DOI: https://doi.org/10.53350/pjmhs211571822

ORIGINAL ARTICLE

Association of Sleep Disorders and Socio-demographic Characteristics in Patients with Depressive Disorder

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ABSTRACT

Objectives: To assess the pattern of sleep and the correlation with socio demographic parameters in patients with depressive disorder.

Study Design: Descriptive cross sectional study.

Study Setting and Duration: A psychiatric consultation clinic in Karachi from January 2015 till December 2019.

Methodology: Patients between ages of 18 and 60 years, irrespective of gender were included in the study. Patients with florid psychotic symptoms, dementia and chronic debilitating medical illness such as chronic renal or liver failure were excluded. Pattern of sleep was categorized as patients with normal sleep (sound sleep of 7-9 hours), insomnia and hypersomnia. Diagnosis of Insomnia and hypersomnia was made according to ICD – criteria.

Results: The mean age of patients was 30.89 (10.256) years. Age was significantly associated with the pattern of sleep among depressed patients. Younger patients between the ages of 18-35 years more frequently suffered from insomnia while the older patients (35-65 years) were more frequently experiencing hypersomnia (p=0.01). The majority of the patients who were either separated or divorced experienced hypersomnia, 15 (71.4%) however, the difference was not statistically significant (p=0.582). The most common psychiatric comorbidity among patients was obsession compulsion disorder (OCD) with a frequency of 225 (39.4%) followed by anxiety disorders; 100 (17.5%).

Conclusion: Our study indicates that sleep patterns are significantly challenged in depression patients. The younger population was more prone towards insomnia while the older patients more frequently had hypersomnia. Further large scale studies are needed to explore the risk factors associated with the sleep disturbance and the role normal sleep patterns play in recovery of depressed patients.

Keywords: Psychiatry, Depression, Insomnia, Hypersomnia, Dementia

INTRODUCTION

Depressive disorder is a common psychiatric disorder that presents with depressed mood, lack of interest, energy, feeling of guilt or low self-worth, appetite and poor concentration for 02 weeks or more.[1] Major depressive disorder is highly correlated with suicidality and upto 3% of affected individuals ultimately commit suicide.[2] One of the most consistent symptoms associated with major depressive disorder is sleep disturbance. A regular and sound sleep is a physiological need of every human being which is greatly disturbed in depressive patients.[3]

A typical depression presents with hypersomnia and patients with melancholic depression show insomnia apart from other specific features of depressive disorder. Regular absence of restful sleep for more than one month is diagnosable of insomnia. The affected person has trouble falling asleep, staying asleep or waking up too early, coupled with personal distress and disturbance in daily functioning in different domains of life. [3, 4]There are several subtypes of depression, each defined by a distinctive set of clinical features. The most common subjective sleep complaints elicited from patients are insomnia (upto 88%) and hypersomnia (27%). [5] Insomnia and mood symptoms have an inverse relationship. Poor sleep can induce an episode of depressive disorder or vice versa. Patients with insomnia or/are 3 times more prone to develop major depressive disorder. [6] Disturbance of sleep brings changes in entire physiology and if continued then it invites illnesses, physical and psychiatric including depressive disorder. Everyone requires sleep hours as per the age, occupation, physiological and psychosocial health but this too needs at least 7-9 hours of sleep per day. Insomnia can be a risk factor for depression and a symptom of a number of medical and psychiatric disorders. [7] In fact sleep disturbance appears to be predictive of many other psychiatric disorders such as anxiety disorders, alcohol and drug dependence and has been associated with a variety of medical conditions including hypertension, cardiac disease, thyroid problem, asthma and migraine. [8] Rationale of conducting this study is to investigate the issue which leads to not only lengthening of psychiatric illness but also increases the morbidity, mortality and cost of care. Furthermore, there is no data available in the local context which justifies the necessity of this study.

METHODS AND MATERIALS

A descriptive cross-sectional study was conducted at a psychiatric consultation clinic in Karachi, Sindh, Pakistan.

Patients of either gender and age between 18 year to 60 years presenting at a private psychiatric facility in Karachi between January 2015 till December 2019 were consecutively selected after informed consent, Ethical issues were addressed according to the Institutional Review Board (IRB). Patients with florid psychotic symptoms, dementia and chronic debilitating medical illness such as chronic renal or liver failure, Rheumatoid Arthritis COPD, Thyroid issue and Cushing Syndrome were excluded. ICD-10 criteria, beside complete history, physical examination and selective laboratory investigations were used to confirm the diagnosis of Depressive disorder. Pattern of sleep was categorized as patients with normal sleep (sound sleep of 7-9 hours), insomnia and hypersomnia. Diagnosis of Insomnia and hypersomnia was made according to ICD – criteria. Prescribed questionnaire was used to collect the data and it will be analysed in SPSS Version-26. Descriptive statistics will be calculated for age, gender, marital status, education and profession, and substance use. Chi square will be applied to categorical variables taking P value < 0.05 as significant.

RESULTS

The mean age of patients was 30.89 (10.256) years. The majority of the patients were male and were married. The mean duration of marriage was 11.27 (9.53) years. Most of the patients were Sindhi or Urdu speaking by ethnicity. The majority of the patients had acquired education till Intermediate or Higher.

Table 1. Sociodemographic and Clinical Variables of the Study Participants

Variables	n (%)	Mean	SD
Age in years		30.89	10.256
Gender			
Male	352 (61.6%)		
Female	219 (38.4%)		
Marital Status			
Unmarried	221 (38.7%)		
Married	325 (56.9%)		
Divorced/Separated	21 (3.7%)		
Widowed	4 (0.7%)		
Duration of Marriage in years		11.27	9.53
Ethnicity			
Sindhi	84 (14.7%)		
Punjabi	32 (5.6%)		
Urdu Speaking	136 (23.8%)		
Balochi	59 (10.3%)		
Pashtuns	181 (31.7%)		
Others	79 (13.8%)		
Education			
No Formal Education	34 (6.0%)		
Deeni/Madrasah	8 (1.4%)		
Primary	38 (6.7%)		
Secondary	52 (9.1%)		
Matric	91 (15.9%)		
Intermediate	103 (18.0%)		
Graduate	134 (23.5%)		
Postgraduate	111 (19.4%)		
Occupation			
Student	82 (14.4%)		
Housewife/Homemaker	154 (27%)		
Skilled Profession	1236 (21.5%)		
Unskilled Job	33 (5.8%)		
Business	56 (9.8%)		
Clerk/Office	7 (1.2%)		
Shop owner	60 (10.5%)		
Other	42 (7.4%)		
Left job due to Illness	3 (0.5%)		
Retired	7 (1.2%)		
Unemployed	4 (0.7%)		
Pattern of Sleep			
Insomnia	213 (37.3%)		
Normal	9 (1.6%)		
Hypersomnia	349 (61.1%)		

Table 2. Association of Sociodemographic Variables and Pattern of Sleep in Depressed Patients.

Variable	Insomnia	Normal	Hypersomnia	P-value
Age Group				
<25 years	72 (43.6%)	6 (3.6%)	87 (52.7%)	0.01
25-35 years	100 (37.7%)	2 (0.8%)	163 (61.5%)	
36-50 years	32 (29.9%)	0	75 (70.1%)	
51-65 years	9 (26.5%)	1 (2.9%)	24 (70.6%)	
Gender				
Male	136 (38.6%)	6 (1.7%)	210 (59.7%)	0.652
Female	77 (35.2%)	3 (1.4%)	139 (63.5%)	
Marital Status				
Unmarried	86 (38.9%)	6 (2.7%)	129 (58.4%)	0.582
Married	119 (36.6%)	3 (0.9%)	203 (62.5%)	
Divorced/Separated	6 (28.6%)	0	15 (71.4%)	
Widowed	2 (50%)	0	2 (50%)	

Age was significantly associated with the pattern of sleep among depressed patients. Younger patients between the ages of 18-35 years more frequently suffered from insomnia while the older patients (35-65 years) were more frequently experiencing hypersomnia (p=0.01). There was no significant difference between the males and female sleep patterns. The majority of the patients had hypersomnia (p=0.65). The majority of the patients who were either separated or divorced experienced hypersomnia, 15 (71.4%) however, the difference was not statistically significant (p=0.582).

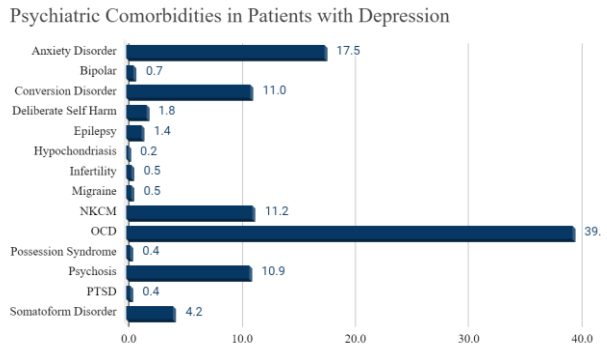

Figure 1: Psychiatric Comorbidities among Patients with Depression

The study revealed that the majority of the patients had other psychiatric comorbidities (Figure 1). The most common psychiatric comorbidity among patients was obsession compulsion disorder (OCD) with a frequency of 225 (39.4%) followed by anxiety disorders; 100 (17.5%).

DISCUSSION

The current study highlights the impact of depression on sleep patterns. We reported that the majority of the patients had abnormal sleep patterns. The younger population mostly had insomnia while the older patients had hypersomnia. The majority of the patients also suffered from psychiatric comorbidities that is in conjunction with depressive disorder, more than half the population also suffered from another psychiatric or neurological illness. The most common psychiatric comorbidity in depressed patients was obsessive compulsive disorder (OCD) and anxiety disorder.

Numerous studies have shown that sleep problems are strongly associated with mood disorders. [1] Up to 90% of patients diagnosed with depression suffer with a poor quality of sleep. [2] The type of sleep disturbance varies among individuals suffering from depression.

A study by Geoffroy et al., reported that most of the depressed participants who partook the study suffered from insomnia, while a small portion suffered from hypersomnia. [3] The prevalence of hypersomnia in the present study however was higher than insomnia. This discrepancy may be linked to the sample studied and the measures used to quantify sleep disturbance. Variations in the presentation of sleep disturbances is a common finding among individuals suffering from depression. [4] The findings emphasize a need for further studies to evaluate the types of sleep disturbances while also taking into account associated comorbid disorders and risk factors.

A study by Jin et al., found that depression was most common among women as compared to men. [5] However, our findings reported that the prevalence of depression was higher in males. This may be attributed to low socio economic status, job dissatisfaction and marital problems. [6] In our part of the world, society perceives men to be the sole providers of the house, putting an immense responsibility and burden on their shoulders. This itself could be attributed to a higher prevalence of depression among the male participants in our study.

The co-occurrence of anxiety with major depressive disorder was a significant finding in our study. This relationship was also discovered in a study by Blanco, which concluded anxiety to be the most common comorbid condition associated with depression. According to Blanco, the cause for the association can be attributed to the existence of identical risk factors for both the conditions. These risk factors included low self-esteem, years of education obtained and a dysfunctional home environment. [7]

Studies have found that patients suffering from depression along with sleep disturbances are at a greater risk of developing bipolar disorder as a comorbid psychiatric condition. [3, 8] This finding suggests a possibility that patients with depression who go on to develop bipolar disorder in the course of their illness must have certain sleep disturbances which can be of significant interest to researchers.

CONCLUSION

Our study indicates that sleep patterns are significantly challenged in depression patients. The younger population was more prone towards insomnia while the older patients more frequently had hypersomnia. Further large scale studies are needed to explore the risk factors associated with the sleep disturbance and the role normal sleep patterns play in recovery of depressed patients.

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