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Research Article

Sleep Habits and Perceived Factors for Deprived Sleep among Patients Admitted in Medical Wards

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Abstract

Introduction: The patients admitted in hospital encounter various problems which interrupts the sleep. As good sleep helps to rejuvenate the body mechanism, it is important for a patient who is psychologically and physiological deprived. A good quality of sleep is important to maintain our physiological functions such as heart rate, respiration, and blood pressure.

Aim: The study aimed to evaluate the sleeping habits and perceived factors for deprived sleep among patients admitted in medical wards.

Materials and Methods: A descriptive survey was done on 60 patients selected through convenient sampling among inpatients of medical wards. Data were collected through structured questionnaire.

Results: The analysis revealed that 23.3% of patients normally snore loudly during sleep and 33.3% wake up due to any noise and no one had any difficulty in initiating sleep normally and 93.4% patients had average sleep between 6 and 9 h and only 3.3% patients had 0–6 and 9–12 h sleep. Majority of patient had deprived sleep due to continuous light (100%) and sound (98.3%) and 93.3% of patients had deprived sleep due to noisy ward personnel and 96.7% had deprived sleep due to concern of medical expenses.

Conclusion: Sleep is important for the normal physiological function. A nurse should ensure that the patients is getting enough sleep. Nursing administrators can implement a sleep protocol in the hospital which will enhance the quality of care which will aid to the recovery of the patients and it will also help in achieving a positive satisfaction feedback from the patient.

Keywords: Deprived sleep, perceived factors, sleep habits.

Introduction

The patients admitted in hospital encounter various problems which interrupts the sleep. Deprived sleep is prevalent during hospitalization. As good sleep helps to rejuvenate the body mechanism for a person, so it is important for a patient who is psychologically and physiological deprived. A good quality of sleep is important to maintain our physiological functions such as heart rate, respiration, and blood pressure. Any deviation in this parameter can worse the patient's condition and lengthen the hospital stay.[1]

Sleep disturbances for a short period alters the blood pressure, inflammation, hormones which rise the possibility of cardiovascular disease, especially plaque formation in the vessels.[2]

A clinical review on effect of deprived sleep inthe intensive care unit (ICU) reveals that the disturbances in sleep triggers sympathetic nervous system due to which the catecholamine adrenaline and noradrenaline is being released. It increases the heart rate as well as blood pressure. This clinical review

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was conducted on healthy individuals who had only sleep disturbances for one night and the blood pressure was risen by 12 mmHg.[3]

Another study was done to evaluate whether variation in the rate heart rate and blood pressure with night sweating is related to sleep awakening. The study revealed that women's who had night sweat as well as waked up during the night had an acceleration in heart rate by 20% and increase in systolic blood pressure of 5 mmHg, whereas diastolic blood pressure is 1 mmHg more than systolic that is 6. Thus, the studies show alterations in physiological parameter due to poor sleep or disturbed sleep, which indicates the high time to take measure to improve the sleep quality.[4]

Another study conducted in patients who were admitted in ICU and were not mechanically ventilated. They were assessed during discharge.56 samples reported poor sleep compared to home (median = 7.15/10), $P < 0.002$). The patients reported the disturbing factors for sleep in ICU was noise (53.6%), pain (32%) procedures, the devices attached and light (23%), stress (26.8%), and discomfort (33.9%).[5] The study aimed to evaluate the sleeping habits among patients admitted in medical wards, to assess the perceived factors for deprived sleep among patients admitted in medical ward.

Materials and Methods

A descriptive survey was considered to attain the study objectives. Participants were selected using nonprobability convenient sampling. This study was conducted at the medical wards of selected hospital of Navi Mumbai. The sample size was 60 selected through nonprobability convenient sampling technique. In this study, for the data collection, semi structured questionnaire was used to assess the sleep habit and perceived factors for deprived sleep. This study content validity of the tool was done by 12 experts from varied fields. Reliability was assessed and the tool was found to be reliable. Ethical approval was procured from the institutional ethical review committee. After explaining the study purpose consent was signed, the data were collected from participants.

Table 1: Distribution of sleep habits of patients using a modified adult sleep questionnaire

S. No.	Sleep habits	Yes		No	
		f	%	*f*	%
1.	Do you have difficulty in initiating sleep at night?	0	0.0	60	100.0
2.	Did anyone ever tell you that you snore loudly?	14	23.3	46	76.7
3.	Do you wake up gasping for breath?	0	0.0	60	100.0
4.	Do you wake up coughing or choking?	0	0.0	60	100.0
5.	Do you wake up with headache	0	0.0	60	100.0
6.	Do you wake up with a sore throat?	0	0.0	60	100.0
7.	Do you wake up with chest tightness or discomfort?	0	0.0	60	100.0
8.	Do you wake up due to any noise or movement?	20	33.3	40	66.7
9.	Do you have excessive daytime sleepiness	0	0.0	60	100.0
10.	Do you have excessive daytime fatigue?	0	0.0	60	100.0
11.	Do you feel any unpleasant sensation in your legs during period of rest?	0	0.0	60	100.0
12.	Do you sleep walk?	0	0.0	60	100.0
13.	Do you have frequent nightmare?	0	0.0	60	100.0
14.	Do you sleep talk?	6	10.0	54	90.0

Results

The samples reported that 33.3% of people wake up during night due to noise or movements.

The analysis of sleep habits explored that 33.3% of patients reported that they wake up due to noise or movement and 10% reported that they sleep talk [Table 1].

The duration of sleep of 93.4% was between 6 and 9 h at home and 83.3% was between 0 and 6 h at hospital [Table 2].

56.7% of patients had light sleep and 43,35 of patients had very light sleep [Table 3].

Table 4 depicts that majority of patients wake up to three times during sleep and 46.7% had, more than 4 times wake up.

Majority of patients (56.7%) had a lot of difficulty to sleep off while admitted in medical ward and 40% of patients reported they had extreme difficulty to sleep off while admitted in medical ward [Table 5].

Table 2: Distribution of patients based on Patient's perceived duration of routine sleep at home

Duration of sleep (hrs)	At home		At hospital	
	f	%	*f*	%
0–6	2	3.3	50	83.3
6–9	56	93.4	10	16.7
9–12	2	3.3	0	0

Table 3: Distribution of sleep status of patients admitted in medical wards

Sleep status	*f*	%
Very deep	0	0
Deep	0	0
Light	34	56.7
Very Light	26	43.3

Table 4: Distribution of number of times of wake up during sleep among patients admitted in medical wards

No of times wake up	*f*	%
More than 4 times	28	46.7
Three times	30	50
Two times	1	1.7
One Time	1	1.7
None	0	0

Table 5: Distribution of difficulty to sleep off among patients admitted in medical wards

Difficulty level to sleep off	*f*	%
Extreme difficult	24	40
A lot	34	56.7
Some	2	3.3

Table 6: Distribution of patient's perceived factors of deprived sleep ($n=60$)

S. No.	Item	Agreement		Disagreement	
		f	%	*f*	%
A. Ward environment					
1	Strange bad odors	22	36.7	38	63.3
2	Continuous light	60	100	0	0.0
3	Too hot/cold	55	91.7	5	8.4
4	Frequent sounds	59	98.3	1	1.7
5	Telephone ring	1	1.7	59	98.3
6	Uncomfortable bed	0	0.0	60	100
7	Uncomfortable pillow	0	0.0	60	100
B. Patient					
8	Pain	4	6.6	56	93.4
9	Fear	10	16.7	50	83.4
10	Restriction by tubing's	8	13.3	52	86.7
11	Restriction by leads	0	0.0	60	100
12	Loss of privacy	32	53.3	28	46.7
13	Concern of medical expenses	58	96.7	2	3.3
C. Other patients					
14	Crying of surrounding patients	56	93.3	4	6.6
15	Watching other patient procedure	22	36.7	38	63.3
D. Staff					
16	Loud noise by ward personal	56	93.3	4	6.6
17	Frequent awakening by doctors/nurses	31	51.6	29	48.3

The patients reported that continuous light, too hot or cold environment, frequent sounds, concern of medical equipment's, loud noise by ward personnel [Table 6].

Discussion

The study reveals that majority of patients were between 40 and 59 years and out of 60 patient's majority of the patients were female (51.7%). It was found that the patients average sleeping hours at home was 6–9 h and patients had no difficulty in initiating sleep in normal routine sleep. The majority of perceived factors determined in the current study was light and sound (70%). Similarly, a study conducted by Kulpatcharapong *et al*. to assess the sleep quality of patients admitted in hospital and the contributing factors of poor sleep. 96 samples were collected for the study of which 80% of patients admitted in medicine ward perceived light and sound as major contributing factor for deprives sleep.[6]

The result of noise on sleep quality was studied by observation on samples of 6 different ICU. The patients who were admitted for 48 h, they were assessed for sleep quality for 5 days using RCSQ. The study revealed that the noise had a negative impact on sleep quality ($\beta = -0.51$, $P < 0.08$) and the females had lees impact but had some correlation with sleep.[7]

The factors for deprived sleep were identified in patients admitted in the hospital. 39 hospitals were selected from the Netherlands and the study was done in the ward. Sleep was done. 2005 samples were selected for the study. It was found that the sleep obtained in hospital was shorter compared to home that is 83 min. The patient reported arousal due to noise were (70.4%) and 35.8% reported due to hospital staff. The study revealed that the sleep is affected in admitted patients.[8]

Patients of the medical ward self-reported the sleep quality and factors influencing sleep. The study disclosed that patients had poor night sleep in the hospital compared to home ($P < 001$). The factors which were identified were frequent noise (59%), intervention done by nurses (30%), lights (16%), environment (14%), pain (9%), and uncomfortable beds (18%).[9]

Conclusion

Sleep deprivation is prevalence in today's generation, either be it stress or studies or increased workload, but its harmful effects on basic intellectual activities such as thinking, reasoning, or remembering are only beginning to be understood. While it is a general understanding that decreased sleep leads to generalized irritability with impairment of basic cognitive functions such as alertness and attention. There is a lesser chance of evidence of the effects of decreased sleep on higher levels of intellectual activity and reasoning, such as memory and awareness of the sensory organs.[10]

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Conflict of Interest

There is no conflict of interest.

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