

Prevalence and pattern of sleep disorders in psychiatric disorders in north Indian population

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Abstract

Background: Sleep disorders and psychiatric illness are closely related, with different clinical manifestations. They have complex bi-directional association. Hence attempt was made to understand both of these conditions so that such patients can be treated in better way. **Method:** This was a cross-sectional study using purposive sampling technique on one hundred (100) patients aged between 18 to 45 years attending Psychiatry OPD of RMRI, Bareilly. A semi-structured proforma was used for Socio-demographic data patients. Psychiatric diagnosis was made using ICD-10 diagnostic and research criteria. Pittsburgh Sleep Quality Index (PSQI) was used to evaluate for sleep problems. Appropriate statistical tests were applied and data was analysed using SPSS software. They had sleep disorders like, difficulty in falling sleep, maintaining sleep waking early in the morning, occurrence of non-freshen sleep. During psychiatric counseling, types of sleep and diagnostic features of various psychiatric illnesses were also noted. **Results:** Types of sleep disorders were -48 Insomnia, 11- Hypersonic, 25-parasomnia, 9- circadian sleep disorder, 7-had PLMD. The diagnostic features were -28 had mood disorders, 13-had loss of interest or pleasure in any activities -7 change in appetite, 6- had fatigue, 15-had feeling of guilt or worthiness, 14-had poor concentration or difficulty in making decision, 17 had suicidal ideation. Associated clinical manifestations were -19 had major depression, 11 had generalized anxiety, 7-had paranoid reaction, 9- had hallucinations 13-had delusion, 4- had post-traumatic stress disorder, 12 had grandeur neurosis, 13 had bipolar mood disorder, 12- were alcoholic. **Conclusion:** This pragmatic approach to the psychiatric patients will be quite helpful to treat efficiently because the sleep disturbances particularly, insomnia has been considered in assessment of suicidal risk with depressive disorders.

Key Words: Insomnia, Major Depression, PLMD- Periodic Limb Movement Disorder, Parasomnia, Generalized Anxiety Disorder.

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INTRODUCTION

Sleep is an important biological mechanism which is vital for daily healthy functioning. Sleep disorders are frequently associated with a wide range of psychiatric

illnesses and both have a complex bi-directional association. Persistent insomnia can be an associated symptom or an independent risk factor for Depression, anxiety disorders, bipolar disorders, alcohol and substance abuse, suicide, psychotic disorders and treatment of either of insomnia or psychiatric disorders have better treatment outcomes for each of them especially, depression and anxiety. Depressed patients often report inadequate or non-restorative sleep, as well as difficulty in falling sleep frequent nocturnal and early morning awakening decreased total sleep and disturbing dreams.^{1,2} Sleep-related complaints and electroencephalography (EEG) changes are generally encountered in, psychiatric disorders. Sleep complaints such as insomnia, hypersomnia and night mares³ and Rapid eye movements (REM) sleep disturbances are

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associated sleep disturbances in psychiatric disorders like major depressive disorders, bipolar disorders, generalized anxiety, post traumatic stress, schizophrenia (psychosis) and alcoholism, Suicidality and hallucination⁴. Sleep deprivation aggravate psychiatric illness and many of such patients can have suicidal ideation and attempt for suicide also. Untreated sleep disorders can lead to increased risk and exacerbation of existing medical disorders like, cardiovascular disorders, hypertension, stroke, obesity and sexual dysfunction. Hence this study was conducted to evaluate the prevalence and pattern of sleep disorders in adult patients of either sex of various psychiatric disorders in North Indian population attending the Psychiatry OPD of a medical college hospital.

MATERIAL AND METHODS

Method- This was a cross-sectional study using purposive sampling technique on one hundred (100) patients aged between 18 years to 45 years regularly visiting, Psychiatry OPD of Rajshree Medical Research Institute (RMRI) Hospital, Bareilly. Semi-structured proforma was used for socio-demographic details of the patients. Psychiatric diagnosis was made using clinical

interview and International Classification of Disease (ICD-10), WHO, 1990 research and diagnosed criteria. Pittsburgh Sleep Quality Index (PSQI, 1989) was used to evaluate for sleep disorders like, Insomnia, Hypersomnia, Parasomnia or Episodic disturbances in sleep (Night terror, night mares, somnambulism, sleep talking, bruxism etc). The duration of study was 12 months between September 2017 to September 2018).

Inclusion criteria-

1. Adult patients of either sex with age group 18 years to 45 years.
2. Patients giving written and informed consent.

Exclusion criteria –

1. Patients having clinically observable severe mental retardation
2. Patients having severely compromised medical conditions like Diabetes, stroke, hypertension, myocardial infarction.

Statistical analysis- The prevalence of sleep disorders in psychiatric disorders was analysed using percentages. The ratio of male and female were 2:1. Data was analysed using SPSS computer software.

OBSERVATION AND RESULTS

Table-1 – Study of types of sleep disorders in psychiatric disorder patients -48 (48%) Insomnia, 11 (11%)- hypersomnia, 25 (25%) parasomnia (included 5- had night terrors, 7 had night mares, 6 had somnambulism, 4 had sleep talking, 3 had bruxism), 9 (9%) had circadian sleep disorders, 7 (7%) had PLMD(Periodic limb movement disorder).

Table 1: Study of types of Sleep disorders in Psychiatric disorder patients (No. of patients 100)

Sl.No	Types of sleep disorders	No of patients	Percentage (%)
1	Insomnia	48	48
2	Hypersomnia	11	11
	Parasomnia		
	a- Night terrors	5	5
	b- night mares	7	7
3	c-somnambulism	6	6
	d- sleep talking	4	4
	e- Bruxism	3	3
4	Circadian sleep disorder	9	9
5	PLMD (Periodic limb movement disorders)	7	7

Table-2 – Psychiatric symptoms in patients having sleep problems – 28 (28%) had mood disturbances, 13 (13%) had loss of interest or pleasure in activities, 7 (7%) had change in appetite, 6 (6%) had fatigue, 15 (15%) had feeling of guilt or worthiness, 14 (14%) had poor concentration or difficulty in making decision, 17 (17%) had suicidal ideation.

Table 2: Diagnostic features of sleep disorders in Psychiatric disorder patients (No of patients 100)

Sl.No	Particulars	No of patients	Percentage (%)
1	Mood symptoms	28	28
2	Loss of interest or pleasure in activities	13	13
3	Changes in appetite	07	07
4	Fatigue	06	06
5	Feeling of guilt or worthiness	15	15
6	Poor concentration or difficulty in making decision	14	14
7	Suicidal ideation	17	17

Table-3- Associated Psychiatric disorders- 19 (19%) had major depression, 11 (11%) had generalized anxiety, 7 (7%) had psychosis (paranoid), 9 (9%) had hallucinations, 13 (13%) had delusion, 14 (14%) had post traumatic stress disorder, 12(12%) had mania, 13(13%) had bipolar mood disorder, 12(12%) were alcohol dependent.

Table 3: Associated clinical Psychiatric disorders with sleep disorders (No of patients- 100)

Sl.No	Clinical manifestations	No of patients	Percentage(%)
1	Major depression	19	19
2	Generalized anxiety	11	11
3	Psychosis	07	07
4	Hallucinations	09	09
5	Delusion	13	13
6	Post-traumatic	04	04
7	Mania	12	12
8	Bipolar mood disorder	13	13
9	Alcohol dependence	12	12

DISCUSSION

In the present study of prevalence and pattern of sleep disorders in psychiatric patients of North Indian Population, the types of sleep disorders in psychiatric disorder patients was that 48 (48%) had Insomnia, 11(11%)- hypersomnia, 25 (25%) parasomnia (included 5- had night terrors, 7 had night mares, 6 had somnambulism, 4 had sleep talking, 3 had bruxism), 9 (9%) had circadian sleep disorders, 7 (7%) had PLMD(Periodic limb movement disorder) (Table-1). The patients having various psychiatric symptoms in those having sleep problems were – 28 (28%) had mood symptoms, 13 (13%) had loss of interest or pleasure in activities, 7 (7%) had change in appetite, 6 (6%) had fatigue 15 (15%) had feeling of guilt or worthlessness, 14 (14%) had poor concentration or difficulty in making decision, 17(17%) had suicidal ideation (Table-2). Associated clinical Psychiatric disorders were- 19 (19%) had major depression, 11(11%) had generalized anxiety, 7 (7%) had psychosis (paranoid type), 9 (9%) had hallucinations, 13 (13%) had delusion, 14 (14%) had post traumatic stress disorder, 12(12%) had mania, 13(13%) had bipolar mood disorder, 12(12%) were alcohol dependent (addicted)(Table-3). The findings of the present study are more or less in agreement with previous studies^{6,7,8}. In the present study, getting the information about the duration and history of sleep disturbance was quite helpful as every patient was asked to maintain the sleep diaries, provide base line information upon the treatment initiation. Majority of the patients having sleep disorders had major depressive disorders. They had difficulty in falling sleep, staying sleep, insufficient sleep quality, night mares and day time sleepiness^{8,9}. It was also reported that shortened REM latency and diminished slow wave sleep may be the trait marker of major depressive disorder¹⁰. In the bipolar disorder there was complaint of hypersomnia in bipolar than unipolar depression¹¹. Alteration or disturbance of sleep causes generalized

anxiety disorders; post-traumatic stress disorder had distressing dreams along with difficulty falling or staying sleep¹². Unlike other psychiatric disorders, Psychosis is characterized by paranoid reaction, hallucination and delusion. Sleep problems were not as common. They have circadian rhythm disorder, awake in the night, sleep during the day^{13,14}. Alcoholism (12%) was also common in our group of patients which is in accordance with previous studies. To overcome insomnia most of the patients with psychiatric disorder used alcohol and other substances and thus inadvertently became dependent on alcohol and other substances.

SUMMARY AND CONCLUSION

Sleep is a vital for our healthy functioning. Sleep disorders are common in psychiatric disorders and they have a complex bi-directional relationship. The research findings of our present study are in line with research studies. Treatment of sleep disorders can improve the outcome of psychiatric disorders and vice-versa. Apart from medication, behavioral treatment like changes in life style, regular physical activity, relaxation therapy (deep breathing), sleep hygiene AND cognitive therapy are also be helpful to treat sleep problems. But this study demands further neuro- physiological, neurotransmitters, genetic, biochemical, nutritional studies because etiopathogenesis of both sleep and psychiatric disorders are complex and still un-clear. This research paper was approved by Ethical Committee of Rajshree Medical Research Institute (RMRI), Bareilly-243122(U.P), India.

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