

WORK-RELATED STRESS AND QUALITY OF SLEEP: A DESCRIPTIVE STUDY AMONG INTERN NURSING STUDENTS

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Abstract

Objectives: The primary objective was to assess the level of stress-related to work and quality of sleep among intern nursing students. The secondary objective is to determine the level of work-related stress & its association with the demographic variables. ***Methods:*** This was a descriptive study conducted among 160 internship students. The subjects were selected conveniently and interviewed through a self-structured demographic Performa. PSQI sleep assessment scale and perceived stress scale were administered to assess the sleep quality and level of stress related to work respectively. ***Results:*** As per the survey results, with regards to work-related stress majority 64.4% of the subjects were having a moderate level of stress and a very few i.e 3.8% of the sample were having severe stress. In the case of sleep quality among interns, more of the samples (83.3%) were having the average quality of sleep and only 6.2% of samples were having good sleep quality. There is an extremely statistically significant association between age, gender, sleeping pattern and working sector with work-related stress whereas there is no significant association between caffeine intake, educational status and work duration with quality of sleep. ***Conclusion:*** This study may bring light to the prevalence of work-related stress and quality of sleep among nursing interns, so that faculty may find out the aggravating factor causing stress among interns and quality of sleep so that guiding and motivating the interns to overcome the factors successively and to improve better health care outcome.

Keywords: work-related stress, quality of sleep, internship nursing students

INTRODUCTION

Stress is an inner state which is caused due to physical demand on the body or environmental and social circumstances which is considered as very harmful or exceeding our resource for coping¹. It is a universal epidemic that affects everyone irrespective of gender, age, occupation, or class. The term stress applies to the majority of the work events. It is very commonly seen in the nursing profession as well². Nursing has been identified as a stressful occupation³. Due to working stress, sleep disturbance also occurred. Sleep is an important physiological process in humans. A shorter sleep latency leads to poor academic performance and insufficient sleep leads to fatigue, concentration, and alteration disturbance. A quality sleep is important to get enhanced cognitive performances and avoid health problems and mental health disorder⁴.

The nursing internship is an excellent opportunity to address “reality shock”. The internship year is an opportunity for new graduate nurses or intern nurses⁵. At this time the students come through various broad and extensive clinical training and experience under the supervision of faculty and evaluations while carrying their duties and responsibilities in different assigned clinical areas⁶. The new graduates were found with stress regarding competence, confidence, making practice errors and adjusting in the workplace or environment, complain about lack of support and problems with the superiors, completion of duty, and quality of work⁷. Researchers report that the most difficult stresses and challenges experienced by new graduates during the training period in their transition from student to nurse includes not having confidence during the skill Performances, facing difficulty in critical thinking and clinical decision making, developing good relationships with peers and superiors, resist with being dependent on others yet not good enough to be independent, frustration in the workplace, organization and setting the priority skills and communicating with the physicians for many interns⁸.

Long term effects of extended & unmanaged stress can give a harmful impact on nurse’s both personal and professional lives which changes the physical and psychological health like job stress, irritation, anxiety, lack of confidence, unhappiness, and frustration⁹. There is a growing need for reasonable and possible direction concerning manage work-related stress¹⁰. Due to stress, sleep disturbance occurs. Sleep disturbance is highly among clinical nurses especially in new graduate nurses or internship nurses. Work-related stress plays a vital role in making sleep disturbances among nursing internship students. Sleep problems could lead to serious effects such as delayed thought, loss of memory, delay response, irritability, and even an

increase in the risk of depression and suicidal tendency^{11, 12}. A chronic sleep disturbance is also associated with work absenteeism and accidents or injuries in work areas^{13, 14, 17}. Nurses are a very special professional group who bears quite high mental stress and over job tasks in caring for patients^{18, 19}. The working type makes their sleeping pattern more irregular^{20, 22}. Many studies have shown that disturbed sleeping pattern in nurses not only influences their own physical & mental health but also affects the quality of nursing care and even the treatment process of patients²³. Stress due to work, one of the environmental factors is also considered as the reason for many diseases^{24, 29}. Nurses have very stressful jobs like frequently changing work shifts, goes through psychological stress, and long hours of work every day due to their job necessity.

Methods & materials:

The current study is a Non-experimental descriptive study under a quantitative approach where a total of 160 samples were taken conveniently. The data were collected by using a self-structured demographic Performa & PSQI Scale and the perceived stress scale was used to assess sleep quality and level of stress respectively from interns of IMS & SUM Hospital, BBSR, Odisha from 7th January to 30th March 2019. Institutional permission & informed consent were taken before data collection. The data were analyzed using SPSS version 20.

Result

A total of 160 interns participated in the study. The result depicts that 66.3% of samples were in the age group of 21-23years. Most of the samples (66.25%) were female.52.5% of subjects were having a poor sleeping pattern and 47.5% of samples were having good sleeping pattern.49.4% of samples were working inward,30.6% of samples were working in ICU and 20% of samples were working in OT. With regards to work-related stress majority, 64.4% of the subjects were having a moderate level of stress, and very few i.e. 3.8% of the sample were having severe stress. In the case of sleep quality among interns, more of the samples (83.3%) were having the average quality of sleep and only 6.2% of samples were having good sleep quality. There is an extremely statistically significant association between age, gender, sleeping pattern, and working sector with work-related stress whereas there is no significant association between caffeine intake, educational status, and work duration with quality of sleep.

Table I Description of samples according to socio-demographic variables.

Sl no	sample	characteristics	Percentage
1	Age in year	18-20 yrs 21-23 yrs >23 yrs	15% 66.2% 18.8%
2	Gender	Male female	33.75% 66.23%
3	Sleeping pattern	Poor good	52.5% 47.5%
4	Working sector	Ward I cu OT	49.4% 30.6% 20%
5	Work duration	8hr 12hr	69.4% 30.6%
6	Duty pattern	General duty Shift duty	74.4% 25.6%
7	Dietary habits	Vegetarian Non-vegetarian	29.4% 70.6%
8	Caffeine intake	Tea coffee	63.8% 36.2%

Table II: ANALYSIS OF DATA RELATED TO THE WORK RELATED STRESS AMONG INTERNSHIP NURSING STUDENTS.

Sl no	sample	characteristics	Percentage
1	Internship Students (level of stress)	No stress Mild stress Moderate stress Severe stress	1.8% 30% 64.4% 3.8%

Table III. ANALYSIS OF DATA RELATED TO THE SLEEP QUALITY AMONG INTERNSHIP NURSING STUDENTS.

Sl no	sample	characteristics	Percentage
1	Internship Students (quality of sleep)	Poor sleep Average Good quality of sleep	10% 83.8% 6.2%

TABLE IV: ANALYSIS OF DATA TO FIND OUT THE ASSOCIATION BETWEEN WORK RELATED STRESS AND SOCIO DEMOGRAPHIC VARIABLES

Sl no	Socio-demographic variables	characteristics	Perceived stress scale				Chi-square	P-value	Inferences
			normal	mild	moderate	severe			
1	Age in years	18-20 years	0	9	13	2	765.2	0.0001	Extremely statistically significant
		21-23 years	3	33	68	2			
		>23 years	0	6	22	2			
2	gender	Female	3	22	23	4	18.16	0.0004	Extremely statistically significant
		male	0	26	80	2			
3	Sleep pattern	Poor sleep	3	31	46	4	8.54	0.036	Statistically significant
		Good sleep	0	17	57	2			
4	Work sector	Ward	2	12	16	2	50.08	0.0001	Extremely statistically significant
		Icu	1	18	28	2			
		OT	0	18	59	2			
5	Work duration	8hrs	3	41	63	4	10.42	0.0153	Statistically significant
		12 hrs	0	7	40	2			
6	Duty pattern	Shift duty	3	16	20	2	12.47	0.0059	Very statistically significant
		General duty	0	32	83	4			

7	Dietary pattern	Vegetarian	3	18	22	4	15.95	0.0012	Very statistically significant
		Non-vegetarian	0	30	81	2			
8	Caffeine intake	Tea	3	35	60	4	4.82	0.1855	Not statistically significant
		coffee	0	13	43	2			
9	Educational status	GNM	3	31	47	4	7.94	0.0473	Statistically significant
		Bsc	0	17	56	2			

Discussion

In the current study With regards to work-related stress majority, 64.4% of the subjects were having a moderate level of stress, and very few i.e.3.8% of the sample were having severe stress. This shows some similarity with a study conducted by Patricia Suresh (2013) to assess and compare the perceived levels of stress related to job among newly qualified nurses and fourth-year student nurses in the clinical areas. Data were obtained from newly qualified nurses (n=31) and fourth-year nurses (n=40) from six hospitals by using an open-ended question which was analyzed qualitatively. The result after analysis shows that perceived stress concerning workload and conflict with physicians was higher in newly qualified nurses in comparison to fourth-year student nurses.³⁸ In the current study concerning sleep quality among interns more of the samples (83.3%) were having the average quality of sleep and only 6.2% of samples were having good sleep quality. which was supported with a study conducted by Hongyuan Dong et al. (2017), from the multivariate logistic regression analysis shown that the risk factor for disturbed sleep pattern was seen in female nurses, emergency department and ICU nurses, working from many years, more number of the night shift with that poor quality of life, deprived physical & mental health due to high work stress, low job control and less support in the workplace. The final result

shows many of the factors listed above were the prevalence of sleep disorder in nurses and occupational stress plays an important role in sleep disturbance.²³

The current study shows there is an extremely statistically significant association between age, gender, sleeping pattern, and working sector with work-related stress whereas there is no significant association between caffeine intake, educational status, and work duration with quality of sleep. This is supported by a study Kaushik Nag et al. (2019) conducted a study on sleep disturbance and its effect on work performance results shows that of the total 135 participants, the majority (28.9%) were interns and nursing staffs and paramedical students (26.7%). The prevalence of sleep disturbance was 54% among the participants, and it was significantly higher among those residing in hostel and quarter as compared to their own home ($p=0.003$). Sleep disturbance was also found to be significantly decreasing their performance at work ($p<0.001$). Finally, the result shows the high prevalence of sleep disturbance among shift workers, which significantly hampered their work performance.^{24, 25}

Conclusion

Work-related stress among interns is very high. Ultimately that was affecting their day to day life and sleeping pattern. So jointly the faculties and nurse in charge should take initiative to identify the causes aggravating the stress among interns and give some orientation and training program so that the interns can be able to cope up with the internship period to improve their mental health and quality of sleep.

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Ethical Statement: This study was approved by the institutional ethical committee and the prior consent was taken before the collection of samples.

Conflict of interest: The authors declare that there is no conflict of interest.

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