

Practical Assessment and Evaluation of Mental Health Problems Following a Mass Disaster

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Almost all individuals who experience a severe trauma will develop symptoms of posttraumatic stress disorder (PTSD) shortly after the traumatic event. Although the natural history of PTSD varies according to the type of trauma, most people do not develop enduring PTSD, and, in many of those who do, it resolves within 1 year without treatment. To the extent that is possible, maintenance of normal daily activities is believed to help patients cope more successfully in the aftermath of major trauma. In the case of a disaster such as the Asian tsunami, the whole community is involved, and it is impossible to continue with normal daily activities. To improve overall outcome after trauma, it would be optimal to identify individuals at increased risk for developing PTSD. This article describes screening and assessment tools for posttrauma mental health problems, particularly PTSD, and examines in more detail instruments that can be used in rapid field assessment of individuals who may be affected or who have already been identified and require monitoring. Self-rated instruments are most appropriate, but the choice of instrument will depend on the local situation and availability of appropriately validated questionnaires. The article also addresses important aspects of training nonmedical personnel in screening and assessment.

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It is common, but by no means invariable, for individuals who experience or witness a severe trauma of a threatening nature to initially respond with intense fear, helplessness, or horror followed by anxiety, depression, agitation, shock, or dissociation. Within a few days to weeks, these responses may crystallize as the symptom constellation of posttraumatic stress disorder (PTSD). A diagnosis of PTSD is made if the symptoms persist beyond 1 month after exposure to the trauma. Following trauma exposure, most people do not develop PTSD, and, in those who do, it often resolves within 1 year independent of treatment.¹ In the case of a disaster such as the Asian tsunami, the whole community is involved, and it is impossible to continue with normal daily activities. Special populations such as women and children may be particularly affected.² To improve overall outcome after

trauma, it would be optimal to be able to identify individuals at increased risk for developing PTSD.

This article describes screening and assessment tools for posttraumatic mental health problems, particularly PTSD, and examines in more detail instruments that can be used in rapid field assessment of individuals who may be affected or who have already been identified and require monitoring. Instruments discussed in this report represent examples of commonly used tools that may be useful in this regard. This report also addresses salient aspects of training nonmedical personnel in screening and assessment of traumatized individuals.

Posttraumatic mental health is influenced by various factors affecting the individual.^{3–5} One factor that can hinder recovery is the systematic avoidance of reminders of the incident, including thinking and talking about the event.⁶ Previous traumas and the response to them will influence reaction to the immediate trauma, as will personal characteristics such as resilience. The individual's psychosocial situation and internal and external stressors will also have an impact.⁷

CHALLENGES TO THE ASSESSMENT OF TRAUMA SURVIVORS

There are several challenges in assessing posttraumatic mental health disorders related to both patients and health-care providers. Patients may be reluctant to discuss the trauma. For example, they may be afraid to remember and

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articulate the details and may have fears for their own safety or for the safety of others after the trauma. In addition, they may feel shame and guilt related to the trauma. For example, tsunami survivors may feel guilt that they survived the experience and shame and/or guilt that they were unable to save others.

Health-care providers themselves may be affected by the trauma, especially in a disaster of the magnitude of the tsunami, or may have a history of trauma that they have not dealt with heretofore. Providers may fail to inquire about the patient's traumatic experiences because they may be personally uncomfortable with the subject matter or perhaps inexperienced in psychological assessments and taking a trauma history, or because of time constraints. In addition, proper diagnosis may be masked by other psychiatric conditions, such as depression, or by somatic symptoms including headache and gastrointestinal problems.

Moreover, cultural issues can impact the assessment of posttraumatic mental health, including patient presentation, as well as patient and provider expectations, interactions, and reactions. These cultural considerations have been well reviewed by Kirmayer,⁸ who noted the reluctance of many Japanese patients to acknowledge depression. He presented an 11-point set of elements for a culturally competent clinical formulation. We have also found resistance to discuss early sexual trauma both by subjects and by clinicians in a Taiwanese study of postearthquake reactions.⁹

SCREENING AND ASSESSMENT TOOLS

Screening and assessment tools can be used in different ways. Screening instruments can identify patients at increased risk for developing a variety of mental health problems or a specific disorder. Scales can also serve the following purposes: (1) diagnostic assessment, (2) assessment of disease severity, (3) identification of targets for treatment (e.g., nightmares, intrusion, avoidance, numbing, hyperarousal, comorbidity), (4) monitoring treatment outcome, (5) assessment of resilience, (6) assessment of disability, (7) assessment of quality of life, and (8) measurement of general psychiatric caseness.

There are different types of evaluation tools, which can be divided according to structure or purpose. Instruments may be self-rated or interviewer-rated. Self-rating tests are easy to use and appropriate for rapid screening for possible diagnosis, symptom and function assessment, and treatment monitoring. Although interviewer-administered tests are the gold standard for diagnosis in research, they require trained personnel and are more time-consuming to administer. These considerations make these tests less suitable for rapid field assessment.

Trauma questionnaires may cover a wide range of traumatic events or focus on a specific type of event. Screen-

ing instruments help to identify individuals at increased general risk for developing a disorder, while diagnostic assessments are generally specific for a given disorder (e.g., PTSD) or for comorbidities such as depression, generalized anxiety disorder, substance abuse, and suicidality. Outcome can be measured using specific tools or by reapplying diagnostic assessment tools to assess change over time, with or without treatment.

Trauma Questionnaires

The first step in assessment of PTSD is evaluation for the presence of a traumatic event. Following mass disasters, such as the Asian tsunami, the incident trauma may be self-evident. In most instances, however, the trauma may not be readily apparent to the health-care provider. Trauma questionnaires alert health-care providers to the likely occurrence of past trauma, including the type of trauma, whether it was a single or recurring event, the age at time(s) of trauma, and the most distressing trauma. They are used in research to establish the DSM-IV criterion A (the trauma criterion) of PTSD. In clinical practice, trauma questionnaires are used to put the presenting problem (e.g., somatic symptoms, immediate trauma) into a wider context. Although the tsunami survivors have experienced an obvious trauma, they may also have experienced previous trauma(s) that affect their presentation or influence outcome. For example, an adult who experienced a near-fatal drowning as a child may react differently in the aftermath of the tsunami compared to someone without such a childhood history.

There are several widely used trauma questionnaires, including the Trauma Questionnaire (TQ)¹⁰ and Stressful Life Events Screening Questionnaire (SLESQ),¹¹ both of which cover a general trauma history. The TQ evaluates one's life history of traumatic experiences. This self-assessment includes a list of various types of trauma and identifies the age at each event and the most distressing experience. The SLESQ is another self-report measure designed to assess lifetime exposure to a variety of traumatic events. The SLESQ has solid psychometric properties, with good discrimination between DSM-IV PTSD criterion A (i.e., trauma criterion) and non-criterion A events. The Assault Information and History Interview (AIHI)¹² was developed to obtain details about rape trauma, including relevant background information (for further information, contact Dr. Foa, foa@mail.med.upenn.edu). It has since been revised to encompass all traumas.

A number of PTSD diagnostic scales discussed in detail below (Diagnostic Assessments) also contain modules to address trauma history. For example, the Clinician-Administered PTSD Scale (CAPS)¹³ and the Structured Interview for PTSD (SIP)¹⁴ each contain a trauma history panel at the beginning of the interview. Foa and colleagues¹⁵ also include a trauma questionnaire in parts 1 and 2 of the Posttraumatic Diagnostic Scale (PDS)

as well as questions that address all the DSM-IV criteria for PTSD. In contrast with the CAPS, which requires an interview with a clinician, the PDS is a self-report questionnaire.

Screening Assessments

Screening assessments can be an important tool to appropriately target individuals at increased risk of developing a disorder and in need of further investigation. However, it is important to bear in mind that, with the exception of the PDS,¹⁵ these instruments include the assumption that there has been exposure to trauma and that they are not a substitute for a clinical evaluation or clinical diagnosis. Short self-rated screening instruments for PTSD discussed below (Rapid Assessment Tools) include the Trauma Screening Questionnaire (TSQ),⁵ Breslau and colleagues' short screening scale,¹⁶ and the SPAN (named for its top 4 items: Startle, Physiological arousal, Anger, Numbing).¹⁷

The TSQ is a 10-item instrument evaluating DSM-IV PTSD criteria B (reexperiencing) and D (arousal) symptoms⁵ that is based on the PDS.¹⁵ Items are rated in a yes/no format as to their occurrence at least twice in the past week. Positive endorsement of at least 6 items has a positive likelihood ratio (PLR = sensitivity/[1-specificity])¹⁸ of 12.3 for PTSD. Of note, the PLR provides an index of the increased likelihood that a condition is present given a positive test result; a score of 3 is considered moderately positive, while 10 is considered strongly positive.¹⁸ The scale's authors did not include items assessing avoidance and numbing (DSM-IV criterion C), owing to the desire to have a brief scale and to concerns that these items are not always well understood by respondents (e.g., amnesia and foreshortened future items).⁵

A 7-item screening instrument derived from 2 widely used structured interviews (i.e., Diagnostic Interview Schedule [DIS] and Composite International Diagnostic Interview [CIDI]) was developed by Breslau et al.¹⁶ Five avoidance and numbing items and 2 arousal items from those interviews were found to have the greatest efficiency for predicting a diagnosis of PTSD. Items are rated in a yes/no format, and a score of 4 positive responses is strongly positive for a PTSD diagnosis (PLR = 26.7). Limitations of this scale include unclear generalizability to all ages (validated in adults aged 18–45 years in the United States) and its validity when used as a self-rating.

The SPAN¹⁷ is a self-rated, 4-item scale derived from the Davidson Trauma Scale (DTS)¹⁹ and includes assessment of avoidance (physiologic upset at reminders), numbing, and arousal symptoms (startle, anger; for further information on the SPAN, contact customerservice@mhs.com). The SPAN evaluates symptom severity over the past week, and optimal efficiency for a diagnosis of PTSD is attained at a cutoff score of 5 or more (PLR = 9.1). The scale enjoys a reasonably broad range of utility.

For example, its psychometric properties have been established in the general population and treatment-seeking samples in the United States,¹⁷ as well as in a Taiwanese population²⁰ and patients in a U.S. gynecology clinic,²¹ and it has been used as a screener in a population of Venezuelan flood survivors (see Otero and Njenga in this supplement).

Diagnostic Assessments

Interviewer-based. Comprehensive diagnostic interviews can be used to establish the presence of a disorder. The DIS²² was developed by the National Institutes of Health to assess psychiatric disorders in the Epidemiologic Catchment Area Study in the 1980s,^{23,24} the first epidemiologic survey of mental health. The DIS can be used by trained lay interviewers or clinicians to make psychiatric diagnoses according to various criteria. The DIS has been revised over the years and in its current form (DIS-IV) yields diagnoses on the basis of DSM-IV diagnostic criteria (for further information, see <http://epi.wustl.edu/dis/dishome.htm>).

The CIDI, an interview derived from the DIS,^{25,26} has been developed to address the need for a psychiatric epidemiologic interview with cross-cultural applicability that can provide diagnoses according to both DSM and ICD criteria. The CIDI was used in the U.S. National Comorbidity Survey in the 1990s²⁷ and has become the most widely used comprehensive diagnostic interview worldwide (for further information, see <http://www.who.int/msa/cidi/>). Another popular tool in clinical research is the Structured Clinical Interview for DSM-IV (SCID-I),²⁸ a structured interview for making the major Axis I diagnoses (for further information, see <http://www.scid4.org>).

A more recent addition to the library of psychiatric diagnostic instruments is the Mini-International Neuropsychiatric Interview (MINI),²⁹ a short, validated semi-structured psychiatric interview designed to assess 19 separate disorders according to DSM and ICD criteria. The modules for Axis I disorders can be used independently of the full interview, adding a greater measure of clinical utility for this scale.²⁹

We should note that, while comprehensive, none of these scales is of much use in rapid field assessment because they require trained personnel and take time to administer (from 20 to > 90 minutes).

A number of interviews have been developed specifically for the evaluation of PTSD. The most widely used of these in PTSD research is the CAPS,¹³ which was developed in the Veterans Affairs Medical Center system (for further information, see <http://www.ncptsd.va.gov/publications/assessment/caps.html>). Several versions of the CAPS exist, based on time period covered and on the diagnostic classification system applied (DSM-III-R, DSM-IV): the current and lifetime diagnostic version, CAPS-1 or CAPS-DX; a 1-week symptom–status version,

Table 1. Psychometric Characteristics of Posttraumatic Stress Disorder (PTSD) Self-Rating Assessment Tools

Self-Rating Tool	Cutoff	Sensitivity	Specificity	Positive Predictive Value	Efficiency
Davidson Trauma Scale ^{a,b}	40	0.69	0.95	0.92	83%
PTSD Checklist ^{c,d}	50	0.91	0.40	0.85	80%
Posttraumatic Diagnostic Scale ^{b,e}	15	0.89	0.75	NA	NA

^aData from Davidson et al.¹⁹

^bValidated against the Structured Clinical Interview for DSM-IV.

^cData from Ventureyra et al.³³ and Walker et al.³⁴

^dValidated against the Clinician-Administered PTSD Scale.

^eData from Ventureyra et al.³³

Abbreviation: NA = not available.

CAPS-2 or CAPS-SX; and a flexible, single-form, 1-week or 1-month version. Each version consists of a trauma questionnaire, followed by 17 interviewer-rated items that cover the B, C, and D criteria for PTSD. Additional items assess frequency and intensity of features often associated with PTSD (e.g., guilt, depression, and homicidality) and provide global ratings that reflect the impact of symptoms on overall functioning. For each of the 17 core PTSD symptom items, the interviewer rates symptom frequency and severity, for a full-scale score of 0 to 136. Thus, the scale provides a range of options for administration and scoring. The CAPS can be used both to assess the presence or absence of PTSD, by determining the number of symptoms present in each cluster, and to measure PTSD symptom severity through the value of the score. Total severity scores can be summed over the 17 core symptoms, with symptom severity evaluated using the following CAPS cutoff scores: 0 to 19, asymptomatic/few symptoms; 20 to 39, mild/subthreshold PTSD; 40 to 59, moderate/threshold PTSD; 60 to 79, severe PTSD; and ≥ 80 , extreme PTSD.¹³ Weathers et al.¹³ propose that a 15-point change in CAPS score indicates clinically significant change.

Alternative and shorter structured interviews have been validated and perform well. These include the PTSD Symptom Scale-Interview (PSS-I)³⁰ and the SIP.¹⁴ Both scales have acceptable psychometric properties and the advantage of brevity relative to the CAPS. Indeed, the PSS-I has psychometric properties as excellent as those of the CAPS, although it takes just 25 minutes to administer compared with 45 minutes for the CAPS.³¹ A third interview, the Short PTSD Rating Interview (SPRINT),³² has demonstrated reliability and validity as a semistructured interview and as a self-rating instrument (J.R.T.D., unpublished data, June 1, 2005). The scale comprises 8 items that evaluate the core PTSD symptoms, along with other relevant features of somatic malaise, stress coping, and impairment due to symptoms. Two additional items evaluate global severity and change with treatment. Rated over the past month, a score of 14 or greater has a 96% diagnostic accuracy for PTSD.

Self-rated. A number of self-rated instruments have been developed to assist in identifying individuals with PTSD, evaluating symptom severity, and assessing change over time. One extremely popular instrument, which has

been translated into numerous languages, is the PDS,³³ comprised of 4 parts that permit identification of the A, B, C, D, and E diagnostic criteria in DSM-IV for PTSD and assessment of change over time (to receive translations of the PDS into various languages, contact Dr. Foa). Additional details of the structure and administration of the PDS are described below (Rapid Assessment Tools).

Another popular self-rating scale is the DTS (for further information on the DTS, contact customerservice@mhs.com).¹⁹ The DTS rates the severity and frequency of 17 core PTSD symptoms over the past week. The full scale scoring range is from 0 to 136. The scale has good psychometric properties and, at a cutoff of 40, has an 83% diagnostic efficiency for a diagnosis of PTSD (PLR = 13.8).

Several other self-rated instruments that can be helpful in evaluating reactions to trauma, but that were not developed to make a diagnosis of PTSD, include the PTSD Checklist^{33,34} (PCL; for further information, see http://www.ncptsd.va.gov/publications/assessment/adult_self_report.html), the Impact of Event Scale-Revised³⁵ (IES-R; for further information, contact Dr. Daniel S. Weiss, dweiss@itsa.ucsf.edu), and the Mississippi Scale for Combat-Related PTSD³⁶ (for further information, see http://www.ncptsd.va.gov/publications/assessment/adult_self_report.html). While the IES-R includes hyperarousal symptoms, it is less widely used than its established parent, the IES.

All of these instruments have been psychometrically validated. The DTS, PCL, and PDS have good sensitivity and specificity for diagnosing PTSD using appropriate thresholds when validated against the SCID or the CAPS (Table 1). However, none of them has been widely validated linguistically or transculturally.

Other Measures

Other measures that are salient in the assessment of PTSD include measures of stress coping, or resilience, and general psychopathology. One measure of stress coping is the Sheehan Stress Vulnerability Scale (SVS),³⁷ which is a self-rated assessment that measures vulnerability to the effects of stress. The SVS comprises a 1-item visual analog scale rated from 0 (not at all) to 10 (very severely) to answer the question, "In the past week, how much were you set back by stressful events or personal problems, such as

Table 2. Summary of Self-Rated Instruments for Rapid Assessment of Posttrauma Mental Health Problems in the Field

Comparator	TSQ ^a	PDS Part 3 ^b	CD-RISC-2 ^c	GHQ-12 ^d
Used to	Identify patients at risk for PTSD	Diagnose PTSD	Assess resilience	Assess general psychopathology
Assesses	PTSD symptoms	Assess changes over time Frequency/severity of core PTSD symptoms	Adaptability to change, and “bouncing back” after adversity	General psychopathology
Period covered	Past week	Past month	Past month	Last few weeks
Items, N	10	17	2	12
Score				
Range	0–10	0–51	0–8	0–12
General population	0–5	0–14	6–7	0–2
Cutoff for PTSD	6	15	< 5	3

^aData from Brewin et al.⁵^bData from Ventureyra et al.³³^cData from Connor and Davidson.³⁹^dData from Goldberg.⁴⁰

Abbreviations: CD-RISC-2 = 2-item Connor-Davidson Resilience Scale, GHQ-12 = 12-item General Health Questionnaire, PDS = Posttraumatic Diagnostic Scale, PTSD = posttraumatic stress disorder, TSQ = Trauma Screening Questionnaire.

work, home, social, health, or social problems?” Higher scores are associated with greater impairment. The SVS can be applied in a variety of clinical situations, and, although scores are generally higher in patients with PTSD than those with other anxiety disorders, a lower score reflecting improved functioning and quality of life can be observed after effective treatment.³⁸

A more recently developed measure to evaluate resilience is the Connor-Davidson Resilience Scale (CD-RISC),³⁹ a 25-item self-rated scale that assesses characteristics of psychological resilience over the last month. Higher scores are associated with greater resilience, and scores have been shown to improve with treatment. The CD-RISC has been validated in a general U.S. population and various clinical populations in the United States. The general population mean score is 80, and lower scores have been observed in patients with depression and anxiety disorders, with the lowest scores in individuals with PTSD (mean 55–60).³⁹ A brief 2-item version of the CD-RISC (CD-RISC-2) is highly associated with PTSD and is responsive to change during treatment (J.R.T.D., unpublished data, January 1, 2005; see CD-RISC-2 under Rapid Assessment Tools).

Of the many self-ratings developed that evaluate general psychopathology, 2 of the most widely used measures in the field are the General Health Questionnaire (GHQ; see Rapid Assessment Tools)⁴⁰ and the Symptom Checklist-90 (SCL-90).⁴¹ Several versions of the GHQ are available, including 12-, 28-, 30-, and 60-item versions. The shortest of the 4 versions, the GHQ-12, enjoys a degree of international and cross-cultural robustness. Additional details about the structure and administration of the GHQ-12 are provided below. The SCL-90-R, a widely used self-rated questionnaire,⁴² assesses 90 items in 9 subscales (somatization, depression, phobic anxiety, obsessive-compulsive, anxiety, paranoid ideation, interpersonal sensitivity, hostility, and psychoticism) and 3 global measures (for further information, see [\[pearsonassessments.com/tests/scl90r.htm\]\(http://pearsonassessments.com/tests/scl90r.htm\)\). A shorter version with 53 items is available. An earlier version of the SCL, the SCL-90, is also in the public domain, with little to distinguish it from the SCL-90-R.](http://www.</p>
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RAPID ASSESSMENT TOOLS

Following a large-scale disaster, such as a tsunami, community resources are often limited, and rapid assessment of large groups of survivors is often necessary to triage those in greatest need of referral to available resources. The goals of rapid assessment following a trauma are to evaluate levels of distress, impairment, and safety. This evaluation includes, but is not limited to, assessment for posttraumatic stress symptoms, coping strategies, suicidality, and alcohol and drug use, as well as an evaluation of the trauma’s impact on meeting one’s daily needs and on available supports.

Examples of self-rated instruments that can facilitate rapid assessment include the TSQ, PDS, CD-RISC-2, and the GHQ. Features of these scales are summarized in Table 2. Of note, although all these assessment tools have been validated in the cultures and languages in which they were developed, only the GHQ-12 and, to a lesser extent, the SPAN have been validated in multiple cultures, settings, and languages.⁴³

Trauma Screening Questionnaire

As most people who experience a traumatic event do not develop PTSD, it is important to identify those individuals who are at greatest risk and who need further evaluation. The TSQ, discussed above (Screening Assessments), is a useful screening tool in this regard (for further information, contact Dr. Foa).

Posttraumatic Diagnostic Scale

The PDS is a widely used self-report screening instrument comprised of 4 parts: (1) a trauma history, (2) a de-

tailed history of the most distressing event, (3) 17 items assessing the frequency of core PTSD symptoms over the past month, and (4) assessment of distress and functional impairment due to symptoms.³³ (For further information, see <http://www.pearsonassessments.com/tests/pds.htm>.) A tsunami-specific version is available that refers to the tsunami in the instructions rather than to an unspecified trauma (E.B.F., unpublished data, June 29, 2005).

In the aftermath of a mass disaster, the incident trauma is well established, and it may not be necessary to complete the trauma history covered in parts 1 and 2 of the PDS. However, one should remember that obtaining an individual's life history of traumatic events (part 1) can help to place the trauma due to the disaster into context for that person. Similarly, information collected in part 2 may help to illuminate the extent of trauma caused by the disaster (e.g., events within the disaster itself, death of loved ones, loss of home, loss of job, and loss of community).

Part 3 provides a diagnostic assessment for PTSD and includes 17 items assessing the frequency of occurrence of the core DSM-IV PTSD symptoms in the past month: 5 related to reexperiencing, 7 to avoidance and numbing, and 5 to arousal. Each item is rated from 0 to 3, for a total possible score of 0 to 51. Using a cutoff of 15, individuals are diagnosed with PTSD across a range from mild (score 15–19) to severe disease (score > 30). Patients whose scores have improved to less than 10 are said to be in remission.

Part 4 assesses impairment in various aspects of daily life (work, household duties, friendships, leisure activities, schoolwork, family relationships, sex life, general satisfaction with life, and overall level of functioning) using a yes/no format. Information in this section can be useful in evaluating the current impact of symptoms on overall functioning, as well as in assessing change over time.

For rapid assessment in the field, when the trauma is known, parts 3 and 4 of the PDS may be sufficient.

Connor-Davidson Resilience Scale 2

A 2-item version of the CD-RISC (CD-RISC-2) provides a brief assessment of resilience over the past month.³⁹ Features of resilience evaluated are adaptability to change and the ability to bounce back after adversity, both of which were strongly associated with PTSD and were responsive to change (over time and with treatment), in the 25-item version.⁴⁴ Each item is rated from 0 (not at all) to 4 (true nearly all the time), and higher scores are associated with greater resilience. In the general U.S. population, the average score is 6 to 7; a score of 4 or less is often found in PTSD. The CD-RISC-2 can also be used to assess the ongoing impact of the tsunami on a victim's ability to cope. While the full 25-item CD-RISC has been well validated, the same cannot yet be said for the short 2-item version, but efforts to do so are underway.

General Health Questionnaire, 12-Item Version

A shortened version of the GHQ, the GHQ-12,⁴⁰ has broad clinical utility. The GHQ-12 has been validated in a variety of cultures and languages,³⁸ and the best cutoff score to achieve optimum sensitivity and specificity has been found to vary considerably from one setting to another.^{45,46} To address this problem of variability across setting, several investigators have suggested using stratum-specific likelihood ratios (SSLR) in place of fixed cutoff scores.⁴⁶ The SSLR expresses the probability that a given level of a diagnostic test result would be expected in a patient with the target disorder, such that an SSLR of 10 makes the target disorder highly probable, while an SSLR of less than 0.1 rules it out. The GHQ-12 is rated over the past few weeks, with each item scored from 0 to 3. Responses are dichotomized, whereby ratings of 0 or 1 are coded as "0" and ratings of 2 or 3 as "1." An overall GHQ-12 score of 7 or greater (SSLR = 11.5) indicates a high probability of clinically significant psychopathology that warrants further evaluation.⁴⁶

Screening for Alcohol Problems

In the aftermath of trauma, some survivors will turn to alcohol consumption and other drug use in an effort to alleviate their distress. Individuals with preexisting problems with substance abuse or dependence are at greater risk for relapse following traumatic events. For example, following the September 11 terrorist attacks in New York City, a substantial increase in alcohol use was observed (25%), with the greatest increase reported in those who already consumed alcohol.⁴⁷

It is therefore important to screen for substance use problems in trauma survivors. One widely used tool to assess for clinically significant alcohol problems is the CAGE.⁴⁸ The 4 self-rated items are scored in a yes/no format, and 2 or more positive responses are considered clinically significant and warrant further clinical evaluation.

TRAINING NONMEDICAL PROVIDERS

After a major disaster, infrastructure can be devastated, and health-care providers are often personally affected. These realities have implications for the health-care workers' ability to provide care to others. Under such circumstances, it may be necessary to draft nonmedical volunteers to provide health services, including mental health care.

The experience of the Armenian earthquake in 1988 shows that volunteer therapists need to be screened carefully and given appropriate training.⁴⁹ In selecting such paraprofessionals following the earthquake, Goenjian⁴⁹ found it important to identify those with motivation, greater maturity, less anxiety, and a positive/appropriate personal response to trauma and loss. It was also important to prepare them for the difficulties that they would face

(both mental health issues and physical hardship) and to show them how to deal with their own experiences and help others do the same.⁴⁹ However, the training options can be limited by the abilities of the selected individuals. Careful thought should be given to the extent to which untrained individuals enlisted as care providers can make decisions and use scales. To address this in depth, however, would be beyond the scope of this article; instead, we refer readers to the work of Goenjian⁴⁹ and van de Put.⁵⁰

SUMMARY AND CONCLUSION

It is important to identify individuals at increased risk for mental health problems after a major disaster, to diagnose those problems, and to monitor the results of treatment. Self-rated instruments are most appropriate for rapid screening and assessment, and several are available. Examples of instruments suitable for rapid use in the field have been described. However, the choice of instrument will depend on the local situation and availability of locally validated questionnaires. This dependence could provide an opportunity to validate a wider range of instruments for local use.

Assessments and outcome measures may need to be repeated at intervals, depending on context, e.g., to identify persisting posttraumatic reactions or to monitor recovery.

In previous disasters, nonmedical personnel were used to provide care in situations in which the normal health-care infrastructure was overstretched. Such models can be adapted according to local need.

In conclusion, suitable self-rated screening and assessment tools are available to identify, diagnose, and monitor PTSD patients after a major disaster such as the Asian tsunami. However, further work is required to validate these tools culturally and linguistically.

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