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Guest Editorial

Changing the Paradigm: A Novel Framework for the Study of Resilience

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This issue of the International Journal of Emergency Mental Health is dedicated to the exploration of disaster resilience, a timely and important topic in disaster mental health. Studies suggest that post-disaster prevalence of anxiety, depression, PTSD, substance abuse, and gender-based violence could be reduced if communities were more resilient (Abramson, Stehling-Ariza, Garfield, & Redlener, 2008; Anastario, Shehab, & Lawry, 2009; Subbarao, Burkle, & Lyznicki, 2010; Osofsky, Osofsky, Arey, Hansel, & Many, 2011). In fact, the National Health Security Strategy highlighted community resilience as one of its tenets of national preparedness and response. Despite the attention given to the topic, disaster health continues to be plagued by the lack of common definitions and an integrated framework. In addition, the term resilience is often misunderstood. This edition challenges us to propose new definitions for commonly used terms that may not be understood by all in the same way. As noted by the articles in this edition, the study of resilience as a broadly encompassing term that spans preparedness, response, and recovery phases of a disaster is overly complicated and challenging. This previously accepted approach is flawed by the lack of specificity. An alternative approach predicated on a more rigorous scientific framework to advance research and education is required. As we have described in the past, (Kaminsky, McCabe, Langlieb, & Everly, 2006; Nucifora, Langlieb, Siegal, Everly, & Kaminsky, 2007; Everly, 2011; Nucifora, Hall, & Everly, 2011), the Johns Hopkins' model of resistance, resilience and recovery (RRR), is a longitudinal model that holds promise not only in aiding preparation for disasters but also coping with the after effects. As highlighted by articles in this issue, the authors recommend the Hopkins RRR model to better explore and study the notion of resilience. This approach distinguishes what has been previously described as resilience into three distinct elements based upon where it falls within the preparedness, response, and recovery framework, and by the presence or absence of perturbations, providing greater practical utility.

Within the preparedness phase, the term resistance is used. Resistance is defined as the ability of an individual, a group, an organization, or even an entire population to withstand manifestations of clinical distress, impairment, or dysfunction associated with critical incidents, terrorism, and disasters. This term is synonymous with prevention and the idea of inoculating individuals or the population against perturbations of disasters. Resistance may be thought of as a form of psychological "immunity" to distress and dysfunction, analogous to pre-illness vaccination.

Within the immediate post event phase, the term resilience is used. Resilience is defined as the ability of an

individual, a group, an organization, or even an entire population to rapidly and effectively rebound from psychological perturbations associated with critical incidents, terrorism, and disasters. It is with this narrower but more distinct definition that this editorial and the papers in this edition will refer to resilience.

For the population of people who have not bounced back and continue to have problems well after the disaster event, the term recovery is used. Recovery is defined as the ability of an individual, a group, an organization, or even an entire population to restore their adaptability and function, both psychologically and behaviorally, in the wake of significant clinical distress, impairment, or dysfunction subsequent to critical incidents such terrorism, acts of violence, and disasters. This addresses individuals or populations who lacked adequate resistance or resilience and continue to have significant disruption in their lives.

As can be seen, distinguishing among resistance, resilience, and recovery allows for the emergence of a proactive, flexible and hypothesis driven model. Each phase of the model has its own characteristics that, when understood, can be applied to better prepare the community for a disaster and its consequences. For example, people with high self-efficacy or a belief in one's own competence respond better under stress, reflecting a characteristic of resistance as well as resilience. Self-efficacy can be developed by direct or vicarious experiences, verbal support, education, and management of physiologic and affective disturbances. In fact, Chan and colleagues, in this issue, shows that a training model can increase resistance traits allowing more efficient response in dealing with unexpected events and associating with positive aspects of an otherwise negative situation (Chan, Chan, & Kee, 2012). This suggests that resistance to the perturbations of disasters can be fostered.

It is also important to separate recovery from resilience because these identify individuals who have not bounced back and require a different approach to their well being. Cognitive-behavioral therapy, prolonged exposure training, and stress inoculation therapy, have all been shown to be effective in this context (Frank, Anderson, Stewart, Dancu, Hughes, & Many, 1988; Foa, Hearst, & Perry, 1995; Marks, Lovell, Noshirvani, Livanou, & Thrasher, 1998; Bryant, Sacksville, Dang, Moulds, & Guthrie, 1999; Foa, Dancu, Hembree, Jaycox, Meadows, & Many, 1999)

The RRR model provides a framework to approach disasters of all types and at each stage. While the concepts of resistance and recovery must be integrated into a comprehensive plan and would each warrant their own edition, this issue primarily addresses this specific definition of resilience and how to impact the immediate post disaster response. What makes this edition so important is that each article either defines the components of resilience, demonstrates that it can be learned, or shows that it can be fostered by pre-incident planning.

By using the narrower definition of resilience described in the RRR model, Everly and colleagues are able to identify which characteristics lead to resilience, describing seven characteristics common to resilient individuals (Everly, McCormack, & Strouse, 2012). Chan and colleagues, 2012, show that after a two-day individual crisis intervention course, the odds of improving one's perception of being resilient was more than 11 times higher. A second paper by Everly and colleagues, looking at the use of Psychological First Aid (PFA), which is a set of basic psychological interventions designed to assess and mitigate the immediate stress post disaster, demonstrate that individuals who are trained in PFA have more confidence, and knowledge of interventions post-course (Everly, Barnett, & Links, 2012). What might be the most important point of these articles is that all of these characteristics can be learned, suggesting that individuals, communities, and the population as a whole could enhance their resilience through direct, targeted instruction. The utility of the RRR model is also evidenced by its application. Everly, McCormack, and Strouse (2012) would not have been able to identify the seven characteristics of resilient individuals if their cohort included those who had no perturbations or those who had yet to recover from their traumas.

The papers in this edition also shed light on another major factor that affects disaster planning and response: the capacity of professionals to meet the needs of the disaster. While it has been recommended that professionals be trained to deliver interventions, evidence from papers in this edition suggests that laypersons and peers can be trained not only to be resilient, but to foster resilience in others. Everly, Barnett, and Links (2012), in their paper looking at Psychological first aid (PFA), showed that PFA trained individuals were able to recognize acute distress with greater efficacy than mental health-trained respondents. Castellano's paper in this edition discusses the success they have had building resilience using peer support over the last ten years (Castellano, 2012). McCabe and colleagues took this a step further and identify a population of laypersons who could not only develop resilience, but teach others to become resilient (McCabe,

Marum, Mosley, Gwon, Langlieb, Everly, & Many, 2012). They determined that faith-based organizations (FBO) and their leaders would be a group that could be taught preparedness and showed that FBO leaders who went through their program significantly increased their perceived knowledge of disaster mental health concepts, skills as providers of PFA, and capabilities of leading disaster preparedness planning within their communities. This further suggests that not only can resilience be taught, but it can be taught to the lay public by the lay public. Using laypersons and peers would also further serve to ease the burden on mental health workers during and immediately after a disaster.

If resilience can be taught and can be taught to laypeople, it suggests the importance of having plans in place before a disaster occurs. Even though resilience is considered an immediate post disaster response, planning ahead can better prepare a community to be resilient. As Mcabe and colleagues (2012) describe, FBO would need to complete the training before a disaster to be ready to respond after a disaster has occurred. Errett and colleagues showed that people were more willing to respond to a disaster if they felt that their families were prepared and if they had confidence in their own ability to perform their duties at work compared to those who do not (Errett, Barnett, Thompson, Semon, Catlett, Hsu, et al, 2012). Errett and colleagues go on to suggest that trainings and interventions focused on building self-efficacy and increasing family preparedness may have a pronounced effect on an individual's perceived psychological preparedness and willingness to respond to a disaster. Interestingly, some of the concerns addressed by the study group in the paper by Mccabe and colleagues (2012) included the absence of adequate disaster preparedness plans for their respective communities or being eligible for official membership in the state Medical Reserve Corps, which would prohibit them from being able to aid in disaster response. This can be alleviated by having plans in place prior to a disaster and as is stated in Castellano's paper (2012), that training is an ongoing process. Rutkow's paper in this edition discusses the legal implications of disaster preparedness and how having laws in place prior to an event can facilitate disaster response (Rutkow, 2012). Together, these papers suggest that having a well-prepared population can build resilience.

While having plans in place before a disaster may seem to be common sense, most psychological models to date are still reactionary. The RRR model is proactive and the articles in this edition suggest that proactive measures, specifically for resilience, can influence outcomes. Hypothesis testing based upon the RRR model is also important. By providing interventions described in these papers before a disaster occurs, outcomes can be studied after a disaster. The authors of this editorial have been proponents of pre-incident training and development of programs to build resistance and enhance resilience (Nucifora, Hall, & Everly, 2011). With the RRR model, we can design prospective studies that examine ways of preparing people for disasters and determining which have the best outcomes. Trials could be designed to identify interventions that are most effective in building resistance and enhancing resilience.

It is difficult to predict exactly how people will respond in the face of an actual disaster. The papers in this edition offer insight into identifying traits and suggest that through instruction, we can build resistance and enhance resilience. We stress that breaking down what has been traditionally termed resilience into the three RRR components will enable development of enhanced strategies that will in turn lead to better possible outcomes. By understanding the traits that make up each component of RRR and not confounding the term resilience we can design programs and courses to teach these traits to individuals. We envision a shift, where more of the population is resistant to perturbation, the majority of the rest of the population is resilient, leaving few in need of recovery.

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Improving Resistance and Resiliency through Crisis Intervention Training

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***Abstract**: To our knowledge no research has been done on the impact of crisis intervention training programs on resistance and resiliency. This paper describes the use of a localized crisis intervention course and its impact on resistance and resiliency in the participants after 2 days of training. Participants attending the localized version of ICISF Individual Crisis Intervention and Peer Support courses participated in a pre-course quiz and a post-course quiz. The overall resistance and resiliency scores improved at the end of the localized 2-Day Individual Crisis Intervention and Peer Support course. Organizations should view the training of employees in mental health and crisis intervention as contributing to the overall resiliency of the organization, in addition to providing services that facilitate the resilience and recovery of employees affected by personal or workplace stress or critical incidents. [International Journal of Emergency mental Health, 2012, 14(2), pp. 77-86.].*

Key words: *mental health, work related crisis, sudden death, personal crisis, resistance, resiliency, crisis*

Work environments are becoming increasingly a source of stress, injury, and violence. Work stress is recognized world-wide as a major challenge to workers' health and the healthiness of their organizations (ILO, 1986; 1992). Singapore (Ministry of Manpower, Occupational Safety and Health Annual Report, 2007) reported 4.9 work-related fatalities and 800 injuries per 100,000 respectively in 2007, while in 2004 Australia reported that workplace violence results in costs to employers of US$5582 per victim and US$837 million annually in losses to the Australian economy (WHO, 2004). Hence, many countries are looking at workplace stress and violence prevention programs to mitigate these health issues.

Typically, workplace stress prevention programs teach the individual to deal with stress, rather than addressing the problem at the source. This approach may therefore be described as being more reactive than proactive, since it is designed to cure the symptoms of exposure to stress, rather than to prevent stress from occurring. Although stress management programs focusing on the individual may be effective in the short term, they often do not have a lasting effect.

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Experts in the field of stress management and prevention are becoming convinced that stress control can only be really successful if it is tackled at the levels of both the individual and the organization (International Labour Organization, 2001). This implies action at three different levels.

- At the primary level, action is needed to identify and address stressors at the level of the company or organization, with a view to preventing stress at work:
- At the secondary level, through interventions to help individual employees or groups of employees, coping strategies and higher resistance to stress can be developed through education and training; and
- At the tertiary level, assistance can be provided to stressed employees to help cure the symptoms of stress.

Selye (2006) noted that stress could not be avoided altogether. Hence the goal in managing stress is to experience more eustress than distress. When distress does occur, the goal is to resume adaptive functioning as quickly as possible. Hence the ability to cope with stress and resiliency is useful in managing the daily challenges of any high-demand occupation (Maddi & Khoshaba, 2005). In the human stress response, there are three potential intervention epochs: protective resistance to stress or immunity, resilience in the wake of acute psychological or behavioural perturbations and the ability to rebound, and therapeutic recovery and rehabilitation (Everly, Welzant, Jacobson, 2008; Nucifora et al, 2007).

Research has focused on defining and measuring the various constructs of resilience (Bonnano, 2004; Kaminisky, McCabe, & Everly, 2007, Haglund, Cooper, Southwick, & Charney, 2007, William, Lindsey, Kurtz, & Jarvis, 2001, Zautra, Hall, & Murray, 2010). Applying these concepts to training programs for individuals at risk of negative reactions to stress to improve their protective factors may minimize negative reactions and contribute to more positive outcomes (WHO, 2004a). This finding is supported through the work done by Kagan et al. (1995), Everly et al. (2008), and Schiraldi et al. (2010).

Crisis intervention approaches, which are reactive, focus on primary prevention after a crisis. This is achieved through early intervention to avoid maladaptive problem-solving. The aim is to restore the person to an adaptive level of pre-crisis, independent functioning (Everly & Mitchell, 1999; Sandoval, 1985; Wollman, 1993). Thus far, no research has been done on the impact of crisis intervention training programs on improving protective factors to stress prior to a critical incident i.e. psychological resistance or immunity as defined by Everly and colleagues (2008).

This paper describes the use of a localized crisis intervention course and its impact on resistance and resiliency in the participants after 2 days of training.

Conceptualizing Resiliency

In this study, resistance was conceptualized using the constructs of self-efficacy (Bandura, 1977; 1982; 1997) and hardiness (Kobasa, Maddi & Kahn, 1983). Bandura defines self-efficacy as the belief in one's ability to organize and execute the course or courses of action required to achieve the necessary and desired goals. These are cognitions that determine whether health behavior change will be initiated, how much effort will be expanded, and how long it will be sustained in the face of obstacles and failures. Kobasa, Maddi, and Kahn (1982) described hardiness as a protectivefactor against stressors and therefore a potential predictor of resistance. Hardiness is characterized by: control, or the belief in oneself and ability to control life events; challenge, or the propensity to view stressful events in life as a challenge, thereby allowing oneself to overcome the challenge and potentially grow from the resolution of the stressful event; and commitment, or the tendency to see important activities not just as tasks to be performed but as commitments that have meaning in and of themselves.

With these constructs in mind, we set out to measure aspects of resistance and resiliency among participants attending a localized version of the International Critical Incident Stress Foundation's two-day Individual Crisis Intervention and Peer Support training course that may be impacted by this course.

Program Development

Since 2008, there has been a memorandum of understanding between International Critical Incident Stress Foundation (ICISF) and Trauma Recovery & Corporate Solutions (TRaCS), which is a service in Changi General Hospital Singapore, in which existing ICISF courses can be localized to meet the learning culture and styles of Singaporeans. The first course to be localized was the two-day Individual Crisis Intervention and Peer Support training. The localized version utilized many experiential exercises to help participants identify sources of stress, workplace critical incidents, and listening/risk communication skills as well as 6 role-play

scenarios for attending to a person in crisis using SAFER-R model of individual intervention and 2 role-play scenarios for attending to someone who may be suicidal using CCD-R. These role-play scenarios are tailored to the organization from which the participants come from so that they are relevant to their workplace and personal crises. Where relevant, local videos were used in the teaching, and trainers encouraged sharing of personal experiences from participants. In addition, a module on self-care was included at the end of Day 2 to help participants understand the impact of compassion fatigue and vicarious traumatization when helping those in crisis, as well as how to manage their own stress through simple relaxation techniques.

METHODOLOGY

Since May 2010, all participants attending the Individual Crisis Intervention and Peer Support courses are required to participate in the pre-course quiz at the time of registering their attendance on Day 1 prior to the start of the training. At the end of Day 2, all participants are required to participate in the post-course quiz. Participants are informed that both these quizzes are part of the evaluation and feedback process for these trainings. They are informed that their responses are completely anonymous and will be pooled into a collective database. The purpose of the pre- and post-course quizzes were to evaluate the usefulness of the training course and effectiveness of the training.

Measures Used

In this study, we conceptualized resistance in terms of self-confidence in their ability to cope efficiently with unexpected events, use of positive cognitions and willingness to seek help during times of adversity; and resilience as the ability to cope with situations that may not be within their control, adapt to change, bounce back. To measure resistance and resiliency, we used questions that reflect self-efficacy, hardiness, and resilience constructs. Using a 5-point Likert (Not At All - A Great Deal) scale, there were three items for resistance (E) and four items for resilience (R), of which two items are CD-RISC2 (Sandeep, Connor & Davidson, 2007). Those who scored 4 and above were considered positive case for resistance and/or resilience. These measures of resistance and resiliency were repeated in the pre- and post-course quiz.

In the pre-course quiz, participants were also asked if they had any training in the area of mental health, exposure to work-related crises (sudden/unexpected death of patient or colleague, aggressive/violent patient and/or relatives, work-related injuries or illness of grave concern, or medico-legal investigation) and personal crises (family or marital conflicts, personal conflicts with important others e.g. friends, colleagues etc, sudden/unexpected death of loved one, financial problems, health problems).

In the post-course quiz, participants were tested on what they had learned during the two-day course using 16 MCQ questions.

Statistical Analysis

All statistical analyses were performed using SPSS 20.0 with statistical significance set at $p < 0.05$. Basic descriptive for the categorical variables were presented as n (%). Reliability of the resistance and resiliency questions were assessed by Cronbach Alphas. McNemar tests were used to assess the differences in the pre-post responses of the resistance and resiliency questions, odds ratios with the 95% confidence interval were presented.

RESULTS

Of the 958 (94.2%) subjects who participated in the two-day localized Crisis Intervention course 902 (94.2%) had both pre- and post- responses. The majority of the participants were female (74.2%), 75% were 50 years and below, and about half of them (doctors, nurses & allied health) had contact with patients (see Table 1). Thirty-five percent had some mental health training. The majority of the work-related crises were encountering aggressive patients and/or relatives (about 70%). Family or marital conflicts (40%) and personal conflicts with others (50%) were top of the list for personal crises, with nearly 36% of them experiencing sudden or unexpected death of a loved one.

The Cronbach Alpha for the pre-course resistance questions was 0.329. This weak alpha was due to the fact that only about 56% to 62% showed consistency in the responses for E1xE2, E1xE3 & E2xE3 questions. For post-course resistance questions, the alpha was 0.517. For those with mental health training, pre-course resistance alpha was 0.317, and post-course alpha was 0.494; whereas the pre-course alpha was 0.302 and post-course alpha was 0.514 for those without mental health training.

There is better reliability for the resilience questions for all subjects. Pre-course was 0.656 and post-course was 0.706; for those with some mental health training it was 0.607 and 0.669; and for those without any prior mental health training it was 0.665 and 0.717 for pre- post-course respectively.

Table 1.
Subjects Demographics.

Demographics	N (%)
Age Group	
21 - 35	406 (45.0)
36 - 50	265 (29.4)
51 - 60	105 (11.6)
Over 60	19 (2.1)
unknown	107 (11.9)
Gender	
Female	669 (74.2)
Male	195 (21.6)
unknown	38 (4.2)
Job Category	
Administrator	98 (10.9)
Allied Health	178 (19.7)
Doctor	28 (3.1)
Nurse	220 (24.4)
Supervisor / Manager	145 (16.1)
Executive	193 (21.4)
Directors & above	10 (1.1)
unknown	30 (3.3)
Any training in mental health	
No	581 (64.4)
Yes	316 (35.0)
unknown	5 (0.6)
Work related crisis	
Sudden/unexpected death of patient	239 (26.5)
Sudden/unexpected death of a colleague	200 (22.2)
Aggressive/violent patient and/or relatives	620 (68.7)
Work-related injuries or illness that was of grave concern to you	163 (18.1)
Medico-legal investigation	85 (9.4)
Personal crisis	
Family or marital conflicts	364 (40.4)
Personal conflicts with important others	455 (50.4)
Sudden/unexpected death of a loved one	323 (35.8)
Financial problems	195 (21.6)
Health problems	236 (26.2)

Looking at Tables 2, 3 and 4, the participants (with or without mental health training) showed significant improvement of at least 8 to 11 fold ($p < 0.001$) for both resistance and resilience domains. Strong improvements from at least 9 to 15-fold were reported for confidence in ability to deal efficiently with unexpected events (E1), looking for something good in a negative situation (E3), and ability to avoid dwelling on things beyond their control (R2)

In the post-course quiz on teaching contents, participants were able to obtain scores of about 70% and above accuracy, except for the question on the prevention of PTSD as the purpose of crisis intervention. The majority of them (more than 60%) got it wrong (see table 5).

DISCUSSION

About one in six Singaporeans suffer from a mental illness (Fones et al., 1998). A local study in 2004 (Chan & Chan, 2004) reported posttraumatic stress disorder rates of

Table 2.
Resistance & Resilience Questions: All Subjects.

	Pre/Post Response				*p*-value OR (95% CI)
	No/No	Yes/Yes	No/Yes	Yes/No	
Resistance	15.5%	46.2%	34.8%	3.5%	$p < 0.001$ 10.0 (7.0 - 14.5)
Resilience	19.1%	42.7%	35.0%	3.1%	$p < 0.001$ 11.2 (7.6 - 16.5)
I am confident that I will be able deal efficiently with unexpected events (E1)	24.0%	31.1%	40.9%	4.0%	$p < 0.001$ 10.2 (7.3 - 14.3)
I am inclined to seek emotional support from friends & family (E2)	18.8%	10.3%	25.9%	8.4%	$p < 0.001$ 3.1 (2.4 - 4.0)
I try to look for something good in a negative situation (E3)	10.3%	56.8%	29.6%	3.3%	$p < 0.001$ 9.1 (6.3 - 13.2)
I will be inclined to take things in my stride (R1)	22.2%	40.5%	30.0%	7.3%	$p < 0.001$ 4.1 (3.2 - 5.4)
I will be able to not dwell on things that I can't do anything about (R2)	22.0%	31.0%	43.2%	3.8%	$p < 0.001$ 11.4 (8.1 - 16.0)
I believe I will be able to adapt to change (R3)	8.8%	68.3%	18.8%	4.1%	$p < 0.001$ 4.6 (3.2 - 6.5)
I believe I will be able to bounce back after an illness or hardship (R4)	10.6%	66.9%	18.8%	3.7%	$p < 0.001$ 5.1 (3.6 - 7.3)

8% among healthcare workers in a public hospital, yet less than 4% sought help. From this study group, it is clear that work-related critical incidents are common, with 40% experiencing death of someone they knew and almost 70% having experienced aggressive or violent people at the workplace. More than 40% reported personal crises of family/marital and interpersonal conflicts. As part of workplace health and safety requirements, it is important that organizations provide crisis intervention services to address the impact of workplace critical incidents and opportunities for employees to seek counseling for their personal crises. This could be an in-house service which would help affected employees rebound from the emotional impact of crises. One such model is the Peer Support Program (PSP) which has its roots in the Assaulted Staff Action Program (Flannery, 1998 and 1999), a voluntary, system-wide, peer-help, multi-component crisis intervention procedure to assist employee victims of assaults or other acts of violence. The PSP services include individual and group crisis interventions, consultation on crisis management to senior management, employee victim family interventions, in-house staff counseling services and referrals to mental health professionals as needed. The model of approach is based on the Critical Incident Stress Management (CISM) (Every & Mitchell 1999).

Looking at Kaminsky's (2007) tripartite model of disaster mental health of resistance, resiliency and recovery, research thus far has focused on the importance of building resistance and resiliency, and on interventions that would help enhance resiliency after adverse events. But few have looked at how resistance can be built up prior to adversity. This study has shown that the overall scores improved from 50% to 81%

Table 3.
Resistance & Resilience Questions: With Some Mental Health Training.

	Pre/Post Response				*p*-value OR (95% CI)
	No/No	Yes/Yes	No/Yes	Yes/No	
Resistance	10.2%	56.5%	29.7%	3.5%	$p < 0.001$ 8.5 (4.5 - 15.8)
Resilience	15.0%	50.5%	31.6%	2.9%	$p < 0.001$ 11.0 (5.6 - 21.8)
I am confident that I will be able deal efficiently with unexpected events (E1)	16.3%	39.3%	40.9%	3.5%	$p < 0.001$ 11.6 (6.3 - 21.5)
I am inclined to seek emotional support from friends & family (E2)	14.4%	56.9%	21.4%	7.3%	$p < 0.001$ 2.9 (1.8 - 4.7)
I try to look for something good in a negative situation (E3)	8.0%	64.2%	25.6%	2.2%	$p < 0.001$ 11.4 (5.3 - 24.7)
I will be inclined to take things in my stride (R1)	18.0%	50.5%	24.8%	6.8%	$p < 0.001$ 3.7 (2.2 - 5.9)
I will be able to not dwell on things that I can't do anything about (R2)	18.6%	37.9%	40.8%	2.6%	$p < 0.001$ 15.9 (7.8 - 32.4)
I believe I will be able to adapt to change (R3)	6.7%	76.4%	13.7%	3.2%	$p < 0.001$ 4.3 (2.2 - 8.6)
I believe I will be able to bounce back after an illness or hardship (R4)	8.4%	72.3%	14.8%	4.5%	$p < 0.001$ 3.3 (1.8 - 6.0)

for resistance and 46% to 78% for resiliency respectively at the end of the localized 2-Day Individual Crisis Intervention and Peer Support course. Hence the odds of improving one's perception of resistance was 10 times greater and resiliency was 11.2 times greater by attending this course.

Interestingly, participants felt more confidant of being able to deal efficiently with unexpected events ($p < 0.001$; OR = 10.2; CI = 7.3-14.3), would try to look for something good in a negative situation ($p < 0.001$; OR=9.1; CI 6.3-13.2), and felt that they would be able to not dwell on things that they could not do anything about ($p < 0.001$; OR=11.4; CI=8.1-16.0). One possible reason for the improvement in self confidence could be the highly experiential format of the course and the personalization of the scenarios for crisis intervention role-plays. Normalization of initial crisis reactions and simple stress management techniques that are taught may have also helped allay anxieties regarding the impact of crises as well as enhanced their perception of self-help and knowledge of available local resources for coping. Thus these findings show that this course has managed to build up the protective factors or immunity as defined as resistance by Kaminsky (2007).

About 35% of the participants had some mental health training prior to attending this course. Another local study by Chan and colleagues (Chan, Chan, & Kee, in press), using the same resistance and resiliency questionnaire, showed that those who had some form of training in the area of mental health were two times more likely to be more resistant and resilient than those who did not have such training (resistance OR = 1.8, 95% CI 1.2-2.7; resilience OR = 1.9, 95% CI 1.3-

Table 4.
Resistance & Resilience Questions: No Mental Health Training.

	Pre/Post Response				*p*-value OR (95% CI)
	No/No	Yes/Yes	No/Yes	Yes/No	
Resistance	18.0%	40.7%	37.9%	3.5%	$p < 0.001$ 11.0 (6.9 - 17.3)
Resilience	21.1%	38.6%	37.0%	3.3%	$p < 0.001$ 11.3 (7.0 - 18.0)
I am confident that I will be able deal efficiently with unexpected events (E1)	29.1%	26.7%	40.4%	3.8%	$p < 0.001$ 10.6 (6.8 - 16.4)
I am inclined to seek emotional support from friends & family (E2)	21.7%	41.8%	27.7%	8.8%	$p < 0.001$ 3.1 (2.3 - 4.3)
I try to look for something good in a negative situation (E3)	11.6%	53.8%	31.1%	3.5%	$p < 0.001$ 9.0 (5.7 - 14.3)
I will be inclined to take things in my stride (R1)	24.1%	36.2%	32.6%	7.1%	$p < 0.001$ 4.6 (3.3 - 6.4)
I will be able to not dwell on things that I can't do anything about (R2)	24.3%	27.9%	43.3%	4.5%	$p < 0.001$ 9.6 (6.4 - 14.4)
I believe I will be able to adapt to change (R3)	10.4%	64.1%	21.0%	4.5%	$p < 0.001$ 4.6 (3.0 - 7.1)
I believe I will be able to bounce back after an illness or hardship (R4)	12.5%	64.2%	20.2%	3.1%	$p < 0.001$ 3.3 (1.8 - 6.0)

2.7). The result of this study showed that even those who had mental health training improved on their resistance and resiliency scores at the end of Day 2 (resistance $p < 0.001$, OR = 8.5, CI 4.5-15.8; resilience $p < 0.001$, OR = 11, CI 5.6-16.4) with higher improvement in scores for those who did not have any prior mental health training (resistance $p < 0.001$, OR=11, CI 6.9-17.3; resilience $p < 0.001$, OR = 11.3, CI 7.0-18.0). The participants, both with and without mental health training, felt more confidant of being able to deal efficiently with unexpected events, would try to look for something good in a negative situation, and felt that they would be able to avoid dwelling on things that they could not do anything about. This would indicate the possibility that this course was able to further enhance existing protective factors in these individuals.

The participants answered about 70% or more of the 16 post-course quiz questions on the content taught during the two-day course correctly. This would indicate the likelihood that the trainers, the style, and the format of teaching were helpful in enabling the participants to learn and apply the necessary skills and information.

In this study, about half of the participants were health-care workers, due to TRaCS having received funding from the Ministry of Health Singapore to set up Peer Support Programs in seven of the public hospitals from Jan 2008 to Dec 2012. This included provision of training courses in Critical Incident Stress Management and Mental Health First Aid Singapore (Kitchener & Jorm, 2004). It would be useful to compare the responses for healthcare and non-healthcare workers to see if the outcomes for resistance and resiliency

Table 5.
Correct Responses for Post Course Teaching Content Quiz.

	Mental Health Training		All subjects (n = 902)
	Yes (n = 316)	No (n = 581)	
Q1. The purpose of crisis intervention is to:			
Target the response not the event	282 (89.2)	523 (90.0)	808 (89.6)
Screen and assess the needs	285 (90.2)	509 (87.6)	799 (88.6)
Prevent PTSD	102 (32.3)	174 (29.9)	280 (31.0)
Provide counseling and psychotherapy	237 (75.0)	451 (77.6)	693 (76.8)
Q2. Crisis intervention goals are:			
Stabilize emotions and meeting physical needs	289 (91.5)	545 (93.8)	839 (93.0)
Mitigate the potential negative impact of the event	278 (88.0)	517 (89.0)	799 (88.6)
Mobilize resources & restore adaptive functioning	271 (85.8)	517 (89.0)	792 (87.8)
To meet the organizational needs	212 (67.1)	392 (67.5)	607 (67.3)
Q3. Critical incident stress reactions include:			
Intrusive thoughts, images & nightmares of the incident	289 (91.5)	542 (93.3)	836 (92.7)
Irritability and angry outbursts	286 (90.5)	536 (92.3)	827 (91.7)
Increased tension and inability to relax	294 (93.0)	533 (91.7)	832 (92.2)
Social withdrawal	279 (88.3)	519 (89.3)	803 (89.0)
Q4. To be an effective peer, you must:			
Make all the right decisions for the affected staff	239 (75.6)	445 (76.6)	688 (76.3)
Know how to have a balanced healthy lifestyle	285 (90.2)	512 (88.1)	802 (88.9)
Be able to maintain a positive outlook	296 (93.7)	549 (94.5)	850 (94.2)
Available 24/7 to the affected staff	243 (76.9)	454 (78.1)	701 (77.7)

Values are n (%).

can be generalized to other populations. In addition, the majority of the participants in this study were women. It would be helpful to see if there are possibly gender differences in the outcomes for resistance and resiliency.

Currently we are not aware of any questionnaire that specifically measures resistance as defined by Kaminsky. In addition, many of the available self-efficacy scales are problematic, constructed for specific purposes. Hence the other limitation of this paper is the reliability of the resistance and resilience questions used. However, using paired data lends credibility at least for the individual participant's perception of their resistance and resiliency at Day 2 of attending the course. It would be useful to validate these questions further in a larger sample size or reassess the usefulness of this course in terms of building resistance and resiliency with a more reliable questionnaire in the future.

We have identified three possible factors for the successful outcomes of this localized course with respect to improving resistance and resiliency among the participants. First, the courses are fully sponsored and limited to the contracted organization's employees. Hence the scenarios for role-plays are tailored to the organization's common workplace crises. The small group format (class size between 25-35 employees) lends itself to identification with each other's struggles and successes. The sharing of personal experiences with workplace and personal crises adds to team building, and identification with their organization's efforts in addressing some of their workplace stress. Second, the format of the course involves many experiential exercises that help participants recognize sources of stress and their own assumptions about their worldviews. Role-plays that are relevant to their experience of workplace and personal crises help to personalize the learning. With experiential repetition, participants have ample opportunities to master the concepts of crisis intervention skills, practice and apply them to themselves and others. Finally, the segment on self-care at the end of Day 2 teaches participants to understand the emotional impact of helping others and simple relaxation techniques which help with stress management. This helps to empower the participants to know their own limitations and look after their personal needs.

Conclusion

Workplace stress and violence is increasing and hence employees are at higher risks of traumatic stress and PTSD. To build and improve resistance and resiliency in individuals and organizations, it is important to provide employee training programs that address the protective factors needed to enable individuals to rebound well during times of adversity. Hence organizations should view the training of employees in mental health and crisis intervention as contributing to the overall resiliency of the organization, in addition to providing services that facilitate the resilience and recovery of employees affected by personal or workplace stress or critical incidents. We found that one such training course is the ICISF Individual Crisis Intervention and Peer Support program.

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Seven Characteristics of Highly Resilient People: Insights from Navy SEALs to the "Greatest Generation"

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***Abstract**: Having reviewed investigative methods such as structural equation modeling, seminal manuals of war (von Clausewitz, 1976, rev.1984; Clavell, 1983), as well as individual interviews and focus groups with highly resilient people such as Navy SEALs, law enforcement professionals, and the "children of the Great Depression" now commonly referred to as the "greatest generation," we sought to discover the common themes, or characteristics, of highly resilient people. In this paper, we present our initial impressions that there exist seven important characteristics that seem to be associated with enhanced human resilience. [International Journal of Emergency mental Health, 2012, 14(2), pp. 87-93]*

Key words: *Resilience, Navy SEALS, Johns Hopkins Model of Resiliency*

A review of current events reveals crisis in epidemic proportions. Political crises, not just in the United States, but in Greece, Syria, Egypt, and Italy, seem largely symptoms of a far more pervasive and malignant state of economic crisis. While crisis is becoming the norm, it is still anxiogenic. From a community, or societal, perspective, crisis (or even the threat thereof) stifles innovation, is an impediment to investment, fosters a hording mentality, and is generally de-stabilizing. From a personal perspective crisis creates fear, unrest, and paralyzes inclinations to act, or leads to the opposite course, ie, impulsive, often regretful, actions largely because it threatens a core human need - the need for safety. The resultant toxic environment may erode organizational, community, and personal health. As dismal as this might sound, not every organization, community, or person is adversely affected by the toxicity of uncertainty and manifest crisis. Some individuals seem resilient in such

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circumstances; thus they are minimally affected. Others manifest such resilience that they seem actually to prosper in adversity. In times of prosperity, there is little motivation to study human resilience, but during times of uncertainty, crisis, and adversity the motivation is substantial. In previous publications (Everly, 2009; Everly, etal, 2010), we have written about the elements of what we refer to as a *resilient culture.* Here we turn our attention to the individual. Thus, having reviewed investigative methods such as structural equation modeling, seminal manuals of war (von Clausewitz, 1976, rev.1984; Clavell, 1983), as well as individual interviews and focus groups with highly resilient people such as Navy SEALs, law enforcement professionals, and the children of the Great Depression, we present our initial impressions that there exist seven important characteristics that seem to be associated with enhanced human resilience.

Resilience Defined

Human resilience may be thought of as the ability to positively adapt to and/or rebound from significant adversity and distress. Bonnano (2004) defines resilience as the ability of adults to maintain relatively stable and healthy levels of psychological and physical functioning after having been exposed to potentially disruptive or traumatic events. Bonnano suggests that factors such as hardiness, self-enhancement, repressive coping (emotional dissociation), and positive emotions may undergird effective resilience

In a review of runaway children who showed remarkable resilience, key factors emerged as protective according to William, Lindsey, Kurtz, and Jarvis (2001). These protective factors include:

- determination and persistence,
- an optimistic orientation to problem-solving,
- ability to find purpose in life, and
- caring for oneself.

According to The Northwest Regional Educational Laboratory, Fostering Resiliency [available online: http://www.nwrel.org/pirc/hot9.html], children who develop competence, despite adversity and difficult conditions while growing up, appear to share the following qualities:

- a sense of self-esteem and self-efficacy,
- an action oriented approach to obstacles or challenges,
- the ability to see an obstacle as a problem that can be engaged, changed, overcome, or at least endured,
- reasonable persistence, with an ability to know when "enough is enough," and
- flexible problem-solving and stress management tactics.

Haglund, Cooper, Southwick, and Charney (2007) provide one of the most succinct analyses of the various components of resilience. They identify six primary factors that may protect against and aid in recovery from extreme or traumatic stress:

- actively facing fears and trying to solve problems,
- regular physical exercise,
- optimism,
- following a moral compass,
- promoting social support, nurturing friendships, and seeking role models, and
- being open minded and flexible in the way one thinks about problems, or avoiding rigid and dogmatic thinking.

The Johns Hopkins Model Of Resiliency

One integrative model contributing heuristic value to the construct of resilience is the Johns Hopkins Model of Resistance, Resilience, and Recovery (henceforth, the Hopkins Model). The Hopkins model served to advance the field by recognizing the importance of putting resilience on a continuum, and by separating out the notion of protective immunity from the notion of resilience as a form of rebound (Kaminsky, McCabe, Langlieb, & Everly, 2007; Nucifora, Langlieb, Siegal, Everly, & Kaminsky, 2007; Nucifora, Hall, & Everly, 2011). The Hopkins model describes *resistance* as the ability to withstand manifestations of clinical distress, impairment, or dysfunction associated with critical incidents, terrorism, and even mass disasters. One could think of resistance as a form of "psychological immunity to distress and dysfunction" (Nucifora et al., p. S34). *Resilience*, in this model, refers to the ability to *rapidly and effectively rebound* from psychological and/or behavioral perturbations associated with critical incidents, terrorism, and even mass disasters (Kaminsky, McCabe, Langlieb, & Everly, 2007).

Finally, *recovery* refers to observed improvement following the application of treatment and rehabilitative procedures.

Seven Characteristics of Highly Resilient People

In an effort to integrate previous theory and research in human resilience, we offer a distillation of findings in an effort to better inform the enhancement of human resilience. We believe that the defining elements of human resilience reside in seven core characteristics, all of which can be learned (Everly, 2009, Everly, Strouse, & Everly, 2010, Everly & Links, in press):

- présence d'esprit: calm, innovative, non-dogmatic thinking,
- decisive action,
- tenacity,
- interpersonal connectedness,
- honesty,
- self-control, and
- optimism and a positive perspective on life.

Présence d'esprit, or calm, innovative, non-dogmatic thinking, is an essential element in resilience. Having the presence of mind to think in a calm, rational manner, especially under stress is rare. The ability to see old problems from a new perspective is key to overcoming hindrances that stifle others. Sometimes referred to as "out of the box" thinking, innovative thinking is characterized by highly flexible, non-dogmatic cognitive processes. Such cognitive processing can result in a new level of decision-making efficacy. The key platform upon which innovative thinking rests is the belief that a solution can always be found.

The SEAL Ethos states that, "We demand discipline. *We expect innovation*. The lives of my teammates and the success of the mission depend on me, my technical skill, tactical proficiency, and attention to detail. My training is never complete" (McCormack, in press).

Navy SEALs embody many qualities which enhance their ability to succeed in the most arduous of situations. Innovation is perhaps one of the most powerful characteristics which may well define a crucial element in determining success over failure in any given situation. Change is inevitable, and the more predisposed one is to employ creative thinking in those critical moments when decisions made make the difference between life or death, the better position one is in to cope effectively and succeed. Innovation is a necessary ingredient of a SEAL's personal arsenal. *Innovation* is synonymous with a solution-focused process leading to the implementation of decisions which will help ensure success. The essential focus is not concentrating on what is wrong, per se, but rather, having defined the problem, the focus is on finding a novel solution. Success as a team requires maximum participation of team members in this creative approach to problem solving. The pressure of problem-solving is often disabling, in short, the tyranny of the decision proves disabling to all but the most resilient.

Once a decision has been reached, it is essential to *act decisively*. Many people wait for the "moment of absolute certainty." Sadly the moment of absolute certainty seldom comes, or when it does, its often too late. The English proverb, "He who hesitates is lost," seems apropos in this context. The hesitancy that typifies non-resilient decision-making is often the fear of making a mistake, or failing. The corollary to decisive action, however is the necessity to take responsibility for one's actions. Taking responsibility is sometimes difficult, especially if the action leads to an undesirable outcome. However, highly resilient people are often the first to take responsibility because they see that as the first step toward resolution and subsequent success.

Sometimes, making a decision and acting on it in a timely manner is still not enough to warrant being considered resilient. *Tenacity* is essential. Great American success stories are replete with the theme of tenacity. In many cases it was not the genius that predicted success, it was the tenacity. Take the case of the electric light bulb. The first electric light was invented in 1800 by Humphry Davy, an English scientist. He successfully electrified a carbon filament with a battery. Unfortunately, the filament burned out too quickly to have practical value. In 1879, Thomas Edison discovered that a carbon cotton filament in an oxygen-free glass bulb not only glowed but would glow for up to 40 hours. This new bulb required relatively low levels of electricity and could be produced for a large market. With further time, Edison created a bulb that could glow for over 1200 hours. And what was the difference between Davy on one hand and Edison on the other? Edison persevered in his testing until he found the right combination of filament and bulb. But, according to Edison himself, it required over 6000 failed experiments to arrive at the right combination.

As Abraham Lincoln learned, numerous failures often precede remarkable victories. In 1833 Lincoln failed in business, but he was elected to the Illinois state legislature in 1834. In 1835, he lost his "sweetheart." In 1836 he suffered a "nervous breakdown." In 1838 he was re-elected to Illinois legislature. In 1843, Lincoln was defeated for a congressional nomination, but was elected in 1846. In 1848, he lost re-nomination. In 1854, Lincoln was defeated in his run for the U.S. Senate and then defeated for nomination for Vice President in 1856. In 1858, Lincoln was again defeated for U.S. Senate. In 1860, Abraham Lincoln was elected 16th President of the United States. Finally, On July 4, 1863, in the little town of Gettysburg, Pennsylvania, President Abraham Lincoln delivered in about two and one half minutes one of the greatest presentations of American oratory, his Gettysburg Address, wherein his words resound with tenacity and optimism.

Interpersonal connectedness and support may be the single most powerful predictor of human resilience. In the military, the mantra is "unit cohesion, unit cohesion, unit cohesion." In the social and business worlds, sometimes it really is *whom* you that counts, and how strong the bond of affinity is. The benefits of interpersonal support have been known for over a century. Charles Darwin, writing in 1871, noted that a tribe whose members were always ready to aid one another and to sacrifice themselves for the common good would be victorious over most other tribes.

One of the founding fathers of the field of psychosomatic medicine was a Johns Hopkins' trained physician by the name of Stewart Wolf. While Dr. Wolf made many important contributions, one of his greatest was his study of Roseta, Pennsylvania and is summarized in his book, "*The Power of Clan: The Influences of Human Relationships on Heart Disease.*" The book told the story of the socially cohesive community of Roseta and Dr. Wolf's amazing 25 year investigation of the health of its inhabitants. What made Roseta a medical marvel was that its inhabitants possessed significant risk factors for heart disease such as smoking, high cholesterol diets, and a sedentary lifestyle. Despite these risk factors occurring at a prevalence equal to surrounding towns, the inhabitants appeared to possess an immunity to heart disease compared to their neighbors. The death rate from heart disease was less than half that of surrounding towns. Wolf discovered that the protective factor was not in the water, nor the air, but was in the people themselves. Research revealed that social cohesiveness, traditional family values, a family-oriented social structure (where three and even four generations could reside in the same household), and emotional support imparted immunity from heart disease. The people of Roseta shared a strong Italian heritage. They practiced the same religion. They shared a strong sense of community identity and civic pride. Unfortunately, with time, the young adults embraced suburban living and with the rise of suburban living, the residents of Roseta slowly abandoned the mutually supportive family-oriented social structure and, as they did, the prevalence of heart disease ultimately rose so as to be equivalent to that of surrounding towns. The immunity that a shared identity, mutual values, and social cohesion had afforded was lost.

Having just read of the importance of interpersonal support, one must wonder what characteristics are likely to engender the support of others? We believe amongst the most compelling is integrity. *Integrity* is doing that which is right. It is considering not only what is good for you, but what is good for others as well. Integrity isn't just a situation by situation process of decision-making, it is a consistent way of living. When we see it in others, we usually admire it. Integrity engenders trust. It makes us feel safe. Mahatma Gandhi was said that there are seven things that will destroy society: wealth without work; pleasure without conscience; knowledge without character; religion without sacrifice; politics without principle; science without humanity; business without ethics.

Self-discipline and self-control are the hallmark characteristics of SEALs. Interestingly, compared to subsequent generations self-discipline and self-control appear to be hallmarks of the "greatest generation" as well. Self-discipline and self-control is another factor we believe engenders resilience. Perhaps the single most dangerous action one can take is the impulsive action. Road rage, airline rage, certain types of gambling, and even certain types of domestic violence may be related to the inability to practice self-control. On the other hand, we know certain health promoting behaviors, such as relaxation training, physical exercise, and practicing good nutrition require a certain self-discipline that many simply find too challenging to practice consistently. Sadly, these health promoting practices seem to engender resilience (and resistance) as we have discussed previously.

The seventh and final core characteristic of personal resilience, upon which the previous six characteristics rest, we believe is *optimism and positive thinking*. Optimism is the tendency to take the most positive or hopeful view of mat-

ters. It is the tendency to expect the best outcome, and it is the belief that good prevails over evil. Optimistic people are more perseverant and resilient than are pessimists. Optimistic people tend to be more task-oriented and committed to success than are pessimistic people. Optimistic people appear to tolerate adversity to a greater extent than do pessimists. The optimist always has a reason to look forward to another day. Recent research (Everly & Firestone, in press) suggests there may be two types of optimism: passive and active. Passive optimism consists of *hoping* things will turn out well in the future. Active optimism is *acting* in a manner to increase the likelihood that things will indeed turn out well in the future. Active optimism has been described as a mandate to create a positive future.

A common characteristic of a Navy SEAL is the presence of a strong positive mental attitude which expects success. Success is a way of life for SEALs. It must be. The difference between success and failure is too often the difference between life and death. The optimistic attitude that expects, if not demands success, positively impacts upon all aspects of living. Success does not happen by chance; from the SEAL perspective, it exists because one makes it so. The optimistic expectation of success occurs, from that perspective, because of relentless preparation, understanding only too well the meaning of sacrifice. For the SEAL, success begins with an optimistic attitude.

In his groundbreaking book, *Learned Optimism,* Dr. Martin Seligman (Seligman, 1998) argues that optimists get depressed less often, they are higher achievers, and they are physically healthier than pessimistic people. In his other book, *The Optimistic Child*, Dr. Seligman (Seligman, Reivich, Jaycox, & Gillham, 1995) makes the case that depression has become a virtual epidemic that has gradually increased over the years to the point that, in one research investigation, the incidence of a depressive disorder was found to be 9% in a sample of 3000 adolescent children in southeastern United States. Prior to 1960, depression was relatively rare, reported mostly by middle-aged women. Now depression appears in both males and females as early as middle school and its prevalence increases as one ages. Seligman (Seligman et al, 1995) notes, "Our society has changed from an achieving society to a feel-good society. Up until the 1960s, achievement was the most important goal to instill in our children. This goal was overtaken by the twin goals of happiness and self-esteem" (p. 40). Now you might read this and say, "What's wrong with happiness and self-esteem?" The answer is: nothing, as long as they are built upon a foundation of something more substantial than the mere desire to possess them. Seligman argues that we cannot directly teach lasting self-esteem. Rather, he says, "self-esteem is caused by… successes and failures in the world" (p. 35).

Seligman has shown that people can be taught optimistic behaviors. Dr. Albert Bandura would agree. Bandura's (1997) work is summarized in his magnum opus on self-efficacy and human agency, entitled *Self-efficacy: The exercise of control*. Bandura defines the perception of self-efficacy as the belief in one's own ability to exercise control in a meaningful and positive way. More specifically, self-efficacy is the optimistic belief in one's ability to organize and execute the courses of action required to achieve necessary and desired goals. This perception of control, or influence, Bandura points out, is an essential aspect of life itself; "People guide their lives by their beliefs of personal efficacy" (p. 3). He goes on to note: "People's beliefs in their efficacy have diverse effects. Such beliefs influence the courses of action people choose to pursue, how much effort they put forth in given endeavors, how long they will persevere in the face of obstacles and failures…" (Bandura, 1997, p.3).

Bandura has described four sources that affect the perception of self-efficacy and are particularly relevant in terms of the building of stress resilience. They are as follows: self-efficacy by doing things successfully; self-efficacy by watching others be successful; self-efficacy through coaching, encouragement, support; and self-efficacy through self-regulation.

Consistent with our previous discussions, Reivich and Shatte (2002), define resilience as the ability to "persevere and adapt when things go awry" (p. 1). Most importantly and relevant to the present discussion, they argue that resilience resides in the domain of cognitive appraisal, a theme we have discussed. Theory and controlled empirical investigations alike appear to converge on the conclusion that the response to any stressful event will be greatly influenced by the appraisal of the situation, the ability to attach a constructive meaning to the experience, the ability to foresee an effective means of coping with the challenges of a given situation, and the ability to ultimately incorporate the experience into some overarching belief system or schema (Everly, 1980; Everly & Lating, 2004; Reivich & Shatte, 2002; Smith, Davey, & Everly, 2007). A series of research studies was conducted to empirically examine the viability of the putative deterministic role of appraisal in health and work-related outcomes (Smith,

Davey, & Everly, 1995; 2006; 2007; Smith & Everly, 1990; Smith, Everly, & Johns, 1993). In a number of investigations, acute cognitive or affective indicators were predictive of physical health outcomes as well as work-related outcomes such as job satisfaction, turnover intention, and burnout. Replicated results indicate that adverse life events are not as important in the ultimate determination of physical health, psychological health, job satisfaction, job performance, and the desire to change jobs as are the cognitive or affective indicia associated with those events (Everly, Davey, Smith, Lating, & Nucifors, 2011; Everly, Smith, & Lating, 2010).

Summary

The preceding impressions may be more heuristic than determinative, nevertheless they may be worthy of consideration as the immediate future does not appear to hold any "quick fix" nor spontaneous healing for a world that, at times, seems out of control. While one cannot always control the events that touch one's life, there appears to be much one can do to withstand (resistance) or bounce back from (resilience) adversity. .

The characteristics of highly resilient people appear to be more easily stated and understood than widely embraced and implemented: We believe that the defining elements of human resilience reside in seven core characteristics, all of which can be learned: *1) présence d'esprit: calm, innovative, non-dogmatic thinking, 2) acting decisively, 3) tenacity, 4) interpersonal connectedness, 5) honesty, 6) self-control, and 7) optimism and a positive perspective on life.*

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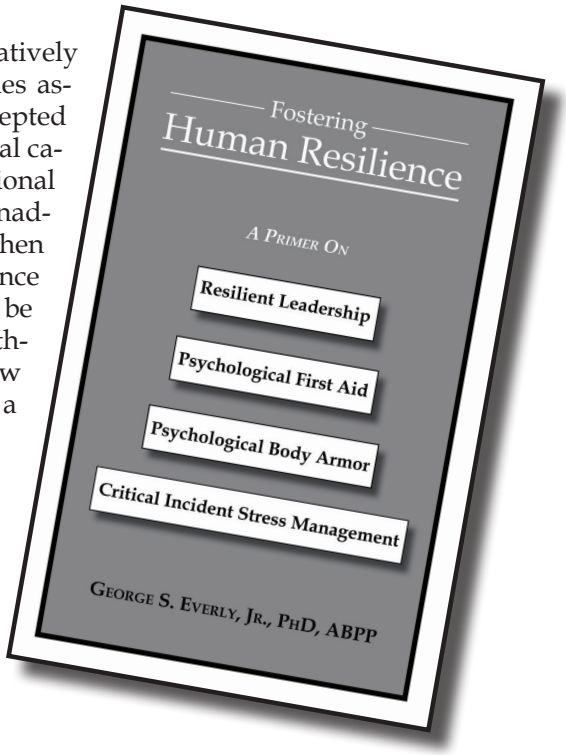
Fostering Human Resilience

George S. Everly, Jr., PhD, ABPP



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

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

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

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

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

Fostering Human Resilience
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The Johns Hopkins Model of Psychological First Aid (RAPID - PFA): Curriculum Development and Content Validation

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***Abstract**: There appears to be virtual universal endorsement of the need for and value of acute "psychological first aid" (PFA) in the wake of trauma and disasters. In this paper, we describe the development of the curriculum for The Johns Hopkins RAPID – PFA model of psychological first aid. We employed an adaptation of the basic framework for the development of a clinical science as recommended by Millon which entailed: historical review, theoretical development, and content validation. The process of content validation of the RAPID – PFA curriculum entailed the assessment of attitudes (confidence in the application of PFA interventions, preparedness in the application of PFA); knowledge related to the application of immediate mental health interventions; and behavior (the ability to recognize clinical markers in the field as assessed via a videotape recognition exercise). Results of the content validation phase suggest the six-hour RAPID-PFA curriculum, initially based upon structural modeling analysis, can improve confidence in the application of PFA interventions, preparedness in the application of PFA, knowledge related to the application of immediate mental health interventions, and the ability to recognize clinical markers in the field as assessed via a videotape recognition exercise. . [International Journal of Emergency of Mental Health, 2012, 14(2), pp. 95-103]*

Key words: *disaster mental health; PFA; psychological first aid; crisis intervention*

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Historical Review as a Basis for the Current Model

The theoretical roots of psychological first aid emerged during the mid-20th century, when Thorne (1952) identified the potential to mitigate chronic adverse psychological sequelae through rapid recognition of and appropriate intervention for current acute psychological distress. To that end, Thorne's proposed interventions included reassurance

(regarding patients' fears and problems, at the heart of first aid efforts); suggestion (to deal with psychological symptoms in need of urgent attention); catharsis (involving reflection and clarification of feelings); and persuasion, advice, and other supportive methods (to deal with acute situational challenges beyond the patients' resources). In Thorne's view, mental health practitioners who did not recognize or address psychological distress in this way were "not functioning at the highest levels of professional competency…" (Thorne, 1952, p. 210).

In 1954, the American Psychiatric Association (APA, 1954) published the monograph Psychological First Aid in Community Disasters, that defined and argued for the all-hazards relevance of an acute mental health intervention referred to as "psychological first aid" (PFA) (APA, 1954). This early exposition noted that all disaster workers – not just mental health clinicians – need to be familiar with the unique patterns of psychological responses following disasters, whether naturally-occurring or "from enemy attack" (APA, 1954). Psychological first aid, according to this APA document, involved the ability to recognize the psychological reactions commonly encountered in crises and subsequent to disasters, including the ability to differentiate mild from severe reactions; it also entailed implementing tools for coping and stress management.

In "When Disaster Strikes," Beverly Raphael noted, "… in hours after a disaster, at least 25% of the population may be stunned and dazed, apathetic and wandering – suffering from the disaster syndrome – especially if impact has been sudden and totally devastating…At this point, psychological first aid and triage…are necessary…" (Raphael, 1986, p. 257)

More recently, the National Institute of Mental Health (2002) expanded upon these elements of psychological first aid to include effective risk communication techniques, and the Institute of Medicine (2003) has noted that psychological first aid "can provide a well-organized community task to increase skills, knowledge, and effectiveness in maximizing health and resiliency". In a post-disaster context, the Institute of Medicine (IOM) characterized psychological first aid as a skill for reducing cognitive distress and negative health behaviors through education on normal psychological responses to trauma; active listening skills; self-care through adequate sleep, rest, and nutrition; and an awareness of when to seek help from professional care providers (IOM, 2003). The U. S. Department of Health and Human Services (DHHS) (2004) subsequently compiled a list of "immediate mental health interventions" that includes psychological first aid.

The international community has recognized and adopted psychological first aid guidelines as well. The Inter-Agency Standing Committee (IASC) was established in 1992 in response to the United Nation's General Assembly Resolution 46/182. The resolution established the IASC as the primary mechanism for facilitating inter-agency decision-making in response to complex emergencies and natural disasters. In its guidelines for mental health response, the IASC (2007) specifically mentions PFA, noting that most people experiencing acute mental distress following exposure to extreme stress are "best supported without medication" and that "all aid workers, and especially health workers, should be able to provide very basic psychological first aid…" (p. 118).

The International Federation of Red Cross and Red Crescent Societies (2003), published its training manual Community-based Psychological Support, in which it described core elements of physical protection and psychological support, consistent with previously identified Maslovian formulations of psychological first aid as described above. Hobfoll et al (2007) distilled previous definitions of psychological first aid into five generic intervention principles/ goals: establishing a sense of safety; calm; instilling a sense of being able to solve problems for oneself or as part of a group (such as family, school, religious, or community group); establishing social support; and fostering hope.

Establishment of Core Disaster Mental Health Competencies

In 2000, the Centers for Disease Control and Prevention (CDC) and the Association of Schools of Public Health (ASPH) established the Centers for Public Health Preparedness (CPHP) to educate and train the public health workforce to prepare and respond to acts of domestic terrorism, as well as other disasters that might threaten the public health and welfare of the United States. To facilitate this developmental process, CDC and ASPH established content specific inter-CPHP committees referred to as "exemplar groups."

In 2004, CDC and ASPH directed CPHP network members to create the CPHP Mental Health and Psychosocial Preparedness Exemplar Group to address the mental health aspects of terrorism and mass disasters. One of the constituent recommendations of the CPHP Mental Health and Psychosocial Preparedness Exemplar Group for further development was to create a list of core disaster mental health competencies. The CPHP Mental Health and Psychosocial

Preparedness Exemplar Group was transitioned into the Disaster Mental Health Collaborative Group in 2006 and ultimately created a consensus document which consists of recommendations for core disaster mental health competencies (Everly, Beaton, Pfefferbaum & Parker, 2008). The relevant core competencies in disaster mental health consist of the ability to conduct crisis intervention(s) with disaster-affected individuals. These competencies include, but are not limited to, the following:

- Employ active / reflective listening skills.
- Identify medical needs identify basic human needs (e.g., food, clothing, shelter).
- Identify social and emotional needs.
- Determine level of functionality (e.g., the ability to care for self and others).
- Follow medical advice and safety orders.
- Recognize mild psychological and behavioral distress reactions and distinguish them from poten tially incapacitating reactions.
- Provide appropriate stress management, if indicated.
- Connect to available resources, e.g., food, shelter, medical, transportation, crisis intervention services, local counseling services, financial resources, and natural support systems such as family, friends, co-workers, and spiritual support.

Consistent with previous assessments by APA (1954), the authors believe that psychological first aid is an essential skill-set that should be taught to and implemented by all disaster responders, including those who have little or no formal mental health training. This inclusiveness is also congruent with the 2003 Institute of Medicine's assessments that "a broad spectrum of professional responders is necessary to meet [terrorism-related] psychological needs effectively" and that "those outside the mental health professions, who may regularly interface with the public, can contribute substantially to community healing…" (Institute of Medicine, 2003, pp. 4-5).

Foundations of The Johns Hopkins Model of Psychological First Aid

While relevant domestic and international authorities have recognized the importance and recommended the practice of psychological first aid, there currently exist few practical guidelines on how it may be implemented. At the Johns Hopkins Center for Public Health Preparedness (CPHP), we have sought to provide a practical structure by which psychological first aid (PFA) may be applied to those in need by non-mental health trained personnel. We define psychological first aid (PFA) as "a supportive and compassionate presence designed to reduce acute psychological distress and/or facilitate continued support, if necessary" (Everly & Flynn, 2006, p.96). From this perspective, PFA may be used in a wide variety of circumstances including the stressors of daily life, in family problems, in medical emergencies, in cases of loss and grief, as well as in mass disasters.

Identifying Theoretical Foundations of the Johns Hopkins PFA Model

The construction of an effective clinical science requires a firm theoretical base. While the aforementioned guidelines provided a foundation of "expert opinion" for the construction of a platform for PFA, we sought a theoretical grounding as well. In an effort to answer the question of how PFA should be instrumentally structured so as to yield the most effective clinical outcome, we reviewed seminal work in the area of human stress and stress management. The postulations of Selye (1956), the clinical formulations of Beck (1976), Lazarus and Folkman (1984), as well as the integrative work of Everly (1989), served as the theoretical underpinnings of the extant model. In the aggregate, these sources pointed to the essential, if not deterministic, role that cognitive process play in the initiation and prolongation of human stress.

Empirical Foundations of the Johns Hopkins PFA Model

Having identified the cognitive domain as the key, but not exclusive, theoretical variable in the phenomenon of human stress and subsequent distress, disease, and behavioral dysfunction, we sought empirical support for the formulation.

Smith and Everly (1990) utilized a standardized multiple regression analysis to identify direct (theoretically causal) relationships between environmental stressors, cognitive/affective variables, psychophysiological arousal, and physical illness at one year. This analysis was initially undertaken to test the cognitive primacy hypothesis with regard to the role of environmental stressors. A total of 4000 individuals were randomly selected from among 266,000 members of the American Institute of Certified Public Accountants (AICPA). Subjects were sent self-report inventories designed to assess

selected work-related stressors, cognitive/ affective states associated with distress, a checklist of psychophysiological symptoms, and a physical health inventory. The results of the regression analysis indicated that the best predictor of general illness at one year was acute psychophysiological arousal and dysfunction ($p < .001$). However, further results revealed that the only significant predictor of the psychophysiological arousal was cognitive index ($p < .001$). Of importance, these findings support the notion that the pathogenic effect of environmental stressors is mediated via cognitive, and subsequent affective, processes consistent with the aforementioned theoretical formulations. In doing so, they yield insight into the potential prescriptive target for crisis interventions in general, and acute psychological first aid interventions, specifically.

A subsequent structural modeling investigation by Smith, Everly, and Johns (1993) yielded data suggesting that the cognitive domain was the pivotal construct that acted as the mediating mechanism between antecedent job stressors and psychophysiological distress ($p < .05$). These results offer support for the theoretical mechanisms mentioned earlier, as well as the results of the previously cited regression analysis.

A final study by Smith, Davy, and Everly (2007) sought to expand the assessment of the predictive role of selected stressors and cognitive/ affective variables beyond physical health outcome to job-related outcome. This study employed 2,500 subjects randomly selected from 91,333 members of the AICPA (Smith et al., 2007). Subjects responded using self-report assessments of job-related stressors, cognitive/ affective indices of distress, burnout, job satisfaction, turnover intention, and work performance. Results of the structural modeling analysis revealed cognitive and subsequent affective variables as the best predictors (direct and indirect) of job-related outcome. This investigation, relevant to the theoretical mechanisms proposed earlier, is consistent with previous findings and suggests that interventions intending to mitigate stress-related problems should be targeted toward cognitive affective processes. These findings would seem to support the postulations of Lazarus and others who propose cognitively-based interventions are likely to be efficient and effective.

Curriculum Development for the Johns Hopkins PFA Model

Reviews of the theoretical postulations and empirical evidence yielded a body of rather consistent findings that served as a basis for PFA curriculum. We then integrated these findings with the recommendations of Thorne (1952), APA (1954), Raphael (1986), IOM (2003), and DHHS (2004) for the subsequent development of a training curriculum for the Johns Hopkins' RAPID – PFA. The integrative process yielded an overall training goal with eight learning objectives which serve as the foundation for the Johns Hopkins' RAPID – PFA model. Expectations for the training experience are set by the following statements:

This workshop is intended to train participants in the fundamentals of "psychological first aid." Psychological first aid (PFA) may be defined as a compassionate and supportive presence designed to mitigate acute distress and assess the need for continued mental health care (Everly & Flynn 2006). This course is designed specifically for personnel with little or no formal mental health training.

The eight training objectives are listed below.

- Participants will increase their understanding of, and ability to listen actively.
- Assess and prioritize basic human needs.
- Recognize benign, non-incapacitating psychologi cal/behavioral reactions.
- Recognize more severe, potentially incapacitating, reactions.
- Mitigate acute distress using selected cognitive behavioral crisis and stress management interven tions, as appropriate.
- Recognize when to facilitate access to further mental health support.
- Reduce the risk of adverse outcome associated with intervention.
- Practice self-care.

Core Elements of the RAPID – PFA Model

The distilled core elements were identified as follows.

- Reflective listening (Thorne, 1952; APA 1954; Raphael, 1986; IOM, 2003; IASC, 2007; Everly et al. 2008).
- Assessment of needs – start with basics consisting of binary screening for "evidence" of need for contact and further exploration into capacity for

adaptive functioning (APA, 1954; Raphael, 1986; IOM, 2003; DHHS, 2004).

- Prioritize attending to severe vs. mild reactions which serves as a dimensional (rather than binary) evaluation of factors that are likely to augment or deter a rapid recovery of, or a sustaining manifestation of, adaptive functioning. It necessarily focuses upon dimensions such as cognitive capacity, affective expression, social adaptability, interpersonal resources, and readiness for intervention. Brief assessment guides in the development of an acute intervention plan (Raphael, 1986; IOM, 2003; IASC, 2007; Everly et al. 2008).
- Intervention – Cognitive behavioral interventions designed to mitigate acute distress, as indicated (Thorne, 1952; APA 1954; IOM, 2003; DHHS, 2004; Everly et al. 2008; Smith, Everly and Johns, 1993; Smith, Davy, and Everly, 2007).
- Disposition: assist to regain function OR facilitate access for continued care (APA, 1954; Raphael, 1986; DHHS 2004; IASC, 2007; Everly et al. 2008).

Core Elements Delineated

The first element is reflective listening which entails listening for the details of the event, listening for the personal reactions experienced, paraphrasing the most salient points, and reflecting the expressed emotions as appropriate.

The second element consists of the assessment of need for Intervention which consists of screening as to the need for crisis intervention. Medical stabilization is the highest priority followed by meeting acute physical needs is important, reassurance of safety, as appropriate, followed by the essential assessment of one's ability to function (using a dynamic and relative "activities of daily living assessment").

The third element is to prioritize, that is, differentiate benign vs. malignant reactions. This refers to the more granular assessment of reactions that are indicative of acute, transitory distress vs. reactions that are acutely disabling and/or predictive of chronic impairment. To summarize the assessment and prioritization elements, screening, assessment and prioritization are inter-related activities designed to inform and guide subsequent intervention, as indicated. Screening attempts to answer the binary (yes-no) query as to whether there is sufficient "evidence" to warrant further contact and exploration into a person's capacity for adaptive mental and behavioral functioning. Brief assessment is a dimensional (rather than binary) evaluation of factors that are likely to facilitate or impede a rapid recovery of, or a sustaining manifestation of, adaptive functioning. It necessarily focuses upon dimensions such as cognitive capacity, affective expression, social adaptability, interpersonal resources, and readiness for intervention. Brief assessment leads to a functional prioritization that serves to guide in the development of an acute intervention plan.

The forth element is Intervention. Cognitive-behavioral interventions seem highly indicated herein. Educational and explanatory models such as Cannon's "Fight – Flight" (Cannon, 1932), or anticipatory guidance can serve as useful anxiolytics (Everly & Lating, 2002). Acute Cognitive/ Behavioral Refocusing/ Re-orienting can serve as a useful form of distraction designed to prevent amplification of symptoms. Deep Breathing/ Relaxation techniques have been shown to reduce acute distress (Everly & Lating, 2002). Cognitive Reframing techniques would be predicted to be the most powerful crisis intervention techniques due to the pivotal causal role the cognitive/ affective domain plays in the human stress process as structural equation modeling has demonstrated. The instillation of a future orientation and hope seem imperatives. For those whose crisis reactions are characterized by impulsivity the tactic to delay making any life–altering decisions/changes seems prudent as the passage of time usually exerts an anxiolytic effect.

The final element of the RAPID PFA model is disposition. A final determination as to whether or not the individual can adequately function using the relative ADL scale, is performed. If the person cannot discharge the necessary life functions, the interventionist must serve as an advocate/ liaison for further support accessing resources such as friends, family, community, or workplace resources (Everly & Mitchell, 2008).

Field Testing and Content Validation of the Curriculum

Subjects

To date, the RAPID PFA course has been taught to more than 1000 individuals. Trainings have been conducted in Maryland, the District of Columbia, Ohio, Texas, New York, and California. Subjects for the validation were selected from these training initiatives so as to include the last 252 subjects from whom data were solicited for purposes of content

validation. These data were generated as part of the course evaluation process maintaining respondent anonymity.

METHOD

The effort to provide initial content validation of the RAPID – PFA curriculum entailed the assessment of attitudes (confidence in the application of PFA interventions and preparedness in the application of PFA assessed using two 7-item self-report surveys), knowledge related to the application of immediate mental health interventions (using a 10-item knowledge assessment), and behavior (the ability to recognize clinical markers in the field as assessed via a videotape recognition exercise). Subjects were drawn from PFA training programs conducted in Maryland, Ohio, and the District of Columbia.

RESULTS

Table 1 reports the assessment of internal consistency for the self-reported attitudes of confidence and preparedness to deliver RAPID-PFA as measured on post-test for subjects. Results indicate coefficient alphas measurement of internal inter-item consistency in the high range, as 0.7 is generally regarded as acceptable.

Table 2 reports the results of training on the self-reported domains of confidence, perception of preparedness, and knowledge associated with acute mental health crisis and intervention. Group data are reported.

Results of pre-test/post-test assessments of the training sessions on self-reported domains of confidence in the provision of PFA, preparedness for the provision of PFA, and basic knowledge associated with acute mental health intervention indicate improvement in all domains on post test assessment.

Table 3 reports the results of the training for the recognition of key clinical markers. This analysis contrasted 107 PFA trainees with 18 master's degree and doctoral students in clinical psychology who responded as part of a skill evaluation within the context of the ongoing academic class. Group data are reported.

Results of training sessions for recognition task indicate that the PFA-trained individuals were able to recognize key clinical markers of acute distress with greater accuracy than the mental health-trained respondents in the comparison condition.

DISCUSSION

PFA has received consensual endorsement from the World Health Organization (WHO, 2003), the Institute of Medicine (IOM, 2003), and the National Institute of Mental Health (NIMH, 2002). This is a rather remarkable set of endorsements given the absence of well-controlled empirical evidence attesting to either curricular content validation or clinical efficacy. This paper represents an initial effort to remedy this problem, as it reports on the content validation of a six-hour Johns Hopkins RAPID-PFA curriculum for psychological first aid designed for individuals with little or no formal clinical mental health training.

The development process was adapted from Millon's (1987) recommendations for the development of a clinical science and consisted of historical review, theoretical development, and content validation. The basic curriculum was developed on the basis of a historical review, theoretical development, and subsequent empirical validation of the theory using regression and structural modeling approaches.

The subsequent content validation of the curriculum consisted of surveys designed to assess attitudes (confidence

Table 1.
Results of assessment of internal consistency for self-reported attitudes.

Variable	N	# items	Cronbach Alpha on Post Test
Confidence	232-238	7	.95
Posttest	233-239	7	.96

**items ranges are reported as not all respondents completed all items*

Table 2.
Effects of training on confidence, perceptions of preparedness, and knowledge.

Variable		N	Mean	StdD	t-value	Effect Size
Confid	pre	252	2.79	.76	6.0519*	.546
	post	239	2.38	.74		
Prep	pre	251	2.90	.77	6.8974*	.623
	post	239	2.42	.77		
Know	pre	258	6.25	2.08	5.7700*	.514
	post	241	7.53	2.84		

**Note: Confidence and preparation were reverse scored so that lower scores indicate greater confidence and preparedness. Maximum score 1, minimum score 6. Knowledge scores indicate the number correct out of 10. * All p values significant <.0001*

Table 3.
Results of training sessions for recognition task.

Variable		N	Mean	StdD	t-value	Effect Size
Recogn	PFA Group	107	11.12	1.58		
	Psyc Control	18	10.22	1.06	2.32*	.67

**p value = .027*

in the application of PFA interventions, preparedness in the application of PFA), knowledge related to the application of immediate mental health interventions, and behavior (the ability to recognize clinical markers in the field as assessed via a videotape recognition exercise).

In all measured outcomes, the PFA training was associated with improved attitudes, knowledge, and behavior. These outcomes would appear to serve as initial evidence of the content validity of the curriculum. This finding is consistent with the finding of Stapleton, Lating, Kirkhart, and Everly (2006) and would argue for the provision of PFA training to all those who will play a supportive presence in the wake of trauma and disaster. We would further argue that serious consideration should be paid to providing PFA training to all those who would receive physical first aid training.

Conclusion

There seems not only a general recognition of the fact that disasters may adversely affect numerous survivors, but a sense of urgency to implement mental health interventions designed to reduce psychological morbidity. The challenge has been to choose the best interventions for the target population at the most appropriate time in the trajectory of any given trauma or disaster (Everly & Mitchell, 2008). The manner in which this is best achieved remains a hotly debated issue, however (Everly & Mitchell, 2008). A corollary issue has been the training of interventionists. It seems clear that regardless of the interventions that are ultimately employed, there will be a paucity of appropriately trained mental health clinicians available to implement said interventions. These

issues have given rise to a virtual universal endorsement of psychological first aid (PFA). Psychological first aid (PFA) represents a set of basic psychological interventions designed to assess rudimentary needs, mitigate acute distress, and serve as a platform for continued access to mental health services if indicated. PFA may be best thought of as the psychological analogue to physical first aid.

Although speculative, it seems reasonable to assume that the number of psychological casualties will far surpass the number of physical casualties subsequent to any trauma or disaster. This is especially true if the event is human-made. From a public health perspective the challenges are at least two-fold: how to seamlessly integrate mental health services with physical health services and how to ensure that there will be an adequate supply of providers of psychological support services. The answer appears to reside in the development and implementation of an evidence-based system for the provision of psychological support services that can be taught quickly and effectively to a cadre of non-mental health clinicians who will have the greatest penetration into and saturation of the target population post-disaster. The data generated by the PFA curriculum described above would appear to be a step toward meeting that public health need.

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Reciprocal Peer Support (RPS): A Decade of Not So Random Acts of Kindness

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***Abstract**: A model entitled "Reciprocal Peer Support" (RPS) is introduced in this article to describe the peer support activity provided at University Behavioral HealthCare – University of Medicine and Dentistry of New Jersey (UMDNJ) in a variety of peer programs. More than 10 years of peer support have been developed, reviewed, and assessed by this writer in an attempt to clarify the "lessons learned" and encourage RPS as an effective approach to peer support service in the future. The Cop 2 Cop , NJ Vet 2 Vet, and several other UBHC peer support programs, which conform to "best practices" criteria, have been sustained and expanded based on the RSP principles discussed in this article. [International Journal of Emergency Mental Health, 2012, 14(2, pp. 105-110)]*

Key words: *Reciprocal Peer Support , RPS, peer support, crisis intervention*

In January 2011 the Department of Defense Centers of Excellence (DCOE) published a white paper entitled "Best Practices Identified for Peer Support Programs" to explore options for the military to develop peer support programs as a tool to combat the rise in military suicides. To summarize their initial findings, successful peer to peer programs have five elements for success. They include adequate planning and preparation, clearly articulated policies, systematic screening and defined selection criteria for peer supporters, leveraged benefits from "peer" status, and continued learning through structured training. Building on the research options for actionable items, peer support can address combat and operational stress, suicide prevention, and recovery-related issues. According to the DCOE, Heisler (2006) and the Department of Health and Human services (DHHS, 2007), peer support can offer the following benefits; foster social networking, improve quality of life, promote wellness, improve coping skills, support acceptance of illness/situation, improve compliance, reduce concerns, and increase satisfaction with health status. In addition, the DCOE paper suggests that confidentiality, easy access, and the capacity to follow the peer to peer support for an extended time period are components of the best practice in peer support.

At University Behavioral HealthCare we have provided more than a decade of peer support through the Cop 2 Cop program, NJEA Aid, WTC-RSVP, 4PA COPS, Fire/Ems Lifeline, FEMA SLEF, NJ First, NJ 9/11, and Mom 2 Mom programs. Our UBHC Access Center has sophisticated automated call distribution capacity and an integrated patient

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management system utilized by clinical staff for a variety of 800 numbers as a single point of entry for service to those in need of behavioral healthcare support. The unique depth of the access center, combined with the academic excellence and service provision that is available, have provided a strong foundation on which to build the UBHC Peer Support programs. In addition, UBHC historically has employed mental health peer specialists, the more traditional peers offered through the mental health systems across the country, for consumers of mental health and substance abuse services. Given this "perfect storm" of clinical, technical, and academic support, combined with an historical culture in New Jersey and at UBHC that values peer support, a peer support best practice was inevitable.

The peer support services created through the UBHC programs include all of the elements identified in the DCOE document, including those suggestions for a "model" program for the future. Easy access, confidentiality, structured work practices, training, and selection of peers are the foundations of the success of these peer support programs. In addition, this writer believes that the two most profound components for the success of a peer support program that are absent from the extensive DCOE review are 1) the need to utilize peer support/clinician partnerships in peer programs throughout the process, and 2) the provision of resilience sustainability for peers through events and activities for peer advocacy, including both the peer staff and the peer population being served.

The Reciprocal Peer Support (RPS) model

The decade of service in peer support programs at University Behavioral HealthCare have provided the framework for a concept that is entitled "Reciprocal Peer Support" (RPS). The overarching themes and tasks associated with RPS are simply described in four tasks: Connection and pure presence; Information gathering and risk assessment; Case management and goal setting; and Resilience affirmation and praise.

Task One – Connection

A *pure presence* is at the heart of the engagement and is necessary for successful peer support. In RPS, the peer supporter is trained and prepared to engage the client without judgment, avoiding preaching or directing, to cope with the moments of shared suffering and pain, and to simultaneously be aware from the initial contact that assessment for suicidal risk is an integral role in this process. The peer supporter must be ready to facilitate access to a higher level of care by having access and liaison connectivity with an appropriately trained behavioral healthcare professional as his or her partner to ensure clarity of the RPS system. This peer/clinician partnership is carried throughout RPS but impacts the initial task of connection by ensuring that all presenting problems can be offered the most appropriate care and support.

RPS requires full confidentiality less the guidelines and laws involving suicidal, homicidal, and physically abusive situations. From the RPS perspective, a peer must be a retiree, a veteran, someone who is not actively within the peer group but in a retired or inactive status to ensure the initial connection is free of concerns regarding repercussions to the person in need. The quality of the connection is largely dependent upon the many skills RPS instructs peer supporters to utilize, such as empathy, active listening skills, direct and indirect communication. When an initial contact is of a crisis nature, the intimacy created by the sense of vulnerability of all involved expedites the connection of both the peer in need and peer supporter in RPS, or if handled poorly impedes the connection, perhaps forever. First responders and military service members describe that when surviving a life threatening experience or critical incident they experience a closeness and bonding that is profound. When the initial task of connection in RPS involves acute situations involving suicidal or homicidal risk, many of the same techniques are utilized but they are amplified. If the outcome is positive, most peer supporters in RPS will describe an intense connection established from "surviving the crisis together" that is maintained over a significant period of time post crisis. When encountering resistance, it is important for the peer supporter to be insightful and "manage" the feelings of frustration so they do not interfere with the helping process. Peer supporters in RPS are directed to recognize a resistant peer at the initial contact, as well as to recognize their own frustrations and need to help in the RPS relationship. We reference a focus in the connection phase on truly "hearing" the voice of the peer in need and maintaining a focus on serving that need as a primary tool to connection. If a peer supporter fails to establish the connection of a pure presence with the peer in need the outcome will often result in premature termination of the contact and therefore the helping relationship. In supervision, RPS peer supporters are challenged to explore why the connection was not made. It often involves a contamination of judgment or personal experiences of the peer supporter

that impeded the process. Part of the need for ongoing self assessment in RPS is to ensure that the peer is aware of his or her vulnerabilities and strengths in the beginning of the RPS process, and at all times to ensure that connections are successful. Not all peer supporters can connect with all peers in need. Acknowledging and accepting the experiences we all bring to peer support work in RPS and being guided to focus on peers' most appropriate for our shared life experience sets the stage for effective intervention. RPS tries to match peers most effectively based upon shared experiences. For example, although a police peer may be helpful to a corrections peer, a corrections officer matched with a corrections officer may be more effective at establishing the initial helping relationship. Or, a marine matched with a marine versus any other military peer expedites the connection. Another aspect of effective matching might be shared life experience, rather than profession. Shared experiences such as trauma, self-medication, aggressiveness, etc. can serve as an effective secondary matching criterion. It is essential, however, that the peer supporter's experience is in the past, treated and resolved. If he or she struggles in relapse or life changes it is an important component of self awareness to notify the RPS team to adjust peer "matches."

Task Two - Information Gathering and Risk Assessment

Specific training with clinical partners and supervisors, as well as technical support, can drive the effectiveness of this task. In RPS the information-gathering consists of inquiring into the presenting problem (the "story" of circumstances and reactions), as well as the history of a peer in need. This history includes behavioral, medical, family, and work history in a non scripted series of questions. Law enforcement officers are the most proficient as a sub-group of peers at this phase, likely due to their interviewing and interrogation skills. Our computer program, which collects peer information, has what we call "mandatory" fields so that a peer supporter must collect certain data to move to the next screen in completing documentation about a peer contact. Our face to face peer services follow a standardized training through the International Critical Incident Stress Foundation (ICISF) and our outreach and access training utilizes materials and forms that direct information which should be collected in every setting for RPS.

Crisis and suicide assessment are infused into every aspect of task two in RPS as part of the recognition of the risk amongst the groups using peer support. Although the information gathering is an in-depth process, the awareness of weapons accessibility and suicide risk are components of information to ensure a safe environment that must be discreetly integrated into all information gathering. The information gathering phase, similar to the connection phase in RPS, is not a singular contact and may require several contacts utilizing the same guidelines and assessment because peers present differently at different times. Therefore information and assessment may often be in flux or have changed.

RPS occurs in a variety of venues. Each venue has adapted a protocol or standardized approach to the assessment component of the assessment piece of this phase. For example, the American Association of Suicidology endorses the "crisis call model and lethality assessment" for their accredited help lines. Therefore we have adapted that model in RPS for peer support work for an assessment tool. In face to face peer support work, assessment is often needed in crisis intervention services. RPS utilizes the SAFER-R model of individual crisis intervention as developed by Everly (Mitchell & Everly, 1994; Everly, 1996) and endorsed by the International Critical Incident Stress Foundation.

It is a legitimate concern, when training peers and mental health professionals to provide RPS, that if a traditional more formal information gathering or assessment process occurs, one can quickly jeopardize the connection in task one and in turn impede the RPS process. A conversational style and more informal questioning for both information and assessment purposes are needed unless a peer is reporting behaviors that would indicate serious risk. RPS encourages peers in those acute moments to build on the connection and peer relationship to extract genuine experience and accurate information to ensure a peer is provided all service necessary to ensure safety.

In RPS we utilize homogenous peer supporter groups because they have appeared to be more effective than heterogeneous groups, based on the effectiveness reports of the peer supporters themselves.

This prompted the guideline for RPS that programs not be integrated with a mix of peer cultures but instead be solely devoted to one peer culture. Cops are peer supporters for cops, vets are peer supporter for vets, fire for fire, etc. This leads us into the next phase.

Task Three - Case Management and Goal Setting

Task Three flows naturally as the relationship between

peer supporter and distressed peer builds. Once a peer supporter has completed the first two tasks, he or she is capable of identifying whether or not he or she is a good "match" for the ongoing peer support and case management for the peer in need. In RPS, peer supervisors and mental health partners review peer cases to ensure that task three is provided in a thoughtful manner, matching the peer supporter to the peer in need, based on variables such as branch of service, behavioral healthcare issue, and engagement from initial contact, as well as other possible factors.

Task three in RPS is often presented as the first item a peer in need requires. However, if information and referral was all he or she needed, a peer would most likely not be reaching out to a peer support service. Today's web based referral options and access to information are so prevalent that, although most peers in high risk populations will present as their primary and only need being of a case management nature, he or she will be receptive to peer support on an ongoing basis based on their level of care, initial contact, and quality of referral provided. In task three, the case management is offered not just through a list of names and numbers but, more importantly, as part of a solution-oriented approach to the peer that he or she is not alone and help is viable. Multiple contacts from the peer supporter throughout the peer support process for regular contact are a key unique variable to the model. In particular, the follow up and efficacy of the case management can be experienced as a peer supporter truly "caring" or just doing his or her job.

As the case management is offered, whether it be behavioral healthcare treatment, housing, financial, or family oriented, the credibility of the peer supporter is once again at risk as the positive or negative experiences with the referrals and services offered through the case management are attributed to the peer supporter despite the fact that the services are all separate entities. A peer in need will rationalize that the peer supporter is genuine if services offered in case management go well or is a phony and not truly interested in helping if the case management referrals go badly. Both experiences in RPS have confirmed an approach in which we prepare before hand with case management referrals and services by "vetting" them ourselves through direct contact with providers, visiting sites, and outcome measures, in an attempt to only provide credible resources. This is, however, often difficult to ensure.

The other approach in RPS' task three is to reiterate and emphasize the capacity for change and continuity in this phase. If a referral or service offered is not ideal, RPS ensures that the peer supporter will try again, with other resources and maintain contact with the peer in need throughout. The sense that the peer supporter and peer are pursuing solutions "together" is a key to the approach in RPS. Provider annual trainings, credentialing processes, customer satisfaction surveys, are all tools that have been utilized in RPS to attempt to maintain credible resources.

Task Four - Resilience Affirmation, Praise and Advocacy

This task is often the most rewarding component for the peer supporter, based on their own accounts of their experience. When self care is emphasized for all peer supporters and behavioral healthcare professionals in the peer support model it fosters an environment of openness needed for genuine peer support work. A consistent encouragement of peer supporters' resilience as a group, working as a team in RPS, allows peers to model the importance of recognizing resilience. From the onset of the RPS programs developed at UBHC, monthly, if not quarterly, some form of recognition, award, or advocacy occurred within the peer support group. For example, Cop 2 Cop advocates have walked for years in the American Foundation for Suicide Prevention suicide survivor walk and other events to memorialize officers lost to suicide as part of the mission and group cohesion. Media have reported the successes of NJ Vet 2 Vet. This prompted an opportunity to advocate for soldiers by volunteering to be present at dozens of "Welcome Home" events. Mom 2 Mom has created a visual arts project to utilize as an advocacy tool, entitled "Breathless: Mothers of Special needs children." The peer supporters attend museums when it is shown across the country, putting a voice to the people served. Many of our RPS programs related to the events of 9/11, including memorial events or ceremonies where strength and resilience were the focus. These activities must be offered regularly to the peer supporters in the RPS model to effectively affirm resilience, translating that experience to the peers in need.

In addition, providing training through RPS within the communities served in a particular peer program is another form of the resilience affirmation. Information is a powerful tool for many treatment resistant populations. Stigma is an impediment to this phase and in the details of the peer support relationship it may be an awkward transition for a peer supporter to affirm a peer in need openly. He or she may be worried they may sound condescending or insensitive by

affirming resilience and offering praise. The reports of the peer supporters is that often there are cues from the peer in need that he or she is ready for phase four. Perhaps a peer may say something such as, "I can't believe how much has happened since I first spoke to you." This can be an opening for resilience affirmation and praise. RPS suggests this phase feels like the summary of a term paper or last paragraph of a chapter. Summarizing in a warm and supportive manner with specific references to the resilience witnessed and positive actions taken and achieved is the beginning of this phase and the end of the RPS experience.

Many peers who have accessed RPS will confidently return for additional support over time. Our returning peer clients have reported a confidence and capacity for the RPS experience when they re enter the service. Some peers' RPS experience will reflect more of a crisis intervention and they will not repeat the process. Whether the RPS experience is part of a continuum or a single episode of support, the RPS tasks do not unfold in numeric order. RPS peer supporters are trained to utilize these tasks in order, even when they repeat the phases. The RPS peers are encouraged to remain "client focused" with the populations they serve. Many variables may impact the integrity of the RPS tasks. The RPS tasks remain essential but can be affected by clients' needs and elements such as life events, time, resistance, and staffing changes, all of which can be factors in peers' vacillation through the tasks of RPS.

Most important is the peer supporter's recognition that the fluctuation and attempt to regain the order of activity to allow for the relationship to flow and service to be as effective as possible. RPS allows for these tasks to be cyclical and part of a continuum that is not encumbered by a proscribed number of sessions or period of time. RPS has been offered in an outreach approach wherein our peer supporters will make three to five contacts for every initial contact they receive. It is our constant outreach and sustained contact that supports the RPS model.

Overall the themes most prevalent in RPS are as follows. Peer/Clinician partnership is essential not only for RPS service but throughout the program structure because both peer support and behavioral healthcare must be valued by all in order to establish one unified approach, modeling the concept in all applications. RPS requires a single point of access/contact to begin and can be offered through peer telephone help lines, face to face individual and group peer support, crisis intervention services, prevention and training, and advocacy for peer groups targeted for RPS. Self Care is emphasized with opportunities for assistance encouraged within the peer support team and managed through resilience building activity and advocacy. RPS is an open ended process that is a continuum. It is most effective with groups who have been exposed to trauma and are at risk for suicide and are seen as a "vulnerable population."

In RPS the staffing patterns and structure are best developed with a process in which a peer supporter can first be recruited and serve as a volunteer or in some provisional status for a period of six months ideally because RPS requires unique skills. Those peers who are not capable of providing the RPS services directly can remain volunteers and be utilized to support the outreach and advocacy as part of the RPS program. Those that thrive are employed and partnered with clinicians, then trained and monitored as employees. Supervision and leadership must reflect the peer supporter/clinician approach at the core of RPS, to avoid dividing the peer supporter/clinician team and to encourage both components of the RPS model.

The RPS training curriculum is a composite of models from national organizations such as American Association of Suicidology, International Critical Incident Stress Foundation, and mental Health America, and broadly resembles the peer support competencies reflected in the DCOE white paper (2011) with some adaptations. The knowledge domains for the RPS Peer Support Curriculum include seven categories; cultural competence (not just in diversity but of the peer culture i.e.; police, military etc.), communication skills, managing crisis and emergency situations, peer support principals, recovery/resilience tools, understanding different illnesses & stigma, and self care. The RPS Peer Support Curriculum domain supports specific skills within the domain areas that may be adapted based on the peer support population and the service delivery system in which the peer support is offered.

Summary

The most significant lesson learned from RPS Peer Support Training is that all trainers/professionals providing the training ideally should be peers and mental health professionals to ensure the peer/clinician model is emphasized throughout the RPS process. All RPS training activity is provided in a variety of modules, initial and annual training, individual and group training, and peer support service specific training, so that training is an ongoing process at the UBHC Peer programs.

At UBHC, we have established 10 peer support programs utilizing the RPS model and employed more than 50 peer per diem staff members and dozens of peer/clinicians over the last decade. The outcomes of these programs appear to have offered healing, support, and solidarity for high risk groups in need of an additional option to traditional behavioral healthcare services. As the program director of many of these services, I have witnessed life changing moments for both the peer supporters and the peers in need. Reciprocal Peer Support has been developed initially in response to suicides and mass disasters, yet over time it has been based on the data from the peers in need and the peer supporters who have all contributed to the model. Most significantly has been recognizing the moment in time when a peer supporter says to another peer in need "I have been where you are and I am with you now" as a powerful experience and a not so random act of kindness.

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Community Capacity-Building in Disaster Mental Health Resilience: A Pilot Study of an Academic/Faith Partnership Model

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Abstract*: We describe an academic/faith partnership approach for enhancing the capacity of communities to resist or rebound from the impact of terrorism and other mass casualty events. Representatives of several academic health centers (AHCs) collaborated with leaders of urban Christian-, Jewish-, and Muslim faith-based organizations (FBOs) to design, deliver, and preliminarily evaluate a train-the-trainer approach to enhancing individual competencies in the provision of psychological first aid and in disaster planning for their respective communities.*

Evidence of partner commitment to, and full participation in, project implementation responsibilities confirmed the feasibility of the overall AHC/FBO collaborative model, and individual post-training, self-report data on perceived effectiveness of the program indicated that the majority of community trainees evaluated the interventions as having significantly increased their: a) knowledge of disaster mental health concepts; b) skills (self-efficacy) as providers of psychological first aid and bereavement support services, and c) (with somewhat less confidence because of module brevity) capabilities of leading disaster preparedness planning efforts within their communities. Notwithstanding the limitations of such early-phase research in ensuring internal and external validity of the interventions, the findings, particularly when combined with those of earlier and subsequent work, support the rationale for continuing to refine this participatory approach to fostering community disaster mental health resilience, and to promoting the translational impact of the model. An especially important (recent) example of the latter is the formal recognition by local and state health departments of program-trained lay volunteers as a vital resource in the continuum of government assets for public health emergency preparedness planning and response. [International Journal of Emergency Mental Health, 2012, 14(2), pp. 112-122]

Key words*: community disaster planning; participatory research; psychological first aid; train-the-trainer*

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The psychological resilience of humankind in the face of disasters and other public health emergencies is well known (Shalev, 2002; Bonnano, 2004; Flynn, 2008). While the capacity of individuals and communities to rebound from disaster-provoked distress and dysfunction can be considered more an expectation than an exception, there are sub-groups of individuals within every community that are relatively more at-risk for acute, protracted, and/or chronic manifestations of psychological morbidity following traumatic events (North et al., 1999; Galea et al., 2002; Schlenger et al., 2002). Prominent among the empirically-supported risk factors for poor psychosocial resilience and posttraumatic stress disorder are female gender, chronic disease, recent and past life stressors, suddenly-diminished income, and perceived (lack of) social support (Bonanno et al., 2007). Individuals with pre-incident mental disorders appear particularly vulnerable to the development of serious post-disaster psychiatric sequelae, including suicide (Kar, 2010; Kessler et al., 2008), and such individuals may incur significant delays receiving needed professional services during the post-disaster recovery stage. For example, only a minority (32%) of Hurricane Katrina survivors with pre-incident and/or incident-precipitating mood and anxiety disorders received any mental health services from 5-7 months following the storm (Wang et al., 2007).

Recognizing the importance of meeting the immediate and mid-term psychosocial needs of disaster survivors around the globe, an international panel of experts has recommended that "professional level" interventionists be in place to respond to the surges in demand for such supportive resources (Hobfoll et al., 2007). While we enthusiastically endorse the ideal of having the best resources available for disaster survivors, we are not optimistic about the likelihood of ever having adequate numbers of professionals with specialized individual- and community disaster mental health expertise to meet the needs of communities when disasters occur throughout the world (a reality seemingly acknowledged by the authors, as well). Disasters, by definition, overwhelm extant service capacities and, because they precipitate the same distress and dysfunction observed with lay persons, can undermine the willingness of many health care workers to report to work and/or carry out their professional responsibilities during various disaster scenarios (Quershi et al., 2005; Balicer et al., 2006; Balicer et al., 2006; Barnett et al., 2009).

Addressing the Challenge

A supply-side option for addressing this challenge is to train lay persons to meet the psychosocial needs of traumatized persons who may not have immediate access to professional helpers. The therapeutic power of non-specific/relational influences versus specific/technical factors is long established (eg, Frank, 1973; Beutler, 1986), particularly when such generic helping influences are augmented with training in empirically-supported facilitative skills (Matarazzo & Patterson, 1986). However, the process of connecting community members with the expertise to operationalize this mental health "extender" approach though formal training in disaster mental health competencies can be a difficult outreach task. A bridging agent is needed to connect members of the community and professionals with disaster mental health expertise, many of whom are employed in academic and clinical health centers. We believe that an ideal linking agent for the inhabitants of these two disparate cultures should meet the following criteria: 1) is, or can be, in regular contact with a given community (defined here as any group of persons who have a shared purpose, interest, or value system that has a cohering affect on the group, whether or not they are in geographical proximity); 2) has leadership that is considered trustworthy (cf, 'thought-leaders' or 'opinion-leaders'); and c) is capable of mobilizing its members in support of a common cause (and, preferably, has a recent history of doing so). Of the prospective entities that meet these criteria, we think first of faith-based organizations (FBOs), including their clergy leadership and active laity.

Faith Communities in Disasters

Traditionally, the services and resources that FBOs provide in the wake of disasters and other public health crises include environmental clean-up, shelter, food, clothing, and spiritual support. However, faith-based caregivers are not always optimally prepared to administer crisis-intervention services to survivors, particularly when faced with profound trauma and grief. Moreover, their disaster responses typically occur outside the context of a formal, organizational disaster

response plan, and their activities typically unfold without formal integration with local, state, or federal emergency operations (Koenig, 2006).

The John Hopkins Research Program in Participatory Disaster Mental Health Preparedness

Recognizing the valuable role that FBO members can serve as disaster responders, but assuming formal training in one-on-one psychological first aid training would enhance competencies, we initiated an academic/faith, disaster mental health study-series in 2005. Our first project focused on predominantly Christian African-American and Hispanic communities residing in the immediate vicinity of the Johns Hopkins Hospital in Baltimore, Maryland. Faculty and administrators of several academic health centers (AHCs) and leaders of FBOs jointly developed and delivered a one-day training curriculum integrating psychological first aid strategies and disaster-related spiritual values, culminating in a "therapeutic spirituality" approach to disaster ministry. Objective outcome data on 500 respondents participating in 9 separate congregational trainings provided support for the feasibility and effectiveness of the model (McCabe et al., 2008a,b,c). Post-project comments offered by numerous trainees highlighted two areas of concern: first, about not having disaster preparedness plans for their respective communities (and not having the know-how to create them); second, despite their recent psychological first aid training, being ineligible for official membership in the state Medical Reserve Corps, known as the Maryland Professional Volunteer Corps (MPVC). MPVC policy at the time was to offer membership only to health care professionals recognized by their respective state licensing boards. These community concerns galvanized efforts to implement the project to be described.

The Project: Objectives and Specific Aims

We sought to build on the inaugural work with Christian communities by extending PFA training to other Christian communities and to non-Christian FBOs, viz, Jewish and Muslim organizations, and by expanding the curriculum to include training content specific to community disaster planning. Seeking to build capacity through a train-the-trainer approach, we designed a pilot project to study this community empowerment approach to preparing for, and responding to, disaster-caused mental and behavioral health surge. We focused on aims related to model feasibility, perceived effectiveness, and foundational steps to increase the likelihood of prospective translational impact; specifically, we sought to answer the following questions:

- Feasibility: Will leaders of Christian, Jewish, and Muslim faiths be ready, willing, and able to col laborate with an AHC, and with each other, in developing a train-the-trainer program to enhance capacity-building in disaster mental health prepared ness in their respective communities?
- Perceived Effectiveness: Will the majority of FBO and community participants favorably evaluate the training in psychological first aid and community disaster planning (as delivered by the trained-trainers)?
- Prospective Translational Impact: Can a founda tional infrastructure be established to facilitate the prospective activation and deployment of trained volunteers as a supplement to, or within the frame work of, the MPVC of the state of Maryland?

METHODS

Participants

Academic Partners

The primary academic partners were faculty members and key administrators within the Johns Hopkins Bloomberg School of Public Health, School of Medicine, and Health System. A collaborating academic institution was the University of Maryland School of Medicine (Department of Psychiatry and Behavioral Sciences).

The Project: Objectives and Specific Aims

Lead faith-based and community partners were:

- Clergy United for Renewal in East Baltimore (CURE), an ecumenical organization of clergy with a long history of collaboration with Johns Hopkins focusing on community health promotion; the In stitute for Mental Health Ministry, Inc, whose mission is to assist mental health agencies and providers in incorporating spiritually sensitive as sessment and treatment approaches; the The Archdi ocese of Baltimore-Office of Hispanic Ministry, a central hub for the delivery of health and social

services to a population often disenfranchised by language barriers, socio-economic hardship, and cultural differences.

- Center for Jewish Education (CJE), a communal agency dedicated to fostering, supporting, and facilitating formal and informal Jewish education programs in the Baltimore metropolitan area.
- Masjid El-Haqq, the largest organization in Bal timore City providing religious and social support to its Muslim members.

Leaders of these partnership groups received training by AHC faculty in the psychological first aid and community disaster planning interventions, and subsequently designated one or two persons from the trainee groups to conduct community trainings. Prospective trainees were then recruited from their active congregations, membership rosters, and communities using a range of approaches including telephone calls, newspaper ads, announcements at worship services, brochure mailings, and person-to-person networking.

Project Management Structures and Activities

The managerial responsibilities of the project were conducted in two meeting forums, a partnership steering committee and three curriculum design workgroups. Members of the former were leaders of the above-named organizations who met monthly, engaging in project planning, implementation, and evaluation activities. Members of the latter were appointed by their FBO leaders to develop a 2-day, culturally-competent training curriculum that integrated: a) faith-specific content (eg, photos of houses of worship, religious images, relevant scripture) into a PPT slide training program and a Disaster Tool Kit; and b) AHC-developed disaster mental health content to be transmitted in 4 training modules.

The Training Interventions

Psychological First Aid (PFA) and Community Disaster Planning (CDP)

The core training program was comprised of four ½-day modules, three in PFA and one in CDP as follows:

Module 1: PFA: Introduction to Disaster Mental Health and Crisis Communications

- Mental Health Surge, Fear, and Psychological Contagion
- Screening, Triage, and Referral
- Principles of Crisis Communication with Groups

Module 2: PFA: Core Principles and Practices

- Stress Reactions and Stress Management Techniques
- Applying Psychological First Aid
- Recognizing Potentially Harmful Behaviors of Would-Be Helpers
- Principles and Practices of Self Care

Module 3: PFA: Managing Grief and Bereavement

- The Concept of Natural Grief and Bereavement
- Socio-Cultural Impacts On Human Grief
- Responding To Grief Reactions

Module 4: CDP: Community Disaster Planning (CDP)

- Introduction to Community Disaster Planning
- Command and Control Leadership Roles
- Managing All-Hazards Scenarios

Procedures and Schedule of Implementation

The project was implemented in 10 steps over a span of approximately 5 months. The order in which the activities occurred was as follows:

- Outreach (by AHC) to Leaders of Christian, Jewish, and Muslim FBOs
- Formalization of FBO Partnership Commitments
- Establishment of the Partnership Steering Committee
- Creation of Faith-Specific Curriculum Development Workgroups
- Development of the 4-Module Curriculum and Customized, Faith-Specific Resource Materials, i.e., Disaster Mental Health "Tool Kits"
- Training of the Prospective FBO Trainers by AHC Faculty
- Selection of Community Trainers by FBOs

- Training of Community Members by the Trained FBO Trainers
- Evaluation of the Training Sessions
- Data Analysis and Interpretation

Study Design

The study employed a post-intervention design, with evaluations administered immediately after the delivery of each ½-day module.

Outcome Constructs, Metrics, and Data Analysis

Feasibility (of the Academic/Faith Preparedness Partnership Concept)

Program feasibility was evaluated by determining if FBO leaders proved "ready, willing, and able" (RWA) to collaborate with AHC-based investigators in meeting partner-specific responsibilities of the project. Operational definitions of the RWA feasibility constructs (in the order observed and assessed) were:

- *Willingness* of FBO leaders to collaborate, ie, to agree to carrying out their project responsibilities. Criteria: Percent of FBOs providing orally-ex pressed commitment to participate in the project, followed by submission of a "Letter of Collaborative Agreement" to the AHC-based investigators.
- *Readiness* of FBOs to collaborate, ie, to deploy the necessary human resources and effort to support and sustain regular, timely participation in project planning and implementation activities. Criteria: Percent of FBOs attending, in person or by telecon ference, a minimum of 75% of all monthly meet ings of the (Inter-Faith) Partnership Steering Com mittee and personally attending, or assigning a des ignee to participate in *(Intra-Faith) Curriculum Development Workgroup* meetings.
- *Ability* of FBO leaders to collaborate, ie, to demon strate the ability to engage in effective outreach to congregants and community members to partici pate in the project. Criteria: a) recruitment of a minimum of 6 participants attending trainings; b) a minimum of 80% of participants completing train ings *and* submitting completed evaluation forms.

The *"ready, willing, and able"* approach to operationalizing the feasibility aim is derived from a previously-published framework for conceptualizing public health emergency preparedness (McCabe et al., 2010).

Perceived Effectiveness of Interventions

Evaluation of program effectiveness was based on participant reports of whether the trainers were perceived as having been successful imparting the knowledge, skills, and attitudes/beliefs (KSAs) to support the PFA and CDP disaster mental health competencies. Criteria: a) Percent of respondents endorsing "Very Good" or "Excellent" on 23 Likert-items measuring KSAs in the 4 intervention modules (assessed after the delivery of each module); b) Means and standard deviations scores for each item. Given the pilot nature of the project, the absence of theoretical rationale for positing inter-FBO differences, and the utilization of different trainers in each of the 3 cohorts, no "head-to-head" statistical significance testing of comparative training effectiveness of the FBOs was conducted. That said, quantitative data and qualitative information in the form of intra-FBO participant responses to structured, open-ended questions were analyzed to discern how organizational and cultural differences might be potentially useful to inform future FBO-specific iterations of the trainings.

Potential for Translational Impact

The aim to develop a prospective call-up system of PFA-trained volunteers was seen as entailing a two-step process: 1) developing a volunteer registry of the faith leaders who received the PFA training in this and the prior project; and b) establishing an administrative infrastructure through which volunteers could be activated and deployed during public health emergencies. The plan involved the Johns Hopkins Hospital possibly serving that role, minimally, to activate community volunteers to assist with behavioral health surge demands on institutional service capacity.

RESULTS

Participant Characteristics

Trainers

Trainers were selected by their organization with no externally provided guidelines, except for the general rec-

ommendation by the AHC partner to select the person(s) whose experience and expertise appeared to align best with the training task.

Trainees

A total of 72 individuals in the three faith communities participated in the project, with 40, 21, and 11 participants representing Christian, Jewish, and Muslim FBOs, respectively. Table 1 summarizes the characteristics of the cohort members.

Procedures and Schedule of Implementation

"Willingness" of Partners to Collaborate [Letters of Collaborative Content]

All of the FBOs approached about participating in the project provided AHC investigators with affirmative verbal responses about the concept of project participation, and all subsequently signed Letters of Collaborative Intent.

"Readiness" of Partners to Collaborate [Prompt, Reliable Project Participation]

All FBO leaders attended 100% of the monthly meetings of the Partnership Steering Committee; these meetings were hosted by the AHC. Each of the FBOs deployed representatives to the Curriculum Development Workgroups; members met on a weekly schedule for 3 months until the training curricula were completed.

"Ability" to Respond to Project Concept [Effective Recruitment of Trainees]

All FBO partner groups were successful meeting the recruitment criteria of the project, viz, attendance of a minimum of 6 individuals per FBO at the training workshops.

Perceived Effectiveness of the Interventions

Table 2 provides a summary of the participant-evaluation data for each item of the 4 training modules delivered by the AHC-trained FBO trainers in each of the organizations.

Table 1.
Characteristics of Faith-Cohort Participants [in Rounded Percent Frequency].

Characteristic	Christian	Jewish	Muslim	All
Gender				
Female	85%	55%	55%	75%
Male	15%	45%	45%	25%
Age Group				
18-39	06%	09%	55%	15%
40-49	16%	27%		15%
50-59	36%	36%	27%	34%
60+	33%	18%	18%	28%
Data not provided	09%	09%		08%
Racial/Ethnic				
African American	100%			67%
Caucasian		100%		16%
Other			100%	16%
Marital Status				
Married	36%	73%	55%	45%
Not married	48%		27%	37%
Data not provided	16%	27%	18%	18%

Table 2. Faith-Specific Evaluations of Community Trainings by Faith-based Trainers.

Module	Evaluation Items	Faith-Based Organizations											
		Christian (n=30-40)*			Jewish (n=15-20)*			Muslim (n=6-10)*			All (n=51-70)*		
		% rating Very good-excellent	M Max=5	SD	% rating Very good-excellent	M Max=5	SD	% rating Very good-excellent	M Max=5	SD	% rating Very good-excellent	M Max=5	SD
Psychological First Aid I	Understanding the role of fear and psychological contagion in the public's response to terrorism.	83.3	4.28	.74	71.4	4.10	.83	62.5	3.63	.52	76.9	4.14	.77
	Knowing when to refer to professional care based on self-efficacy differentiating severe from moderate psychological and behavioral reactions.	86.1	4.14	.72	81.0	4.14	.73	75.0	3.75	.46	83.1	4.09	.70
	Ability to screen individuals based on risk factors for suicide and PTSD.	75.7	4.05	.74	71.4	3.86	.65	50.0	3.50	.53	71.2	3.92	.71
	Providing crisis communication to groups following traumatic community incidents.	83.8	4.11	.74	66.7	3.89	.66	85.7	3.57	.79	79.4	3.98	.73
	Usefullness in a disaster	83.0	4.26	.74	65.0	3.95	.83	100.0	4.43	.53	79.0	4.18	.84
	Overall Value	81.0	4.14	.72	55.0	3.70	.98	83.0	3.83	.41	72.6	3.97	.81
Psychological First Aid II	Understanding and applying basics of disaster- and crisis communications.	85.0	4.28	.72	78.0	3.94	.64	70.0	3.70	.48	80.9	4.10	.69
	Providing psychological first aid to individual survivors of disasters.	80.0	4.20	.82	67.0	3.94	.64	70.0	3.70	.48	72.1	4.06	.79
	Ability to identify potentially harmful behaviors of would-be helpers.	90.0	4.23	.62	55.6	3.83	.86	80.0	3.80	.79	79.4	4.06	.73
	Applying principles and practices of self care	90.0	4.35	.66	68.8	3.94	.77	60.0	3.50	.71	82.4	4.12	.75
	Understanding and applying stress management techniques.	78.0	4.08	.73	68.8	3.81	.66	60.0	3.50	.71	70.6	3.92	.73
	Usefullness in a disaster	85.0	4.23	.70	72.0	3.94	.73	89.0	4.11	.60	82.4	4.13	.78
	Overall Value	82.5	4.28	.72	82.0	3.94	.73	90.0	4.00	.47	82.1	4.15	.70
Psychological First Aid III	Understanding the concept of natural grief and bereavement and your ability to apply the concepts in practice.	85.7	4.20	.68	100	3.94	.65	85.7	4.00	.58	89.4	4.25	.63
	Understanding the concept of socio-cultural impacts on human grief.	85.7	4.11	.63	86.7	4.13	.64	57.1	3.86	.90	82.5	4.09	.66
	Being sensitive to and responding to grief reactions of members of your community.	100	4.35	.49	100	4.20	.41	71.4	4.00	.82	96.4	4.27	.52
	Usefullness in a disaster	83.0	4.26	.82	93.0	4.36	.63	86.0	4.29	.76	85.7	4.23	.85
	Overall Value	88.6	4.29	.67	93.0	4.43	.65	86.0	4.14	.69	89.3	4.24	.77
Community Disaster Planning	Level of confidence creating and implementing a community disaster plan.	80.0	4.13	.73	20.0	3.07	.59	67.0	3.78	.97	62.3	3.78	.86
	Level of confidence developing and using a command and control structure.	80.0	4.17	.75	27.0	3.13	.64	56.0	3.56	.88	61.1	3.78	.86
	Applying an "All Hazards" approach" for managing different scenarios following traumatic community incidents.	80.0	4.17	.75	13.3	2.87	.74	44.4	3.44	1.13	55.6	3.69	.99
	Usefullness in a disaster	86.2	4.34	.72	71.4	3.43	1.02	78.0	4.11	1.05	80.8	4.15	.87
	Overall Value	86.2	4.47	.63	27.0	3.33	.82	78.0	4.00	1.00	72.2	4.07	.89

* Range of n reflects fewest to greatest number of participants completing specific evaluation items in different modules of training conducted on different days.

Aggregated Results for All FBOs

Participant reports of the extent to which the FBO trainers were especially effective (ie, 'Very Good' or 'Excellent') imparting the 12 knowledge and skill elements associated with the 3 PFA modules ranged from 71.2% to 96.4%, with a central tendency of most ratings greater than 4. Overall evaluative *attitudes* about the quality and usefulness of each PFA module and usefulness in a disaster were comparably positive, with 3 of the 4 modules receiving mean ratings greater than 4. The span of aggregated ratings for the CDP module was 55.6% to 72.2%, with means ranging from 3.69 to 3.78, slightly short of the "Very Good" standard set for effective training.

FBO-Specific Results

Christian cohort. Evaluation data for the 3 modules of PFA training were uniformly positive as judged by Christian participants, with all 23 knowledge, skill, and attitude items in the PFA and CDP curricula receiving mean ratings greater than 4. Besides noting with appreciation the value that the structured exercises afforded them to enhance their crisis communication skills, Christian participants were particularly noteworthy for mentioning that the training program had galvanized them to establish formal disaster ministries in their churches.

Jewish Faith cohort. Although the majority of participants indicated that the trainers were effective conveying PFA learning objectives, particularly so for content relevant to grief and bereavement counseling, the four component-items associated with CDP learning objectives were judged to have been less effectively imparted in the (1/2-day) training module. An especially difficult concept to grasp, apparently, was how one integrates the "all hazards" approach into community disaster planning.

Muslim Faith cohort. Participants provided positive overall evaluations of all 3 modules of the PFA training experience; however, there was considerable intra-modular variability in evaluating the effectiveness of achieving specific KSA learning objectives. The content-area where improvement appears to be needed most in future trainings is screening for suicidality, understanding risk factors for PTSD , and understanding socio-cultural risk factors impacts on human grief.

Translational Impact

Contingent upon a mechanism being established for call-up, contact information for all participants was recorded in a database that could serve as a prospective registry of volunteer responders. Simultaneously, conversations were initiated with the Office of Preparedness and Response (OP&R) of the Maryland Department of Health and Mental Hygiene (MD-DHMH) about modifying their policy at the time of including only Maryland state, Board-licensed professionals in the MPVC.

DISCUSSION AND CONCLUSIONS

Limitations

The study's limitations are those intrinsic to post-only research designs, that is, the inability to control for confounds related to history, maturation (Campbell and Stanley, 1963), and the influence of socially- and culturally-desirable responses. Moreover, trainee self-reports upon which the study relied are inferior to pre/post KSA change-scores and, in the case of PFA training, are inferior to validating the effectiveness of PFA delivered to survivors in real-world disaster contexts. Finally, where promising results seemed to be observed, they are associated only with the cohorts that participated at the time and place the study was conducted, and may not be replicable with FBOs in other locales. Some of these threats to internal and external validity, not uncommon to formative and pilot research, have been and are continuing to be mitigated in subsequent investigations (eg, McCabe et al., 2011).

Feasibility of the Partnering Concept

Notwithstanding its limitations, and acknowledging that the project generated only preliminary data on the viability of the approach, we believe the study offers encouraging findings on the feasibility of FBOs from diverse religious, ethnic, and cultural backgrounds successfully collaborating with one another in the design, delivery, and evaluation of a train-the-trainer approach to capacity-building in disaster mental health. The observed cohesiveness and mutual helpfulness that characterized all stakeholder transactions were particularly noteworthy.

Training Communities in Psychological First Aid

Many of the participants receiving PFA training re-

marked that that, while they appreciated having acquired knowledge and skills for application in (low probability) disasters, they were also grateful to have an enhanced repertoire of competencies for use with persons experiencing the (higher probability) "mini-disasters" that befall families, friends, and neighbors. Participants reported that the most effective aspect of the program was the opportunities for participant interaction and role playing while practicing the general listening and communication skills intrinsic to PFA and bereavement counseling. Also noted to be of particular value were the customized, faith-specific, disaster resource kits developed by and made available to all participants.

Training Communities in Disaster Planning Competencies

There are multiple reasons that the CDP training was perceived as relatively less effective than the PFA training. Certainly, future efforts to guide communities in the development of disaster plans must set aside adequate time for the process, as the most frequently offered observation by participants was that the content of the training was overwhelming for the time allotted to it; we have since altered our protocol (McCabe et al., in press). The apparent inter-FBO differences in satisfaction levels with the approach to enhancing disaster planning competencies underscore the need to conduct thorough organization- and community-specific needs assessments - perhaps, even values clarification - prior to developing such programs. An important consideration in program design is that different religious faiths have varying histories with natural disasters and terrorism, and thus may have internalized different standards for what is an effective training program in public health preparedness planning. In any case, using intra-FBO participant reactions as the criteria, it is clear that training in disaster planning poses different pedagogical demands than does training in PFA, perhaps not only in time allocation, but also curriculum content, format, and criteria for participant inclusion. If the desired training product is a plan *draft*, participants should a) be empowered by their organizations to serve the role as designated planners; b) know their organization's disaster-related strengths and weaknesses; and, c) have knowledge of their organization's leaders and members. They may also need to have access to technical assistance sessions following participation in the one-day planning workshops.

One content-area that may require extra attention in training is conveying, and operationalizing in plans, the meaning of the *all hazards* approach. We have since concluded that a key to accomplishing this learning objective is to emphasize the response flexibility to various disaster scenarios that is built into (the positions inherent in) the Incident Command System (ICS). We have since implemented this strategy by guiding planning participants through a process whereby they provide the names and contact information of the persons (along with 1st and 2nd back-ups) who will serve the ICS leadership positions.

Translational Impact

We began the project anticipating that a significant translational accomplishment would be the development of a registry of those who received training, and initiating a dialogue with the state about a phased implementation toward formal recognition of project-qualified volunteers as bona fide paraprofessional members of the state MPVC. Following funding to implement the program with rural populations, OP&R began accepting applications from our project-trainees as a new paraprofessional category of volunteers in the MPVC. Moreover, OP&R's eventual support of three separate projects provided pilot data that led to funding one of 4 projects comprising the CDC-funded Johns Hopkins Preparedness and Emergency Response Research Center (PERRC)].

Overall, the program was well received, and we see the project model actualizing the latent potential for disaster response and planning that resides in already-established relationships between faith-based leaders and community residents. And, because it is not dependent on the continued availability and participation of higher-degreed health professionals and disaster experts, we view the train-the-trainer approach as a potentially promising capacity-building approach to enhancing community resilience. The partnership approach to implementing training seems sufficiently flexible for diverse faiths and broader community audiences, while still meeting established competencies for disaster mental health response. Rather than requiring the perpetual availability of disaster mental health experts, this decentralized approach to community disaster preparedness/response enhancement would rely on the indigenous and durable resource that is the faith community and their surrounding social networks.

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Assessment of Psychological Preparedness and Emergency Response Willingness of Local Public Health Department and Hospital Workers

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***Abstract**: This study sought to investigate the relationship between psychologically-related attitudes/ beliefs toward public health emergency response among local health department (LHD) and hospital workers and their willingness to respond to a pandemic influenza emergency scenario and a radiological 'dirty' bomb scenario, to inform workforce resilience-building interventions. LHD and hospital workers participated in a survey based on an established threat- and efficacy-oriented behavioral model (the Extended Parallel Process Model) that focused on collection of the aforementioned attitudes, beliefs, and self-reported response willingness. Odds ratios associating psychologically-related attitudes and beliefs with self-reported response willingness were computed. Perceived levels of psychological preparedness and support were shown to impact response willingness, with more pronounced effects in the radiological 'dirty' bomb scenario. Compared to those who did not perceive themselves to be psychologically prepared, those who did perceive themselves as prepared had higher odds of self-reported response willingness. The relationship of these perceptions and self-reported willingness to respond in all contexts, both scenarios, and both cohorts was influenced by perceived self-efficacy and perceived family preparedness.[International Journal of Emergency Mental Health, 2012, 14(2), pp. 125-133.]*

Key words: *disaster mental health, psychological preparedness, support, willingness to respond, emergency*

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Local health department (LHD) and hospital workers are at the crux of an efficient and effective response to an emergency event. LHD workers may be called upon to communicate risk, distribute antiviral medications, staff emergency operations centers, or perform a variety of other community-based responses. Hospital workers will be needed to treat the physical and psychological consequences of a disaster among survivors, often necessitating altered standards of care.

Despite the critical roles of both LHD and hospital workers in public health emergency management, several factors threaten to preclude the most effective response. Hospitals have been characterized as having critically limited surge capacity (Institute of Medicine, 2006). In an austere fiscal climate, LHDs have experienced significant workforce and budget cutbacks (National Association of County and City Health Officials, 2010). To ensure a sufficient response in the face of human resource shortfalls, LHDs and hospitals will need an "all hands on deck" approach to an unprecedented degree, and barriers associated with response willingness must be minimized. The identification of factors that will ensure resilient LHD and hospital workforces is critical to ensure workers are willing to report to work in the days and weeks immediately following an incident.

Experts have concluded that the mental health burden may be up to 400% of the physical health burden post-disaster (Everly 2005; Flynn, January 2008, May 2008; Parker, Barnett, Everly, & Links, 2006; Shubert et al., 2008; Vanderploeg, Belanger, & Curtiss, 2009). While we propose new disaster mental health interventions and methods for LHD and hospital workers to administer at the population level (Everly, Barnett, Sperry, & Links, 2010), we must concurrently consider the disaster mental health of those we are relying on for their implementation.

The psychological threat that disaster response poses to LHD and hospital workers is real. Certain "caring professionals," such as nurses, have been shown to have higher self-reported levels of work-related stress (Smith, Brice, Collins, Matthews, & McNamara, 2000). Hospital worker response to disasters may involve long hours away from home or family, witnessing emotionally distressing events first-hand, or hearing stories of loss (Bilal, Rana, Rahim, & Ali, 2007), aspects of response that have the potential to compound this level of stress. The overall prevalence of post-traumatic stress disorder (PTSD) in workers who responded to the terrorist attacks of 9/11 was 12.4% (Perrin et al., 2007). In a cohort of police personnel, PTSD was almost twice as prevalent among women compared to men in the two years immediately following the attacks (Bowler et al., 2008).

Moreover, vicarious traumatization (VT), a concept that working with trauma victims can cause severe and enduring psychological consequences (McCann & Pearlman, 1990), has the potential to occur in disaster health workers, although further study of these cohorts is warranted (Sabin-Farrell & Turpin, 2003).

As described, the potential psychological impact of these events on disaster victims, and on health response workers themselves, is not small. However, no study to date has explored the interaction of a local public health or hospital worker's perception of their own psychological preparedness, or need for support during and after an emergency, and their own self-reported willingness to respond (WTR). Moreover, the relationship of these health worker cohorts' perceived need for pre-event preparation and training or perceived need for psychological support during/after an event and their response willingness has not yet been explored.

We hypothesize that perceived psychological preparedness to perform one's duties in an emergency situation, and perceived need for psychological support before, during

and after an emergency event will be associated with LHD and hospital workers' WTR to such an emergency situation. Moreover, previous studies of these cohorts have demonstrated that an individual worker's perception that their family is prepared to function in their absence, as well as their own perceived ability that they will be able to perform their duties at the time of a disaster, have significant impact on their WTR (Balicer et al., 2010; Balicer et al., 2011; Barnett et al., 2012). In light of these findings, we also hypothesize that these perceptions may account for some of the impact of psychologically-related attitudes and beliefs on emergency response willingness. This study investigates these hypotheses through a novel examination of data from two cohorts: one of LHD workers and one of hospital workers (Balicer et al., 2010; Balicer et al., 2011; Barnett et al., 2012).

METHODS

Study Design and Implementation

Two cohorts were surveyed using a similar single-administration process with almost identical survey instruments. Research ethics approval for each cohort's study was received from the appropriate Institutional Review Board (IRB) with a waiver of written consent. The IRB-approved materials included a written disclosure describing the study and emphasizing voluntary participation. Verbal consent was not requested or required by the IRB for each study.

Health Department Cohort

Eight geographically-diverse clusters of LHDs across nine states were surveyed. The clusters were recruited through a convenience sampling approach, with an effort toward achieving geographic and jurisdictional diversity. Four of these eight clusters were considered rural (in Idaho, Minnesota, Missouri, and Virginia) and four were considered urban (in Florida, Indiana, Oregon/Washington, and Wisconsin). Rural and urban clusters were defined based on whether the average LHD serves residents in county(ies) whose average population is under or greater than 50,000 residents, respectively (Rosenblatt, Casey, & Richardson, 2002). The surveys were conducted from April 2009 through June 2010 for approximately four weeks per cluster, with requests and reminders for participation distributed through the LHD listservs in each cluster.

Hospital Worker Cohort

All employees of the Johns Hopkins Hospital, a 984-bed, tertiary-care, academic teaching hospital and Level I trauma center in Baltimore, Maryland, were designated as eligible for participation in the survey, which was conducted from January 2, 2009 to March 9, 2009. Study notification and requests for voluntary participation were distributed via department manager announcements, hospital-wide emails, posters, and informational plasma screens throughout the hospital. The importance of participation across all departments and job duties was strongly encouraged.

Survey Instrument

The LHD cohort responded to the *Johns Hopkins~Public Health Infrastructure Survey Tool (JH~PHIRST)*, an anonymous online survey instrument consisting of a demographic section and attitude/belief sections focusing on health department workers' perceptions toward public health emergency response, for each of four emergency scenarios (weather-related event, pandemic influenza, radiological 'dirty' bomb terrorism event, and inhalational anthrax bioterrorism event). Survey questions were based on an established threat- and efficacy-oriented behavioral model [the Extended Parallel Process Model (EPPM)] and focused on collection of attitudes, beliefs, and self-reported response willingness (Witte, 1992). The hospital worker cohort responded to a version of *JH~PHIRST* for the pandemic influenza and radiological 'dirty' bomb terrorism scenarios with minor changes in wording to reflect the hospital environment and some additional cohort-specific questions. Each survey was administered through SurveyMonkey.com (Portland, OR), and participants were able to respond to the survey anonymously. The voluntary survey took approximately 15-20 minutes to complete.

Demographics that were collected consistently between the two surveys include: gender, age, education level, years working in organization, responsibility for a dependent family member, and professional (job) classification. The attitude and belief statements presented on the web-based survey were related to participants' perceived likelihood and potential consequences of the above emergency scenarios; perceptions of their awareness, skills, and confidence in performing their assigned tasks; self-reported WTR to a public health threat under three contexts (*if required*, *if asked but not required*, and *regardless of severity*); beliefs about their safety and that of their family when responding to a public health emergency; and perceived efficacy and perceived importance of their roles in combating a threat to the public's health. For each emergency scenario, respondents were also

queried regarding their perception of being psychologically prepared to perform their duties and their perceived needs for psychological support during and after an emergency.

Responses to the attitude/belief statements were based on a 9-point Likert scale with a response of '1' indicating strong agreement with the question, a response of '5' indicating neutrality, and a response of '9' indicating strong disagreement with the statement. Respondents could also indicate "don't know." Prior to analysis, responses to the attitude and belief statements were dichotomized into categories of ≤ 4 ('positive response') versus > 5 ('negative response').

Statistical Analysis

Demographic characteristics of each cohort's study participants have been summarized elsewhere (Balicer et al., 2010; Balicer et al., 2011; Barnett et al., 2012). The percent agreeing ('positive response') with the attitude/belief statements relating to WTR and to the psychological preparedness/support statements was calculated for the pandemic influenza and radiological 'dirty' bomb scenarios to which both cohorts responded and are described elsewhere (Balicer et al., 2010; Balicer et al., 2011; Barnett et al., 2012). Assessments of the relationships between the psychological preparedness/support statements and WTR within each cohort were performed using logistic regression analysis. Subsequent analyses evaluated these relationships when adjusted for the participant's demographic characteristics, and then also for the participant's attitude toward perceived self-efficacy and perception of whether their family was prepared for their absence. The logistic regression analyses for the LHD cohort were performed under a generalized linear latent and mixed model (GLLAMM) to adjust for potential correlations between the attitude/belief responses among participants within an LHD and among LHDs within a cluster (Rabe-Hesketh & Skrondal, 2008). All analyses were performed using STATA version 11.1 (STATA Corp., College Station, TX, 2010).

RESULTS

The overall response rate (across all clusters) for the LHD cohort was 66%; the response rate for the hospital cohort was 18.4% (Balicer et al., 2010; Balicer et al., 2011; Barnett et al., 2012). The demographics collected for both cohorts, and for which all analyses are adjusted, have been presented elsewhere (Balicer et al., 2010; Balicer et al., 2011; Barnett et al., 2012). In both cohorts, most respondents were female (LHD: 82.0%; hospital: 72.7%), were over the age of 40 (LHD: 69.9%; hospital: 61.7%), and had at least a bachelor's degree education (LHD: 65.3%; hospital: 76.0%). Approximately half of the respondents in each cohort had at least five years of experience working in the organization (LHD: 57.9%; hospital: 56.5%) (Balicer et al., 2010; Balicer et al., 2011; Barnett et al., 2012).

Odds ratios (OR) and 95% confidence intervals (CI) were calculated for both cohorts for WTR *if required*, WTR *if asked but not required*, and WTR *regardless of severity* for each of the following emergency response-related attitude and belief statements: *perceived psychologically prepared to perform duties; perceived need for pre-event training; perceived need for psychological support during the event (LHD only); perceived need for psychological support post event (LHD only); perceived need for psychological support during/post event (hospital only); perceived self-efficacy (ability to perform duties);* and *perceived family prepared to function in absence,* adjusting for demographics available for both cohorts (Table 1). In the LHD cohort, ORs were consistently lower for the radiological 'dirty' bomb scenario than for the pandemic influenza scenario for the five statements across all WTR contexts. For example, with respect to the pandemic influenza scenario, the odds of WTR *if required* was 17.41 times higher for an LHD respondent who perceived himself/herself to be *psychologically prepared to perform duties* compared to those who did not have that perception [OR (95% CI): 17.41 (12.25, 24.74)]. However, this increased odds of response was only 11.82 for the radiological 'dirty' bomb scenario. Although this OR is still large, it represents a marked decrease of this perception's impact on response willingness (OR (95%CI): 11.82 (8.66, 16.12)). In the hospital cohort, ORs were similar for radiological 'dirty' bomb and pandemic influenza scenarios for all attitudes/belief statements and across all WTR contexts. *Perceived psychologically prepared to perform duties* consistently presented with higher ORs than all other psychologically-related statements evaluated across all WTR contexts in both cohorts.

The analyses presented in Table 2 were conducted to adjust for potential confounding by, or influence of, *perceived self-efficacy* and *perceived family is prepared to function in absence* in addition to the demographic characteristics. Adjusting for the influence from these attitude/belief statements, all ORs in both cohorts decreased in magnitude. For example, after adjustment, the OR for WTR *if required* in the LHD cohort decreased from 17.41 (prior to adjustment) to 2.89. This shows that a majority of the impact of *perceived*

psychological preparedness on WTR *if required* may actually be attributable to perceived *family prepared to function in absence and perceived self-efficacy (confidence to perform duties)*. In general, adjustment for the influence of these perceptions had a lesser (although still pronounced) impact on the hospital cohort.

DISCUSSION

Local health departments have been described as the heart of the public health emergency preparedness system (Institute of Medicine, 2008). The need for a psychologically prepared and supported workforce is essential to ensuring response willingness. It is vital that these workers not only perceive that they are psychologically prepared, but also that they are, in fact, prepared and supported from a mental health standpoint. If not, we face the potential of a large percentage of our workforce burdened with mental health consequences following an event, affecting not only disaster response but also everyday operations of our local public health and hospital systems. The need for LHDs and hospitals to build robust emergency mental health systems to ensure employee resilience in the context of the resistance-resilience-recovery mental health framework (Nucifora, Langlieb, Siegal, Everly, & Kaminsky, 2007) is paramount.

Recognition of the need for psychological support among these cohorts in disaster response is not new. Indeed,

Table 1.
Associations of self-reported response willingness and psychologically-related attitudes/beliefs for the pandemic influenza and radiological 'dirty' bomb scenarios, adjusted for demographics.[a]

	Willingness to respond if required		Willingness to respond if asked		Willingness to respond regardless of severity	
	Pandemic influenza	Radiological 'dirty' bomb	Pandemic influenza	Radiological 'dirty' bomb	Pandemic influenza	Radiological 'dirty' bomb
	OR[b] (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
LHD Workers						
Perceived psychologically prepared to perform duties	17.41 (12.25, 24.74)	11.82 (8.66, 16.12)	11.62 (9.16, 14.74)	10.41 (8.17, 13.26)	10.30 (8.16, 12.99)	12.11 (9.65, 15.19)
Perceived need for pre-event preparation and training	15.35 (10.92, 21.56)	5.00 (3.95, 6.35)	7.57 (5.58, 10.28)	4.10 (3.25, 5.17)	10.86 (7.87, 14.99)	5.90 (4.53, 7.69)
Perceived need for psychological support during event	4.39 (3.27, 5.91)	2.75 (2.23, 3.38)	2.25 (1.82, 2.79)	1.79 (1.48, 2.14)	2.91 (2.35, 3.60)	2.50 (2.05, 3.04)
Perceived need for post-event psychological support	4.28 (3.18, 5.76)	3.09 (2.51, 3.81)	2.58 (2.08, 3.19)	2.15 (1.77, 2.60)	3.08 (2.49, 3.80)	3.03 (2.48, 3.71)
Hospital Workers						
Perceived psychologically prepared to perform duties	9.68 (7.38, 12.64)	8.83 (6.73, 11.58)	6.1 (4.95, 7.52)	7.97 (6.31, 10.05)	8.03 (6.51, 9.91)	9.74 (7.76, 12.23)
Perceived need for pre-event preparation and training	5.52 (4.15, 7.35)	4.58 (3.47, 6.06)	4.02 (3.05, 5.29)	3.72 (2.80, 4.95)	4.29 (3.25, 5.66)	4.71 (3.44, 6.46)
Percived need for during/ post-event psychological support	1.63 (1.30, 2.04)	1.74 (1.40, 2.17)	1.33 (1.09, 1.78)	1.45 (1.18, 1.78)	1.46 (1.21, 1.75)	1.67 (1.36, 2.05)

[a] The demographics used to adjust the analyses are: gender, age, education level, having dependents to care for (elder and/or children depending on cohort), and professional (job) classification.
[b] Odds ratios(OR) are statistically significant at the p = 0.05 level if the 95% confidence intervals (CIs) do not include the value 1.0.

Table 2. Associations of self-reported response willingness and psychologically-related attitudes/beliefs for the pandemic influenza and radiological 'dirty' bomb scenarios, adjusted for demographics[a] and attitudes/beliefs regarding *perceived self-efficacy (confidence to perform duties)* and *perceived family prepared to function in absence*

	Willingness to respond if required		Willingness to respond if asked		Willingness to respond regardless of severity	
	Pandemic Influenza	Radiological 'dirty' bomb	Pandemic Influenza	Radiological 'dirty' bomb	Pandemic Influenza	Radiological 'dirty' bomb
	OR[b] (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
LHD Workers						
Perceived psychologically prepared to perform duties	2.89 (1.78, 4.69)	2.81 (1.87, 4.22)	3.22 (2.32, 4.47)	2.62 (1.88, 3.65)	2.49 (1.78, 3.48)	3.23 (2.36, 4.42)
Perceived need for pre-event preparation and training	6.47 (4.18, 10.01)	3.3 (2.47, 4.40)	3.25 (2.20, 4.80)	2.57 (1.94, 3.46)	6.25 (4.18, 9.35)	4.23 (3.02, 5.92)
Perceived need for psychological support during event	3.1 (2.12, 4.51)	2.55 (1.96, 3.38)	1.41 (1.08, 1.86)	1.48 (1.14, 1.88)	2.14 (1.65, 2.79)	2.31 (1.72, 2.90)
Perceived need for post-event psychological support	2.81 (1.91, 4.13)	2.67 (2.05, 3.48)	1.67 (1.28, 2.19)	1.68 (1.31, 2.16)	2.30 (1.77, 3.00)	2.71 (2.07, 3.54)
Hospital Workers						
Perceived psychologically prepared to perform duties	3.01 (2.13, 4.26)	3.50 (2.49, 4.92)	2.55 (1.94, 3.34)	3.47 (2.58, 4.65)	3.49 (2.65, 4.59)	4.3 (3.23, 5.73)
Perceived need for pre-event preparation and training	2.93 (2.04,4.22)	2.81 (1.98, 3.98)	2.40 (1.74, 3.35)	2.25 (1.56, 3.25)	2.21 (1.57, 3.12)	3.11 (2.03, 4.74)
Percived need for during/ post-event psychological support	1.58 (1.17, 2.08)	1.66 (1.76, 2.18)	1.22 (0.96, 1.54)	1.26 (0.97, 1.63)	1.37 (1.08, 1.73)	1.59 (1.22, 2.08)

[a] The demographics used to adjust the analyses are: gender, age, education level, having dependents to care for (elder and/or children depending on cohort), and professional (job) classification.
[b] Odds ratios(OR) are statistically significant at the p = 0.05 level if the 95% confidence intervals (CIs) do not include the value 1.0.

as part of the National Association of County and City Health Officials (NACCHO) Project Public Health Ready, an emergency preparedness accreditation process for LHDs, these agencies must consider mental health emergency planning not only for the population at large, but also their own staff, in order to be considered for recognition (National Association of County and City Health Officials, 2012). Our findings suggest that hospitals and LHDs with such plans should engage in targeted efforts to make employees aware of their contents in order to inform them of available psychological support resources before, during and after an event. Moreover, if such psychological support resources have not yet been established in a given health institution involved in disaster response, this process needs to begin in earnest as a part of pre-event planning efforts.

Our findings indicate that the relationship between each of the emergency response- related attitude/belief statements (*perceived psychological preparedness to perform duties, perceived need for pre-event preparation,* and *perceived need for psychological support during and after an event*) and self-reported response willingness is scenario-specific. Both cohorts demonstrated lower odds of response willingness across all five attitude/belief statements for the radiological 'dirty' bomb scenario compared to the pandemic influenza scenario. The majority of consequences associated with a radiological 'dirty' bomb would be psychological in nature;

those who are close enough to be exposed to harmful amounts of radiation would likely succumb to the explosion itself rather than from health sequelae associated with radiation exposure (Barnett, Parker, Blodgett, Wierzba, & Links, 2006). Thus, the majority of hospital workers' and local public health workers' duties will likely be dealing predominantly with psychological (rather than physical) casualties and mitigating psychological reactions associated with an ill-defined understanding of the consequences of such an event. These findings suggest that perceived psychological risk may be equally as or more important than physical risk in determining response willingness. LHDs and hospitals may want to engage in scenario-specific psychological preparedness informational campaigns, perhaps by selecting high risk or high consequence scenarios for their jurisdiction. Furthermore, if LHD and hospital workers are not psychologically prepared to be able to perform functions critical to dealing with this population, including triage and risk communication, they may contribute to, rather than alleviate, the problem. As we plan for the central role hospital and LHD workers and their organizations have in emergency response, including mental health emergency response (Everly, Beaton, Pfefferbaum, & Parker, 2008; Everly et al., 2010), recognition of their need for simultaneous psychological support to maintain this critical function is vital and is thus a health security issue. Planning for identification, training, and implementation of such a support system should be considered by LHDs and hospitals as part of their overall emergency preparedness programs.

For each of the five psychologically-related statements, the odds of response willingness across the three WTR contexts were generally lower among the hospital cohort compared to the LHD cohort. However, after adjusting for *perceived self-efficacy* and *perceived family preparedness,* the odds of response willingness decreased markedly for the LHD cohort but less so for the hospital cohort, making the odds of response more comparable after accounting for these attitudes/beliefs. This suggests that *perceived self-efficacy* and *perceived family preparedness* may have a different association with psychologically-related attitudes and beliefs among different cohorts, and is seen as an area for further investigation.

Our findings indicate that agreement with psychologically-related attitudes and beliefs have less of an impact on WTR among those who perceive their families to be prepared and those who have confidence in their own ability to perform their duties at work compared to those who do not. These findings suggest that trainings and interventions focused on building self-efficacy and increasing family preparedness may have a pronounced effect on an individual's perceived psychological preparedness and need for support services during or after an event, and on the relationship of these attitudes and beliefs with emergency response willingness. This is supported by others' suggestion that training of front-line personnel in crisis intervention has a positive impact on the provider's well-being (DeSimone, 2009). Responders may bolster their own disaster mental health simply by being trained in a skill that they may perform in a disaster setting. These psychological components could also be practiced in disaster preparedness drills or exercises in order to increase worker understanding of their availability and utilization.

Moreover, previously published findings from both cohorts indicate a high perceived need for *pre-event preparation and training* for both scenarios (Balicer et al., 2010; Balicer et al., 2011; Barnett et al., 2012). In light of relatively low levels of *perceived psychological preparedness* and higher levels of *perceived need for psychological support during/after an event* (Balicer et al., 2010; Balicer et al., 2011; Barnett et al., 2012), such trainings should focus on increasing psychological readiness and teaching skills in Psychological First Aid (Everly et al., 2010), including mental health self-care and raising awareness of available psychological support resources.

Nucifora et al. (2007) proposed four strategies to improve resistance and resilience in the wake of a disaster: 1) providing realistic expectations; 2) encouraging social support networks and group cohesion; 3) fostering positive cognitions; and 4) building self-efficacy and hardiness, similar to the four-stage approach of crisis management briefings proposed to improve resilience (Everly, 2000). As discussed above, our findings here, and those described elsewhere (Balicer et al., 2010; Balicer et al., 2011; Barnett et al., 2012) in these two cohorts suggest similar training competencies to improve WTR. Training programs and policies that incorporate these four strategies have the potential to improve both response willingness and workforce resilience simultaneously.

While efforts to minimize limitations to our study were made, some remain worthy of discussion. First, this study relies on self-reported survey data, and may not be predictive of behavior in a real-world emergency response (Balicer et al., 2010; Balicer et al., 2011; Barnett et al., 2012). Second, several cohorts' survey windows overlapped with their H1N1 novel influenza response, potentially impacting their

responses (Balicer et al., 2010; Balicer et al., 2011; Barnett et al., 2012). Third, the LHD clusters were recruited through convenience, rather than random, sampling (Barnett et al., 2012). This approach may limit generalizability of findings. Finally, the hospital cohort was limited to a single institution and may not be representative of hospital workers at large (Balicer et al., 2010; Balicer et al., 2011).

Conclusions

Perceived levels of psychological preparedness, need for pre-event preparation and training, and need for psychological support during a pandemic influenza or radiological 'dirty' bomb event are associated with LHD and hospital workers' self-reported WTR. Our findings underscore the need to engage LHD and hospital workers in public health preparedness trainings related to psychological preparedness, available mental health resources, and self-care, as well as those that focus on improving self-efficacy and family preparedness in order to enhance response willingness among these essential disaster workforce cohorts.

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The Role of Law in Addressing Mental Health-Related Aspects of Disasters and Promoting Resilience

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***Abstract**: Law plays a critical role in emergency preparedness and disaster response by establishing an infrastructure for the response and facilitating coordination among the federal, state, and local governments. Once a disaster occurs, certain legal mechanisms are activated to ensure that individuals' needs for mental health care are met, both for pre-existing and emergent conditions. This includes the rapid deployment of mental health care personnel and the implementation of crisis counseling programs in affected regions. By facilitating an influx of resources, including personnel, supplies, and financial assistance, the law can help communities quickly rebound and return to a sense of normal. Drawing on examples from the United States, this article illustrates the diverse ways in which the law simultaneously addresses mental health-related aspects of disasters and promotes resilience within affected communities. [International Journal of Emergency Mental Health, 2012, 14(2), pp. 134-140]*

Key words: *legal; psychotropic medication; licensure portability; liability; crisis counseling; disaster mental health; resilience*

Natural and man-made disasters can jeopardize individuals' mental and physical health. The short- and long-term health consequences of recent disasters, such as the Japanese earthquake, tsunami, and subsequent nuclear crisis in 2011; the global H1N1influenza pandemic in 2009; Hurricane Katrina in 2005; and the terrorist attacks of September 11, 2001, have forced nations throughout the world to re-evaluate their infrastructure for preparedness planning and response as well as recovery (Briand et al., 2011; Fisher, 2010). Governments must now identify lessons learned from prior emergency responses and simultaneously determine how they will address emerging threats. As nations engage in this work, considerable attention has been devoted to governments' ability to protect the public's health once a disaster occurs (Kruk, 2008; McNabb, 2010; Moore, 2012).

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Whether and how governments respond to a disaster and effectively manage individuals' mental and physical health needs depends heavily on the existence of emergency preparedness laws that facilitate response efforts. For example, in the United States, federal law gives the President the ability to declare a "major disaster" or "emergency" (Robert T. Stafford Disaster Relief and Emergency Assistance Act, 2011). This temporarily changes the legal landscape and allows the federal government to quickly direct financial resources to the affected region. Also, under federal law the Secretary of the U.S. Department of Health and Human Services can declare a "public health emergency" (Public Health Service Act, 2011). This declaration allows the Secretary to send health care personnel and medical equipment and supplies to a state facing a disaster. In addition to facilitating interjurisdictional coordination, these declarations all specify the domestic geographic area to which they apply, and they are time-limited, meaning that they establish legal parameters for a response.

When appropriate legal mechanisms are in place before a disaster occurs, and emergency planners and other stakeholders understand how they will be implemented during and shortly after a disaster, a community's resilience can be dramatically bolstered. By facilitating the rapid influx of resources, such as personnel, medical supplies, and financial assistance, the law can help communities to rebound quickly and begin the process of returning to a sense of normal (Anderson & Hodge, 2009; Hodge et al., 2011; Nucifora et al., 2007). Licensure waiver and reciprocity laws can ensure the presence of health professionals to address pre-existing and emerging mental and physical health conditions following a disaster. Laws also provide the infrastructure and funding for crisis counseling programs, which the federal government can enable when a disaster occurs. This article will draw on examples from the United States to illustrate the diverse ways in which the law addresses mental health-related aspects of disasters and, thus, promotes resilience within affected communities.

Legal Considerations for Mental Health Care Providers

Members of the mental health care workforce play a critical role in disaster response. In the immediate aftermath of a disaster, they can use their specialized skills to help individuals process what has occurred and begin to instill a feeling of normalcy (Bisson et al., 2007). A range of providers—including physicians, nurses, physician assistants, emergency medical technicians, psychologists, social workers, and counselors—is needed for comprehensive responses that account for individuals' mental health needs (Wissow et al., 2012). These health care professionals are heavily regulated in non-emergency contexts. Unless relevant laws and regulations are explicitly waived or altered, they remain in place during emergencies. Therefore, emergency responses present a specific set of legal challenges for mental health care providers.

Provision of Care in Different Jurisdictions

Mental health care providers are regulated through state-specific professional licensure requirements. After the successful completion of a series of assessments, a state will grant a license and affirm an individual's fitness to practice his or her profession (Furrow et al., 2000). If mental health care providers practice in a state where they are not actively licensed, they may face criminal penalties and other sanctions.

This regulatory backdrop raises serious concerns for mental health care providers who seek to participate in emergency responses outside of the state in which they are licensed. Their participation may be critical as affected regions act to swiftly augment their mental health care workforce to meet individuals' pre-existing and emergent needs. Yet, without laws and processes in place to facilitate interjurisdictional licensure portability during disasters, mental health care providers' response efforts may be stymied. For example, in the days after Hurricane Katrina, hundreds of out-of-state volunteer health care providers had to delay their participation in Louisiana's response due to bureaucratic impediments (Associated Press, 2005). On the other hand, in instances where well-established legal mechanisms were employed, neighboring states engaged in a more streamlined process to meet Louisiana's requests for health care and other personnel (North Carolina Department of Public Safety, 2005).

Numerous laws contain provisions to permit mental health care providers to participate in emergency responses in states where they are not licensed. The Emergency Management Assistance Compact (EMAC), a mutual aid agreement implemented by all 50 states, allows a state experiencing a disaster to request assistance from member states (Emergency Management Assistance Compact, 2012). Under EMAC, the licenses of out-of-state mental health care providers can be temporarily recognized by the state in need of assistance

(Emergency Management Assistance Compact, Art. V, 1996). EMAC's licensure reciprocity terms apply only to "state agents," generally defined as persons who are employed by government agencies. Some states have passed their own emergency licensure portability laws to ensure that validly licensed health care providers from other states will be able to practice within the state should a disaster occur (Centers for Law and the Public's Health, 2006). In addition, 25 percent of the states have passed legislation to implement the Uniform Emergency Volunteer Health Practitioners Act (UEVHPA). During an emergency response in these states, the licenses of volunteer mental health care providers from out-of-state will be recognized (National Conference of Commissioners on Uniform State Laws, 2007).

Limitations of Liability for Mental Health Care responders

When they participate in a disaster response, mental health care providers may face resource constraints and other circumstances that differ greatly from their typical work environments. Their malpractice insurance may not apply to actions they take during a disaster response while out-of-state (Courtney et al., 2011). A 2006 survey conducted by the American Public Health Association confirmed that the presence of liability protections and immunity from civil lawsuits is a major factor in health care providers' decision to participate in a disaster response (Hoffman, 2008). Without explicit liability protections, mental health care providers may be reluctant to contribute to these responses.

Numerous laws provide some liability protections to mental health care providers who participate in responses following a government-declared emergency or disaster. For example, liability protections are available to state agents covered by EMAC (Emergency Management Assistance Compact, Art. VI, 1996). In states that have implemented the UEVHPA, volunteer health care providers receive liability protections as long as they were previously registered with an established organization such as a Medical Reserve Corps (National Conference of Commissioners on Uniform State Laws, Art. 11, 2007). In addition, approximately 23 states have enacted a provision of the Model State Emergency Health Powers Act that grants liability protections to health care providers from out-of-state who deliver care related to a response to a public health emergency (Centers for Law and the Public's Health, 2001; Centers for Law and the Public's Health, 2006).

Although the law provides a range of jurisdiction-specific liability protections for mental health care providers who participate in a response, no law grants complete immunity from all forms of liability. Laws do not protect mental health care providers from liability for criminal acts committed during a response, and they do not provide protections for reckless misconduct.

Protections for Injuries Related to Response Participation

In non-emergency contexts, when an employee experiences a work-related mental or physical health condition, he or she can typically receive workers' compensation benefits (Rutkow et al., 2010). These benefits, which are sponsored by the employer, constitute a form of "no-fault" insurance. In other words, to qualify for workers' compensation, an employee need only demonstrate that a health condition is related to his or her employment. During disaster responses, mental health care providers routinely face conditions that could cause either mental or physical harms. For example, after Hurricane Katrina responders "repeatedly exposed themselves to floodwater, chemicals, bacteria, and debris ..." (White House, 2006). During the response to the terrorist attacks of September 11, 2001, some responders repeatedly viewed human remains or assisted in collecting and cataloguing them (Hirschkorn, 2005; Lipton, 2002).

Despite the importance of workers' compensation benefits, their availability varies for health care responders who participate in disaster responses. EMAC includes provisions for benefits similar to workers' compensation for state agents who participate in out-of-state responses, and UEVHPA offers similar benefits for volunteer health care providers (Carpenter et al., 2008; Emergency Management Assistance Compact, 1996; National Conference of Commissioners on Uniform State Laws, 2007). Importantly, the presence of these benefits in some laws does not guarantee comprehensive workers' compensation benefits for all health care providers involved in disaster responses.

In states that have not enacted the UEVHPA, volunteer mental health care providers may find it difficult or impossible to access workers' compensation, as these benefits are typically tied to injuries incurred during the course of employment, not volunteer, activities. Also, even where the benefits are available, states vary in the coverage they offer for workers' compensation claims that involve mental health conditions. Some states do not provide coverage for a work-

related mental stimulus (e.g., disposing of human remains) that is associated with a subsequent mental health condition such as posttraumatic stress disorder.

Legal Considerations for Those in Need of Mental Health Care

During and shortly after a disaster, individuals in affected communities will require assistance to meet their pre-existing and emergent mental health care needs. They may, for example, rely on psychotropic medications—which can only be dispensed with a valid prescription—to manage an on-going mental health condition (Rutkow et al., 2011). Without advance planning, legal requirements associated with health care professionals' prescribing authority may interrupt access to medications, and raise challenges for individuals' continuity of care. Previously healthy individuals may require short-term counseling services immediately after a disaster to help them understand the range of common psychological reactions to such an event (Everly et al., 2010). The funding and personnel needed for these services depend upon elements within the federal and state legal infrastructure that are activated once a disaster occurs.

Access to Medications for Chronic Mental Health Conditions

The U.S. Food and Drug Administration determines which medications must be dispensed with a prescription written by a licensed health care professional (21 U.S.C. § 353(b), 2011). The federal government requires prescriptions to contain certain information, such as a drug's name and directions for its usage (21 C.F.R. § 1306.05, 2011). Every state must adhere to these federal requirements and can, in addition, impose its own requirements. For example, some states require prescriptions to contain the name and address of the individual for whom the prescription is written (South Carolina Code Annotated, 2011). The ability to issue a legally valid prescription hinges on an individual's professional licensure, which is overseen by the state governments. In addition to physicians, certain health care professionals, such as advanced practice nurses and physician assistants, may be allowed to write prescriptions, but many states limit the types of medications they can prescribe (Missouri Revised Statutes, 2011; West Virginia Code of State Rules, 2011).

Disasters raise multiple challenges to these legal considerations. First, because individuals may be separated from their medication supply, they may need rapid access to a health care professional who can issue a prescription. Immediately after Hurricane Katrina, persons evacuated from New Orleans "lacked access to their usual medications and sources of medical care" (White House, 2006). For individuals with certain chronic conditions, this posed a serious threat to their health. In conjunction with the federal government, Louisiana officials quickly established a temporary medical facility staffed with personnel familiar with methods to meet the federal and state requirements for valid prescriptions. One week after Katrina made landfall, this facility had issued over 1,000 prescriptions, helping community members to manage some of their health care needs as they had before the hurricane (White House, 2006).

Some out-of-state health care professionals have reported difficulty issuing prescriptions after a disaster due to licensure concerns. Shortly after Hurricane Katrina, some out-of-state physicians who were volunteering in Louisiana were told that they could not issue prescriptions due to concerns about the validly of their professional licenses within the state (Weiss et al., 2007). These physicians ultimately worked closely with local Louisiana physicians, whose prescribing authority was clearly valid. Similar concerns may arise for out-of-state advanced nurse practitioners and physician assistants, whose ability to prescribe medications varies depending on the state in which they practice (Rutkow et al., 2011). Therefore, in addition to ensuring that licensure portability requirements are in place before a disaster occurs, the full range of mental health care professionals must understand how these provisions will impact their ability to provide care—including prescriptions for psychotropic and other medications—during an emergency response.

Facilitation of Crisis Counseling Services

In the days and weeks following a disaster, some individuals may need assistance to process their psychological responses to the event (Jones, 2003). For most people, these responses will fall within a range of typical post-disaster reactions, and they will bounce back with relative speed (Bisson et al., 2007; Nucifora et al., 2007). Even if their reactions are considered normal under the circumstances, they may benefit from interactions with trained crisis counselors, who can explain the usual psychological responses that individuals have to disasters.

Once the President has declared a "major disaster" under the Robert T. Stafford Disaster Relief and Emergency Assistance Act, the Federal Emergency Management Agency

can implement the Crisis Counseling Assistance and Training Program (CCP; 42 U.S.C. § 5183, 2011). The CCP's goals include "assisting disaster survivors in understanding their current situation and reactions, mitigating stress, assisting survivors in reviewing their disaster recovery options, [and] promoting the use or development of coping strategies . . ." (Federal Emergency Management Agency, 2010). CCP services are intended to supplement existing community resources, and are offered in a variety of settings, such as homes and schools in the affected community. CCP counselors can identify individuals who may be in need of additional support and provide referrals for more extensive services.

Federal law has created two categories of CCP services. The first, the Immediate Services Program, is available for 60 days after a Presidential declaration of "major disaster." The second, the Regular Services Program, is available for nine months after the declaration (Substance Abuse and Mental Health Services Administration, 2012). The federal government funds these programs through grants made to State Mental Health Authorities, and the U.S. Substance Abuse and Mental Health Services Administration assists with the implementation of both programs. CCP services have played an important role in fostering resilience among individuals and communities. For example, CCP services were offered immediately following the Joplin, Missouri tornado in 2011; extensive flooding in southeastern Missouri in 2007; and Hurricanes Katrina, Rita, and Wilma in 2005 (Federal Emergency Management Agency, 2007; Missouri Department of Mental Health, 2011; Substance Abuse and Mental Health Services Administration, 2006).

Conclusion

Law plays a critical role in emergency preparedness by establishing the infrastructure for a response; determining the geographic and temporal parameters of a response; and facilitating interjurisdictional coordination to ensure that personnel and other resources are readily available. Due to legal mechanisms that are activated once a disaster occurs, individual and population-based mental health care needs can be met rapidly in an event's aftermath. Laws ensure that health care personnel are quickly deployed, and they help individuals to maintain uninterrupted care for pre-existing mental health conditions. In addition, federal laws have created programs to assist states in providing crisis counseling services to individuals, with the goal of helping them rapidly return to their pre-disaster level of functioning. While laws have a well-recognized role in facilitating communities' recovery following disasters, they also foster resilience. Individuals can more quickly experience a sense of returning to normal due to laws that ensure their mental health care needs are met during the peri-disaster period.

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42 U.S.C. § 5183 (2011).

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Selected Annotated Journal Resources

Jessica Batinjane, B.A., Dina Kulenovic, B.A., and Alicia Dodds, B.A.

Bensimon, M. (2012). Elaboration on the association between trauma, PTSD, and posttraumatic growth: The role of resilience. Personality and Individual Differences, 52, 782-787. doi: 10.1016/j.paid.2012.01.011

TYPE OF ARTICLE

- Correlational

OBJECTIVE/PURPOSE OF THE STUDY

- To examine the association between trauma, trait resilience, Posttraumatic growth (PG) and PTSD.

METHODS

Participants

- Examiners recruited a convenience sample of volunteer students from two Israeli colleges.
- In total, 493 participants were included.
- The sample was predominately female (66.6%) and the average age was 24.7 years (SD = 2.76).
- All participants had satisfactory knowledge of Hebrew.

Materials

- This study used Hebrew versions for all of the measures.
- The Trauma History Questionnaire (THQ) was used to assess trauma.
- The DSM based PTSD Inventory was used to measure PTSD.
- Posttraumatic growth was measured using The Posttraumatic Growth Inventory.
- The Connor-Davidson Resilience Scale (CD-RISC) was used to assess resilience.

Procedure

- The volunteers did not receive monetary reward for their participation.
- Participants were assured confidentiality and their right to leave the interview at any time.
- The questionnaires were distributed during the academic year and the students were approached during their regular class time.

RESULTS

- Results on the THQ revealed that 7% of the sample reported exposure to one traumatic event; the rest of the sample reported more than one exposure..
- Of the sample, 468 were classified as having PTSD while 25 were not.
- The PTSD group had similar resilience scores and significantly lower growth scores compared to those without a PTSD diagnosis.
- Exposure to trauma, as indicated by higher THQ scores, was positively associated with PTSD and PG.
- PTSD was positively associated with PG.
- Resiliency was negatively correlated with PTSD and positively correlated with growth.
- PTSD mediated the association between trauma and resilience with PG. Thus, the results show a mediation effect that implies that although PG does not require PTSD following adversity, it is affected by it.

CONCLUSIONS/SUMMARY

- Results showed a positive association among trauma, PTSD and growth.
- Individuals with high resilience were at less risk of developing PTSD.

- Results demonstrated that there is a mediation effect where PTSD following a traumatic event affects experiencing PG.
- PG is evident in multiple types of trauma exposure and can be relatively frequent, particularly following life threatening traumatic events.

CONTRIBUTIONS/IMPLICATIONS

- Salutogenic (i.e., positive; resilience) and pathological (i.e., PTSD) responses to trauma show different associations with trait resilience.
- People who are resilient, face adversity, and experience growth can emerge from trauma with less negative psychological impact.
- Future research should examine the associations among PTSD, growth, and trait resilience longitudinally using multiple measures.

Kaniasty, K. (2012). Predicting social psychological well-being following trauma: The role of postdisaster social support. Psychological Trauma: Theory, Research, Practice, and Policy, 4, 22-33. doi:10.1037/a0029338

TYPE OF ARTICLE

- Original empirical investigation

OBJECTIVE/PURPOSE OF THE ARTICLE

- To examine the influence of social support within the first 12 months after a severe flood on survivors' social and psychological well being that was assessed during recovery.

METHODS

Participants

- Participants were recruited from the city Opole in Poland, a region most affected by the 1997 flood, and nine nearby villages.
- The sample included 184 women and 101 men, with an average age of 48 years (range: 18-87). Nearly half of the sample lived in single homes in nearby villages, while the remainder of sample lived either on the ground level or higher floors of apartment building in Opole.

Materials

Predictor variables

- The measures used to assess four predictor variables were translated into Polish and then reviewed by colleagues from the Department of Psychology at Opole University.

I. Sociodemographic characteristics

- Age, gender, and education were included as control factors.

II. Disaster Exposure

- The participants were asked three questions, as modeled by the DSM-IV definition of traumatic event, to assess life threat and injury and categorized their trauma on three levels: 0=no/low trauma, 1=moderate trauma, 2=high trauma.
- Of the sample, 38% did not report any trauma, 43% experienced moderate trauma, and 19% experienced high trauma.
- The second index was material losses and constructed on the basis of 11 questions asking about the presence of damage to the house and their belongings. Five levels were created, ranging from 1 (no or one item loss) to 5 (yes response to 10 or 11 item losses).

III. Postdisaster Altruistic Community

- *Initial unity* was an average of answers to fours questions assessing survivors' beliefs about the extent to which their neighborhoods were united in the first days after the flood.
- The Inventory of Postdisaster Social Support measured one's received social support from family, friends, and outsiders.

IV. Postdisaster social bitterness

- *Dissatisfaction with aid* was measured with 11 items that asked about the adequacy of help the participants personally received and how they perceived the process of disaster aid in general.
- *Postdisaster social disaffection* was measured with 5 items to assess respondents' agreement or disagreement about perceived lack of unity in their community 12 months after the flood (Wave 1 interview).
- *Postdisaster interpersonal constrains and conflicts disaffection* was assessed on items adapted from the Social Constrains Scale.

Outcome variables

- The outcome variables were five indicators measured 8

months after the initial interview and 20 months after disaster (Wave 2).

- *Perceived social support* from family, friends, and neighbors was assessed with 24 items based on the Provisions of Social Support Scale on a 5-point scale.
- *Postdisaster community cohesion* was measured with 11 items to assess perceptions regarding sense of community at the time of Wave 2 interview.
- *Withdrawal from interpersonal contacts* was measured with four questions asking respondents' if they perceive a reduction in their socializing with others.
- *Beliefs in benevolence of people* were based on four items from the World Assumptions Scale to assess respondents' beliefs that people are basically good and caring. .
- Lastly, four items asking participants' general attitude toward advantages and disadvantages of helping people measured *beliefs in the efficacy of mutual helping.*

Procedure

- One volunteer per household was interviewed for one hour in his or her home.
- The interviewers visited the neighborhoods and villages at different times on different days of the week.
- Wave 2 of data collection occurred 20 months after the flood where 88% of the sample was re-interviewed.
- Four predictor variables were assessed 12 months after the flood during Wave 1 of data collection and five outcome variables during Wave 2.

RESULTS

- Hierarchical regression analyses were used.
- Older respondents reported greater perceived social support and more social withdrawal than younger participants.
- Respondents who had more years of formal education reported greater perceived social support, less social withdrawal, greater cohesion in current communities, greater trust in goodness of others, and more beliefs of efficacy in mutual helping than those with less formal education.
- Women reported lower levels of interpersonal contacts and community cohesion than men.

Predicting perceived social support:

- Respondents who received more social support after the flood exhibited greater levels of perceived support 20 months after flood.
- Postdisaster social disaffection and postdisaster interpersonal constraints and conflicts were significantly associated with later perceptions of social support.

Predicting Postdisaster Community Cohesion:

- Results show those who had greater material losses and were more dissatisfied with post flood aid reported lower community cohesion.
- Respondents that received more help after the event perceived their community as more cohesive.

Predicting Withdrawal from Interpersonal Contacts:

- Respondents more severely exposed to disaster trauma and had more material losses and disengaged from social interactions more than those less affected.
- Persons that reported more constraints and conflicts engaged in less interpersonal contact.

Predicting Beliefs in Benevolence of People:

- Respondents who received more social support maintained greater beliefs in benevolence of people than those who received less help.
- More postdisaster interpersonal conflict and constraints, social disaffection, and aid dissatisfaction were associated with lower beliefs in benevolence.

Predicting Beliefs in Efficacy of Mutual Helping:

- Survivors more severely exposed to trauma and survivors dissatisfied with postdisaster social relations believed to a lesser extent that helping each other brings benefits.
- Respondents who felt more of a part of a united community in the first days of the flood and received more help held stronger trust in the value of social support.

CONCLUSIONS/SUMMARY

- Greater involvement in postdisaster altruistic communities was associated with more favorable effect on survivors' subsequent feelings of interpersonal connectedness and trusting attitudes towards others.
- The indicators of postdisaster social bitterness were predictive of lower levels of subsequent social psychological well-being.
- Results support the social support mobilization and social support deterioration models for trauma theory.

CONTRIBUTIONS/IMPLICATIONS

- Successful mobilization of social support is important to aid survivors in their recovery efforts, as it allows them to appraise their social worlds as reliable, caring,

and trustworthy and deter lasting negative psychological consequences of disasters.

- Postdisaster relief and intervention programs should consider helping survivors maintain their perceptions of being supported and trust in the benefits of belonging to a valued social community.

Klein, M., Ehlers, A., and Gluckman, E. (2012). Investigating cognitive pathways to psychopathology: Predicting depression and posttraumatic stress disorder from early responses after assault. Psychological Trauma: Theory, Research, Practice, and Policy, 4, 527-537. doi: 10.1037/a0027006.

TYPE OF ARTICLE

- Prospective longitudinal study

OBJECTIVE/PURPOSE OF THE ARTICLE

- To investigate whether and how variables derived from two cognitive models of depression and PTSD contribute to the prediction of depressive and PTSD symptoms following assault.

Depression Model

- Predictors of depression were derived from cognitive conceptualizations of the disorder.
- An established vulnerability factor for developing depression in response to life events is a pessimistic explanatory style, which is characterized by the tendency to make negative inferences about causes, consequences and self-implications of negative life events.
- *Hopelessness* and engaging in *self-devaluative cognitions* have been proposed as *maintaining cognitive processes* in depression.

PTSD Model

- Problematic information processing during the trauma (*peritraumatic cognitive processing*) and *negative appraisals* of the trauma and its consequences play a central role in cognitive models of PTSD.
- Problematic *peritraumatic cognitive processing* is thought to contribute to *negative appraisals about the self* and *mental defeat*, a perceived loss of all psychological autonomy.
- PTSD models suggest that PTSD is maintained because negative appraisals of trauma and its consequences motivate a series of *maintaining cognitive processes* that include intrusive memories, such as rumination and thought suppression, and persistent dissociation.

METHODS

Participants

- Participants were recruited from assault survivors getting treated for their injuries at a large urban hospital between July 2003 and December 2004.
- The sample consisted of 222 participants who met inclusion criteria and consented to participate by completing questionnaires two weeks after an assault; at six months post-assault, 205 participants completed a phone interview assessing their symptoms of depression and PTSD, and 183 completed symptom questionnaires. No information was provided regarding why some participants did not complete symptom questionnaires.
- The main analyses of the data are based on the final 183 participants.
- The final sample consisted of mostly males (67%) and participants were predominantly Caucasian (60%). The mean age of participants was 35 years (SD=11.33).

Measures

- To examine psychological outcomes, the Posttraumatic Diagnostic Scale (PDS) was used to assess severity of PTSD, the Beck Depression Inventory (BDI) was used to assess severity of depression, and the Structured Clinical Interview for DSM-IV was used to establish current and past major depression and acute stress disorder (ASD)/PTSD diagnoses.

Depression Model

- To assess the severity of adverse life events, an adapted version The Trauma History Interview was used.
- To assess negative attributions, the Depressive Attributions Questionnaire was administered to examine depressogenic attributions to negative events.
- To assess participants' ability to maintain cognitions, a short form of Beck's Hopelessness Scale was used to assess participants' hopelessness (their expectations about their future) and the self-devaluation subscale of the Depressed States Checklist (DSQ) was used to assess self-devaluatve cognitions.

PTSD Model

- To assess peritraumatic cognitive processing, the *self-referential* processing scale from Cognitive Processing

Questionnaire was used to examine the extent to which participants processed the assault as happening to them and then linked it with other autobiographical information. The Mental Defeat Scale (MD) was used to assess mental defeat and to what extent each statement about perceived loss of psychological autonomy applied to them at any moment during the assault until help arrived.

- To measure negative appraisals, the Posttraumatic Cognitions Inventory (PTCI) was used to assess negative thoughts about the self and perceived change.
- Participants' ability to maintain cognitive responses to memories was measured using the Response to Intrusions Questionnaire in order to assess *thought suppression and rumination*. The State Dissociation Questionnaire was used to assess persistent *dissociation.*

Procedure

- Participants received information about the study by mail a few days after being admitted at the Emergency Department, and were invited to participate in a research session two weeks after the assault.
- Participants received a phone call after the invitation that provided further information about the study.
- At the session, participants gave written informed consent and completed questionnaires and diagnostic interviews.
- At 6 months, participants completed symptom severity questionnaires.

RESULTS

- Depression and PTSD models predicted both depression and symptom severity. However, the depression model predicted depression best and the PTSD model predicted PTSD best.
- Correlations between the predictors at 2 weeks and symptom severities at 6 months were significant.D.
- Maintaining cognitions (maintaining cognitive processes) was shown to have the clearest outcome relation for both depression (ß =.74) via hopelessness and self-devaluative thoughts and via intrusive responsive memories for PTSD (ß=.61).
- The depression and PTSD model variables predicted depression at 6 months over and above what was predicted by a diagnosis at two weeks.

CONCLUSIONS/SUMMARY

- PTSD and depression symptom severity at six months after injury in an assault could be predicted using the predictors derived from the two cognitive models at 2 weeks.
- The results provided evidence for the role of cognitive responses in predicting chronic posttrauma symptoms.
- Cognitive variables for both PTSD and depression showed large effects in predicting psychological outcomes.
- Overall, PTSD was better predicted than depression. This most likely occurred because all symptoms were measured in response to a traumatic event.

CONTRIBUTIONS/IMPLICATIONS

- The results provide evidence for an overlap in mechanisms in depression and PTSD.
- The study provided evidence regarding both specific and common mechanisms in predicting depression and PTSD with cognitive models. The results show that, clinically, maintaining cognitive processes are a promising target for treatment.
- The data show that cognitive models may also inform screening efforts after trauma in increasing the prognostic validity of screening instruments.
- The findings suggest that identification of trauma survivors at risk of either depression or PTSD may be improved by focusing on cognitive features such as those examined in this study.

Hasanovic, M. (2012). Posttraumatic stress disorder in Bosnian internally displaced and refugee adolescents from three different regions after the 1992-1995 war in Bosnia and Herzegovina. Paediatrics Today, 8, 22-31. doi: 10.5457/p2005-114.34.

TYPE OF ARTICLE

- Original empirical investigation

OBJECTIVE/PURPOSE OF THE ARTICLE

- To examine the frequency, type and severity of PTSD cluster symptoms and social dysfunction, and the PTSD prevalence in Bosnian adolescents who survived the 1992-1994 Bosnia and Herzegovina war from three different regions: Srebrenica, Zvornik, and Bijeljina.

METHODS

Participants

- The sample consisted of 217 (106 females) elementary and secondary school students between the ages of 13 and 18 years who survived the Srebrenica, Zvornik, and Bijeljina massacres.
- The mean age of the examined participants when they were forced to leave their homes was approximately between 6 and 10 years for all three regions.

Measures

- A socio-demographic questionnaire designed specifically for the study was used to collect information about age, gender, displacement status, type of settlement, family social and financial status, and loss of family members.
- To evaluate traumatic events, the severity of trauma, and the presence of PTSD, as well as the PTSD cluster symptom severity, the culturally modified Harvard Trauma Questionnaire (HTQ), Bosnia and Herzegovina Version for civilians was used.

Procedure

- Participants were chosen from available internally-displaced persons and repatriated refugee students in one public elementary school and seven secondary schools.
- Data collection occurred in classrooms of the participants' schools in June 1999.
- The overall sample was divided into three groups based on one of the three regions of origin in question: Srebrenica, Zvornik, and Bijeljina.

RESULTS

- Adolescents from Srebrenica showed the most severe social dysfunction and PTSD symptom severity levels.
- PTSD was most prevalent in the Srebrenica group. The difference between the three groups was significant (Srebrenica: 73.9%, Zvornik: 60.8%, Bijeljina: 47.6%). However, post hoc analyses determined that there were only significant differences between Srebrenica and Bijeljina groups in the re-experiences and avoidance symptoms clusters, and in total PTSD symptoms.

CONCLUSIONS/SUMMARY

- Results show that despite differences in geographical region and type of war exposure, the adolescents had been exposed to many severely traumatic experiences during the war and reported high levels of traumatization three and a half years after the war.
- All three groups demonstrated persistent psychological symptoms.
- The prevalence and severity of traumatic experiences were significantly related to the region of pre-war residence due to the different character of war outbreak in each area.

CONTRIBUTIONS/IMPLICATIONS

- The results confirm previous research indicating that internally displaced and refugee children and adolescents may be particularly traumatized.
- The findings are useful for understanding the full range of needs that adolescents living in postwar and areas of political and economic conflicts may have.

Bryant-Davis, T., Ellis, M.U., Burke-Maynard, E., Moon, N., Counts, P.A., & Anderson, G. (2012). Religiosity, spirituality, and trauma recovery in the lives of children and adolescents. Professional Psychology: Research and Practice, 43(4), 306-314. doi:10.1037/a0029282.

TYPE OF ARTICLE

- Literature review

OBJECTIVE/PURPOSE OF THE ARTICLE

- To explore the role of religion and spirituality in the lives of children and adolescents who have been, or are currently subjected to, traumatic experiences and to explore ways to incorporate religion and spirituality into their treatment.

METHODS

- Review of the literature.

RESULTS

- Psychologists are ethically mandated to consider religiosity and spirituality as issues of diversity with all clients.
- Spirituality and religiosity are separate constructs, but highly correlated.
- Spirituality is defined as an internal, individual experi-

ence of making meaning that may not be a part of a religion.

- Religiosity is defined as a community experience of adherence to beliefs and practices within an organized sacred institution.
- Children and adolescents' spiritual and religious development coincides with their psychological development; faith is imaginative, then narrative, interpersonal, and understanding concepts of love, justice, and truth.
- Spirituality and religiosity are part of children and adolescents' identity development and they may experience changes in spiritual and religious attitudes, especially after trauma.
- Religiosity and spirituality function as ways of finding meaning, purpose, and belonging, and they can serve as protective factors for children and adolescents.
- Religion can provide spiritual and social support, and religion and spirituality may reduce stress and promote healthy coping.
- Positive correlations between religiosity/spirituality and resilience, healing, self-esteem, motivation, hope, feelings of love and purpose, academic achievement, psychological adjustment, and resolution about traumatic events have been found in children and adolescents.
- Religiosity and spirituality seem to protect against risky behaviors (e.g., substance abuse, early and risky sexual activity, and deviant peer/gang involvement) and some psychological symptoms like depression, anxiety, and posttraumatic stress. Children and adolescents who are religious or spiritual are also less likely to be aggressive and have behavior problems at school.
- Unhealthy forms of religious and spiritual coping include shame and rigidity, which can lead to anxiety, guilt, and the belief the survivor is being punished for something; these are associated with higher levels of mood disturbances.
- Religiosity and spirituality should be assessed during intake, including exploring the client's religious and/or spiritual history, involvement, practices, and worldview.
- The Brief Multidimensional Measure of Religiousness/Spirituality (BMMR) may be useful in assessing these in adolescents 12-18.
- Treatment suggestions include utilizing positive religious coping strategies like prayer and incorporating religion or spirituality into the trauma narrative.

CONCLUSIONS/SUMMARY

- After trauma, children and adolescents may find it difficult to maintain their religious or spiritual beliefs.
- A lack of religiosity/spirituality and negative religious/spiritual coping methods correlate with Axis I symptoms associated with trauma in children and adolescents, such as depression, anxiety, and posttraumatic stress.
- Positive religiosity and spirituality may protect against a number of trauma-related symptoms.

CONTRIBUTIONS/IMPLICATIONS

- The present study focused specifically on the religiosity and spirituality of child and adolescent survivors of trauma, which has been understudied thus far.
- Treatment providers should develop greater competency in working with diverse religious and spiritual populations.
- Given the apparent benefits of religion and spirituality, treatment providers should seek to integrate religion and spirituality into treatment when appropriate.

Frankish, T. & Bradbury, J. (2012). Telling stories for the next generation: trauma and nostalgia. Peace and Conflict: Journal of Peace and Psychology, 18(3), 294-306. doi:10.1037/a0029070.

TYPE OF ARTICLE

- Original qualitative study

OBJECTIVE/PURPOSE OF THE STUDY

- To explore the ways in which mothers and grandmothers who experienced traumas associated with apartheid construct, reconstruct, and then communicate stories about the past to younger generations within a South African township.
- To investigate the implications this type of intergenerational communication has for the present and the future, specifically how it informs conflict and the possibility for peace and justice, as well as whether or not children born after 1994 can really be considered "the born-free generation."

METHODS

Participants

- Six women who are mothers or grandmothers living in multigenerational homes in a South African township who had experienced an extreme personal trauma under apartheid.

Procedure

- Participants were interviewed and asked to narrate their life stories.
- Interpreters were present as the researcher spoke English and the participants spoke isiZulu.
- Interviews were tape-recorded.

RESULTS

- Older generation women told of traumatic events in their lives in which they experienced violence.
- Participants tended to weave the stories of their lives around their traumas. Their narratives tended to start with the trauma story, then move retrospectively to an earlier past (e.g., childhood), then move forward to the present. Overall, they tended to separate their life stories as before trauma and after trauma.
- Poverty was often present and related to a primary concern of providing for children and grandchildren, especially since most of the trauma stories involve loss of men within these families who were breadwinners.
- Trauma and nostalgia seem to be linked, and may influence how memory is constructed and organized.
- Communication with younger generations often includes silence about recent traumatic history and a nostalgic connection with a more distant past.
- Silence can be an active choice to protect children from distress or as a form of resistance, not always a defense or denial.
- Conversations about sexuality are new but do occur between grandmother, mothers, daughters, and granddaughters, warning about the risks and giving advice on parenting and marriage.
- Mothers seem to be trying to create lives for their children that are different from their own, especially less violence.

CONCLUSIONS/SUMMARY

- Results demonstrate that trauma stories from apartheid are being communicated to younger generations in South Africa through storytelling of grandmothers and mothers.
- Life narratives are organized around the traumatic event.
- Both active silences and nostalgic articulations reshape stories.

CONTRIBUTIONS/IMPLICATIONS

- Traumatic and nostalgic recollection and forgetting inform us about whether or not we can talk about a "born-free generation" in post-conflict societies.

Treating PTSD in Military Personnel: A Clinical Handbook

Edited by Bret A. Moore & Walter E. Penk
Guilford Press, 2011, 382 pages, Hardcover, $45.00

Treating PTSD in Military Personnel is a comprehensive, practical resource for clinicians and others who treat military personnel. The editors elicited chapters from subject matter experts covering a range of effective treatments for Post-Traumatic Stress Disorder (PTSD), with a focus on meeting military personnel's needs.

The editors begin by briefly reviewing the overall literature on treating military personnel with PTSD, concluding that treatment evidence is lacking for this population. However, they also report that PTSD research is expanding quickly, with "dozens" of studies under way.

The next chapter introduces the military as a unique culture, with a specific language, dress, tradition, belief system, and culture. One highlighted contrast between military and civilian cultures is the importance the military places on collectivism over individualism, the importance of the group over the individual. Additionally, the "rigid and unambiguous hierarchical system" or ranks within the military are likely to be factors in the presenting problem. The author advises that the value the military places on stoicism (emotional control, calmness under pressure) be interpreted as an adaptive mind-set rather than resistance. Finally, he cautions clinicians against allowing personal beliefs about war and violence to negatively influence treatment.

Next, authors review PTSD assessment instruments, recommending that structured clinical interviews be combined with self-report measures to "make the best use of clinical acumen and actuarial prediction." Interviews/instruments discussed include the Structured Clinical Interview for DSM-IV (SCID-IV), the PTSD Symptom Scale Interview (PSS-I), the Posttraumatic Diagnostic Scale (PDS), and the PTSD Checklist (PCL), to name only a few.

In the remainder of Part I, the authors review state-of-the-art treatment strategies, focusing on evidence-based assessment and treatment approaches, with specific applications to military personnel. Each of the nine chapters focus on one approach, including Prolonged Exposure Therapy, Cognitive Processing Therapy, and Eye Movement Desensitization and Reprocessing, for example. Pertinent research using each approach with military personnel is highlighted, where it exists.

Each chapter concludes with strengths and limitations of the approach when applied to military personnel, and a brief case vignette highlighting the therapeutic approach presented.

Part II addresses seven specific clinical issues associated with PTSD, including co-occurring affective and anxiety disorders, co-occurring substance abuse, traumatic brain injury, sexual assault, sleep disorders, suicidal ideation, and anger, aggression and violence. Chapters address recommended treatment approaches and potential limitations of the treatment strategy for each issue.

The last chapter is devoted to resiliency building as a means to prevent PTSD and related adjustment problems. The author recommends that resilience programs be implemented throughout the deployment cycle, rather than focused in the post-deployment phase only. Further, he recommends broadening the focus from individual military members to organizations, communities, and family members.

The editors included three appendixes. The first focuses on recommendations for developing military cultural and clinical competence through training opportunities and publications. The second provides a brief description of military organizations and programs, and their websites. The third is a short list of military abbreviations

I highly recommend this book to mental health professionals, chaplains, and health care providers who may work with the military. It may also be of interest to military members and their families, and treatment providers who are new to the VA system.

Bret A. Moore, PsyD, ABPP, is founder of Military Psychology Consulting and a board-certified clinical psychologist in San Antonio, Texas. He is a former active duty Army psychologist and two-tour veteran of Iraq.

Walter E. Penk, PhD, ABPP, is Professor of Psychiatry and Behavioral Sciences at Texas A&M College of Medicine and consultant to the Veterans Health Administration's Center of Excellence in Stress Disorders Research and VA Rehabilitation Research and Development in Washington, DC.

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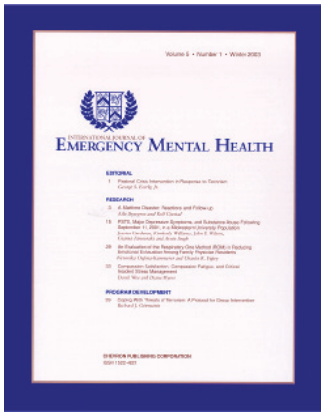

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