

WORKING SESSION 6B: MENTAL HEALTH

MENTAL HEALTH ISSUES IN DISASTERS AND TERRORIST ATTACKS

Recent events make clear that those living in the United States are at risk of exposure to a variety of potentially traumatic events, ranging from sniper and terrorist attacks to a variety of natural disasters. This paper provides a broad overview of the most common psychological reactions that can be expected in the aftermath of such events, how primary care practitioners can identify such reactions in their patients, and actions those practitioners might take. (*Ethn Dis.* 2003;13[suppl3]:S3-89-S3-93)

Key Words: Disasters, Terrorism, Mental Health, Posttraumatic Stress Disorder

INTRODUCTION

Recent events have underscored the unfortunate fact that bad things (eg, serial sniper shootings and terrorist attacks) can and do happen in the United States. The purpose of this paper is to provide a broad overview for primary care practitioners in these areas: 1) what is known about the common mental health consequences of such events; 2) how primary care practitioners can recognize such consequences when they occur among their patients; and 3) what they can do to help the patients deal with those consequences.

EPIDEMIOLOGIC FINDINGS: EXPOSURES AND CONSEQUENCES

The basic epidemiology of exposure to a variety of potentially traumatic events (PTEs) has been well documented in recent decades. Findings from this body of research suggest that, even in the United States, the majority of people will be exposed to at least one PTE in their lifetime, and many to more than one.¹ Further, across a wide range of PTEs, most of those exposed do not have any clinically significant mental health sequelae, and the likelihood of such sequelae is closely related to the details of an individual's specific exposure.² Additionally, "human made" events (ie, purposeful, or intentional, violence) have been shown to be more malignant in this regard than natural disasters.³ Although most people experience some distress—eg, feelings such as fear, anger, uncertainty, and sorrow—following ex-

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posure to a PTE, the clinically significant reactions that occur typically include acute stress disorder (ASD) and posttraumatic stress disorder (PTSD) and their frequent comorbidities: depression, traumatic grief, and substance use disorders.

As an example, the clinically significant mental health consequences to date of the terrorist attacks of September 11 have been documented in 2 New York-focused studies and 2 national studies. In New York, Galea et al⁴ studied 1,008 adults living in the area south of 110th Street in Manhattan 2 months after the attacks and found 7.5% were likely cases of PTSD and 9.7% were likely cases of major depression, and that those living closest to the World Trade Center site were nearly 3 times more likely to have PTSD than those living farther away. Hoven et al⁵ studied children in the New York City schools and found that 10.5% of children in grades 4–12 were likely cases of PTSD.

At the broader level, in the second month following the attacks Schlenger et al⁶ studied a national sample of nearly 2,300 adults, including oversamples of the New York and Washington, DC, metropolitan areas. The prevalence of probable PTSD in New York was 11.2%, compared to 2.7% in Washington and 4.0% in the rest of the country. Additionally, they found that more than 10 million adults nationwide reported that a family member, close friend, or coworker was injured or killed in the attacks: about 2.0 million in New York, about 0.5 million in Washington, and the remaining more than 7.5 million scattered across the rest of the country.

Similarly, Silver et al⁷ conducted a 3-

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In New York [after 9/11], Galea et al⁴ studied 1,008 adults living in the area south of 110th Street in Manhattan 2 months after the attacks and found 7.5% were likely cases of PTSD [posttraumatic stress disorder] and 9.7% were likely cases of major depression, and that those living closest to the World Trade Center site were nearly 3 times more likely to have PTSD than those living farther away.

wave, longitudinal study of a large national sample of adults, focusing on coping styles and PTSD symptoms. Findings indicated that coping styles were strongly related to the course of PTSD symptoms over the 6 months following the September 11 attacks, with adaptive coping styles being associated with symptomatic improvement and avoidant styles (eg, denial, disengagement) associated with increased symptom levels.

PTSD AND OTHER CLINICALLY SIGNIFICANT CONSEQUENCES

Posttraumatic stress disorder (PTSD) is a specific psychiatric disorder whose "official" definition in the United States is provided by the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*⁸ (DSM-IV). The current definition of PTSD com-

prises 5 major criteria that include: 1) exposure to a PTE combined with peritraumatic experience of specific emotional responses (fear, helplessness, or horror); 2) involuntary reexperiencing of the PTE, via distressing dreams, intrusive recollections while awake, or "flashbacks;" 3) active avoidance of reminders of the PTE and emotional numbing; 4) symptoms of hyperarousal, such as exaggerated startle response and sleep disturbance; and 5) the symptoms must be present for at least one month and have caused significant distress or impaired functioning. The one-month duration criterion necessitated inclusion in the taxonomy of the diagnosis *Acute Stress Disorder* (ASD), which includes symptoms similar to PTSD (and some others) but does not have a duration requirement. Several excellent summaries of the current knowledge about the epidemiology, etiology, and treatment of PTSD are available.⁹⁻¹¹

A number of risk factors for PTSD, beyond characteristics of the specific PTE exposure, have been identified. These include that: women are more likely to develop PTSD than men; minority group members (eg, African Americans, Hispanics) more likely than majority group members; those with history of prior PTE exposure more likely than those without; and those younger at time of exposure more likely than those older.

Additionally, patients with PTSD have been shown to have increased somatic complaints, and are likely to have a variety of comorbidities.¹² Among the most important of these are major depression and substance use disorders (most frequently alcohol).

Unfortunately, not enough is currently known about the *course* of PTSD. The available information suggests that for many who develop PTSD symptomatology in the weeks and months following exposure to a PTE, the condition will prove to be self-limiting—ie, the symptoms will resolve within 3–6 months without clinical intervention.

For these people, "returning to normal" in the aftermath of trauma is a reasonable and attainable goal.

For others, however, this is not the case. Although the course of PTSD is believed to be related to the nature and intensity of the exposure (eg, how directly was the person's life threatened, was the PTE man-made or natural) and to characteristics of the person (eg, prior exposure history, current life circumstances), the scant evidence currently available suggests that for 20% to as many as 50% of those who develop PTSD, the disorder will prove to be chronic. For these victims, there is no "return to normal." Instead, their lives are *irrevocably* changed, and for them "moving forward" means adapting to the new realities of their lives. For most people, doing so is likely to require substantial clinical and other intervention over an extended period of time.

Danieli¹³ has conceptualized this problem via a multidimensional, multidisciplinary framework that postulates that a person's identity is the result of continuous interaction over time of multiple systems, including family, social, community, occupational, political, and economic systems. Exposure to severe trauma creates a "rupture" in these interactions, which may result in "fixity," in which the person becomes "stuck" in one or more dimensions and has difficulty moving forward with their life. Among the important points of this conceptualization are: the multidimensional nature of the rupture—ie, that trauma victims are likely to have functional problems in *multiple* life dimensions in addition to their PTSD symptoms; that chronic PTSD symptoms may result in post-trauma adaptational styles in which survivor strategies that were helpful in dealing with an extended exposure but are maladaptive in "ordinary life" become an integral part of the person's personality; and the notion of intergenerational transmission, when trauma-related fixity in parents becomes a dominant influence in the personalities of their children.

Finally, in recent years it has become standard procedure following large-scale PTEs to implement critical incident stress debriefing (CISD) or related early interventions in an attempt to prevent the onset of PTSD. Reviews^{14,15} of the accumulated literature on post-disaster early intervention, however, indicate that though flawed itself, the extant literature does not support the efficacy of such interventions in preventing subsequent morbidity. Given the frequency with which “disaster” strikes, it is critical that we develop and implement widely early interventions that are both well accepted by people who have been exposed *and* have documented efficacy in reducing subsequent morbidity. Additionally, Ruzek¹⁶ has noted the need for communities to prepare in advance for large scale PTEs, so that the broad range of human service providers in the community—including primary care practitioners—have a fundamental understanding of the likely service needs of those exposed and how the various practitioners can best contribute to both the individuals’ and the community’s recovery.

RECOGNIZING CLINICALLY SIGNIFICANT REACTIONS FOLLOWING EXPOSURE

Among the most important lessons of the past 2 decades of epidemiologic research on the psychological aftermath of large-scale PTEs is that although very high proportions of the exposed population may experience distress of various kinds (eg, fear, anger, uncertainty, sorrow) at the time of and/or in the wake of the exposure, most of this distress proves to be both self limiting and not clinically significant. For a subset of the exposed, however, the distress will be clinically significant, and will typically take the form of PTSD (or ASD). Even among this subset, though, epidemiologic evidence suggests that for many,

their clinically-significant reaction will also prove to be self limiting. The net result is that although typically the vast majority of those exposed to large-scale PTEs are distressed in some way by the exposure, the subset that ultimately develops a long-term, clinically-significant reaction is likely to be a relatively small proportion of all of those who were exposed.

Because of the large numbers of people exposed inherent in large-scale PTEs, however, even a small proportion of clinical cases among those exposed can mean an epidemic. As a specific example, Schlenger et al⁶ estimated that 11.2% of adults in the New York metropolitan area were probable cases of PTSD in the second month after the September 11 attacks. Even if only one-third of those cases prove ultimately to be chronic, because there are more than 10 million adults living in the New York metropolitan area, that would mean more than 350,000 adults with chronic, clinically significant reactions following the terrorist attacks in the New York metropolitan area alone. This is clearly an important public health problem.

Litz et al¹⁷ describe several brief, self-administered screening instruments that can be helpful to primary care practitioners in identifying patients with clinically-significant reactions following exposure to PTEs. Such instruments can be completed in the waiting room by patients, and provide fast, systematic assessment backed by empirical evidence.

Less formal assessment can also be helpful, however. The following suggestions are extrapolated from the epidemiologic literature. First, assessment of exposure should establish the extent to which the patient was “connected” to the PTE—were they physically exposed (eg, were they in the World Trade Center or surrounding buildings the morning of the attacks?), were they exposed via death or injury of a significant person in their lives (eg, family member, close friend), did they experience eco-

nomie or other resource losses (eg, did they lose their job because of event impact on the company they worked for, was their own property damaged?). If there is no evidence of any of these kinds of exposures, it is very unlikely that the person will have had a clinically significant psychological reaction. Any positive responses to these questions should be probed (eg, can you tell me more about that?), to rule out false positives (ie, trivial exposures).

Among those who do report one or more of these exposures, the next step is to assess the presence of PTSD symptoms. Still using the September 11 attacks as an example, a simple approach could begin with intrusive recollections (eg, “Since September 11, have you been thinking about it a lot, even when you didn’t want to?” “Have you had any dreams about it?”), move to avoidance of reminders (eg, “Have you been to the World Trade Center site since the attacks,” “Was all the publicity surrounding the anniversary difficult for you?” “Have you been having difficulty feeling close to your loved ones?”), and then to reactivity (eg, “Have you been sleeping OK?”, “Have you been having trouble concentrating on routine things in your daily life?”). Again, all positive responses should be followed with appropriate probes for details (eg, “Can you tell me more about that?”, “What was that like for you?”, “Has that affected your daily life?”, “How long has that been going on?”).

Those who report having multiple PTSD symptoms that lasted more than a few weeks and that have had an impact on their daily lives, and whose reactions are clearly not attributable to simple bereavement, are excellent candidates for referral to mental health specialists. In most instances, having an established relationship with one or more competent mental health providers will facilitate the referral process.

Fortunately, there are a number of treatments available today whose effica-

cy for PTSD has been demonstrated empirically. These include a variety of psychotherapeutic approaches, and 2 pharmacologic agents (sertraline and paroxetine) have recently been approved by FDA for the treatment of PTSD. Additionally, 2 sets of practice guidelines for clinicians have recently been published.^{18,19}

WHAT SHOULD I DO?

Stein and Myers²⁰ have provided a useful guide for primary care practitioners on assessing and caring for patients exposed to PTEs. In what follows, we provide some general advice based on our understanding of the literature, the typical presentation of patients exposed to trauma, and the realities of clinical practice.

Given the identification of a person who appears to have a nontrivial psychological reaction to a PTE, what should a primary care practitioner do? In the first few weeks after the event, or with patients whose reaction seems mild, brief interventions that can be helpful include: normalize stress responses via education about typical reactions (eg, PTSD symptoms as a “normal reaction to abnormal circumstances”); acknowledge (and thereby legitimize) patient feelings (and losses, where appropriate); supportive, empathic listening, particularly for the grieving; and encourage self care—exercise, recreation, adequate sleep, good nutrition, meaningful social interactions, and minimal alcohol (or other substance) use. For those whose symptoms are clearly severe, or are persistent, referral to a mental health professional is recommended.

There are also some caveats that are worth mentioning. First, the reality is that PTEs often involve events that are shocking or emotionally charged in other ways for the listener. Practitioners should be prepared for this, and be alert for signs of “secondary traumatization”

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in themselves—listening to the retelling can be emotionally trying. Relatedly, describing the exposure may elicit substantial emotional response in the patient as well, following which the patient may need to be “buttoned up”—eg, acknowledged, supported, and encouraged. Therefore, conversations about the event with people whose exposure has been severe should proceed very cautiously, and are probably best left to experienced mental health clinicians. For this and other reasons, all practitioners should be knowledgeable in advance about referral sources in their communities.

Finally, possibly the best advice for all practitioners who work with people exposed to trauma comes from Dr. Karl Menninger, one of the fathers of modern psychiatry in America, recalled recently by Gabbard.²¹ His advice was simple: “When in doubt, be human.” We think this is excellent advice.

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