New Yorkers after the terrorist attacks of September 11, 2001.

A concerning aspect of this analysis is the unintended effect it may have if it is interpreted as a dismissal of the trauma experienced by the people of New York. Widespread subsyndromal posttraumatic stress disorder (PTSD) disrupts communities, both psychologically and economically. We know from important scholarly work led by the New York Academy of Medicine that persons who were exposed to the attacks did suffer in greater proportions than those who were not (2). In addition, Weissman (3) showed a statistically significant rise in PTSD treatment after September 11, 2001, albeit without clear causality.

Our challenge is to devise methods to reliably measure and intervene when broad social trauma strikes so that the mental health system can provide essential clinical services, and, in so doing, improve the mental health and social and economic conditions of affected communities.

Hunter L. McQuistion, M.D.

Dr. McQuistion is chief medical officer for mental hygiene services in the City of New York Department of Health and Mental Hygiene.

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In Reply: We must not confuse human response to tragedy with pathology. To date, not a single published epidemiological study of PTSD after September 11 has been able to render diagnoses—the methods used were too limited. Common sense tells us that some small fraction of people surely met formal criteria for a mental illness as a result of the events of September 11, although the studies are unable to tell us how many. However, Dr. McQuistion's seeming eagerness to portray normal, if painful, reactions to a catastrophe as clinical sequelae only fuels the perception that citizens are psychologically fragile in the face of terrorism.

Sally L. Satel, M.D.

WHO Revises Draft of Manual on Legislation

To the Editor: In the Taking Issue column in the September 2002 issue of *Psychiatric Services* (1), I criticized a draft manual circulated by the World Health Organization (WHO) that was intended as a guide to mental health legislation around the world. The manual's provisions were similar if not identical to those of antipsychiatry ideologues and of the self-appointed legal advocates who in the 1970s denied the reality of mental illness and the efficacy of medical treatment for patients with serious mental disorders. Under the banner of reform, the legal requirements set forth in the manual would have created costly and counterproductive obstacles to psychiatric treatment.

I am delighted to report that WHO has completely revised its draft manual, taking into account the criticisms in that Taking Issue column. I believe it is now appropriate for American psychiatrists to endorse WHO's efforts and to thank those involved for their responsiveness to the detailed criticisms they received from experts from the American Psychiatric Association as well as from me. I also thank the journal's editor, John A. Talbott, for his willingness to publish the criticisms, which ruffled feathers but seem to have had a salutary effect.

Alan Stone, M.D.

Dr. Stone is Touroff-Glueck professor of law and psychiatry in the faculty of law and the faculty of medicine at Harvard University.

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Pentagon Employees After September 11, 2001

To the Editor: In the October 2003 issue of *Psychiatric Services*, Dr. Grieger and his colleagues (1) reported the results of a study that showed a 14 percent prevalence of "probable" posttraumatic stress disorder (PTSD) among survivors of the September 11, 2001, attack on the Pentagon. The study had serious methodologic problems, quite apart from the very low survey response rate (11 percent). The authors provided insufficient detail of the scoring methods and distribution of responses for the Impact of Events Scale–Revised (IES-R) to support their conclusions about the prevalence rate. There are five possible responses to the instrument's 22 questions about symptoms: not at all, a little bit, moderately, quite a bit, and extremely (2). Dr. Grieger and his colleagues apparently scored any affirmative response as a symptom endorsement, meaning that even the response of "a little bit" was counted as positive. Thus, if participants responded in this way to one question about intrusive thoughts, three questions about avoidance symptoms, and two questions about hyperarousal symptoms, they would have screened positive for "probable PTSD."

Although it can be argued that this approach follows the basics of *DSM-IV* criteria, it also means that persons with total IES-R scores as low as 6 could be included in the "probable PTSD" category. No published studies provide support for the validity of this approach, and the approach is inconsistent with scoring methods established for the original 15-item IES or for related instruments such as the PTSD Checklist (2,3). It is also highly unlikely that a person whose responses reflected this minimal level of symptoms would meet *DSM-IV* PTSD criterion F—clinically significant distress or functional impairment.

Although the original IES and the IES-R differ in response formats and scoring, data from one of the coauthor's own studies (4) provide some

idea of the degree to which PTSD is likely to have been overestimated in the Pentagon sample. An analysis of data from motor vehicle accident victims indicated that an IES cutoff score of 19 had only a 38 percent positive predictive value in a population with a 15 percent prevalence of PTSD. When the IES cutoff score was lowered to 8.5 the positive predictive value fell to 25 percent. In other words, of the 11 Pentagon employees identified by Dr. Grieger and colleagues as having "probable PTSD," it is unlikely that more than two or three of them, or 3 to 4 percent of the total sample, actually had the disorder.

There are similar problems with the predictive value for the single item about alcohol—"using alcohol more than you meant to." On the basis of the probable sensitivity and specificity of this question (5), and the low expected prevalence of alcohol use disorders among Pentagon employees, at most only one or two of the ten respondents who answered this question affirmatively had an alcohol problem.

In summary, the study by Dr. Grieger and his colleagues parallels telephone surveys in New York, Washington, and other parts of the country that showed relatively high levels of general distress after September 11. However, it does not provide an indication of the prevalence of probable PTSD or alcohol misuse among persons exposed to the Pentagon attack. At best it measures "subthreshold" PTSD symptoms in a small sample of Pentagon employees.

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In Reply: We thank Drs. Hoge, Messer, and Castro for their careful review of our article and for their comments. We agree that our results do not represent a prevalence rate of PTSD in the community of survivors of the terrorist attack. As we noted in our discussion, the generalizability of the findings is limited because of the low response rate and unknown selection biases. As we noted in our methods section, our goals were to examine the effects of previous life experiences, exposure during the attack, initial emotional response, and peritraumatic dissociation on subsequent PTSD symptoms, substance use, and current perceptions of safety seven months after the attack. Our criteria for probable PTSD certainly include individuals with subsyndromal PTSD.

Our findings indicate robust associations between our measure of PTSD and peritraumatic dissociation, initial emotional response, and current perception of a lower level of safety, which were the areas of interest. We found it noteworthy that in our sample, the degree of direct exposure to the attack was not related to the presence of PTSD symptoms seven months later.

The item about alcohol use was not intended to identify individuals with alcohol use disorders. As we reported, it identified those who may have used alcohol as a coping behavior without the presence of an alcohol use disorder. Our study also found negative health consequences associated with this often overlooked behavior.

Great caution must be used in attempting to generalize results from survey research to the rates of psychiatric illness in the community after terrorism (1). Each terrorist act has a unique impact on the targeted population, and findings cannot be routinely applied to larger populations. Understanding the longer-term impact of terrorism on health, health care utilization, and changes in perception and behavior requires examination of the affected groups over time and against other samples. As we observed in our sample, early markers identified participants who were more likely to have ongoing difficulties. Understanding the vulnerabilities and mechanisms of postterrorism disturbances in function is perhaps more important than attempting to define the prevalence of disease within populations or large samples within populations. Long-term follow-up studies have found that participants who have mild forms of psychiatric illness at baseline are more likely to continue to be ill at follow-up than those who do not have illness at baseline (2), which suggests that identifying individuals with subsyndromal symptoms may be as important as identifying those who have more severe symptoms.

Thomas A. Grieger, M.D.
Carol S. Fullerton, Ph.D.
Robert J. Ursano, M.D.

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