

## Panic Disorder and gender of patients versus the presence of profound psychological trauma

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### Summary

**Aim.** The special interest of the study was the careful analysis of the time, context and content of different psychological traumas that the patients had throughout their lives.

**Methods.** The author examined 75 patients suffering from panic disorder during ambulatory treatment. There were 53 women (71%) and 22 men (29%). The average age was  $M=44.68$  years ( $SD=12.68$ ), and average duration of illness was  $M=5.19$  years ( $SD=6.22$ ). Mini International Neuropsychiatric Interview, Polish version 5.0.0, Panic and Agoraphobia Scale, Beck's Depression Inventory and Life Inventory were used.

**Results.** In the group of 75 patients with severe panic disorder, women were the majority (71%). It may be due to specific trauma of suffering and/or death of an emotionally close person, which occurred in patient's adulthood. This trauma may have an impact on the aetiology of panic disorder. Women are more exposed to this sort of trauma due to their social role.

**Conclusion.** It is possible, that psychological trauma affects the development, course and severity of panic disorder.

panic disorder / gender / trauma

### INTRODUCTION

Panic disorder (PD) is generally known through epidemiological and clinical studies carried in many countries and cultures, to have lifetime rates consistently higher in women compared with men. Female/male ratio ranges from 1.3 to 5.8 [1, 2, 3, 4]. A similar ratio is present in patients suffering from somatic diseases comorbid with PD and depression. These data were confirmed also by Polish research [5, 6, 7]. The reason for this difference is not yet known.

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Analyses of course, comorbidity and outcome of PD in women and men show some special features that seem connected with gender, but may also be biased by culture. From a clinical point of view, there is general agreement that PD with agoraphobia is observed more frequently among women and comorbid alcoholism among men [8, 9, 10, 11]. Family studies on PD showed an increased risk for PD among first-degree relatives of PD patients compared to relatives of healthy controls, but no gender-related differences have been mentioned there [12, 13]. Some psychophysiological studies suggest gender-related differences in respiratory brain sensitivity [14], but such hypotheses are not proved by evidence-based internal medicine research [5, 6, 7].

In recent years there is the tendency to consider the possible role of precipitating psychological circumstances, that may have an impact on

onset of PD, such as traumas that began in childhood [15], influence of life stressors [16] and psychiatric problems within the family [17]. There is also an attempt to look for some analogies between PD and PTSD [18, 19], due to increasing evidence that panic attacks play a role in psychopathological response to trauma. Especially the cognitive approach underlines the importance of such distortions as catastrophic interpretation of body sensations that possibly derives from traumas of the adulthood [20, 21] in the context of patient's family situation [22, 23]. It seems, that there is the strong evidence that maladaptive appraisals of somatic sensations is directly relevant to post-traumatic panic attacks and PD.

## GOALS OF THE STUDY

This study investigated:

- the female/male ratio in the group of 75 patients with PD diagnosis, treated by author (MD, PhD) in outpatient unit of Department of Psychiatry Jagiellonian University Medical College in Krakow between 2004-2007.
- presence of serious psychological traumas of childhood and specific traumas of adulthood (trauma of suffering or death of an emotionally close person due to long-lasting and serious somatic disease) that occurred close in the time to the onset of PD.
- relationship between the presence of both kinds of traumas and gender of patients.

Criteria of trauma of childhood included: long-lasting psychological and physical abuse of the child, neglect, domestic violence, alcoholism in family, severely bad economic status (e.g. due to the Second World War), loss of parent, violent divorce of parents.

Criteria of trauma of adulthood included: to be engaged witness, taking care of the severely ill or dying emotionally close person. The onset of PD should be close to such long-lasting sequence of events.

Note - the description of specific trauma of adulthood is not consistent with A1 criteria of Post-traumatic Stress Disorder (PTSD), which states that "the person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious

injury, or a threat to the physical integrity of self or others". But at the same time is consistent with A2 criteria of PTSD: "the person's response involved intense fear, helplessness, or horror".

## METHOD

### Participants

The sample comprised 75 adult patients with a diagnosis of PD who were assessed and treated in the outpatient unit of the Department of Psychiatry Jagiellonian University Medical College. There were 53 (71%) women and 22 (29%) men. The only inclusion criteria was psychiatric diagnosis and lack of somatic disease proved by specialists in other medical disciplines. None of the group members refused the assessment.

Mean age in the group was 44.68 years (20-80 years, SD=12.68), mean duration of illness was 5.19 years (1-35 years, SD=6.22), mean severity of PD assessed by PAS 41.05 points (20-67 points, SD=12.030), mean severity of comorbid depressive symptoms was 15.36 points (1-41 points, SD=10.49).

41 participants graduated from college, 19 had higher education and 15 had basic education. 54 participants were working, 10 were on pension due to PD and 11 were retired.

### Measures

Diagnosis of PD was obtained by MINI (Mini International Neuropsychiatric Interview, Polish version 5.0.0) and Panic and Agoraphobia Scale (PAS); depressive symptoms by Beck Depression Inventory (BDI). Participants were also administered the Life Inventory, which is a 100-item interview that possess questions about generic family, relations between it's members, economic status, important events from childhood, school, difficulties in adaptation to social environment, level of education, work, marital status, employment, history of panic attacks preceding PD onset, having children, diseases present in the family (this subject was very detailed, with questions about the character of patient's duties). Only the most severe, long-lasting and patient

engaging diseases were included into the category of “trauma of adulthood”.

**Statistical analysis**

Student’s t-test and chi-squared test were used for bivariate analyses. Categorical variables were compared using the chi-squared test. Continuous variables were compared by using t-test for two-class comparisons.

**RESULTS**

More than one-half of the total sample were women (71%) and only 21% men.

**Table 1.** Gender characteristics

	Number	Observed proportion	Test proportion
Gender	Men: 22	0.29	0.50
	Women: 53	0.71	
All	75	1.00	

On the basis of detailed psychiatric assessment and Life Inventory the frequency of traumas of childhood and adulthood were examined. Traumas of childhood were reported in 18 participants (24% of the group). Traumas of adulthood (suffering and/or death of an emotionally close person due to serious somatic illness) were reported in 68 participants (90.7% of the group). Their proportion is statistically significant. There is not statistical correlation between traumas of childhood and adulthood, so they are independent.

**Table 2.** Presence of traumas of childhood and adulthood in the total sample of patients with PD diagnosis

		Traumas of adulthood		All
		Not present	Present	
Traumas of childhood	Not present	4	53	57
		5.3%	70.7%	76.0%
Traumas of childhood	Present	3	15	18
		4.0%	20.0%	24.0%
All		7	68	75
		9.3%	90.7%	100%

On the same basis, the frequency of traumas of childhood were examined in women and in men. These kind of traumas were reported less frequently in women (20.8%) than in men (31.8%). There was no significant statistical differences between gender in terms of this variable.

**Table 3.** Gender and traumas of childhood in the group of patients with PD

		Traumas of childhood		All
		Not present	Present	
Gender	Women	42	11	53
		79.2%	20.8%	100%
Gender	Men	15	7	228
		68.2%	31.8%	100%
All		57	18	75
		76.0%	24.0%	100%

The frequency of traumas of adulthood were examined in women and in men. These kind of traumas were reported more frequently in women (98.1%) than in men (72.7%). There was statistical difference between the genders in terms of this variable, but not a very strong one. In the group of patient’s with PD diagnosis specific traumas of adulthood were reported very often, both in women’s and men’s subgroups.

**Table 4.** Gender and traumas of adulthood in the group of patients with PD

		Traumas of adulthood		All
		Not present	Present	
Gender	Women	1	52	53
		1.9%	98.1%	100%
Gender	Men	6	16	22
		27.3%	72.7%	100%
All		7	68	75
		9.3%	90.7%	100%

Chi<sup>2</sup>=11.84, df=1, p=0.003

**DISCUSSION**

The results of this study confirmed a female predominance among patients with PD: the female/male ratio is in agreement with epidemiological and clinical data [1, 2, 3, 4]. The study also revealed, that patients with diagnosis of PD included to the study group suffered from dif-

ferent types of psychological traumas which began both in childhood and in adulthood. The types of traumas of childhood found most frequently in the sample were prototypical traumatic stressors, such as separation, family conflicts, emotional neglect and both physical and emotional abuse [5, 6, 7, 8]. These traumas were more common in men (31.8%), than in women (20.8%), but not statistically significant within the sample.

These findings are consistent with the psychodynamic approach in psychotherapy and fulfil the fundamental characteristic of a trauma, which is that they create both a symbolic and actual threat and harm to the person. It should be underlined, that in childhood, traumas are comprised not only of acts of commission (such as physical assault), but also of acts of omission, such as neglect or abandonment. There is big and widely known literature on this aspect of trauma and it's possible future consequences [12, 13, 14, 15].

The cognitive and systemic approaches give another approach to the problem of consequences of psychological trauma [16, 17, 18, 19, 20, 21, 22, 23]. According environmental, interpersonal and family factors, connected with adulthood and not with childhood to them are very important premorbid conditions in the onset of PD, although the developmental approach to trauma proved that cumulative trauma seems to be a predictor of symptom complexity. Traumas of childhood very often make the victims more vulnerable to the traumas of adulthood.

Generally, less is known about the clinical impact on the onset of PD of traumas of adulthood than of childhood. This study suggests the importance of specific trauma of adulthood that consists of being the active witness of an emotionally close person's long-lasting suffering and/or death due to severe somatic illness. This trauma seems very common among patients with PD and was reported in 98.1% of the women and 72.7% men in the sample. Such trauma is not only an emotional and often economic loss, but also is strongly associated with the development of persistent maladaptive interpretations about somatic sensations, that play an important role in panic attacks and PD. It is widely known that individuals with PD tend to misinterpret ambiguous interoceptive information catastrophic-

ly and are biased to encode threat-related material, that may be derived from real experience with terminally ill close-ones. Individuals with PD, both women and men who went through such trauma of adulthood may become conditioned at the time of a trauma to internal and external cues that later become triggers for panic attacks. At the same time, chronic hyperarousal and hypervigilance to somatic sensations may reduce the arousal threshold required for panic. The fact that the subsequent panic attacks in the course of PD are experienced in response to traumatic reminders (about dangerous somatic symptoms) is consistent with the notion of conditioning occurring at the time of the trauma. This perspective is also consistent with models of trauma response that conceptualise the representations of memories, affective and somatic responses, and attributions of trauma being readily activated because of sensitivity to trauma-related stimuli [20, 21].

Due to culture, women are more predisposed to such trauma than men. Considering the high prevalence of this type of trauma, presented line of research may have significant clinical implications.

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