that student learning is facilitated by involvement in the teaching process (Dixon & Gudan, 2000; Gafney & Varma-Nelson, 2007; Lockspeiser, O'Sullivan, & Teherani, 2008).

Recently, Everly (2009) highlighted the need to address the challenging pre-crisis education/preparedness component of CISM. Resilience training might be one important way of meeting this challenge.

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Selected Annotated Journal Resources

Rebecca Dean and Nicole Schechter

Allen, E. S., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2010). Hitting home: Relationships between recent deployment, and marital functioning for army couples. *The Journal of Family Psychology,* 24(3), 280 -288.

TYPE OF ARTICLE

- Original empirical investigation

OBJECTIVE/PURPOSE OF THE STUDY

- To identify associations between recent deployment, PTSD symptoms, and marital functioning.
- To identify the unique effects of recent deployment on marriages.

METHODS

Participants

- Participants were selected from a sample of 476 military couples at Fort Campbell, Kentucky who originally enrolled in a larger study.
- Inclusion criteria were the couple must be composed of an active duty husband and civilian wife.
- In total, 344 couples were enrolled.

Materials

- The question "Have you been employed in the last year" was used to determine if the husband had experienced recent deployment.
- PTSD symptoms were evaluated using the PTSD Checklist (PCL) and a follow-up question inquiring if the symptoms were related to military experience.

- Seven measures of relationship functioning were used to evaluate marital satisfaction, confidence, positive bonding, parenting alliance, dedication, satisfaction with sacrifice, and negative communication (Kansas Marital Function Scale, the Confidence Scale, an adapted version of the Couple Activities Scale, and the five items of the Parenting Alliance Inventory, five items from the Dedication Scale from the Commitment Inventory, three items from the Satisfaction with Sacrifice Scale from the Commitment Inventory, and the Communication Danger Signs Scale, respectively).

Procedure

- Participants completed the seven self-report surveys while supervised by research staff.
- The husband and the wife completed the surveys independently, in two separate rooms.

RESULTS

- Recent deployment was not associated with differences in marital functioning.
- Recent deployment was positively associated with PTSD symptoms.
- PTSD symptoms were negatively associated with all marital functioning factors, except for wives' satisfaction with sacrifice.
- The association between PTSD symptoms and marital functioning appears to be partially mediated (24 – 73%) by negative communication, positive bonding, and parenting alliance.
- Parenting alliance was a factor that impacted marital functioning only for the wives.

- For the husbands, PTSD symptoms accounted for their marital functioning ratings above and beyond the effects of negative communication, positive bonding, and parenting alliance. For the wives, the effects of the adaptive processes better accounted for their marital functioning ratings.

CONCLUSIONS/SUMMARY

- The mediating factors of negative communication, positive bonding, and parenting alliance suggest that it is important to incorporate communication skills and positive bonding in treatment for couples that are affected by PTSD symptoms.

- Interventions are important for all couples with a husband who is experiencing PTSD symptoms, independent of a recent or distant deployment.

- Early treatment focused on avoidance, negative affect, and negative thoughts for husbands with PTSD symptoms will benefit their marriages.

CONTRIBUTIONS/IMPLICATIONS

- This study suggests very specific areas of focus for treatment of soldiers who are also husbands and are suffering from PTSD symptoms.

- This study evaluates the perspective of civilian wives and illuminates the factors that impact their marital satisfaction, above and beyond their husbands' PTSD symptoms.

- This study suggests that from the husbands' perspective, the PTSD symptoms are the most debilitating factor impacting marriage, but from the wives' perspective, the PTSD symptoms are not as important as other factors. These findings suggest that the husbands and the wives may need to address different issues in couples counseling and individual treatment.

- One limitation of this study is that the participants entered into a larger study that provided the opportunity for marriage counseling, suggesting that the couples in this sample may be more invested in their relationships than a general Army population.

- A second limitation is the exclusion of married couples in which the wife was the soldier and the husband was the civilian or in which both partners were in the Army

- A third limitation of this study is the inclusion of only intact couples, excluding couples that have already divorced due to deployment effects.

- Despite these limitations, this study provides relevant information for the relationship between deployment, PTSD symptoms, and marital functioning.

Kubany, E. S., Ralston, T. C., & Hill, E. E. (2010). Intense fear, helplessness, "and" horror? An empirical investigation of *DSM-IV-TR* Criterion A2. *Psychological Trauma: Theory, Research, Practice, and Policy,* 2(2), 77-82.

TYPE OF ARTICLE

- Original Empirical Investigation

OBJECTIVE/PURPOSE OF THE ARTICLE

- To examine rates of PTSD in people who met Criterion A2 of the diagnosis by reporting one, two, or three of the factors to determine if the current definition of Criterion A2 is appropriate.

METHODS
Participants

- There were 205 participants (73 men and 132 women) from four treatment programs at an Army Medical Center who volunteered to participate in this study.

- All participants were active duty personnel, an adult family member of an active duty member, or a retired member of the military.

- The majority of participants were Caucasian (52%); however, the sample included Black (21%), Mexican (4.4%), American Indian (3.9%), Native Hawaiian (2.4), Filipino (2.0%), and other (10.2%) participants.

Materials

- The Clinician Administered PTSD Scale (CAPS) was used to measure participants' PTSD symptoms according to the *DSM-IV*.

- The Trauma Life Events Questionnaire-Computer Version (TLEQ-C) was used to assess exposure to a qualifying traumatic event.

- The PTSD Screening and Diagnostic Scale- Abbreviated Computerized Version (PSDS-AC) was used to assess PTSD symptoms according to the *DSM-IV*.

- The Beck Depression Inventory (BDI) was used to measure symptoms of depression.

- The Trauma-Related Guilt Inventory was used to measure global cognitive and emotional aspects of guilt.

Procedure

- A voluntary sample was recruited by way of flyers throughout the medical center and program staff announcing the study to clients.
- The participants attended a two-hour individual appointment to complete the surveys.
- Civilian participants received $40 and military participants received a Base Exchange voucher in compensation for their time.

RESULTS

- Of the sample, 97% were in the chronic phase of PTSD; that is, they had been experiencing symptoms for over three months.
- Moreover, 93% of the participants met PTSD Criterion A2 in that they reported at least one of the following factors: intense fear, helplessness, and horror.
- Also, 56% of the sample reported experiencing all three A2 factors, 22% reported experiencing two of the A2 factors, and 15% reported experiencing one of the A2 factors.
- Of the sample, 43% who reported all three A2 factors, 9% of the people who reported two A2 factors, and 10% of the people who reported one A2 factor met criteria for PTSD; this difference is statistically significant.
- PTSD symptoms were significantly more severe for participants who reported three A2 criteria.

CONCLUSIONS/SUMMARY

- Findings suggest that participants who reported experiencing all three A2 criterion were four times as likely to have PTSD than those who reported experiencing two or one A2 criterion; they also experienced poorer psychological functioning in general.
- There was no difference in PTSD rates between people who experienced two or one A2 criteria.
- Those who report experiencing all three of the A2 criteria appear to be the most likely to develop chronic PTSD.

CONTRIBUTIONS/IMPLICATIONS

- The study provided greater insight into the impact of the A2 Criterion of the current PTSD diagnosis.

- The results suggest that follow-up PTSD assessment sessions to evaluate for chronic PTSD might only be necessary for clients who report experiencing all three A2 criteria during intake.
- The results of this study suggest a need for narrowing the current definition of the A2 criteria; the authors suggest that in order to be diagnosed with PTSD, one must experience intense fear, helplessness, and horror rather than just one of these three factors.
- One limitation of the study was the retrospective reporting of the A2 criteria for the majority of the participants, potentially suggesting that their recollection of the experience is inaccurate, exaggerated, or minimized.
- Another imitation of this study was that the authors did not intend to identify the differences in emotional reaction between those who reported all three A2 criteria, two, or one of the criteria. Therefore, it is unknown what causes the different experiences for different individuals.
- Despite these limitations, this study supported that those who experience intense fear, helplessness, and horror during the traumatic event will be more likely to have chronic PTSD with more severe symptoms than those who experience only one or two A2 criteria.

Moore, S. A., Varra, A. A., Michael, S. T., & Simpson, T. L. (2010). Stress-related growth, positive reframing, and emotional processing in the prediction of post-trauma functioning among veterans in mental health treatment. *Psychological Trauma: Theory, Research, Practice, and Policy.* **2(2), 93-96.**

TYPE OF ARTICLE

- Original Empirical Investigation

OBJECTIVE/PURPOSE OF THE STUDY

- To determine if stress-related growth (SRG) accounts for variance in PTSD symptom severity, depression, and Disorders of Extreme Stress NOS above and beyond the effects of positive reframing and emotional processing.

METHODS
Participants

- A sample of 203 female and male veterans who were receiving mental health treatment at a VA was obtained

by recruiting from a larger study on health care utilization

- The majority of the sample identified as Caucasian (73.4%), had attended some college (53.7%) and the average age was 51.4 years.

Materials

- The Stress-Related Growth Scale-Short Form (SRGS) was used to assess stress-related growth, that is, perceived positive changes as a result of a specified stressor.
- The Traumatic Life Events Questionnaire was used to identify the most impactful trauma experience (28.1% reported physical or sexual assault and 26.6% reported combat) and a full trauma history.
- The Brief COPE, Positive Reframing Scale, and Emotional Processing Scale were used to measure general and specific coping mechanisms used by participants.
- The PTSD Checklist – Civilian Version (PCL-C) was used to measure PTSD symptoms, the PHQ-9 was used to measure depression severity, and the Structured Interview for Disorders of Extreme Stress (SIDES) was used to assess DESNOS

Procedure

- Participants met with a researcher on an individual basis to complete an interview and self-report measures
- Participants received $20 compensation for their time

RESULTS

- Greater SRG was significantly associated with greater use of coping mechanisms
- Participants who reported the lowest and highest levels of SRG also had the lowest levels of current PTSD, depression, and DESNOS; participants who reported the moderate levels of SRG were those under the most psychological distress

CONCLUSIONS/SUMMARY

- SRG appears to be a distinct coping skill and not simply a result of emotional processing or positive reframing and therefore SRG may be another factor in post-trauma functioning
- People who experience low levels of SRG and low levels of distress likely represent a unique group of individuals who do not perceive a traumatic event as a disaster

CONTRIBUTIONS/IMPLICATIONS

- SRG is related to emotional processing and positive reframing; however, they are distinct constructs with varying effects and require further research to determine how and why they impact people differently
- SRG appears to be a positive coping mechanism in short-term; however, long-term data must be collected to determine the longitudinal effects of SRG
- One major limitation of the study is that it used a cross-sectional sample and the predictive qualities of these factors cannot be evaluated.
- Another limitation is that the study did not address any differences in SRG or distress based on the time since the trauma; this may be an important variable.
- The final limitation, which may have accounted for some of the differences among participants, is that the type of treatment (therapy, medication, or combination) was not addressed.

Walter, K.H., Gunstad, J., & Hobofoll, S.E. (2010). Self-control predicts later symptoms of post-traumatic stress disorder. *Psychological Trauma: Theory, Research, Practice, and Policy,* **2(2), 97-101.**

TYPE OF ARTICLE

- Original empirical investigation

OBJECTIVE/PURPOSE OF THE STUDY

- To identify the relation between self-control and post-traumatic stress disorder (PTSD).
- To identify how baseline levels of self-control predict PTSD symptoms.

METHODS
Participants

- Participants were selected from a sample of 79 women from two obstetric/gynecology clinics located in an inner-city.
- Inclusion criteria were females 18-39 years of age who endorsed a history of physical, sexual, or emotional abuse and responded to subsequent screening items suggesting probable PTSD.
- In total, 65 females completed both the baseline and

follow-up assessment, resulting in a retention rate of 82%.

Materials

- The screening included the Abuse Assessment Screen and the Primary Care PTSD Screen (PC-PTSD) to determine if the women met selection criteria for probable PTSD.
- A self-report demographic questionnaire was used to collect information on age, race, education, employment status, marital status, and income.
- Post-Traumatic Symptom Scale-Interview version (PSS-I) was used to measure PTSD symptom criteria from *DSM-IV TR*.
- The Brief Self-Control Scale (BSCS), a self-report scale, was used to assess the trait of self-control.

Procedure

- Women who endorsed a history of interpersonal violence/trauma were screened with three questions modified from the Abuse Assessment Screen (AAS).
- If women endorsed one of three abuse screen items they were asked four questions from the Primary Care PTSD Screen (PC-PTSD).
- Women who met selection criteria were administered a questionnaire in a structured interview format.
- Women were contacted via telephone 3 months later for a follow-up assessment interview, which was conducted at the women's health clinics, a public location, or a participant's home.

RESULTS

- Self-control predicted PTSD symptoms 3 months later in a group of inner-city women with probable PTSD.
- A power analysis on the data indicated a large effect size for the relation between self-control and PTSD symptoms.
- Mean PTSD scores decreased from baseline ($M= 14.49$) to 3-month follow-up ($M= 12.63$), while mean self-control scores increased from the baseline measurement ($M= 24.23$) to the 3-month follow-up ($M= 26.63$).

CONCLUSIONS/SUMMARY

- Results indicate that reported self-control inversely predicted future PTSD symptoms, such that higher self-

control was related to lower levels of PTSD symptoms.
- Therefore, self-control may serve as a protective factor against future PTSD symptoms.
- The study provides an innovative examination identifying self-control as a modifiable factor that affects the course of PTSD.
- The role self-control plays in predicting later PTSD symptoms may result from ego-depletion.
- Self-control may predict PTSD symptoms over time because the trauma itself exhausts resources that could have been used for later management of PTSD symptoms.
- Traumatic events can disrupt a stable home environment, social support network, or healthy coping strategies, which support and maintain self-control, as a result, trauma-exposed individuals may have inadequate self-control to cope with their PTSD symptoms over an extended period of time.
- One limitation of this study is the relatively small sample size.
- A second limitation is that the study did not assess variables immediately posttrauma; therefore, it is possible that exposure to trauma reduced self-control resources, which in turn predicted future PTSD symptoms.

CONTRIBUTIONS/IMPLICATIONS

- Changes in self-control, which may be fostered by therapeutic intervention, may help create healthy, positive relationships where women receive positive feedback from others close to them.
- Moreover, individuals who have fewer self-control resources would also be less likely to remain in and benefit from treatment.

Munroe, C.D., Kibler, J.L., Ma, M., Dollar, K.M., & Coleman, M. (2010). The relationship between posttraumatic stress symptoms and sexual risk: Examining potential mechanisms. *Psychological Trauma: Theory, Research, Practice, and Policy,* **2(1), 49-53.**

TYPE OF ARTICLE

- Original Empirical Investigation.

OBJECTIVE/PURPOSE OF THE ARTICLE

- To examine whether PTSD symptoms and sexual risk behaviors are positively associated among a sample of young, African American women.
- To examine whether perceived control over sexual behavior is negatively associated with PTSD symptoms and sexual risk.
- To examine if sexual sensation-seeking and sexual compulsivity are positively associated with PTSD symptoms and sexual risk.
- To examine whether perceived control over sexual behavior, sexual sensation-seeking and sexual compulsivity mediate the PTSD symptoms/sexual risk relationship.

METHODS
Participants

- Thirty undergraduate African American women between the ages of 17-29 years with any reported history of sexual intercourse were recruited from introductory psychology courses at a predominately African American University in the Southern United States.
- Most of the of participants (26) were unmarried, 3 participants were either separated or divorced, and 1 participant was married.

Materials

- The Posttraumatic Stress Disorder Checklist-Civilian Version (PCL-C) to assess PTSD symptoms.
- The sex risk behaviors questionnaire, developed by the research team, was used to measure sexual risk behaviors over the participants' sexual lifetime.
- Perceived Sexual Control Inventory (PSC) was used to assess perceptions of control over sexual risk behaviors and sex drive.
- The Sexual Sensation Seeking Scale was used to measure sexual aspects of sensation seeking.
- The Sexual Compulsivity Scale was used to measure sexually compulsive behaviors and thoughts such as, "It has been difficult for me to find sex partners who desire having sex as much as I want to".
- The Traumatic Life Events Questionnaire (TLEQ) was used to assess prior exposure to potentially traumatic events.

Procedure

- A voluntary sample was recruited in classroom settings, where participants completed an initial screening questionnaire packet.
- In a separate follow-up session the participants completed the sexual risk behaviors questionnaire, the TLEQ, and surveys relating to their perceptions of their sexual experiences.

RESULTS

- Greater PTSD symptoms were associated with more lifetime sexual partners, greater frequency of vaginal sex without a condom, and endorsement of sex while under the influence of a substance.
- Greater PTSD symptoms were associated with lower perceived sexual control, but were not significantly associated with compulsive sexual behavior or sexual sensation-seeking.
- Perceived sexual control was negatively correlated with the frequency of vaginal sex without a condom, but was not significantly associated with number of sexual partners.
- The relation between perceived sexual control and sex while under the influence of a substance was significant.

CONCLUSIONS/SUMMARY

- The results of this study suggest preliminary evidence for mediation by perceived sexual control in the PTSD symptoms/unprotected sex relationship; however, the small sample size and limited demographics suggest the need for further studies to be conducted in this area.
- Findings were consistent with previous research associating trauma history with number of sexual partners and sex under the influence of a substance.
- The findings are consistent with evidence that PTSD severity may play a role in the association between trauma history and symptoms with sexual history.
- Findings indicate a negative relationship between PTSD symptoms and perceived sexual control.
- Findings provide preliminary evidence for mediation by perceived sexual control in the PTSD symptoms/unprotected sex relation.

- One limitation of the study is the difficulty with interpreting findings that involve highly sensitive, sex-related information by participants, which participants may be reluctant to fully disclose.

- Another imitation of this study is that participants may have overreported sexual trauma or sexual risk behaviors in self-report measures due to perceived demand characteristics.

CONTRIBUTIONS/IMPLICATIONS

- The study supported a number of previous findings related to trauma history and sexual behavior, but extended the findings to an exclusively African American sample of college women.

- The results suggest that those with PTSD may not have propensities toward sex that are different from other people, rather higher PTSD symptoms may be associated with lower levels of control that make it difficult to negotiate safe sex in some sexual situations.

- This study adds to the understanding of how sexual risk behaviors may be related to posttraumatic stress and highlights the need for further research into the roles of posttraumatic stress and cognitive perceptions.

Harrington, E.F., Crowther, J.H., & Shipherd, J.C. (2010). Trauma, binge eating, and the "strong black woman." *Journal of Consulting and Clinical Psychology.* **78(4), 469-479.**

TYPE OF ARTICLE

- Original Empirical Investigation.

OBJECTIVE/PURPOSE OF THE STUDY

- To test a culturally specific model of binge eating in African American female trauma survivors, looking at potential mechanisms through which trauma exposure and distress were related to binge eating symptomatology.

METHODS
Participants

- A sample of 179 African American female trauma survivors selected from a larger sample of 200 African American women volunteering to participate in a study of African American women's life experiences and eating behavior.

- The sample was recruited from a midsized urban hospital internal medicine clinic, undergraduate courses at a Midwestern university, faculty/staff mailings, and word of mouth.

- The mean age of participants was 29.6 years with a mean body mass index (BMI) of 28.0.

- The average number of traumatic events reported by participants was 6, with the most common experience identified as witnessing family violence before age 16 (44.1%), sexual harassment (34.1%), emotional abuse/neglect (27.4%), serious accident or accident-related injury (26.8%), and abuse/physical attack by an acquaintance (24.0%).

Materials

- A demographic form was used to assess age, martial status, education level, as well as height and weight which was used to calculate BMI.

- The Life Stressors Checklist-Revised (LSC-R) was used to assess exposure to 30 potentially traumatic stressors and emotional response during the event.

- The Sexual Experiences Survey (SES) was used to assess 10 types of sexual victimization experiences.

- The Binge Eating Scale was used to assess affective, behavioral, and cognitive components of binge eating, and the Eating Disorder Diagnostic Scales were used to assess eating pathology that generates probable DSM-IV eating disorder diagnoses.

- The Mammy stereotype subscale and Superwoman stereotype subscale were used from the Stereotypic Roles for Black Women Scale to assess Strong Black Women (SBW) ideology.

- The Courtauld Emotional Control Scale, with subscales scores for Anger, Depressed Mood, and Anxiety was used to measure emotional inhibition, and two subscales from the Difficulties in Emotion Regulation scale was used to measure difficulties in emotion regulation.

- The Silencing the Self Scale was used to measure externalized self-perception, self-sacrifice, and silencing the self.

- The Eating Expectancies Inventory was used to assess eating for psychological reasons, and the Eating in Re-

sponse to Trauma scale and the Emotional Eating Scale was used to assess eating behaviors.

Procedure
- Participants completed questionnaires individually or in small groups; with average completion time approximately 1 hour.
- Participants received $10 compensation for their time or credit for their psychology course research requirement.

RESULTS
- Most of the bivariate correlations among the factors were statistically significant; exceptions were the correlations between Trauma Exposure/Distress and Eating for Psychological Reasons, between Trauma Exposure/Distress and Binge Eating, and between SBW Ideology and Binge Eating.
- Findings supported the proposed model in which SBW ideology, emotional inhibition/regulation difficulties, and eating for psychological reasons mediated the relation between trauma exposure/distress and binge eating.
- Emotional Inhibition/Regulation Difficulties mediated the relationship between SBW Ideology and Eating for Psychological Reasons (Sobel = 2.34, $p < .05$).
- Eating for Psychological Reasons mediated the relationship between Emotional Inhibition/Regulation Difficulties and Binge Eating (Sobel = 2.53, $p < .05$).
- Findings suggested that the proposed model provided a better fit to the data than several competing models.

CONCLUSIONS/SUMMARY
- Among African American trauma survivors, trauma exposure and distress predict greater internalization of SBW ideology, which is associated with emotional inhibition/regulation difficulties, eating for psychological reasons, and ultimately binge eating.

- The study found that SBW ideology plays a role in explaining co-occurrence of trauma exposure and binge eating in African American women.
- This study provides the first empirical support for an affect regulation model of binge eating in African American trauma survivors.
- One major limitation of the study is the questionable validity and cultural relevance of some of the measures (some of the scales were developed and normed on primarily Caucasian samples).
- Another limitation is that the SBW Ideology factor's construct validity is unclear because this study represents one of the first attempts to measure and empirically investigate it.
- A final limitation is that the sample was comprised of volunteers who may not be representative of African American women in general, thus limiting external validity.

CONTRIBUTIONS/IMPLICATIONS
- Emotional regulation difficulties and using eating to fulfill psychological needs may be mechanisms through which SBW ideology impacts African American trauma survivors' binge eating, using binge eating as a way to manage negative affect associated with their trauma.
- This study provides valuable information related to assessment, treatment, and prevention for African American women seeking treatment or those reluctant to seek treatment.

Counseling Individuals with Life-Threatening Illness
By Kenneth J. Doka, Ph.D.
Springer Publishing Co., 2009, 281 pages, Hardcover, $48.00

Dr. Kenneth Doka introduces his latest in a series of books dealing with grief and end-of-life issues by stating, "This book is meant to be a guide for anyone counseling or offering professional care to persons with life-threatening illness" (p. 2). Further, he asserts that "Life-threatening illness is not only a medical crisis: It is a social, psychological, and spiritual crisis as well. It not only affects the individual with the illness but also affects the family" (p. 2).

In this thorough treatment of the serious illness process, the author initially reviews historical perspectives on dying and illness, then focuses the next almost 50 pages on sensitivities and skills caregivers and counselors need to effectively work with individuals with life-threatening illnesses and their families. He strongly promotes open communication strategies such as active listening, empathic statements, self-disclosure, action statements, affirmation, etc.. Referencing Shneidman's (1978) early work on factors that make working with the dying unique, such as different rules, goals, and processes, he addresses the sensitivity essential for working across different age groups, populations, and cultures.

He concludes this early section by focusing on the impact that working with individuals with life-threatening illnesses has on the caregivers themselves. Caregivers may find it stressful to confront their own mortality, to accept the treatment choices of those in their care, and to perhaps ultimately grieve the death of their patient.

The next two chapters catalog extensive responses to life-threatening illnesses, including physical, cognitive, existential, emotional, behavioral, and spiritual responses. He then explores the illness experience itself: typical symptoms, disease trajectories (gradual, peaks and valleys, descending plateaus, etc.), and treatment impacts. Also important to the individual's response is the life cycle phase the individual is occupying – childhood, adult, or elderly.

The next five chapters chronicle Doka's model of illness phases. He begins with the prediagnostic phase, when individuals are assessing symptoms and deciding to seek care. This is followed by the diagnostic phase, which centers on the crisis or turning point when the individual's orientation towards life changes. The author characterizes this as a process of diagnosis, because most diagnoses require multiple tests conducted over a period of time. Individuals often seek to understand the diagnosis, the impact it may have on their lifestyle, develop strategies to deal with issues created by the disease, and ventilate feelings and fears. A common issue is deciding what information to share with whom, and at what point?

The third phase is the chronic phase, when individuals learn to cope with their disease and treatment. A key issue is recognizing that every significant change in their life has a ripple effect across every other part of their life, including relationships. Additionally, individuals often struggle with the meaning of the disease, asking, "why am I suffering?" and "why did this happen to me?"

Next is the recovery phase. Tasks in this phase include dealing with the physical, psychological, social, financial, and spiritual residues of illness, coping with ongoing fears of recurrence, and reconstructing one's life. The author states that any encounter with a crisis changes people; therefore, recovery does not mean that individuals simply return to their former life without change. As part of reconstruction, he recommends individuals ask themselves three questions: what do I want to leave behind as I begin this new phase of life? What do I want to keep from the illness experience? Moreover, what do I want to add?

The final phase is the terminal phase. This phase begins when the medical goal changes to providing comfort-oriented care. He returns to the theme of the importance of open com-

munication, which focuses on the needs of the individual and aims to keep the dialogue open. He recounts an exercise a colleague used when she asked her professional conference audience, "what do dying persons need?" Typical replies included love, understanding, and respect, among others. She then asked, "what does a living person need?" Of course, the answers are the same, illustrating that certain basic human needs remain the same regardless of their health status.

The final chapter focuses directly on supporting families, defined as anyone who is part of a close inner circle, regardless of biological ties. He offers a list of factors that might either facilitate or hinder effective family adjustment to life-threatening illness, then reviews recommendations for supporting family members across the previously discussed five illness phases.

The author appends a series of discussion questions, role-plays, and case studies suitable for workshops, trainings, or class activities.

I highly recommend this book to mental health professionals, chaplains, health care providers, and CISM team members. This is a comprehensive resource, filled with practical and compassionate recommendations. It might also be very useful to the individuals with life-threatening illnesses themselves and their family members as they struggle to come to terms with the drastic changes in their lives.

Dr. Kenneth J. Doka is a Professor of Gerontology at the Graduate School of The College of New Rochelle and Senior Consultant to the Hospice Foundation of America. A prolific author, Dr. Doka's books include Grieving beyond Gender: Understanding the Ways Men and Woman Mourn; Cancer and End-of-Life Care; Diversity and End-of-Life Care; Living with Grief: Children and Adolescents; Living with Grief: Before and After Death; Death, Dying and Bereavement: Major Themes in Health and Social Welfare (a 4 Volume edited work); Pain Management at the End-of-Life: Bridging the Gap between Knowledge and Practice; Living with Grief: Ethical Dilemmas at the End of Life; and Disenfranchised Grief: New Directions, Challenges, and Strategies for Practice. In addition to these books, he has published over 100 articles and book chapters. Dr. Doka is editor of both Omega: The Journal of Death and Dying and Journeys: A Newsletter to Help in Bereavement.

Shneidman, E. (1978). Some aspects of psychotherapy with dying persons. In. C. Garfield (Ed.), Psychosocial care of the dying patient (pp. 201-218). New York: McGraw-Hill.

High-Tech Terror: Recognition, Management, and Prevention of Biological, Chemical, and Nuclear Injuries Secondary to Acts of Terrorism
By Robert Samuel Cromartie, III & Richard Joseph Duma
Springfield, IL: Charles C Thomas, 2009
Reviewed by Laurence Miller, PhD

Some books inform us, some instruct us, others warn us, and a few try to prepare us for the worst. Then there are those books that do all of these things while scaring the bejeezuz out of us, and *High-Tech Terror* will snap you to attention from the first page. This slim volume packs a megaton wallop of data on the "NBC" triad of nuclear, biological, and chemical weapons that threaten our civilization in the 21st century. Actually, as the book makes clear, NBC terrorism has a long history, dating back to at least the middle of the 20th century in the case of nuclear terrorism, and perhaps as early as the 18th and 19th centuries for biological and chemical warfare. There seems to be a malevolent side of human inventiveness that, when we discover a new technology, our first impulse is to weaponize it.

The book begins with a discussion of biological agents and disease organisms, explaining how they infect the human body, their signs and symptoms, and what primary, secondary, and tertiary steps can be taken to mitigate their effects on individuals and populations. The whole microbial rogue's gallery is here: anthrax, botulism, tularemia, smallpox, ricin, pneumonic and bubonic plague, and others. In a style that manages to be both chilling and clinical, the authors painstaking explain how to identify the effects of each agent and what actually happens to us if and when we get infected.

Next up are chemical warfare agents, which can be roughly divided into choking agents, blistering agents, or nerve agents. Not sure which you'd rather die of? Don't worry, you may not have to make a choice because some chemical agents have two or all three of these properties. Again, the effects of each agent are described, along with available treatment and mitigation strategies.

The newest kids on the block are the nuclear weapons – and not just the kind that blow up cities. These chapters in this section explain how radiation affects the body, and describe in detail the nature of acute radiation syndrome (ARS), as well as both the short-term and long-lasting effects of radiation on individual health and the general environment.

The crisp narrative text is further aided by informative charts and tables, and by a few black-and-white photographs. One of the major virtues of this book is that the authors manage to informatively distill and summarize a vast universe of information into less than 200 pages, which means that there is really no excuse for any professional in the medical, mental health, or emergency services field *not* to read this book. Indeed, what comes across in these pages is just how damn inevitable it is that we will soon face new crises involving NBC terrorism. *High-Tech Terror* provides the fundamental clinical and empirical knowledge base that is key to effective preparation.

Perfect Enemy: The Law Enforcement Manual of Islamic Terrorism
Captain Dean T. Olson, MPA, MA, Springfield, Il: Charles Thomas, [2009], Text pages 377, plus preface 10 pages, transliteration of Arabic names, Islamic source materials, use of pseudonyms and noms de guerre, 4 pages, plus misc. appendices 33 pages, bibliography and indices 44 pages, H.C. $99.95/100.

Reviewed by: H.H. A. Cooper

This is a very impressive book by any standards. It is intimidating on account of its size alone; it measures approximately 8-1/4" x 1—1/4", thick and weight 3.7 lbs! The amount of work that has gone into its creation can only be estimated by the conscientious reviewer by comparison with the time required to give it the thorough, diligent attention it deserves. This is not a book that can be properly appreciated by a casual perusal. All the more remarkable is the fact that this monumental work is not the product of a lifetime's engagement with the subject by a scholar in some Ivory Tower, but the labor of a busy career law enforcement officer, who came to the task, adventitiously, towards the end of his engagement with the various aspects of keeping the public order. Indeed, as recently as 9/11, he was occupied as the Lieutenant in charge of security in the Hall of Justice, Omaha, Nebraska. This work, then, is obviously a labor of love and its purpose is best expressed in the author's own words: "The intent of this manual is to familiarize law enforcement officers with the nature and extent of the Islamic threat," page XIV, and, further, "…this manual is dedicated to providing accurate information to acquaint our law enforcement officers and Homeland Security officials with the Islamic mindset and the threats it poses (page xvi). It is, indeed, a necessary and worthy mission.

The main content is organized in twelve, discrete chapters. The Introduction, Deserving Victory, is a cautionary exposition headed by an apt Toynbee quotation: "Civilizations die from suicide, not murder." Captain Olson's thesis is that we are being subjected not only to violent, unacceptable assault upon our values but also a more subtle, insidious campaign designed to take over our civilization and substitute an alien replacement for it. In particular, he argues that "….the goal of imposing Shari'a on the entire country….is an Islamic Trojan Horse " (page 9). He cautions that this program is being aided and abetted by the politics of "liberal elements" of our own whom he characterizes as "useful idiots", see, esp. pages 364 et seq. Chapter One, Islamist Terrorism: Back to the Future, systematically develops this contention in a way that has special relevance for those entrusted with the design and implementation of counterterrorism programs. Chapter 2, by way of contrast, essays A Brief History of Muhammad and Islam, in which Olson demonstrates that many of the ideas motivating the Islamic terrorist of our times have

their origins in the 7th Century. Despite the diversity of the ethnicities among the adherents of Islam nowadays engaged in terrorism, the single enduring element, to which Olson draws pertinent attention throughout is that characterized by that astute analyst, Lucy Davidowicz as "Jew Hatred" (p. 49. Perhaps the most frightening development witnessed over the last few years is the advent of the Islamic inspired suicide bomber. Olson rightly observes: "Suicide terrorism is notoriously cost effective and enables groups to inflict extensive destruction on the enemy while incurring minimal damage themselves" (p.59).

Chapter 3, Islam: A Critical Examination, continues this didactic exploration of the relationship between these particular religious beliefs and the kinds of terrorism to which we are now exposed. Chapter 4, Perfect Enemy: Islam's Dark Side, in some ways the very heart of Olson's thesis, is a further extension of these arguments based on religiosity, positing the unacceptability of "the other." He writes, "No other major religion repeatedly prohibits its followers from befriending members of other faiths" (p. 103). This chapter deals, too, in extensive fashion with Muslim precepts concerning deceit and deception. This is very important to a better understanding of the more subtle strategies, to which our way of life is put in peril. Chapters 5 & 6, Islamist Ideology: Deploying the Undead and Jihad: Islam's Trojan Horse, are yet further extensions of these concerns. Both chapters represent a sincere, valiant attempt to understand the mindset of those so intent upon injuring and destroying others at the expense of their own continued existence. Chapter 7 introduces, in detail, the uninformed reader to The Muslim Brotherhood: Progenitor of Islamist Terrorism. An especially interesting section, pp. 149 et seq., deals with this clandestine movement early Nazi associations. This chapter deserves particular attention on the part of the law enforcement terrorism specialist. Chapter 8 is a worthy extension of the previous theme under the heading The Islamist Fifth Column. Captain Olson explains that the practices outlined are what the Muslim Brotherhood (MB) calls "civilizational Jihad" (p. 267). Without a careful study of these chapters and the source materials, on which they are based, it is difficult for the uninitiated to properly understand the very important chapters that follow, these being perhaps the most important from the perspective of the professional law enforcement officer.

Throughout this book, the author draws valid parallels in terms of the threat posed to our way of life by militant Islam with that which we faced during the Cold War from Soviet Communism. There is, however, an important distinction to be observed here. During the long years of the Cold War, the enemy was faced down principally by the military, the intelligence community, and federal law enforcement. Facing the threat of Islamic terrorism, it is the first responders of State and local police and sheriff's departments who are very much in the front line as the recent, thankfully failed attempted car bombing in Times Square, NYC demonstrates. This is why the concluding chapters , Radicalization: Producing Homegrown Terrorists and Islamic Terrorist Organization in the Homeland, are of such prime importance to the officers of State and local police and sheriff's departments throughout the nation. Sadly, as Captain Olson probably knows only too well those in most need, practically, of this knowledge are the least likely to avail themselves of it. Police officers, generally, are not great readers; they are usually too busy serving and protecting in their respective jurisdictions. When they can be encouraged to read this kind of material they usually need expert, critical guidance and time for discussion. Books authored by such altruists as Captain Olson can hardly be intended or expected to generate a fortune for themselves or their publishers. It would be a thousand pities were the blood, sweat, and tears put into this work with such good motives to be wasted through neglect or ignorance on the part of its primary intended audience or those by whom this instruction is most needed. By his own account, Professor Olson is now teaching criminal justice at several mid-western universities.

Reviewer: Professor H.H. A. Cooper, formerly Director of The Criminal Law Education and Research Center [CLEAR] NYU and Deputy Director of that University's Center of Forensic Psychiatry was Staff Director of The National Advisory Committee Task Force on Disorders & Terrorism, U.S. Department of Justice, 1974/77. He has taught at The University of Texas at Dallas for the past 26 years.

Insidious Workplace Behavior

Jerald Greenberg, Ph.D., Editor, Taylor & Francis, 2010, 374 pages, index

Reviewed by: Raymond B. Flannery, Jr., Ph.D.

Harvard Medical School

Readers of this Journal are often called to assist patients and/or suspects who are actually or potentially violent. Psychosis, substance use, youth gangs, antisocial behavior are common causes of such aggressive outbursts. These causes have been well-researched, sound interventions developed, and risk management strategies for safety outlined. This overt violence is often part of the work week. However, there is another form of aggressive behavior in our work week that has been less well documented: *insidious workplace behavior.*

As a manager, do you have an employee who continually does less than his or her share of the work load? Do you have an employee who continually lies to you? As an employee, is your manager a petty tyrant who often publicly criticizes his employees? Has one of your managers or colleagues stolen your work and claimed it as his or hers? Is one of your colleagues or mangers harassing you sexually by means of off-colored jokes? Are you so angry at an unjust company policy or practice that you want revenge but do not act for fear of losing your job?

These are common examples of insidious workplace behavior that may befall any employee at work. These intentionally harmful acts are legal, subtle, of lower level severity, and repeated over time. They are targeted toward individuals or organizations. In some instances these acts may provoke more severe overt violent acts. In their own right, these insidious behaviors may result in depression, severe anxiety, intense anger, social isolation, unjust loss of reputation, financial ruin, and organizational loss of morale and productivity.

Senior psychologist and business professor emeritus, Jerald Greenberg, has assembled an international group of academic and business scholars to provide a comprehensive overview of these insidious behaviors. Written in clear and understandable language, some of the topics covered include interpersonal mistreatment, lying, revenge and sabotage, sexist humor, and other forms of uncivil behavior in the workplace. These authors also explore some of the common motives for these behaviors such as perceived injustice, powerlessness, frustration, and boredom/fun. Each chapter is well-referenced, presents previously unpublished research pertaining to the chapter's topic, and outlines in detail for both managers and line staff how to address each of these insidious behaviors to stop their current occurrence and prevent such aggressive behavior in the future.

Since most all worksites are subject to ongoing insidious behavior, managers and employees in emergency services and health care settings will find this book of helpful assistance in creating safe, productive, and high morale work environments. Researchers will be especially pleased with the detailed referencing, new empirical findings, discussions of methodological issues, and indexes for both subjects and authors.

Handbook of Violence Risk Assessment

Edited by Randy K. Otto & Kevin S. Douglas

New York: Routledge: 2010

Reviewed by Laurence Miller, PhD

One of the challenges facing mental health clinicians and criminal justice professionals alike is how to deal with patients who are potentially violent or who have histories of violence. This has important implications for defendants charged, arrested, tried, sentenced, incarcerated, and eventually released, who are possibly dangerous. Traditionally, psychiatric and psychological evaluators have relied on their knowledge and clinical experience to assess defendants for violence risk. However, over the past three decades, the accuracy of pure clinical judgment has

been called into question and attempts have been made to develop reliable, valid, and accurate measures of violence risk. Many such structured clinical interviews and rating scales have appeared over the years; the problem has been how to find them all in one place. Here they are – most of them, anyway.

Handbook of Violence Risk Assessment is a no-nonsense, down-to-business compendium of the most widely researched and applied violence risk assessment tools in current usage. Two introductory chapters provide an overview of violence risk assessment tools and their application to different offender types, especially our most frequent customer, the psychopath. Subsequent chapters describe the use of these kinds of evaluative instruments

for both adult and juvenile offenders. This is not light reading, but what saves the book from being a bone-dry expository slog is the presence of illuminating case studies for each topic that puts flesh on the theoretical skeletons by showing how these instruments can be used in the everyday real world of clinical-forensic practice.

Yes, there's a certain degree of salesmanship here, as each chapter author expounds on the virtues of his or her favorite – and in many cases, proprietary – assessment tool. However, the editors do a fair job of keeping the presentation objective and focused on the task of providing clinical-forensic practitioners with what they need to know to make their choice of violence risk assessment instrument for their particular populations and settings.

Consulting and Advising in Forensic Practice: Empirical and Practical Guidelines
Edited by Carol A. Ireland and Martin J. Fisher
BPS Blackwell and John Wiley & Sons Ltd, 2010, 273 pages
Reviewed by Kendall Johnson, PhD

Mental health researchers and practitioners are being utilized in increasing numbers as consultants, advisors and employees of organizations—public and private—that provide forensic services ranging from courtroom to law enforcement, to custodial institutions. *Consultancy and Advising in Forensic Practice: Empirical and Practical Guidelines* edited by Carol Ireland and Martin Fisher addresses the issue of how mental health professionals can best assist these forensic settings. This well conceived book of readings is not for the timid, nor for those consultants—forensic or otherwise—who rely on the latest fads, canned programs or passing banners to substitute for the careful thinking and content knowledge necessary to effective consultation. Ireland and Fisher orchestrate a systematic, conceptually comprehensive, and practical guide for serious practice—one which warrants comment on each chapter.

The book addresses two main themes through 13 chapters. Part I deals with consultancy and advising from a theoretical perspective. Chapter 1 by Carol Ireland presents psychological consultancy as an emerging presence in forensic settings, both in the sense of expanding numbers and

also in the sense of diversity of roles. More important is her discussion of the changing and fluid nature of the consultancy as a product of the consultant's sensitivity to organizational needs combined with the increasing trust and perception of the usefulness of the individual consultant in the eyes of the organization. This discussion is expanded by Ireland in her Chapter 2 where she provides a good discussion of the key stages and complex issues of stakeholders, organizational boundaries and culture. She provides a nice balance between conceptual organizers and concrete suggestions for working with real organizations. This discussion points out the dynamics of consultation and honors the changing and evolving relationship between consultant and client over time.

Of particular interest to this reviewer is David Vickers, Eliza Morgan and Alice Moore's Chapter 3 discussion relating Theoretically Driven Training and Consultancy, later elaborated in Chapter 11. As a consultant who provides considerable training (as well as being a researcher and educator), I was delighted to find these chapters nudging into the very relevant and usually neglected interface between learning theory and training practice in consulting work.

A consultant is at heart an educator, and as such issues of learning and assessment figure high on the list of required competencies for consultation.

Decisions made regarding assessment carry definite ethical consequences. In Chapter 4 Susan Cooper and Martin Fisher rightly elaborate ethical considerations when choosing appropriate testing and assessment instruments, and contextual issues that need to be included when reporting findings. Also of note is their straightforward discussion of the ethical demands of testimony. Professional ethical standards exist to clarify the professional's role in various contexts and courtrooms are the arenas for intersecting interests. This chapter is helpful in it's succinct outlining of various responsibilities. For example, their advice regarding disclosing testing conditions: "it is important for psychologists to make legal authorities aware of the sources of conflict between professional standards and legal issues" is well taken. As is their presentation of conflict of interest considerations from the courts point of view—how confusion over the role of the witness dilutes the usefulness of testimony. Perceived bias taints testimony by a "hired gun."

Part II explores a variety of practical considerations. As a therapist and a qualitative researcher who uses interview data, this reviewer found Andy Griffith and Becky Milne's Chapter 5 discussion of investigation interview considerations fascinating. The enhanced cognitive interview process—documented to result in more comprehensive and more accurate recall—holds promise beyond the context of forensic interviews. Sometimes more in-depth accounting of personal experience may be useful in those qualitative research interviewing contexts in which rich data is preferred over summative accounts. Also intriguing are the studies cited by Griffith and Milne pointing out that UK laws have recently allowed greater transparency in witness interviewing, and that this allows researchers greater access to study interview methods in relation to corroborated recall. This is the stuff of which qualitative validity is made.

And as an occasional crisis management consultant I was particularly keen on Fisher and Ireland's Chapter 6 on Acting as a Consultant/advisor in Crisis Situations. Very useful information and perspectives are offered, although the chapter is a bit ambitious: incidents range from hostage situations to prison riots to airline hijacking and the Belsan school attack. Key discussion points include consulting context and skills, crisis negotiation models, and ethical con-

siderations. The chapter focuses mainly upon the provision of advice regarding negotiation and problem resolution; for a different approach and broader consideration of consulting roles within different kinds of crisis including disasters and system failure, see chapter 13.

In Chapter 7 Ireland contextualizes her discussion of report writing and court testimony with a brief but helpful history of cases in which court witnesses presented seriously flawed and damaging evidence. Ireland's discussion of report writing is brief but succinct, outlining elements in a complete report, discussing the nature of facts and their presentation, and pointing out various traps and pitfalls to which the unwary are prone. Ireland does an enlightening job of explaining both the hidden purpose of these potential traps and practical strategies to take in responding to them professionally and effectively.

Chapter 8 authors Simon Keslake and Ian Pendlington present an engaging case study utilizing an organization-specific approach to implementing behavior change within a law enforcement organization. The past several decades have shown a dismal succession of attempts to apply popular organizational development approaches that were born in the business sector to the less trendy and more task focused and tradition based public service organizations such as emergency services. Such programs generally meet resistance and are often considered organizational underbrush to the employees who are already too busy doing the agency's work. Given the diversity of theoretical approaches and ambiguity of current literature, Keslake and Pendington's behavior change framework appears well grounded and practical. Most importantly, the approach begins with listening at all levels and sufficient design rigor is brought to bear on the change process as to give legs to what often amounts to empty flag waving to be endured by already burdened staff. Further, the model incorporates both group level and individualized intrinsic motivation for participant buy-in.

Chapter 9 continues the discussion of employee engagement within the context of the H.M. Prison Service. Suzi Dale examines the links between staff perception and performance in the pressure cooker context of a large established agency dealing with rising public expectations and declining resources, a situation not uncommon elsewhere but critical—given the potential consequences of a doubled prison population within a 15 year period. Through discrepancies in her data regarding performance and attitudes, she

demonstrates the need for the Prison Service to embellish its success by including performance metrics based around employee engagement.

While the subject of inspecting prisons initially appeared dreary, this reviewer came away impressed with Chapter 10, wherein Louise Felshaw describes the methodology applied in the inspection of secure institutions in the private sector using the Prisons Inspectorate, providing independent qualitative assessment of the outcomes for those in custody, utilizing multiple methods of evidence. The chapter is well constructed, providing enough contextual background for the reader to understand the Inspectorates function as well as methods. The Inspectorate of Prisons focuses on the human rights of those detained and has developed a methodology underpinned by human rights principles and adopts an outcome-focused approach assessing qualitative outcomes (i.e., what those in custody are actually experiencing). This continued focus of the Inspectorate of Prisons contributes to the Optional Protocol to the U.N. Convention Against Torture (adopted in 2002) that mandates a system of regular site visits to prisons in order to prevent torture and other degrading treatment. This chapter details an altogether impressive system of on-going evaluation of an enormous and complex system with the well being of many at stake. Would that all countries follow this high road . . .

Chapter 11 by Morgan, Vickers and Moore provides a succinct, a theoretical introduction to the world of training, including a nifty comparison chart of different training methods described with comparison of the various benefits and issues of each. With the exception of a concluding case study, however, the chapter does little to point out training concerns unique to forensic situations. Also missing are some of the gritty nuts and bolts about how to graciously handle potentially sticky situations such as uncooperative participants who were mandated to come, substandard, incompatible or malfunctioning audiovisual material, panicked organizational managers who intrude in the presentation "to help out," groups or managers with hidden agendas they don't mention, or client organizations who take you aside after the presentation to explain that due to a competing scheduled event they were unable to attract enough attendance to be able to pay you the full fee. There's more, but I'm sure you've been there . . . What this report does highlight is how the development of relationship between consultant and client, punctuated by refining the agreements at each stage of the

cycle, can effectively minimize many of the sticky situations mentioned above.

If our human tendency to err is the norm, our propensity to make it worse is legendary—the dark humor of the squad room comes about rightly and has its origin within the organization as well as the street. In an appropriately pithy footnote to Chapter 12 on Systemic Failure and Human Error, Adrian Needs points out that analysis and action must go beyond scapegoats and platitudes" (p. 219). This chapter is one of the gems of this collection. Along these lines, in his analysis of sources of incident mismanagement, Needs cites Boin & McConnell's (2007) attribution of the response to Hurricane Katrina in 2005 as exhibiting "a number of 'psychological pathologies' such as overconfidence, wishful thinking, insensitivity, bureaucratic complexity and conflict in the system . . . in part due to a preoccupation with civil emergencies due to terrorism in the wake of 9/11." In this regard, he points out that keeping crises from bad endings (his definition of disaster) requires a crucial move from executing highly structured responses to ill-structured situations, to more comprehensive assessment and more flexible response taking into account multiple models of the situation and challenges to the dominant view. I found Need's discussion important, as fully half of the on-scene CISM Class I & II Incident Command consultation I have provided has to do with difficult situations whose severity have been compounded by actions taken in attempts to contain it, where those actions were themselves driven by latent systemic failures similar to those Boin & McConnell point out.

In the final chapter Roisin Hall and Donald Darroch introduce Project Management as a systematic way of ensuring the implementation of discrete pieces of work with defined product or deliverable that creates a change (e.g., introduction of a new program, provision of a training exercise or research project, setting up a multi-disciplinary information sharing group). The design and management of such project within forensic contexts sometimes befall psychologists directly or indirectly, and the Project Management model defines three stages with intermittent steps at each stage. Creating a clear framework and due consideration of the process at each stage and each step helps avoid the wasted effort and cost, loss of moral, recriminations and poor outcomes of such efforts. Their discussion of the various stages and steps of project management is detailed and provides an operational sense of application.

In all, this is a remarkable book about a complex subject. Mental health professionals consulting in forensic contexts have much to learn from Ireland and Fisher about theoretical, professional, and practical concerns. But it isn't simply a book for consultants. Managers and specialists within the forensic community would do well to seek out the perspectives and parameters presented to enhance their utilization of mental health resources toward their organizational ends.

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Boin, A. & McConnell, A. (2007). Preparing for critical infrastructure breakdowns: The limits of crisis management and the need for resilience. *Journal of Contingencies and Crisis Management.* 15(1), 50-59.

Neuropsychological Neurology: The Neurocognitive Impairments of Neurological Disorders
By A.J. Larner, New York: Cambridge University Press, 2008

Reviewed by Laurence Miller, PhD

Medical and mental health clinicians both know that the key to effective treatment is accurate diagnosis. In the field of neuropsychology – that immense and complex borderland between clinical neurology and psychology/psychiatry – the practitioner is confronted with an array of complex cognitive, emotional, and behavioral syndromes that often defy easy classification. As if diagnostic heterogeneity weren't enough – does the patient have Alzheimer's dementia, frontotemporal dementia, or subcortical dementia? – the categories of signs and symptoms we use for assessing patient functioning are themselves multifarious. For example, let's test memory: Do you mean short- or long-term memory? Verbal or visuospatial memory? Episodic or declarative memory? Procedural or semantic memory? You get the point.

That's why it's refreshing to have a book like *Neuropsychological Neurology* to make sense of the complexity. The title is not as redundant as it sounds because what the book precisely aims to do is explain the neuropsychological signs and symptoms that characterize the vast array of nervous system pathologies that can affect attention, memory, perception, movement, language, complex reasoning, and general intelligence. In fact, the author uses these very categories to assist clinicians in recognizing and classifying such neurological syndromes as the dementias, cerebrovascular disorders, infectious and immunological brain syndromes, toxic-metabolic brain syndromes, neurodegenerative disorders, hydrocephalus, brain tumors, and the epilepsies. The discussion of each syndrome is subdivided into well-organized, bite-sized sections, each with its own reference list, which avoids the back-of-the-book bibliography bulimia often found in volumes of this type.

One glaring omission is any substantial discussion of the neuropsychology of traumatic brain injury (TBI) and the postconcussion syndrome, except for a single paragraph on dementia pugilistica (boxer's dementia). In the U.S., probably more referrals for neuropsychological assessment involve TBI – typically for civil compensation cases or, increasingly, in military personnel injured in the Iraq and Afghanistan wars – than for all other purposes combined. Hopefully, a future edition will address this important topic.

Overall, however, *Neuropsychological Neurology* provides a clear and succinct guide to the sometimes confusing, but always intriguing, variations of human cognition and behavior as they express themselves through the myriad neurological syndromes that clinicians try to evaluate and treat.

The Association of Traumatic Stress Specialists is an international multidisciplinary organization founded to educate and professionally certify qualified individuals actively engaged in crisis intervention, trauma services and response, and the treatment and healing of those affected by traumatic stress. The Certification Board represents individuals who have practical experience in providing direct support to trauma victims and survivors.

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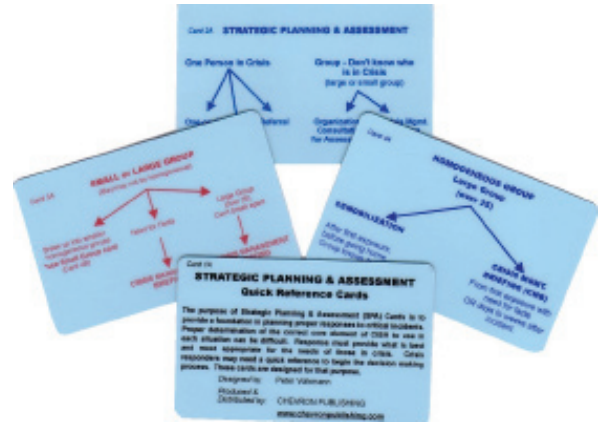that can be used for discussions among CISM team members.

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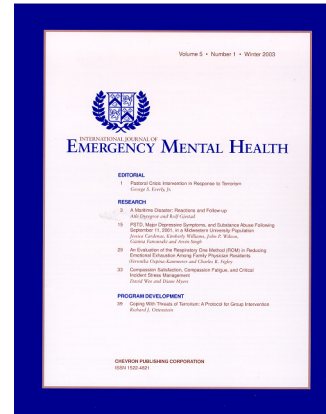
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