to:

PTSD symptoms of survivors of an airline event in Teheran

Seyed-Mahmoud Mirzamani, Mohammad Reza Mohammadi

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Since its inclusion in the American Psychiatric Association's *Diagnostic and statistical manual of mental disorders* in 1980 [1], Posttraumatic Stress Disorder (PTSD) has been a frequently researched syndrome: A June 2007 search of the term in the *PsycInfo* database resulted in over 13,000 articles. In their addition to this burgeoning body of literature, Mirzamani and Mohammadi report that from two-thirds (self-reports on a PTSD checklist) to three-quarters (psychiatric interviews) of 39 survivors of an airline crash (two of 157 passengers were killed) met the criteria for a diagnosis of PTSD. These numbers are conspicuously high; we address this unexpected finding in this commentary.

The likelihood of PTSD development is positively correlated with greater severity of, and more frequent exposure to, traumatic events [2]. For example, a study of earthquake survivors found a positive correlation between closeness to the epicenter of the quake and PTSD prevalence [3]. Similarly, greater combat exposure has been linked with an increased incidence of PTSD [4]. Although this *dose response model* is not always found [5], Mirzamani and Mohammadi report PTSD rates that far exceed rates for events that were far more severe: 25% for survivors of an earthquake that killed thousands [6]; 8.3-24% for World War II veterans whose ship was sunk by kamikaze attacks [7]. Indeed, their reported rates are comparable to World War II ex-POWs who were tortured by their Japanese captors (70%) [8]. This incongruity of Mirzamani and Mohammadi's work with a vast literature body requires explanation.

Mirzamani and Mohammadi focus on lack of *aftermath care* as the reason for the high rates of PTSD. Posttrauma social support appears to lessen the severity of PTSD symptoms [9]; however, the PTSD prevalence reported in their study is much too high to be explicated by simply a lack of posttrauma care. There are numerous factors aside from the nature of the precipitating traumatic event that may increase the likelihood of PTSD developing. Among these factors are being female [10], lower intelligence and educational status [11], an adverse environmental background [12], and premorbid personality characteristics [13]. Unfortunately, the influence of these or other possible PTSD exacerbating factors on Mirzamani and Mohammadi's results cannot be ascertained.

One possible reason for Mirzamani and Mohammadi's findings can be examined: cultural context. In recent years there has been a growing trend toward questioning the universality of the PTSD construct and its measures

[14-16]. Mirzamani and Mohammadi used Western-derived constructs and measures to study individuals in a non-Western culture. Cultural differences in experiencing and articulating traumatic events and their sequelae may have obfuscated their results. Nevertheless, researchers using similar constructs and instruments in cultures as diverse as Brazil [17], Korea [18], and Thailand [19] have reported considerably lower rates of PTSD.

Mirzamani and Mohammadi have presented an interesting, yet questionable finding. The reported prevalence of PTSD deviates significantly from a substantial body of literature and explanations for that incongruence are wanting. Additionally, methodological flaws (e.g., the chi square report is incomplete; the procedure section presents contradictory information on the participants) compromise the strength of the research. Given these problems, the significance of their work is dubious.

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