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Panic disorder among Vietnamese refugees attending a psychiatric clinic: Prevalence and subtypes

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Abstract

This study surveys Vietnamese refugees attending two psychiatric clinics to determine both the prevalence of panic disorder (PD) as well as panic attack subtypes in those suffering PD. A culturally valid adaptation of the SCID-panic module (the Vietnamese Panic Disorder Survey or VPDS) was administered to 100 Vietnamese refugees attending two psychiatric clinics. Utilizing culturally sensitive panic probes, the VPDS provides information regarding both the presence of PD and panic attack subtypes during the month prior to interview. Of 100 patients surveyed, 50 (50%) currently suffered PD. Among the 50 patients suffering PD, the most common panic attack subtypes during the previous month were the following: “orthostatic dizziness” (74% of the 50 panic disorder patients [PDPs]), headache (50% of PDPs), wind-induced/temperature-shift-induced (24% of PDPs), effort-induced (18% of PDPs), gastro-intestinal (16% of PDPs), micturition-induced (8% of PDPs), out-of-the-blue palpitations (24% of PDPs), and out-of-the-blue shortness of breath (16% of PDPs). Five mechanisms are adduced to account for this high PD prevalence as well as the specific profile of subtypes: 1) a trauma-caused panic attack diathesis; 2) trauma-event cues; 3) ethnic differences in physiology; 4) catastrophic cognitions generated by cultural syndromes; and 5) a modification of Clark’s spiral of panic.

Keywords

Vietnamese refugees; Panic disorder; Panic disorder subtypes; Trauma; Catastrophic cognitions

1. Introduction

An emerging literature suggests that trauma may result in panic disorder [1–14]. For instance, among American veterans with a severe trauma history, one research group found a lifetime rate of 82% of Post-Traumatic Stress Disorder (PTSD) and 50% of panic disorder (PD) [10]. Several authors discuss possible mechanisms by which trauma results in PD [1,5–8,13–14].

Previous studies of Vietnamese refugees demonstrate exposure to severe trauma and very high rates of PTSD and depression [15–22]. A recent survey utilizing the SCID (DSM-IIIr) demonstrated a 90% rate of PTSD in ex-political detainees and 79% rate among non-detainees

[22]. However, no studies have determined the rate of panic disorder in the Vietnamese refugee group. In regard to investigations of other Southeast Asian refugee groups (i.e., Cambodians, Laotians and Hmong), only one study examines rates of panic disorder. A survey of Khmer refugees attending a psychiatric clinic revealed that 60% of the patients surveyed suffered panic disorder [23]. Also, Khmer have several unusual panic subtypes such as orthostatically induced panic [23–25] and “sore neck” panic [23,26].

The present study has two aims: 1) to determine the rate of panic disorder among a group of Vietnamese patients attending a psychiatric clinic and 2) to investigate the panic attack subtypes of the patients suffering panic disorder.

2. Methods

Katon [27–29] and others working with somatizing populations [30] advocate the need to utilize panic probes of somatic aspects of autonomic arousal. Likewise, based on clinical experience, the first author found the standard SCID panic probe [31] to be inadequately sensitive in the Vietnamese population. After extensive clinical observation and interviewing, the first author ascertained the probes that address the somatic manifestation of panic in the Vietnamese group (see Fig. 1). In addition, if the patient endorsed the orthostatic panic probe, the patient was asked two further exclusionary screening questions: 1) whether any panic sensations were felt before standing and 2) whether medical (i.e., diabetes) or medication (i.e., trazadone, a tricyclic, or β -blockers) causes of orthostasis were present.

Furthermore, as a supplement, to provide comparative data to the survey of Cambodian refugees [23], four more probes were utilized, though from clinical experience the author doubted a positive reply would be found in the Vietnamese population: sore-neck dysphoria; hunger-induced distress; olfactory-triggered dysphoria; and head turning or seeing spinning objects as causing distress. In regard to this last query, in the Khmer survey [23], it was found that 16% of the panic disorder patients suffered “while-sitting dizziness.” Upon further query, the investigator has now found that these panic attacks were caused either by turning the head rapidly—side-to-side or up-and-down—or else by looking at a spinning object. These sensitivities have been described as “space and motion discomfort” which is often associated with vestibular disorder [32,33].

If a patient positively endorsed one of the ten panic probes—or one of the four supplemental probes—the panic questions of the SCID-panic module were asked (see Fig. 2). But it was found to be easier in this population to ask the questions in a slightly different order, as suggested by Katon [27], thereby dividing the questions into two sections (see Fig. 2).

The patients at the clinics are refugees who almost all have the primary diagnosis of PTSD. For the study, exclusion criteria included the diagnosis of schizophrenia or mania. One hundred consecutive refugees attending community-based psychiatric clinics in Lowell and Revere, Massachusetts, USA, were interviewed by the first author with the assistance of bicultural staff. Of note, the first author also holds a doctorate in medical anthropology and has sufficient understanding of Vietnamese to comprehend both the questioning and response of the patient. The interviews were considered part of standard clinical assessment.

3. Results

No patient refused to participate. All the patients were refugees and all had had carried the diagnosis of PTSD in the past. Of the 100 patients assessed, 60% were female, and the mean age was 46. Of the 40 males, 63% [25] were ex-political detainees. The males were mainly well educated (especially the ex-political detainees), many with a college-level degree, while most of the women had minimal education, often former rice farmers. The vast majority of

patients are unemployed, kept busy watching children and grandchildren and maintaining the home.

Using the Vietnamese panic disorder survey (VPDS), it was found that 50 (50%) of 100 suffered panic disorder. For an account of panic attack subtypes among patients meeting panic disorder criteria, see Table 1. In regard to the special screening questions for orthostasis, the first question did not cause any orthostatic episodes to be eliminated while the second question led to the exclusion of six subjects. Of the five supplemental probes, none identified a case of panic disorder. However, in the past, though not in the last month, several patients had had panic attacks triggered by head turning and seeing spinning objects. Also, nine had endured limited symptom panic attacks in the last month due to either head turning or looking at a spinning object.

Of note, as in a survey of Khmer patients [23], during the panic attacks subtypes assessed by the special probes (e.g., headache and orthostatically induced dysphoria), almost all patients feared death and were highly distressed.

4. Discussion

If, as the present article suggests, the rate of panic disorder is extremely high in the Vietnamese population, one must determine by what mechanisms and the reasons for the specific pattern of subtypes.

4.1. A trauma-caused panic attack diathesis

Research suggests that trauma may result not only in posttraumatic stress disorder (PTSD) but also panic disorder (PD). Panic disorder (PD) and posttraumatic stress disorder (PTSD) are extremely similar in phenomenology and physiology, such as in the centrality of panic attacks in both disorders [6,13–14,34–36]. As described in a recent review [37], trauma seemingly causes a hyperexcitability of fear circuits in the amygdala, this then predisposing to the panic attacks observed in panic disorder or PTSD. In trauma victims, panic attacks may be PTSD-like (e.g., emphasizing a fear of external threat) or PD-like (e.g., emphasizing a fear of internal threat, of imminent bodily dysfunction).

4.2. Trauma-event cues

A large literature suggests that PD panic attacks may result when stimulus elements of the original fear network result in a sense of fear but without ideational recall [6,11–14,34–36]. For example, several studies indicate that asphyxia traumas later tend to cause panic that focuses upon “shortness of breath” [11–12]. It would seem that if the trauma is encoded as an arousal-reactive symptom (e.g., shortness of breath, dizziness, cold extremities, or palpitations) [47], then “panic-disorder type” panic attacks focused on that symptom may develop.

Given the prominence of orthostatic panic for the Vietnamese group, let us examine how dizziness sensations may serve as a stimulus element of the fear networks of past traumas [38]. During imprisonment, Vietnamese ex-political detainees were starved and forced to work long hours, often clearing and working fields. Orthostatically caused dizziness and collapse were common. Likewise, the wives of political detainees were frequently sent to “new economic zones” to endure food privation and overwork. Or one of the most traumatic experiences—and one endured by the majority of our patients—was the escape journey by boat. The perilous voyage often resulted in extreme food and water privation as well as sun exposure. The rolling of the sea and rocking of the small boat while negotiating ocean waters, created a sense of swaying and sea-sickness. And there existed the constant threat of boarding by pirates; most boats were boarded, the occupants subjected to rape, brutality and robbery. Not

uncommonly, patients will have flashbacks to such events (e.g., overwork, starvation and the boat journey) when feeling dizzy upon standing.

4.3. Ethnic differences in physiology

Asians may have a different baroreceptor sensitivity (and possibly lower vagal tone) resulting in more orthostatic dizziness sensations [39–40]. Also, data suggests that Asian groups have a significantly greater propensity (two to three times greater on these measures) to motion sickness with far more nausea, gastric activity (by EGG), and dizziness, in response to being surrounded by a spinning drum [41]. Of note, increased motion sickness represents not only an increased tendency to dizziness and nausea but also as a robust separate process an actual heightened preparedness to conditioning to dizziness and nausea [42–44]. That is, a heightened propensity to motion sickness suggests not only that the person will tend to develop dizziness and nausea in certain situations but also, in addition to the degree of dizziness and nausea induced in that particular situation, a strong tendency to develop conditioning to cues present during times of dizziness and nausea.

4.4. Catastrophic cognitions generated by cultural syndromes

A large literature suggests that catastrophic cognitions regarding arousal-reactive somatic sensations generate and perpetuate panic disorder [45–48]. Members of society will understand symptoms of somatic arousal in a specific way. If that society happens to have multiple cultural syndromes that lead to a great deal of catastrophic cognition regarding certain symptoms of arousal, then trauma in that group may tend to result in panic disorder and panic disorder of certain subtypes, focusing on particular symptoms [23–26].

4.4.1. Catastrophic cognitions regarding orthostatic dizziness—Even a normal individual may experience not only some orthostatic-dizziness sensations but also other symptoms of autonomic arousal such as palpitations or a chill in the extremities [49–50]. Moreover, panic disorder patients seem to have impaired mechanisms of compensation to orthostasis [51–52]. Two classic articles articulating the catastrophic-cognition generation of panic describe the importance of orthostatically induced arousal and dizziness as triggers [53–54]. Vietnamese believe that orthostatic dizziness indicates many potentially fatal corporal dysfunctions, catastrophically cognizing about any detected abnormalities felt upon standing.

For one, Vietnamese worry that orthostatically induced dizziness results from elevated blood pressure. The degree of dizziness upon standing indicates the degree of blood pressure increase. For this reason, if upon standing a Vietnamese patient feels any abnormal sensations—dizziness, palpitations, and so on—then he or she will worry about an acute rise in blood pressure that may possibly cause a stroke.

Second, according to the Vietnamese conception, normally the blood vessels do not contain air. However, exterior winds—for example, a draft through a room or a strong wind—can enter the body through the skin pores, next invading the blood vessels, thereby causing a hydraulic-pressure elevation in the vasculature. Patients anxiously survey the body for evidence of being “hit by the wind” (*trung gio*; for a discussion of an analogous disorder among Khmer, see [24,25]). According to Vietnamese, the degree of dizziness upon standing indicates the degree to which one has been “hit by the wind” (*trung gio*); and if too much wind has entered the body, immediate syncope and death may occur.

Third, a “weak heart” is a common cultural syndrome among Vietnamese as it is among other Southeast Asian groups [23,55]. An important symptom of a “weak heart” is orthostatic dizziness; the heart is said to be too weak to pump blood adequately to the head. Upon standing,

if a Vietnamese feels dizziness, he will worry that this indicates a “weak heart” and possibly imminent heart arrest.

4.4.2. Catastrophic cognitions regarding headache—Even in the United States, headache is strongly associated with panic disorder and PTSD [56–60]. However, Vietnamese have many more catastrophic cognitions about cephalic pain.

First, Vietnamese conceive of both nerves and blood vessels as being hollow tubes containing blood that may burst due to an increase in vessel pressure (*vo mach ma*). Some typical causes of increased blood pressure would be an emotional state (e.g., anger or anxiety) or a wind penetrating the pores of the body. During a headache, due to concerns about cranial vessel rupture, a Vietnamese will use various wind-removing techniques, like coining, cupping, and the application of wind oil, often focusing on the neck and head.

Second, Vietnamese believe that excessive rumination on some subject will cause an actual increase in tension on the nerves (*cang thang*). If the tautness increases sufficiently, these nerves may tear, causing a permanent loss of memory and other mental functions. When concurrently feeling tense and suffering a headache, a Vietnamese will worry about an acute snapping of some of the nerves in the head.

4.4.3. Catastrophic cognitions about bodily sensations of cold fear of weather shifts and wind—Weather sensitivity is a common phenomenon among panic disorder patients [61–62]. Vietnamese patients have many more catastrophic cognitions about weather shifts than do Americans. To a Vietnamese, a sudden chilliness indicates that wind may have entered the pores of the body, possibly causing immediate fainting and death. Note that cold sensations, especially in the hands and legs, are arousal reactive [47], increasing as sympathetic outflow increases. Furthermore, if there is a change in weather, as in a shift from hot to cold or cold to hot, then the wind is considered to be even more dangerous, having the name “poisonous wind” (*gio doc*).

4.4.4. Catastrophic cognitions concerning urination—Urination results in autonomic shifts, for example, in blood pressure and heart rate [63–64]. Due to catastrophic cognitions, Vietnamese are hypervigilant to such symptoms during urination.

Vietnamese have a syndrome called “weak kidney” (*iw theun*), analogous to the disorder reported among Chinese [65]. Symptoms of “weak kidney” include weakness, low sexual desire, impotence, startle, anxiety, back pain and loss of semen in the urine. Ultimately, according to the Vietnamese conception, the disorder may lead to kidney failure or such debilitating back pain that one cannot walk.

If a Vietnamese male has any symptoms typical of “weak kidney,” such as back pain, he will be worried that he suffers “weak kidney.” In particular, he will be hypervigilant to supposed indicators of sperm loss in the urine: a dark yellow tint, bubbles in the fluid, or a burning sensation during or following micturition. The detection of such urinary changes in combination with the actual autonomic-symptom shifts associated with urination can trigger a panic attack.

4.4.5. Catastrophic cognitions about palpitations—In a panic attack of any of the subtype specified above, when palpitations occur, the patient will fear having a “weak heart” that may result in sudden cardiac arrest, this increasing arousal and escalating the sense of fear of death.

4.5. The escalating interacting spiral of trauma associations, catastrophic cognitions, and panic and arousal (a TCA panic attack)

We advocate a modification of the classic spiral of panic as articulated by Clark [48] to account for what is clinically observed among traumatized populations. This might be called the escalating interacting spiral of trauma associations, catastrophic cognitions, and arousal, generating what could be referred to as a “TCA panic attack” (see Fig. 3).

4.6. Why certain panic attack subtypes are more common among Khmer as compared to Vietnam refugees

In addition to assessing reasons for the Vietnamese to have certain panic subtypes, one must also ask why certain panic subtypes are much less frequent—or, in some cases, not even found—that are common among the Khmer group [23]. The differences in subtypes can be explained by trauma history and catastrophic cognitions.

Unlike the Khmer, Vietnamese do not suffer sore-neck focused panic attacks. First, during the Pol Pot regime almost all Khmer were forced to carry heavy loads at the shoulder for extremely long periods during starvation conditions, with many dying [23,26]. Second, one of the most common methods of execution in the Khmer Rouge period consisted in hitting the back of the head with a club, said to rupture the blood vessels in that area. Third, Khmer, unlike Vietnamese, consider neck discomfort to indicate increased pressure in the nuchal vessels that may result in bursting and death [26].

In terms of olfactory panic attacks, this author has been surprised that even Vietnamese who were exposed to strong horrible stench for long period of time (e.g., forced to live in an isolation cell for long periods, surrounded by human feces and other noxious substances) usually do not develop olfactory panic attacks. In general, a larger proportion of Khmer were exposed to horrific trauma-related smells—while in the Vietnamese case, male political detainees were the exposed group—the exposures were more varied (e.g., rotting corpses, sulfur fumes from bombing), and in more life threatening circumstances, such as being bombarded while already starving during the escape journey during the Vietnamese invasion. Also, Khmers consider smell sensitivity to indicate bodily weakness, and, in particular, a weakness of the heart, while the Vietnamese do not make a correlation between smell sensitivity and “heart weakness.”

Moreover, Vietnamese appear to have a lower rate of gastrointestinal panic than the Khmer group. For one, the Khmer group, survivors of the Pol Pot regime, experienced much more prolonged and severe starvation than the Vietnamese group (as reviewed above, data suggests that type of trauma endured then influences the panic disorder subtype experienced). In addition, the Khmer have a very prominent catastrophic cognition regarding abdominal distress. Khmer, unlike Vietnamese, commonly believe that wind rising upward from the abdomen may result in death in various ways: by hitting against the diaphragm resulting in asphyxia, by striking the heart causing palpitations and impaired heart action and by distending the neck vessels and possibly causing neck vessel rupture [24–25].

4.7. Study limitations

One possible criticism of the present study is the lack of a simultaneously administered instrument to determine concurrent validity [29]. A future investigation should compare the SCL scores (e.g., phobic anxiety, anxiety and depression) of patients identified by the standard panic probe as opposed to those identified by the culturally specific probes [29]. Or, the rates of depression and agoraphobia should be compared between the two groups. Such comparative investigations would further corroborate that the panic attacks identified by the “culturally specific probes” (e.g., ortho-statically induced panic attacks) are instances of panic disorder.

Another limitation is that the present study assessed one specialized group: psychiatric outpatients. The investigation needs to be repeated both in other groups (e.g., political detainees) as well as in other settings (e.g., a medical outpatient clinic).

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Fig. 1.
Culturally sensitive panic probes for the Vietnamese patient.

Fig. 2.
Outline of the SCID-based module (the Vietnamese Panic Disorder Survey or VPDS) to determine if the symptoms associated with a particular panic probe meet panic disorder criteria.

Fig. 3.
The escalating interacting spiral of trauma associations, catastrophic cognitions, and arousal
(a TCA panic attack).

Table 1

Current 1-month prevalence of panic attack subtypes among Vietnamese refugees meeting the diagnosis of panic disorder by the VPDS

Panic Attack Subtypes	
Orthostatic Dizziness	74% of PDPs *
Headache	50% of PDPs
Wind/Temperature Shift	24% of PDPs
Exertion-Induced	18% of PDPs
Gastro-Intestinal	16% of PDPs
Micturition-Induced	8% of PDPs
Out-of-the-blue Palpitations	24% of PDPs
Out-of-the-blue shortness of breath	16% of PDPs

* Percentage of the 50 panic disorder patients (PDPs) who had at least one panic attack of this subtype in the previous month.