Somatization: Issues in refugee mental health

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ABSTRACT

In this review I discuss the phenomenon of somatization in the refugee population. Somatization may be defined loosely as the presentation in a medical setting with medically unexplained symptoms. However, this definition lacks both clinical and investigative utility in that it addresses neither etiology, nor the specific and quantifiable details of presentation. Thus, any discussion of somatization must begin with an attempt to resolve the prevailing and often contradictory uses of the term. In addition, such a discussion becomes increasingly complex when one applies the word, which is steeped in Western theory of the nature of mind and body experience, to cultures of an entirely foreign ken. Thus, the implications of cross-cultural study of somatization must also be addressed. Finally, I will briefly review some studies of demographic variables associated with somatization, somatization as a response to trauma, and somatization within the refugee population specifically. In conclusion, I will address an area which I believe deserves further investigation: the role of language in somatization.

Recognition of the phenomenon of somatization can be traced to the nascence of psychiatry itself in the late 19th century, when it was known as hysteria. Freud described hysteria as part of an emotional defense system characterized by dissociation and repression (1). The term hysteria disappeared from official Western nosology in the 1970s with the third edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-III), at which time "hysteria" was "split asunder" into multiple diagnoses, including somatoform disorders, dissociative disorders, and histrionic and borderline personality disorders. At the same time, post-traumatic stress disorder appeared as a new diagnosis (2,3). Today, the DSM-IV criteria for somatization disorder include a presentation with at least 8 different medically unexplained symptoms which must derive from 4 different categories: 2 gastro-intestinal, 1 pseudo-neurological, 4 pain symptoms, and 1 sexual symptom.

Data from the National Institute of Mental Health (NIMH) Epidemiologic Catchment Area (ECA) study suggest that somatization disorder is rare, with a lifetime community prevalence of 0.06% to 0.6% (4). Yet, somatization as a behavior is far more common than diagnosis of the full disorder, and thus is of concern to both researchers and clinicians. Patients presenting with medically unexplained symptoms are a common occurrence in primary care in the United States,

accounting for up to 50% of all new medical outpatient visits, with higher percentages in specialty practices (5). Recent studies have shown that somatization is equally common in developed and developing countries (6-9). Somatizing patients present a conundrum to the primary care physician; considerable time and resources are devoted to discerning the cause of physical symptoms, and, too often, patients are misdiagnosed and therapies initiated for physical syndromes when their distress is primarily psychological.

Three issues arise in the attempt to understand the term somatization. The first is etiological: from what psychological processes do the physical symptoms arise? For many years, somatization retained from its predecessor, hysteria, the connotations of repression and dissociation. In this conception, somatic symptoms are understood to be a defense against emotional trauma and distress, and an alternative to the psychological expression of that distress. The somatizing patient would deny any experience of emotional distress, and the repressed anguish, like a tightly bottled fluid escaping by an alternate route, would be expressed physically. In keeping with this, it is often thought that alexithymia plays a predisposing role in the pathogenesis of medically unexplained symptoms. Alexithymia is defined in Stedman's Medical Dictionary as "difficulty in recognizing and describing one's emotions, defining them in terms of somatic sensations or behavioral reactions."

In the last decade, understanding of somatization has moved away from this emphasis on repression and dissociation. Studies have demonstrated that not only is somatization strongly linked with psychological distress and psychiatric disorder, but somatizing patients are generally forthcoming about their emotional distress. A study that directly addressed the connection of somatization with alexithymia found little evidence of an association (10). Compared to patients with medically explained symptoms, patients with medically unexplained symptoms had almost twice the risk of mental disorder. More to the point, these patients were not more alexithymic than patients whose symptoms had medical explanations, and they were more likely to attribute their physical symptoms to their emotional problems. The data from this study seem to suggest that any association between alexithymia and somatization results indirectly from the co-occurrence of these phenomena with psychological distress.

In an analysis of the NIMH ECA study data, Simon et al. specifically asked the question of whether somatizing patients were unwilling or unable to report

psychological distress (11). They found that somatic symptoms were not an alternative, but were instead an accompaniment to psychological symptoms. The percent of respondents self-reporting overt psychological distress increased steadily with the number of functional somatic symptoms. In what they designated as the high somatization group (reporting five or more current functional somatic symptoms), over 75% of respondents showed current overt psychological distress (measured as endorsement of one or more symptoms of current emotional distress or a current psychiatric diagnosis). In this study, somatization showed the strongest correlation with current depressive (N=10,476, r=0.41) and anxiety (r=0.27) symptoms. The authors conclude that "somatizing patients and psychosomatic patients with alexithymia may actually fall on opposite ends of a spectrum of symptom sensitivity, with alexithymic patients having difficulty expressing both emotional and somatic distress, and somatizing patients suffering from hypersensitivity to both emotional and psychological distress."

Along these lines, Barsky et al. suggested that somatization might result from an amplified perception of bodily sensations that is part of the experience of a stable or transient emotional distress (12). As such, amplification would involve three elements: 1) bodily hypervigilance, 2) a tendency to focus on relatively weak or infrequent sensations, and 3) a tendency to appraise somatic sensations as abnormal and pathological (12). Using the instrument they devised to assess amplification (13), the authors found significant correlations between amplification and depressive disorders, anxiety disorders, somatization disorders and hypochondriasis.

Similar correlations were noted in the analyses of the World Health Organization's (WHO) Psychological Problems in General Health Care (PPGHC) study in 1991 and 1992. The authors of those analyses found that, across 15 different countries, higher somatic symptoms scores were strongly correlated with self-reported current anxiety and depression (r=0.42) (6-9).

The second issue to arise in a discussion of somatization is one of quantification and identification. Clearly questions of etiology have a place here as well, since whether one chooses to identify somatization as medically unexplained physical symptoms accompanying or in exclusion of signs of psychological distress has an impact on both clinical practice and research. Additional attempts to clarify the phenomenon relate to distinguishing between somatization disorder and somatization as a behavior. The stringent and extensive DSM-IV criteria for a diagnosis of somatization disorder and the disorder's low prevalence in the population make it of minimal utility for researchers and clinicians who are interested in the

behavior of somatization as a sub-clinical indicator of generalized emotional distress. Accordingly, Escobar et al. proposed an abridged somatization construct derived from the Diagnostic Interview Schedule's (DIS) somatization disorder items. This somatic symptom index (SSI) requires only 4 symptoms for men and 6 symptoms for women (the difference in criteria for women and men being retained from the DSM-IV). The authors tested the SSI against data collected in the ECA programs in Los Angeles, Durham NC, and Puerto Rico. The SSI was found to be 100 times more common than the full somatization disorder, yet retains similar predictive value in that it: a) shows similar age, sex, and socio-economic status/level of education distributions; b) is associated with significant psychopathology, particularly depressive symptoms; c) is associated with heavy use of medical services; and d) is associated with greater levels of disability (4).

Katon et al. agree that somatization might more usefully be viewed as a "spectrum of severity." They propose that there is utility in viewing somatization as a continuum on which increasing levels of somatic symptoms are indicative of increasing distress. They suggest a revision of the DSM-IV somatoform disorders section to include not only somatization disorder, but also an abridged definition of somatization that is often associated with anxiety and depression, and a third type of somatization associated with adjustment to stress and somatic idioms of distress that occur in patients without psychiatric illness (14).

These distinctions are vital for both the clinical care of patients and for the purposes of research. Viewing somatization as an expression of distress in which physical symptoms follow a continuum that reflects perhaps less overt psychological symptoms will allow clinicians to better identify distressed patients and treat them according to the severity of their psychological pathology. Likewise, most researchers are interested not in somatization disorder, but in the more ubiquitous expression of emotional distress through physical symptoms, regardless of their number and physiologic system.

Varying definitions have significantly complicated research relating to somatization. In perhaps the best demonstration of this, Simon et al. analyzed the WHO PPGHC study data with three commonly used different definitions of somatization. The first definition was simply the presentation with (medically explained or unexplained) somatic symptoms by patients who also have a psychiatric (depressive or anxiety) disorder. By this definition, overall prevalence at 15 sites in 14 countries of varying degrees of development was 69% with a range from 45% to 95%, and with no great variance according to geographic or economic classification. The sites with the highest rate of

somatized depression were Ankara,Turkey; Athens, Greece; Ibadan, Nigeria; Bangalore, India; and Shanghai, China. Walk-in centers had the highest rates of somatized depression by this definition.

The second definition was the presentation with multiple medically unexplained symptoms by patients who have a psychological disorder. By this definition overall prevalence of somatization was 50% and exceeded 40% at 9 of the centers. Further analysis showed that patients with depression were significantly more likely to report unexplained somatic symptoms than those without depression. The sites with the highest rate of somatized depression were Bangalore, India; Groningen, Netherlands; Rio, Brazil; and Santiago, Chile.

The third definition of somatization was the denial of psychological symptoms on direct questioning and the substitution of somatic symptoms. The overall prevalence of somatization by this definition was 11% and did not exceed 26% at any site. The sites with the highest rates of somatized depression were Athens, Greece; Berlin, Germany; Nagasaki, Japan; and Ibadan, Nigeria (9).

In summary, there is little agreement between the sites with the highest rates of somatized depression by any of the three definitions. Eighty-five percent of patients with major depression met at least one of the definitions, but only 4% met all three. In none of the three possible comparisons was the agreement between a pair of definitions greater than would be expected by chance. Only the first definition of somatization showed any variance according to the type of center (walk-in versus private) (9). This analysis is an excellent example of how simply working with different definitions of somatization may account for significant differences in results, and highlights the importance of clarifying the term before beginning research.

In his paper on culture and somatization, Kirmayer points out that there are additional differences in how somatization is defined between medical sociology and anthropology, official psychiatric nosology, epidemiological research, and studies in primary care, leading to drastically different results (15). In addition to these difficulties within our own language and culture, we may speculate on the challenge of applying the term to other cultures within which the experience of psychological distress may be very different from our own. At the base of this difference is the traditional Western separation of mind and body. It is precisely the theoretical separation of mind and body that allows the concept of somatization to exist; without it, there is no distinction between mental and physical distress, and thus one form of distress cannot be transduced into the other.

In addition, it would be expected that, while in some ways response to emotional stressors is universal, in other ways it is culturally prescribed. Cultural stigma attached to certain psychological or physical expressions of distress may cause people to either experience or report emotional distress in a different manner. There is ample evidence from anthropological research of the impact of culture on the experience of depression (16), and of so-called culture bound syndromes such as the Korean syndrome of suppressed rage, *hwa-byung*, or the Nigerian syndrome of *brain fag* (15). Such culture bound syndromes often have a very specific constellation of symptoms that would not be picked up by the symptoms lists derived from official Western nosology. In addition, people from other cultures may have different attitudes about the propriety of relating emotional distress to their physician, thus making collection of data in a clinical setting difficult.

All of this is precisely what makes the study of somatization across cultures so fascinating. Culture is the wild card; to discover how it affects the experience and expression of emotional distress would be to elucidate one tiny aspect of the human experience as a whole. And yet, cross cultural research is plagued by a lack of a firm stance, a kind of cubist, multi-perspective balancing act which challenges even the hardest-headed statistician. For this reason, quantitative data drawn from across cultures must be received with caveats.

Having offered a general nod to the potential confounders, I will proceed with a brief review of some of the variables that have been traditional targets of research in this area, specifically demographic variables, such as age, sex and level of education. Across all cultures, somatization is often found to be associated with older age. Of note is the analysis of the NIMH ECA study data in the US and Puerto Rico which showed that, regardless of gender or ethnicity, respondents age 40 and older report more somatization disorder symptoms than those under age 40 (4). Similar results were found in the WHO PPGHC study, in which it was found that both somatization disorder and somatization as measured by the SSI tended to be associated with older age. Individuals 45 years and older tended to have a higher risk to somatize than those aged 31 to 44 years (7).

It is widely believed that somatization is more common in women than in men. In a 2001 paper, Barsky et al. performed a thorough review of 175 articles on the topic of sex differences in somatic symptom reporting (17). From the literature they reviewed, they found that women generally report more bodily distress, and more numerous, more intense, and more frequent somatic symptoms than men. These differences were noted across the board in all ages and among community populations, medical patients,

subjects of experimental and laboratory studies, and among those with somatoform disorders. The authors include an exhaustive discussion of factors that may contribute to these differences, including biological and socialization differences, increased exposure to trauma and abuse in females, and gender bias in research and clinical practice.

Several papers have re-evaluated the data on sex differences in somatization. In testing the SSI on the ECA study data from Puerto Rico, Escobar et al. found that men and women had equal levels of somatization by both the SSI and the somatization disorder criteria (4). A study of somatization in the Arab population found no statistical difference in rates of somatized (as opposed to psychologized) mental disorder in men and women (18). One analysis of the prevalence of somatization in the WHO PPGHC study found that gender differences disappeared when somatization was identified by the SSI instead of by criteria for the full somatization disorder (7). Simon et al. performed a more in depth analysis of the same data that asked 2 questions: 1) Is there a gender difference in the main reason for contacting the primary care physician?; and 2) do gender differences vary across countries? First, while females reported higher levels both of somatic symptoms and of emotional distress compared to males, the correlation between somatic symptoms and emotional distress was equally strong in both sexes. Second, gender appeared to have no effect on the main reason for consulting the primary care physician. Finally, primary care attendees from less developed countries tended to report more somatic symptoms and to show greater gender differences (females greater than males) at each level of emotional distress (8). This last difference may be attributable to a greater discrepancy in the levels of education of men and women in developing countries compared to developed countries. Thus, there is evidence that research across genders may share some of the pitfalls of research across cultures, in which many variables contribute to the experience and reporting of physical symptoms of emotional distress, as well as to the interpretation of data.

Socio-economic status and level of education are two additional demographic variables that have often been measured in studies of somatization. The prevailing belief, borne out by large studies such as the NIMH ECA study, is that lower levels of education and lower socio-economic status correlate with higher degrees of somatization (4, 11). There has been a temptation in the literature to extrapolate that this results from a lesser ability to think abstractly and to conceptualize and verbalize emotions. However, this train of thought should be tempered by the evidence against a similar association between alexithymia and somatization (10), and by the finding that the type of

clinics most available to people with fewer resources may simply be better at eliciting physical as opposed to psychological symptoms (9).

Nevertheless, data from the WHO PPGHC study corroborated the moderate inverse relationship between level of education and prevalence of somatization that was found in the US and Puerto Rico. Years of formal education showed a modest but significant inverse association with current somatic symptoms (r=–0.18, p<0.001), and a weaker but still significant association with total distress (r=–0.06), which was defined as anxiety and depression (4, 6).

Likewise, in the same study the correlation between distress and somatic symptoms was somewhat stronger in less economically developed centers; an increase of 1 point in current distress score would be associated with a mean increase of 0.33 points in somatic symptom score at the 5 most developed sites compared with a mean increase of 0.50 points at the 5 least developed sites (6). This association was far less than had been postulated before the study was done, and has challenged preconceptions and raised questions regarding methodology (19).

It has long been known that trauma, one of the greatest causes of emotional distress, is strongly associated with somatization. A study of treatment-seeking and community adults in the US found that 84% of those with current post-traumatic stress disorder (PTSD) also endorsed current somatization, compared with 27% of the respondents who had never had PTSD. Interestingly, the authors found that while earlier onset of trauma was associated with more severe overall symptoms, late onset of trauma showed higher endorsements of somatization specifically. In addition, they showed that somatization and other features associated with PTSD, such as affect dysregulation, tended to linger after resolution of the symptoms that fall under the DSM-IV PTSD diagnostic criteria (3).

A study of firemen after a large environmental fire in Australia revealed that those who suffered from PTSD complained of more physical symptoms than controls, were more likely to have visited a doctor more often than controls, and had significantly higher rates of cardiovascular, respiratory, musculoskeletal and neurological symptoms that could not be attributed to injury. In addition, PTSD sufferers who complained of physical symptoms were statistically more likely to have a comorbid diagnosis of major depression than PTSD sufferers who did not complain of physical symptoms (20).

Of particular interest to primary care clinicians in the US is the suggestion that medical syndromes with ill-defined pathology, such as irritable bowel syndrome and fibromyalgia, are often associated with psychiatric disorders and childhood and adult trauma. In an attempt

to eliminate the confounding effect of pain on the degree of emotional distress, Katon et al. compared rates of major depression in diseases with ill-defined and well-defined pathology. For instance, the rate of major depression in patients with irritable bowel disease (21% current, 61% lifetime) is much greater than in patients with inflammatory bowel disease (6% current, 17% lifetime). Likewise, the rate of major depression in patients with fibromyalgia (14% current, 86% lifetime) is higher than in patients with rheumatoid arthritis (6% current, 31% lifetime)(21).

Related research has found that many war syndromes for which medical pathology has been elusive may be a response to psychological trauma. A review of US war syndromes from the US Civil War through the Persian Gulf War found that many of the syndromes share the same features: fatigue, shortness of breath, headache, sleep disturbances, forgetfulness, palpitations and tachycardia, precordial pain, diarrhea, excessive sweating, dizziness and fainting. In addition, investigation has shown that the vector for these syndromes is word of mouth and the media, not exposure to a particular chemical or contagion (22).

Additional research into war trauma has focused on exposure to dead bodies. A study of Persian Gulf War veterans revealed that handling dead bodies increased the odds of receiving a diagnosis of somatoform disorder by more than 3-fold (p<0.05) (23). Military mortuary workers who handled dead bodies during the Persian Gulf War showed significant pre-post increases in the number of somatic symptoms reported, while mortuary workers in the same locations who were not exposed to dead bodies showed no significant increase (24).

The response to trauma is of importance to the treatment of refugees because a significant portion of refugees have experienced trauma. They often come from regions of the world riven with war, and have experienced combat or lived in combat areas. Alternatively, they may come from comparatively politically stable regions where they were persecuted for their beliefs, and may have experienced more personally directed violence such as imprisonment, beating, sham-execution, or threats to their family members. A more exhaustive list of the atrocities that are committed by humans against humans can be found in the Harvard Trauma Questionnaire, which attempts to assess for exposure and response to trauma. However, it is important to recognize the less horrific, but still significant, losses that accompany the refugee experience in general. Such losses include home, property, career, friends and family through separation or death, and to some extent may include a loss of culture and language.

In an attempt to differentiate between symptoms caused by exposure to trauma and symptoms caused by the refugee experience, a comprehensive study was conducted of tortured and non-tortured Bhutanese refugees. Investigators found that 73% of tortured refugees, compared to only 14% of non-tortured refugees, had PTSD. However, 56% of tortured refugees and 29% of non-tortured refugees were diagnosed with somatoform pain disorder. Both tortured and non-tortured refugees experienced a great deal of medically unexplained pain (25). While somatization is clearly associated with PTSD and exposure to trauma, it is perhaps most accurately viewed simply as a response to severe stressors.

In this sense, refugees differ from other populations most simply in their exposure to stressors. In a 1989 study of Hmong refugees, Westermayer showed that somatization in refugees indeed follows patterns similar to those in native-born US populations (26). In his study, somatization was associated with older age, less education, and greater psychiatric pathology. However, in addition, he looked at variables that are specific to refugees and found that increased somatization was associated with the stress of acculturation, measured by whether the refugee had an American friend, utilized American media, engaged in a cultural activity that was relatively uncommon in the US, and had failed to become proficient in English.

Though they may share many types of experiences, there is danger in regarding refugees as a homogenous group. In studies of Afghan adolescent refugees, Mghir et al. found that Tajik adolescents, who often came from higher socioeconomic background and had better educated parents, showed less evidence of PTSD and had fewer family adjustment problems than Pashtun adolescents. Pashtun refugees had, in general, spent more time in Afghanistan during conflict and had more personal involvement with traumatic events than Tajik refugees (27, 28). Thus, differences in ethnicity were translated into inequalities in education and resources, which were further communicated into differing capacities to escape trauma; all of these factors impacted the refugees' ability to adjust to a new culture.

Finally, one of the most difficult aspects of the refugee experience upon arrival in a new country may be isolation from others who speak the same language. How might the environmentally imposed absence of language—or inability to communicate, especially with a care provider—change a patient's clinical expression of psychological distress? This calls to attention the role of language in forming both the experience and the expression of emotional distress. A treatment of language is appropriate in this context as it applies to our difficulty in defining somatization within our own culture; the hazards of applying the term to other cultures in which the concept, and therefore experience as we would recognize it, may not exist; and the role of

coherency of language in the development and resolution of physical symptoms of emotional distress.

The challenges we face in consistently defining the term somatization within the Western culture simply highlight the difficulties of accurately describing experiences that involve the mind and body. These challenges are magnified when we attempt to apply the term to people whose experiences are shaped by different cultures. Often these cultures are made visible in their languages. Anthropologists have long asked such questions as: Do people from cultures in which there is no word for depression experience the phenomenon of depression as we know it? Is it possible that a person from a culture in which emotional distress words carry connotations of physical symptoms would tend to present with those symptoms (16)?

On a more basic level, we might ask how the process of language is affected by and affects the experience of psychological distress. Many narratives of trauma are characterized by incoherency (1). Studies of changes in regional cerebral blood flow during symptom provocation in subjects with PTSD find a reduction in blood flow to Broca's area, which is responsible for fluent speech (29). There is evidence that simply giving testimony (describing a traumatic event within the context of an individual and social life) can reduce the diagnosis of PTSD by almost 50% in refugees (30). These findings invite a more in depth investigation into how the experience of distress is mediated by both the content and the process of language.

As Laurence Kirmayer, one of the leading cultural psychiatrists, wrote, "somatic symptoms are the most common clinical expression of emotional distress worldwide" (15). These physical symptoms are themselves part of a language of emotional pain. Detecting and deciphering that language will assist clinicians in their attempts to heal their patients, while its study may shed light on the human experience of emotional distress.

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