

ORIGINAL ARTICLE

INCIDENCE OF PANIC ATTACKS IN PATIENTS PRESENTING TO THE EMERGENCY DEPARTMENT OF A TERTIARY CARE HOSPITAL IN KARACHI, PAKISTAN.

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ABSTRACT

Background: The DSM-IV outlines a panic attack as a distinct period of intense fear or discomfort which is accompanied by a minimum of 4 out of 13 listed somatic or cognitive symptoms. This is often associated with a sense of impending doom and the urge to escape which may leave ones psychological and physical functioning impaired. These are all signs of several Anxiety disorders. The aim of the study is to investigate the incidence of Panic attacks amongst patients presenting to an Emergency Department in a tertiary care hospital of Karachi, Pakistan.

Methods: This cross-sectional study was conducted at the Emergency Department, Ziauddin University Hospital Clifton. Patients included in the study were those who had no previous co-morbid or psychiatric disorders except for Panic attacks, and who displayed a minimum of four signs for a Panic attack according to the DSM -4 criteria of Panic attacks. Patients included in the study were between the ages of 15-50 years. The total sample size fitting the aforementioned requirements came to 1506 patients.

Results: The prevalence of Panic attacks amongst patients in the Emergency Department was an astonishing 9.49%. Division according to sex demonstrated a female predominance at 62.9% while males made up 37.1% of the total. The age group which was most effected was 30-34 years of age. Variation with relevance to time of day displayed that 44.8% of cases presented in the night time followed by evening and morning.

Conclusion: It is evident that Panic attacks are a common finding amongst patients in an Emergency Department, be it due to new onset Panic Disorder, social phobias or other causes. Keeping the prevalence of mental disorders in mind, specifically Anxiety Disorders of which Panic attacks are a subset, further research into the causes, immediate and comparatively effective treatment needs to be done as well as emphasis on accurate diagnosis at the primary care level.

KEY WORDS: Panic attack, Anxiety, Emergency Department, prevalence, Pakistan, DSM-IV

INTRODUCTION

Panic attacks are associated with several conditions which are grouped under the banner of anxiety disorders. Anxiety is defined as a condition when a patient is nervous, insecure and fearful of an imagined or realistic event which is yet to occur. This often leaves one's psychological and physical functioning impaired¹. The DSM-IV delineates a panic attack as a distinct period of intense fear or discomfort, which is accompanied by a minimum of 4 out of 13 somatic or cognitive symptoms. These attacks are sudden in onset and peak rapidly within a few minutes. They are frequently accompanied

by a sense of looming danger or impending doom and the urge to escape².

Anxiety disorders are common throughout the world³ and were found to be the 6th leading cause of disability in terms of Years of life lived with disability in high income as well as low and middle income countries⁴. Anxiety disorders makeup for a noteworthy proportion of the global burden of disease and are predicted to become the second most common cause of disability by 2020⁵. Panic attacks not meeting the complete diagnostic criteria for panic disorder have considerable social morbidity attached to them, and have been shown to lead to

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an impairment in perceived physical as well as emotional health, occupational and financial functioning, increased use of emergency departments, and psychoactive drugs. Patients with isolated panic attacks are halfway in severity between those suffering from panic disorder and those suffering from other documented psychiatric disorders⁶. Panic attacks and their affiliation with ongoing and future Anxiety, Depressive, and Substance Use Disorders, cannot exclusively be accounted for by the variations in gender and neuroticism⁷, and there is a high conditional probability that those with panic attacks will develop other forms of mental disorders in the future⁸. Particularly panic attacks which occur after the age of 18 years are highly associated with the development of multimorbidity of mental disorders⁸. It has been suggested that panic attacks are highly indicative of a psychopathology that is far more severe apart from only panic disorder and agoraphobia⁸. Timely detection and treatment of

panic attacks may lead to a reduction in the risk of developing major depression⁹.

Anxiety disorders are of significant importance as these diseases give rise to economic consequences as well¹¹ especially where approximately 39% of the population lives below the poverty line¹². Thus there is a need to execute a nation wide study to deduce the extent of anxiety disorders, to aid policy development to face this eclipsed predicament in the near future or else a struggling economy like Pakistan will not be able to sustain the burden of these disorders.

The objective of this research is to calculate the incidence of Panic attacks in patients presenting to the emergency department of Ziauddin Hospital Clifton and also deduce any relationships with age, sex and times of the day or week.

METHODS

A discrete period of intense fear or discomfort, in which four (or more) of the following symptoms developed abruptly and reached a peak within 10 minutes.

1. Palpitations, pounding heart, or accelerated heart rate
 2. Sweating
 3. Trembling or shaking
 4. Sensations of shortness of breath
 5. Feeling of choking
 6. Chest pain or discomfort
 7. Nausea or abdominal distress
 8. Feeling dizzy, unsteady, lightheaded, or faint
 9. De-realization (feeling or unreality) or depersonalization (being detached from oneself)
 10. Fear of losing control
 11. Fear of dying
 12. Paresthesias (numbness or tingling sensations)
 13. Chills or hot flushes
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This is a cross sectional study, duration of the study was one month from 1st May 2016- 31st May 2016. Patients included in the study were the ones who had no co-morbid, and were previously not diagnosed with any psychiatric disorder. Patients with a minimum of four signs for a panic attack according to the DSM-4 criteria of Panic attacks were considered¹⁵. Patients included in the study were between the ages of 15-50 years. Exclusion criteria for this study was those who had a known comorbid such as hypertension, coronary artery disease, diabetes, patients younger than 15 years age and patients older than 50 years of age, Patients with a history of substance abuse and alcoholism were also excluded from the study. A total of 3766 patients presented to the emergency department during the time period of the study, their medical records were carefully reviewed of these 1506 patients within the reference age group that was set to 15-50 years. Out of 1506 patients, 143 patients were selected for the study as they did not have a medical condition after examination and investigation. 143 patient charts were again reviewed thoroughly to see if they met the DSM IV criteria for panic attacks. Data analysis was done on SPSS version 20.

Results

A total of 3766 patients visited the Emergency Department during the time period of the study and 1506 were taken as the sample since they ranged between ages 15-50, which was our target age range. Out of the 1506 patients that fit the age criteria for this study, 143 were found to present with their first documented panic attack. This demarcates the incidence of Panic attacks specifically amongst the patients presenting to the Emergency Department as 9.49%.

Out of the total study participants, 90 (62.9%) were women while 53 (37.1 %) were men who presented with a panic attack. This gave rise to a female to male ratio of 1.7:1. In our study, the age group which was most affected was reported to be from 30-34, constituting 24.5% (n=35) of the total, closely

followed by ages 20-24 accounting for 17.5%(n=25) of all cases.

Table 1 Distribution according to sex

Sex	Frequency	Percentage
Male	53	37.1
Female	90	62.9
Total	143	100.0

Table 2 Age group distribution

Age group	Sex		Total
	male	female	
15-19	5	6	11
20-24	6	19	25
25-29	8	6	14
30-34	15	20	35
35-39	6	10	16
40-44	9	12	21
45-50	4	21	21
Total	53	143	143

A factor which has not been taken into account before is the presentation of patients with relevance to the time of the day and the day of the week. We saw that the most likely time for anxiety/ panic to manifest itself enough to bring a sufferer to the Emergency Department is the night time. Around 44.8% of cases presented at night time followed by 32.2% during the evening and 23.1% in the morning. Also weekends brought in more cases as compared to weekdays.

Table 3 Distribution according to Time of presentation

Time of day	Frequency	Percentage
Morning	33	23.1
Evening	46	32.2
Night	64	44.8
Total	143	100.0

Table 4 Distribution according to Time of the week

Time of the week	Frequency	Percentage
Weekend	53	37.1
Weekday	90	62.9
Total	143	100.0

Discussion

The prevalence of psychiatric disorders in general practice globally has been estimated to range from 25-75%¹⁷. The WHO conducted a cross cultural study spanning 14 countries including Brazil, Chile, Italy, Japan, Turkey, India, China, Netherlands, Greece, France, Nigeria, Germany, UK and the USA which demonstrated that despite a considerable variation in the prevalence of mental disorders across these nations, a significant proportion (around 24%) of all the patients at a primary care facility had a mental disorder. Amongst the most common diagnoses at these facilities were depression, anxiety and substance abuse disorders. These were either present alone or accompanied by a physical disorder. This study revealed that when it comes to the prevalence of psychiatric morbidity, there is no substantial difference between a developing and a developed country¹⁷.

Anxiety is akin to a modern plague which is reaching pandemic proportions and panic disorder is categorized beneath the title of anxiety disorders. Anxiety disorders are known to affect around 14% to 25% of the general population^{18, 19} and are associated with varying levels of social, occupational, and physical impairment²⁰. These mental disorders can be as painful for the sufferer as chronic physical disease²¹. A magnitude of patients suffering from anxiety disorders seek help via the primary care facilities^{22, 23} and mostly present with generalized anxiety disorder, panic disorder, and posttraumatic stress disorder. When it comes to panic anxiety specifically, the secretion of the adrenaline leads to bodily changes like palpitations, sweating, trembling and headache. Someone with social or panic anxiety gets alerted by these symptoms and gets further frightened, leading to a vicious cycle. This reinforces the importance of appropriate diagnosis and treatment at the primary care levels since most physicians will encounter mental disorders at that level and then based on their judgment, will have to

treat or further refer to a Psychiatrist/Psychotherapist as needed.

In Pakistan, the average total prevalence of depression and anxiety which has previously been established on samples from the public is 33.62%, along with a point prevalence of 45.5% for females and 21.7% for males²⁵, which concurs with our findings of a higher rate of panic attacks as a form of anxiety amongst women. In the study participants, 62.9 % (n=90) of patients were women while men made up 37.1 % (n=53). This gave rise to a female to male ratio of 1.7:1. Another pilot study carried out in Karachi reported that 39.4% of women surveyed had anxiety compared to 23.3% of males²⁶. In our study, the age group which was most affected was reported to be ages 30-34, a trend which was also observed in a study in Qatar, showing that anxiety disorders were more prevalent among women than in men and that the young population spanning ages 18-34 years was most affected with mental disorders²⁷. The finding of an increased number of cases in the midlife is in concordance with the epidemiological findings in the western countries^{28, 29}.

Previous studies have delineated the socio-demographic factors linked with anxiety within a population as: a low level of education, the current marital status (widowed, separated or divorced), being a housewife and the age factor (middle age)^{25, 30}. Anxiety disorders have been reported to be present to a greater degree amongst women^{30, 31}, and this can be attributed to the psychosocial risk factors for anxiety and depression which are rooted in our surroundings. Some of these are linked to an early marriage, hostile/restrictive in-laws, being financially dependent on males, and lack of an intimate and trusting relationship with their spouse. It has also been seen that despite the pre-existent socioeconomic adversity which increases the risk for anxiety and depressive disorders in Pakistan, a compassionate support from family and friends may protect against development of the above mentioned disorders²⁵.

According to our study, the incidence of Panic attacks specifically amongst the patients presenting to the Emergency Department was 9.49%. Few previous studies have shown that the prevalence of anxiety ranges between 7%-50% in various cities of Pakistan^{14, 15}. Meanwhile from India, the prevalence of anxiety amongst patients presenting at primary care centers ranges from 21% to 57%³² which is similar to the wide, fluctuating range observed previously in Pakistan.

A factor which has not been taken into account before is the presentation of patients with relevance to the time of the day and the day of the week. Our study has brought into consideration and demonstrated that the most likely time for anxiety/panic to

manifest itself enough to bring a sufferer to the Emergency Department is the night time. Also weekends bring in more cases as compared to weekdays. It can be conjectured that since night time is when people over think or obsess most on the trials and tribulations of their life, it might precipitate a panic attack .the higher incidence on the weekends may be attributed to the day when families are generally at home together and get involved in fights or financial worries may lead to a higher level of anxiety. Further detailed studies need to be done to take this variable into account and find any worthwhile links.

Conclusion

It is evident that Panic attacks are a common finding amongst patients in an Emergency Department; it is due to situational triggers or a specific Anxiety disorder. Keeping the prevalence of Anxiety Disorders and mental disorders overall in mind, it is quite apparent that mental health care should have an increased allocation when it comes to the national health budget, which in itself is fixed at a miniscule 2% of the GNP. The focus on mental health care should be proportionate to the prevalence of mental disorders in our nation, and an exceedingly efficient and prompt primary care system should be developed whereby psychiatric problems are recognized, treated and referred further to the specialists. The policy for mental health care should be integrated with the primary health care system as it is here that most patients present with their symptoms and in patients with other ongoing illnesses the diagnosis of a concurrent mental disorder can be made at the primary level. Community level socio therapeutic focus groups and preventive/supportive interventions also merit our focus as in the long run they may reduce the prevalence of anxiety disorders.

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