

A STUDY TO ASSESS SLEEP QUALITY AMONG SENIOR CITIZENS RESIDING IN SELECTED COMMUNITY AREAS OF DELHI NCR

Reny Thomas*

Professor cum Vice Principal PhD.(N) M.sc, Mental Health Nursing, Maharaja Agrasen Nursing College, Bahadurgarh.

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*Corresponding Author: Reny Thomas

Professor cum Vice Principal PhD.(N) M.sc, Mental Health Nursing, Maharaja Agrasen Nursing College, Bahadurgarh.

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ABSTRACT

Aging is a major health issue worldwide, and sleep plays a significant role in affecting the quality of life of elderly individuals. **Aim:** To assess the sleep quality among senior citizens residing in selected community areas of Delhi NCR. **Materials and Methods:** A quantitative approach with a descriptive research design was adopted. Non-probability convenience sampling was used to select 100 senior citizens. Sleep quality was assessed using a self-structured questionnaire based on the Pittsburgh Sleep Quality Index (PSQI) and scored on a 4-point Likert scale. **Results:** The study found that the majority (38%) of participants had fairly bad sleep quality, followed by 27% with fairly good sleep quality, 24% with very bad sleep quality, and 11% with very good sleep quality. The mean sleep quality score was 14.73 ± 2.60 . Significant associations were observed between sleep quality scores and demographic variables such as age and sex. **Conclusion:** Raising awareness among the elderly about the importance of good sleep is essential for improving their health and quality of life, as elders are valuable resources to society.

KEYWORDS: Sleep quality, Senior citizens, Assessment.

INTRODUCTION

Sleep is a physiological process essential for maintaining overall health and recovery. Adequate sleep is a critical component of wellness across the lifespan, and disturbances in sleep among older adults can lead to negative outcomes such as cardiovascular disease, cognitive decline, depression, and reduced quality of life. Daytime sleepiness resulting from inadequate sleep may further increase the risk of cardiovascular events, falls, and mortality.^[1]

Sleep disturbances in the elderly are multifactorial. Age-related changes, such as reductions in slow-wave and REM sleep and alterations in circadian rhythms, contribute to sleep complaints.^[2] Chronic or functional impairments, including urinary incontinence and pain, as well as psychosocial and environmental factors like loneliness, reduced daytime activity, excessive napping, and poor sleep hygiene, further exacerbate sleep problems.^[3,4]

The National Sleep Foundation recommends 7–8 hours of sleep for adults aged 65 and older. Evidence suggests that older adults who sleep 6–9 hours exhibit better cognitive, mental, and physical health outcomes compared to those with shorter or longer sleep durations.^[5,6] While the need for sleep does not decrease with age, age-related changes in sleep architecture can impair the ability to achieve restful sleep.

Globally, population aging is a growing concern. Between 2000 and 2015, the population aged 60 years or more increased by 48%, reaching 901 million by 2015. By 2030, one in six people worldwide is projected to be 65 or older, with those aged 80 or more increasing more than threefold by 2050.^[7]

Common sleep disorders among elderly individuals include insomnia and sleep apnea, often influenced by psychiatric conditions (depression, anxiety), circadian rhythm changes, physical illnesses, medications, restricted mobility, and environmental factors. While sleep disorders are not an inevitable part of aging, poor sleep quality significantly impacts mood, mental state, and overall well-being.^[8,9] Chronic insomnia may increase anxiety and depression, while poor sleep quality also elevates risks of hypertension, cardiovascular events, metabolic disorders, and impaired immune function.^[10]

Given these risks, regular screening for sleep quality should be integrated into routine health checkups, and awareness programs should be implemented to educate the elderly and general population about the consequences of poor sleep and strategies to improve it.^[11]

STATEMENT OF THE PROBLEM

A study to assess sleep quality among senior citizens residing in selected community areas of Delhi NCR.

MATERIALS AND METHODS

- **Study Design:** Descriptive research design using a quantitative approach.
- **Sampling:** Non-probability convenience sampling was used to select 100 senior citizens aged 60–80 years residing in selected villages of Delhi NCR.
- **Data Collection Tools**
 - Demographic questionnaire.
 - Self-structured questionnaire on sleep quality based on the Pittsburgh Sleep Quality Index (PSQI).
- **Assessment:** Sleep quality was assessed using a 4-point Likert scale and categorized as: very good, fairly good, fairly bad, and very bad. The PSQI is a widely used, reliable, and easy-to-administer tool for evaluating adult sleep quality and patterns.

RESULTS

Table 1: Demographic data among senior citizen.

Demographic Data	Frequency	Percentage
1. Age		
a) 61-65	23	23%
b) 66-70	34	34%
c) 71-75	26	26%
d) 76-80	17	17%
2. Sex		
a) Male	54	54%
b) Female	46	46%
3. Person having health problem		
a) Yes	79	79%
b) No	21	21%
4. Physical activity		
a) Independent	42	42%
b) Partially independent	40	40%
Dependent	18	18%
5. intake of sleeping pills		
a) Yes	74	74%
b) No	26	26%

Table 2: Frequency and percentage of sleep quality.

Quality of sleep	Frequency	Percentage
Very Good	11	11%
Fairly Good	27	27%
Fairly bad	38	38%
Very bad	24	24%

Table 3: Sleep quality scores of the senior citizen.

	MEAN	SD	Mean differences
Quality of sleep	14.73	2.60	49.73

Table 4: Association of sleep quality scores with selected demographic variables among senior citizen.

Demographic variables	Chi-square value	p value	Significance
AGE	11.732	0.025*	Significant
SEX	10.850	0.042*	Significant

Significant at 5% $P < 0.05$

DISCUSSION

The present study, a community-based descriptive research design, aimed to assess the sleep quality among senior citizens residing in selected villages of Delhi NCR. The findings revealed that the majority (38%) of participants had fairly bad sleep quality, followed by 27% with fairly good sleep quality, 24% with very bad sleep quality, and 11% with very good sleep quality. The mean sleep quality score was 14.73 ± 2.60 .

These results are supported by several previous studies. For instance, Gouthaman R et al. (2019) found that 17.2% of elderly participants had fairly bad sleep quality. Similarly, Luo et al. studied 1,086 elderly individuals in urban areas of China and reported that 41.5% of them experienced poor sleep quality. Another study demonstrated a significant improvement in sleep quality, with a mean pretest score of 10.05 (± 1.72) and post-test score of 3.02 (± 1.78), and observed significant associations between sleep quality and demographic factors such as age, gender, education, and marital status ($P < 0.05$).

Furthermore, a cross-sectional study using the Pittsburgh Sleep Quality Index (PSQI) indicated that anxiety symptoms had additive interactions with age, chronic disease, and social support in predicting poor sleep quality. These findings underscore the need for targeted interventions to improve sleep quality among elderly populations, considering both physical and psychosocial factors.^[12,13,14,15]

CONCLUSION

Sleep disorders, particularly insomnia, are a significant social and health concern among senior citizens residing in Delhi NCR. The present study highlights the importance of implementing and enhancing health education programs for the elderly, focusing on sleep hygiene and strategies to manage sleep disorders. Improving sleep quality can positively impact overall quality of life in this population.

Raising awareness among senior citizens about the importance of sleep is essential, as elders are valuable resources for society. Additionally, there is a pressing need for further research on sleep quality and sleep disorders among senior citizens to determine prevalence on a larger scale and inform public health interventions.

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