

Frequency of Depression in Patients Suffering from Non-Epileptic Fits

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ABSTRACT

Introduction: The most prevalent and severe type of mental disease, depression affects 60–70% of adults, primarily between the ages of 15 and 35. Not only are the patients affected by this terrible disorder, but also their care givers and families. It has long been known that depression often manifests as a variety of psychosomatic conditions, one of which is non-epileptic fits, which are typically more common in children and women than men. Therefore, the majority of patients who present to a psychiatric emergency room, outpatient department, or ward having non-epileptic fits have underlying depression. This was one of the few studies conducted on the prevalence of depression in patients experiencing non-epileptic fits in Pakistan, particularly in province, Khyber Pakhtunkhwa.

Study Design and Study Area: In the psychiatry department of Khyber Teaching Hospital Peshawar, this descriptive cross-sectional study was conducted.

Duration of Study: The duration of study was 06 months i.e. from 30th march, 2015 to 30th September, 2015.

Materials and Methods: The study included 162 patients who presented to the hospital with non-epileptic fits and had ages ranging from 20 to 40 years. The study excluded non-consenting individuals, those with organic brain disorders, and those who had another psychiatric diagnosis already. On a proforma that was especially created, variables were recorded. The BDI depression scale was used to evaluate the depression screening process.

Results: Of 193 patients, 162 met the requirements for study. The patients were estimated to have a mean age of 25.44 years, with a standard deviation of 14.25 years. Only 32 patients (20%) were female, while remaining 130 (80%) patient were male. Majority 88 (56%) individuals were uneducated. 46 people (32%) had education up to the primary level, 14 (8%) were matriculating, and 12 (4%) were graduates. 40 people (25%) were single, 94 people (58%) were wed, and 28 people (17%) were widows or widowers. 30 people (19%) were working and 132 (81%) were unemployed. 62 persons had been seeking care for more than 24 months, compared to 8 who had been doing so for less than 24 months, 20 persons for less than 18 months, 14 patients having duration of illness for less than 12 months and 12 patients of less than 6 months period of illness. Only when non-epileptic fits were linked to the depression (p value 0.004) was statistical significance observed. When depression was compared to the patient's gender, marital status, educational attainment, length of care, and occupation, there was no statistically significant difference.

Conclusions: The majority of people who have non-epileptic fits also have depression. Age of onset of non-epileptic fits and depression are significantly correlated, whereas gender, educational level, marital status, occupation, length of illness, and patient's family history are not.

Keyword: Psychological distress, depression, non-epileptic fits, KTH.

INTRODUCTION

Depression is a mental disorder characterized by a prevailing and persistent low mood that is accompanied by low self-esteem and by a loss of interest and pleasure in activities that are typically enjoyable. Depression is also known as major depressive disorder (MDD), major depression, unipolar depression, or unipolar disorder; or as recurrent depression in the case of repeated episodes. There are numerous ways to use the word "depression." It is frequently used to describe this syndrome, but it can also describe other mood disorders or just a bad mood. A person's family, work or school life, sleeping and eating routines, and general health are all negatively impacted by major depressive disorder, a crippling condition. Up to 60% of people who commit suicide in the United States have depression or another mood disorder, and roughly 3.4% of people with major depression also commit suicide¹. The diagnosis of major depressive disorder is based on the patient's self-reported experiences, behaviors reported by relatives or friends, and a mental status examination. There is no laboratory test for major depression, although physicians generally request tests for physical conditions that may cause similar symptoms. The most common time of onset is between the ages of 20 and 30 years, with a later peak between 30 and 40 years². Typically, people are treated with antidepressant medications and, in many cases, also receive counselling, particularly cognitive behavioral therapy (CBT)⁴. Medication appears to be effective, but the effect may only be significant in the most severely depressed^{4,5}. Hospitalization may be necessary in cases with associated self-neglect or a significant risk of harm to self or others. A minority are treated

with electroconvulsive therapy (ECT). The course of the disorder varies widely, from one episode lasting weeks to a lifelong disorder with recurrent major depressive episodes. Depressed individuals have shorter life expectancies than those without depression, in part because of greater susceptibility to medical illnesses and suicide. It is unclear whether medications affect the risk of suicide. Current and former patients may be stigmatized. The understanding of the nature and causes of depression has evolved over the centuries, though this understanding is incomplete and has left many aspects of depression as the subject of discussion and research. Proposed causes include psychological, psychosocial, hereditary, evolutionary and biological factors. Long-term substance abuse may cause or worsen depressive symptoms. Psychological treatments are based on theories of personality, interpersonal communication, and learning.

Also the monoamine serotonin, norepinephrine and dopamine, which are naturally present in the brain and assist communication between nerve cells. This cluster of symptoms (syndrome) was named, described and classified as one of the mood disorders in the 1980 edition of the American Psychiatrists Association diagnostic manual.

Major depression significantly affects a person's family and personal relationships, work or school life, sleeping and eating habits, and general health⁶. Its impact on functioning and well-being has been compared to that of chronic medical conditions such as diabetes⁷. A person having a major depressive episode usually exhibits a very low mood, which pervades all aspects of life, and an inability to experience pleasure in activities that were formerly

enjoyed. Depressed people may be preoccupied with, or ruminate over, thoughts and feelings of worthlessness, inappropriate guilt or regret, helplessness, hopelessness, and self-hatred⁹, in severe cases, depressed people may have symptoms of psychosis. These symptoms include delusions or, less commonly, hallucinations, usually unpleasant⁹. Other symptoms of depression include poor concentration and memory (especially in those with melancholic or psychotic features)¹⁰, withdrawal from social situations and activities, reduced sex drive, and thoughts of death or suicide. Insomnia is common among the depressed. In the typical pattern, a person wakes very early and cannot get back to sleep¹¹. Hypersomnia, or oversleeping, can also happen¹¹. Some antidepressants may also cause insomnia due to their stimulating effect¹².

A depressed person may report multiple physical symptoms such as fatigue, headaches, or digestive problems; physical complaints are the most common presenting problem in developing countries, according to the World Health Organization's criteria for depression¹³. Appetite often decreases, with resulting weight loss, although increased appetite and weight gain occasionally occur⁹. Family and friends may notice that the person's behavior is either agitated or lethargic¹¹. Older depressed people may have cognitive symptoms of recent onset, such as forgetfulness¹¹, and a more noticeable slowing of movements¹⁴. Depression often coexists with physical disorders common among the elderly, such as stroke, other cardiovascular diseases, Parkinson's disease, and chronic obstructive pulmonary disease¹⁵.

Depressed children may often display an irritable mood rather than a depressed mood⁸, and show varying symptoms depending on age and situation¹⁶. Most lose interest in school and show a decline in academic performance. They may be described as clingy, demanding, dependent, or insecure¹¹. Diagnosis may be delayed or missed when symptoms are interpreted as normal moodiness⁸. Depression may also coexist with attention deficit hyperactivity disorder (ADHD), complicating the diagnosis and treatment of both¹⁷.

According to the DSM-IV, a person who suffers from major Depressive Illness must have depression symptoms such as either have a depressed mood or a loss of interest or pleasure in daily activities consistently for at least two weeks BDI scale will be used for assessment of depression, cut of value will be 13 in total of 21 score. If more than 13 it will be consider as depression.

Non epileptic fits or pseudofits are defined as fits in which there are isolated neurological symptoms that cannot be explained in terms of known mechanisms of pathology and in which there has been a significant psychological stressor.

MATERIAL AND METHODS

Study Design: Descriptive cross section study

Study Area: This study was conducted in Psychiatry department at KTH Peshawar.

Duration of Study: 6 months i.e, 25th march 2015 to 25th September 2015.

Sample Size: Sample size was 162 using 29% proportion of depression with non-epileptic fits⁹, 95% confidence level and 7% of margin of error with the help of WHO software for sample size determination.

Sampling Technique: Case consecutive non probability.

Sample Selection: Inclusion criteria

Patients were selected for the study if they were:

- Age between 20-40 years.
- Both genders male and female were included.
- Diagnosed as a case of non-epileptic fits according to DSM IV criteria.
- Duration of illness with these fits three days minimum.
- Both outdoor and indoor patients were included.

Exclusion criteria

- History of head injury or structural brain disease.
- History of epilepsy.

- History of drug abuse.
- Patients with electrolyte imbalance, hypoglycemia or hyperthyroidism.

Data Collection Procedure: After approval from ethical committee (institutional review board), 162 (both male and female) patients with the diagnosis of non-epileptic fits according to DSM IV criteria, coming in to psychiatry department from both emergency department and OPD were included in the study. The information including name, age, sex, address and depression in the patients were recorded through a semi structured interview scheduled designed Performa. Diagnosed patients of non-epileptic fits according to DSM-IV and fulfilling the inclusion criteria were also assessed for presence or absence of Depression. In my study there were no risk involved to the patients and their informants and all the required information of the patients presenting with non-epileptic fits to Department and Ward, Khyber Teaching Hospital, Peshawar and fulfilling the inclusion criteria were registered. The nature of the study was explained to each subject and a written informed consent to take part in the study was taken. Each subject was interviewed in a comfortable setting.

Score on Self Report Questionnaire was recorded.

To exclude any bias in the study all the subjects were interviewed by researchers.

Data analysis: Data were collected by proforma and SPSS version 17 was used to analyze the data. Mean and SD were calculated for numerical variables like age, duration of illness. Frequency and percentages were calculated for categorical variables like gender and depression. Depression was stratified among age, gender and duration of illness. Post stratification Chi square (2) test was used to assess the relationship between variables. P value of ≤ 0.05 was taken as statistically significant. Others effect modifiers are already controlled through exclusion criteria. Results are presented in tables, charts and graphs form.

RESULTS

During these 06 months study period 162 patients who presented to Psychiatry Department of Khyber Teaching Hospital, Peshawar were included in this study.

36 (72%) were having score more on depression rating scale more than 21, which indicated severe depression.

Mean age of the patients was calculated to be 30.44 years with standard deviation of 25.25 years.

Out of these 162 about 141(84%) were females and 08 (16%) were males as in Fig. 1

102(56%) patients were uneducated, 48 (32%) were educated up to Primary, 12 (8%) were matriculates and 6(4%) were graduates as in Table 1.

40 patients were unmarried, 94 were married, 28 were widows/widowers as shown in Fig. 2.

123 (64%) patients were unemployed and 45 (36%) were employed as in Fig 3.

6 (4%) patients had been suffering from non-epileptic fits for less than 06 months, 12 (8%) for less than 12 months, 26 (20%) for less than 18 months, 6 (4%) for less than 24 months and 118 (64%) for more than 24 months described in Fig. 4.

In order to determine the association of stress with demographic variables of patients, chi square test was used. Statistical significance was only seen when stress was associated with age of the patient ($p < 0.004$). There was no statistical significance, when depression was cross tabbed with the gender, marital status, educational status, duration of care and the occupation of the patients as is evident from Table 2.

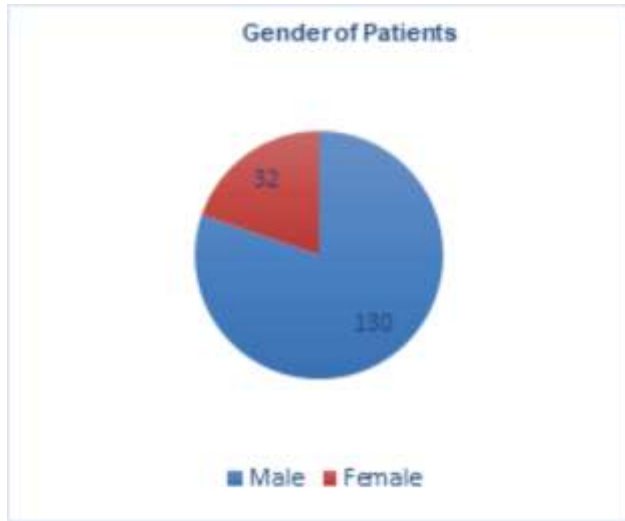


Fig.1: Gender of the patients

Table 1: Educational status of patients

| Education | Frequency | Percent |
|-------------|-----------|---------|
| Uneducated | 88 | 56.0 |
| Primary | 46 | 32.0 |
| Matriculate | 14 | 8.0 |
| Graduate | 12 | 4.0 |
| Total | 162 | 100.0 |

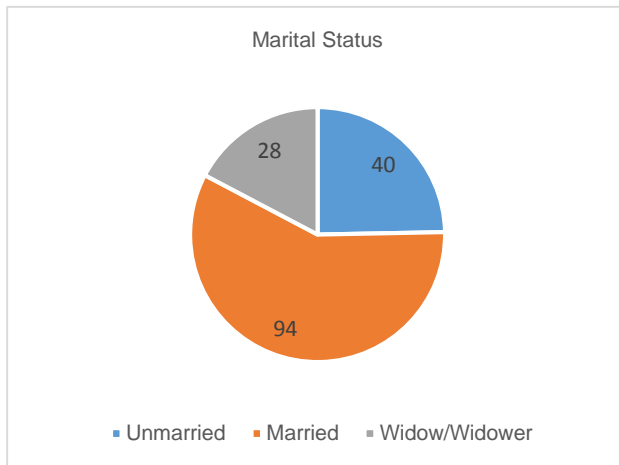


Fig 2: Marital Status of Patients

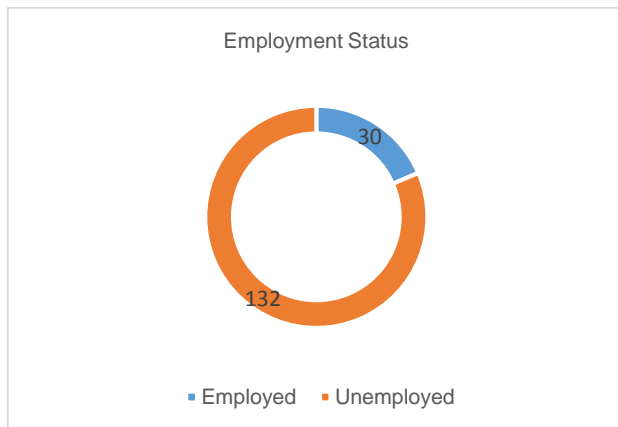


Fig. 3: Employment status of the patients

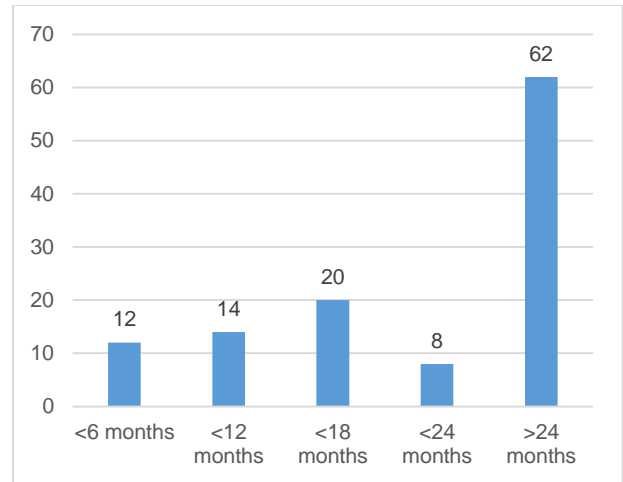


Fig.4: Duration of Illness of Patients

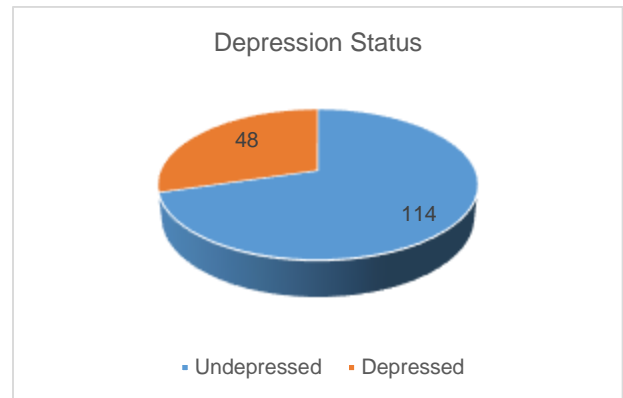


Fig. 5: Score with cut off value of depression 13 and more

Table-2: Association of depression with socio-demographic variables:

| | Age | Gender | Marital Status | Educational Status | Duration of Care | Occupation of the Care Giver |
|--------------------|--------|--------|----------------|--------------------|------------------|------------------------------|
| Pearson Chi Square | 35.119 | 3.704 | 2.293 | 1.814 | 8.953 | 3.773 |
| p-value | .004 | .054 | .318 | .612 | .062 | .052 |

DISCUSSION

Depressive Illness is an illness that affects both the mind and the body. It is characterized by prominently and persistently low mood, reduced interest or pleasure in most of activities. Other symptoms include appetite and sleep disturbances, reduced energy and motivation, feelings of guilt or low self-esteem, poor concentration, and suicidal ideation¹⁸. In Europe the estimated number of people with Depression is 20.8 million. Depressive Illness characteristically assumes a chronic course and it is expected by 2020, to be 2nd only to heart disease in the global burden of disease. Every year 5-8% of adult population develops Depression¹⁹. The prevalence of Depressive Illness, in population based study conducted in urban Pakistan, was 45.9%, done by WHO²⁰.

There is increase co morbidity of Depressive Disorder in patients with non-epileptic fits. Dissociative fits/seizures or non-epileptic fits may mimic epileptic seizures very closely in terms of movements, but tongue biting, bruising due to falling and incontinence are rare, and consciousness is maintained or replaced by a state of stupor or trance²¹.

Non epileptic fits are triggered by psychological problems, and frequently occur in conversion disorder. It is estimated that 20% of seizure patients seen at specialist epilepsy clinics have pseudo non

epileptic fits. There is a mark difference in epileptic fits and non-epileptic fits. For non-epileptic psychogenic factors are the precipitating and maintaining factors²².

Non epileptic seizures that are inconsistent with a neurologic disease and are not feigned. The disorder is common in clinical settings and often associated with distress, disability, and carries a poor prognosis. Paralysis, seizures, aphasia, visual disturbances and amnesia are the commonest symptoms²³.

A number of studies are available, demonstrating the co morbidity of depression and non-epileptic fits. Here in Pakistan Depression was noticed in 29% patients who presented with non-epileptic fits⁹. Another study done in Pakistan showed substantially high rates of depression (61%) and anxiety (60%) in patients presented with Non epileptic fits, among which 95 percent were females²⁴. In a recent study done at a tertiary care hospital in Pakistan it was found that high proportion of clinically significant rate of Depression (76%) found in patients with Non epileptic fits. Among other factors, social cultural factors play an important role²⁵.

The patients are generally first seen and treated by neurologist and they can pose a significant diagnostic and therapeutic challenge. Similarly, masked Depression may increase the risk for Non epileptic fits and may be hard for doctors to diagnose the problem¹³. Patients with Depressive Disorder might have lower threshold for experiencing somatic symptoms in general²⁶.

Thus Depressive Illness seems to be higher in patients with non-epileptic fits. Although depression is common in patients with non-epileptic fits but the exact prevalence rate is not known in Pakistan. The purpose of this study is to assess the frequency of Depressive Illness among the patients presenting with non-epileptic fits. This study would provide local data about the frequency of depression in patients with non-epileptic patients and would highlight the need for regular screening of these patients for depression.

Duration of care is reported to be related to the psychological distress and depression. Basheer S et al 2005²⁷ in local study reported that duration of more than 18 months and Yousafzai AW et al 2008 more than 12 months was related to depression in non-epileptic patients²⁸.

Majority of our subjects in this study were females, parents or siblings, unemployed and had been caring for more than 24 months. Though no association was found with psychological distress individually with these variables, yet these could have contributed to additive effects in overall higher rates of distress. Majority of patients were accompanied by male caregivers and this might have had a cultural reason. Other important considerations are the hospital based study and the studied sample not been true representative of the community.

CONCLUSION

The majority of people experiencing non-epileptic fits suffer from depression. Age of the patients is strongly associated with depression, although gender, educational level, marital status, employment status, and length of sickness are not significantly associated with the rise in depression in patients with non-epileptic fits.

The high rates of depression among this study's participants experiencing non-epileptic fits are also a result of a higher proportion of underlying personality disorders or family histories.

According to the research presented in this article, addressing underlying causes of depression may also reduce the frequency of non-epileptic fits.

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