

Research Article

A STUDY TO ASSES EFFECTIVENESS OF SLEEP QUALITY, OCCUPATIONAL STRESS AND PERSEVERATIVE COGNITION AMONG NURSING OFFICER IN SELECTED HOSPITAL AT TUMKUR

^{1,*} Ms. Sreelekshmi P V and ²Mrs. Nagaveni R

¹Final year B.sc Nursing Shridevi College of Nursing Tumkur, Karnataka, India.

²Asst Professor, Department of Child Health Nursing. Shridevi College of Nursing Tumkur, Karnataka, India.

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ABSTRACT

OBJECTIVE: 1. assess the levels of sleep quality, occupational stress, and perseverative cognition in nursing officers in selected hospitals in Tumkur. 2. To find the correlation between occupational stress with perseverative cognition among nursing officer. 3. To find the correlation between sleep quality and occupational stress with perseverative cognition among nursing officer. 4. To find the association between selected demographic variables and sleep quality, occupational stress, and perseverative cognition. **METHODS:** The descriptive research design was used for the present study; the sample consist of 60 nursing officers working in the selected hospital at Tumkur. Random sampling technique was used for sample selection. Data obtained by using standardized rating scale, the data obtained was analysed by using descriptive and inferential statistics. **RESULTS:** The data shows the Mean scores of Occupational Stress, the scores ranged from 12-39 with Mean 24.95, Median 25 with Standard deviation ± 08.64 where as in case of Quality of Sleep scores ranged from 10 – 40 with Mean 22.73, Median 21.50 and Standard deviation was ± 08.77 and in case of Preservative Cognition the scores ranged from 10 -40 with Mean 26.73, Median 27 and Standard deviation ± 07.944 . The data that there is positive correlation between Occupational stress scores and Quality of Sleep ($r = 0.982$, $p < 0.05$), there is no correlation between Occupational stress scores and perseverative Cognition scores ($r = 0.230$, $p > 0.05$). there is no correlation between Quality of Sleep scores and Preservative Cognition scores ($r = 0.174$, $p > 0.05$). **CONCLUSION:** the study concluded that there is correlation between Occupational stress scores and Quality of Sleep so reducing occupational stress is needed in future.

Keywords: Quality of Sleep, Occupational Stress, Perseverative Cognition, Nursing Officer.

INTRODUCTION

Nursing officers is one of the busiest healthcare providers in all aspects. Sleep quality is a critical component of overall health and well-being, influencing physical, emotional, and cognitive functioning. It defined as the subjective assessment of how well one sleeps, it encompasses various factors such as sleep duration, disturbances, and restorative qualities¹. High-quality sleep is essential for the body's recovery processes, including cellular repair, hormonal balance, and immune function².

Conversely, poor sleep quality is linked to a range of negative outcomes, including fatigue, decreased cognitive performance, and increased susceptibility to stress and mental health disorders³.

In recent years, there has been growing recognition of the importance of sleep quality, particularly in the context of modern lifestyles that often prioritize productivity over rest⁴.

Factors such as work demands, social pressures, and lifestyle choices contribute to sleep disturbances, making it increasingly challenging for individuals to achieve restorative sleep⁵. As a result, understanding the determinants of sleep quality and its implications is vital, especially for nursing officer who may experience higher levels of stress and cognitive load⁶.

Perseverative cognition refers to the repetitive and persistent thinking about stressors and negative experiences, including worry and rumination. This cognitive process can have profound implications for

both mental health and occupational performance. When individuals engage in perseverative cognition, they often find themselves trapped in cycles of negative thought, which can lead to increased anxiety and emotional distress⁷. This mental state can diminish focus, decision-making abilities, and overall cognitive function, ultimately impacting work output.

Among nursing officers, the interaction between sleep quality, occupational stress, and perseverative cognition is particularly significant. Poor sleep quality may increase stress perception, while occupational stress may contribute to repetitive negative thinking. Likewise, perseverative cognition can interfere with sleep initiation and maintenance, creating a vicious cycle affecting overall health and work performance.

NEED FOR THE STUDY:

The connection between quality of sleep and occupational stress has emerged as an issue of growing interest due to its strong impact on the well-being and performance of adults.⁸

Poor sleep quality is frequently associated with increased levels of occupational stress, which can adversely affect mental health and job performance. Despite this connection, the relationship between these factors with cognition are not well understood.

Perseverative cognition, defined as the tendency to think repetitively about negative events, thoughts and stressors, may act as a key mediator in this process. Understanding the role of perseverative cognition in the interplay between sleep quality and occupational stress is essential for creating effective interventions.⁹

*Corresponding Author: Ms. Sreelekshmi P V,

¹Final year B.sc Nursing Shridevi College of Nursing Tumkur, Karnataka, India.

In a study titled, "Day-to-day relations between stress and sleep and the mediating role of perseverative cognition" conducted by Michelle Van Laethem et al in Netherlands, it was found that perseverative cognition functions as a mediator between stress and several sleep parameters, namely, subjective sleep quality, objective sleep efficiency, and subjective wake after sleep onset.

The results of the study revealed that respondents did not have perseverative cognitions at bedtime or during the night on 236 occasions (69.4%). However, on the other 104 occasions, participants did have perseverative cognitions about one (22.1%), two (5.6%), three (2.4%), or even four (0.6%) topics. When having perseverative cognitions, respondents were thinking about the dissertation defence (48%), their work (28%), private matters (20%), job insecurity (11%), their sleep patterns (5%), and/or other topics (28%).¹⁰

This study seeks to examine this correlation, aiming to shed light on the cognitive processes that contribute to sleep disturbances in high-stress work environments. While there is a focus on stress and sleep studies in nursing professions, there is only limited research in this area of perseverative cognition in India.

An analysis into this will provide more insight into how sleep, stress, and cognition are interrelated, mainly within educational settings. Research findings may be used as a benchmark in the policy-making process at the hospital level, which will include interventions like workload management, professional development, and mental health resources for faculty.

OBJECTIVES OF THE STUDY

1. To assess the levels of sleep quality, occupational stress, and perseverative cognition in nursing officers in selected hospitals in Tumkur.
2. To find the correlation between occupational stress with perseverative cognition among nursing officer.
3. To find the correlation between sleep quality and occupational stress with perseverative cognition among nursing officer.
4. To find the association between selected demographic variables and sleep quality, occupational stress, and perseverative cognition.

METHODS

The descriptive correlation research design was used for the present study; the sample consists of 60 nursing officers working in the selected hospital at Tumkur. Random sampling technique was used for sample selection. Data obtained by using standardized rating scale, the data obtained was analysed by using descriptive and inferential statistics.

SETTING OF THE STUDY:

The study was conducted in Shridevi institute of medical science and research hospitals at Tumkur, Karnataka.

POPULATION:

Target Population

All nursing officers working in hospitals.

Accessible Population

Nursing officers working in selected hospitals at Tumkur during the period of data collection.

SAMPLE:

The sample consists of nursing officers working in selected hospitals at Tumkur who fulfill the inclusion criteria.

SAMPLE SIZE:

A sample size of **60 Nursing Officers** will be selected for the study.

SAMPLING TECHNIQUE:

"Sampling techniques is a procedure that the researcher adopts in selecting the samples for the study"

Random sampling technique will be used for the study.

Section 1: Demographic variables.

A). Description of personal variables of the Samples.

The study sample composed of 60 Nursing Officers who were working in selected hospitals of Tumkur city. The findings related to Personal variables of the samples are tabulated below.

Table 1 Frequency and Percentage distribution of Samples according to their Age, Gender etc.

N=60

Sl.No	Demographic variables	Samples	
		Frequency	Percentage (%)
1.	Age		
	a. 21 – 25 Yrs	07	11.66
	b. 26 – 30 Yrs	27	45.00
	c. 31 – 35 Yrs	18	30.00
	d. 36 – 41 Yrs	08	13.33
2	Gender		
	a. Male	32	58.33
	b. Female	28	46.66
3.	Marital Status		
	a. Single	02	03.33
	b. Married	50	83.33
	c. Widowed	05	08.33
	d. Divorced	03	05.00
4	Education status		
	a. G.N.M	06	10.00
	b. B.Sc. (N)	49	81.66
	c. M.Sc.(N)	05	08.33
5.	Years of Experience		
	a. Less than 1 year	05	08.33
	b. 1 – 5 years	25	41.66
	c. 6 – 10 years	27	45.00
	d. More than 10 years	03	05.00
6.	Working Department		
	a. ICU	03	05.00
	b. Emergency Ward	18	30.00
	c. Surgical ward	14	23.33
	d. Others	25	41.66
7.	Type of Duty		
	a. General shift	25	41.66
	b. Day Shift	17	28.33
	c. Night Shift	18	30.00
8.	Average Working hours		
	a. 6 Hrs.	22	36.66
	b. 8 Hrs.	10	16.66
	c. 10Hrs	21	35.00
	d. 12 Hrs.	07	11.00

B). Description of Mean scores of Occupational Stress, Sleep Quality and Preservative Cognition among samples from selected Hospitals of Tumkur City.

The mean scores of Occupational Stress, Quality of Sleep and Preservative Cognition were obtained from the Nursing Officers and were tabulated to a master sheet. Mean standard deviation, median and range of Occupational stress, Quality of Sleep and preservatives Cognition scores among samples were computed. The findings were presented in the

Table – 02. Mean, Standard Deviation, Median, and Range of Samples.

n= 60

Variables	Occupational Stress Scores of the Samples	Quality of Sleep Scores of the Samples	Preservative Cognition Scores of the Samples
Mean	24.95	22.73	26.73
Median	25	21.50	27
Standard Deviation	±08.64	±08.77	±07.944
Range	12 -39	10 – 40	10 - 40

Section 2: Inferential Statistics

A). Findings related to the Co-relation between Occupational Stress and Quality of Sleep among Nursing Officers from selected Hospitals of Tumkur city.

Score	NURSING OFFICERS	
	Mean score	Correlation coefficient
Occupational stress scores	24.95	0.982**
Quality of Sleep scores	22.73	

The data presented in Table 3 shows that there is positive correlation between Occupational stress scores and Quality of Sleep, thus the research hypothesis is supported and the null hypothesis is not supported ($r = 0.982$, $p < 0.05$), indicating higher the Occupational stress effects Quality of Sleep.

DISCUSSION

The study reveals that nursing officers had a positive correlation between Occupational stress scores and Quality of Sleep, and no association between demographic variables with sleep quality, occupational stress and perseverative cognition among nursing officers. Researcher must be encouraged for conducting further experimental study on this may helpful for nursing officers and other people.

CONCLUSION

The findings of the present study are consistent with previous national and international research, particularly those by Van Laethem *et al.*, Radstaak *et al.*, Zagaria *et al.*, Nejdiye G *et al.*, V. Singh *et al.*, and Wang *et al.* There is positive correlation between Occupational stress scores and Quality of Sleep ($r = 0.982$, $p < 0.05$). These studies collectively indicate that workplace interventions focusing on stress reduction, improved shift scheduling, sleep hygiene education, psychological counseling, mindfulness training, and cognitive-

behavioural techniques to reduce perseverative cognition may substantially improve nurses' sleep quality, mental well-being, and professional performance.

RECOMMENDATIONS

Recommended to conduct further experimental studies, comparative study can be conduct to better understand nursing officers working condition by that can find many measure to avoid occupational stress. Similar study can be conduct on large sample.

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