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Research Article

A descriptive study to assess the quality of sleep among elderly at selected old age home.

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Abstract:

Introduction: Sleep is essential for physical health, cognitive functioning, and psychological well-being. Sleep disturbances are common among older adults because of age-related physiological changes, chronic illnesses, medication use, psychological problems, and environmental factors.

Objective: To assess the quality of sleep among elderly residents of a selected old age home and determine its association with selected demographic variables. **Methods:** A quantitative descriptive research design was adopted. The study was conducted among 100 elderly residents aged 60 years and above at Thanal Old Age Home, Chennai. Participants were selected using a non-probability purposive sampling technique. Demographic data were collected using a structured questionnaire, and sleep quality was assessed using the Pittsburgh Sleep Quality Index (PSQI). Descriptive statistics, including frequency, percentage, mean, and standard deviation, were used for analysis. The Chi-square test was applied to determine the association between sleep quality and selected demographic variables. **Results:** Of the 100 participants, 69% experienced sleep disturbances and 31% had poor sleep quality; none reported good sleep quality. The mean PSQI score was 11.96 ± 2.97 , with a median of 12. The use of sleep medication was significantly associated with sleep quality ($\chi^2 = 18.059$, $p = 0.0001$), and psychological problems were also significantly associated with sleep quality ($\chi^2 = 11.913$, $p = 0.003$). Other selected demographic variables did not show a statistically significant association. **Conclusion:** The findings emphasize the importance of regular sleep assessment, identification of psychological problems, review of sleep medication use, and implementation of appropriate non-pharmacological sleep-promoting interventions.

Keywords: Sleep quality, elderly, sleep disturbances, old age home, Pittsburgh Sleep Quality Index

INTRODUCTION

Sleep is a fundamental physiological process necessary for maintaining physical health, psychological well-being, and cognitive functioning. With advancing age, significant changes occur in sleep architecture, including reduced deep sleep, frequent nocturnal awakenings, increased sleep fragmentation, and changes in sleep duration. These alterations may increase the vulnerability of older adults to poor sleep quality and sleep-related problems. Sleep problems among elderly individuals are influenced by multiple factors, including chronic illnesses, pain, medication use, anxiety, depression, loneliness, reduced physical activity, and environmental disturbances. Poor sleep may adversely affect functional independence, emotional balance, cognitive performance, and overall quality of life.

Institutionalized elderly individuals may experience additional factors affecting sleep, such as unfamiliar environments, shared accommodation, fixed routines, noise, lighting, limited social interaction, and separation from family support. Assessment of sleep quality using standardized tools can help healthcare professionals identify sleep-related problems and associated factors and plan appropriate nursing interventions.

AIM

To assess the quality of sleep among elderly individuals residing in a selected old age home.

METHODOLOGY

A quantitative descriptive research design was adopted. The study was conducted at Thanal Old Age Home, Chennai. The population comprised elderly individuals aged 60 years and above residing in the selected old age home. The study included 100 elderly men and women aged 60 years and above. Participants were selected using a non-probability purposive sampling technique. Elderly individuals who were able to communicate in Tamil or English and were willing to participate were included. Critically ill or bedridden elderly individuals and those with severe cognitive impairment were excluded.

Data were collected using a structured demographic questionnaire and the Pittsburgh Sleep Quality Index (PSQI). The demographic variables included age, gender, marital status, religion, education, occupation, income, duration of stay in the old age home, family type, reason for institutionalization, chronic illness, use of sleep medication, sleep duration, physical activity, caffeine intake, smoking, alcohol consumption, room environment, psychological problems, and social interaction.

After obtaining ethical approval, institutional permission, and informed consent, demographic information was collected and sleep quality was assessed using the PSQI. Frequency, percentage, mean, and standard deviation were used for descriptive analysis, and the Chi-square test was used to assess associations at the 0.05 level of significance.

RESULTS

The demographic profile showed that 58% of participants were female, 41% were married, and 52% were Hindu. Forty percent were illiterate and another 40% had primary education. Most participants had a monthly income below ₹5,000 before admission, 83% had chronic illness, and 45% occasionally used sleep medication. More than half slept for 5–7 hours and performed physical activity occasionally (Table 1).

The findings revealed that 69% of the elderly experienced sleep disturbances, while 31% had poor sleep quality. None of the participants had good sleep quality (Table 2). The mean PSQI score was 11.96 ± 2.97 , with a median score of 12, indicating a high prevalence of disturbed sleep among the elderly participants (Table 3). Sleep quality was significantly associated with the use of sleep medication and the presence of psychological problems. Other selected demographic variables did not show a statistically significant association (Table 4).

DISCUSSION

The present study identified a high prevalence of disturbed sleep among elderly residents of the selected old age home. Of the 100 participants, 69% experienced sleep disturbances and 31% had poor sleep quality, while none reported good sleep quality. The mean PSQI score of 11.96 ± 2.97 further indicates that sleep-related problems were common among the study population.

The findings suggest that sleep quality among institutionalized elderly individuals may be influenced by a combination of age-related physiological changes, chronic health conditions, medication use, psychological problems, reduced physical activity, and environmental factors associated with institutional living. The use of sleep medication and the presence of psychological problems were significantly associated with sleep quality.

No significant association was observed between sleep quality and the other selected demographic variables. These findings emphasize the importance of regular sleep assessment, psychological support, and appropriate non-pharmacological sleep-promoting strategies in old age homes.

CONCLUSION

The study demonstrated a high prevalence of sleep disturbances among elderly residents of the selected old age home. More than two-thirds of the participants experienced sleep disturbances, and none reported good sleep quality. The use of sleep medication and the presence of psychological problems were significantly associated with sleep quality. Regular assessment of sleep patterns, early identification of psychological problems, review of sleep medication, and implementation of non-pharmacological sleep-promoting strategies are important for improving sleep quality among elderly residents.

RECOMMENDATION

Similar studies may be conducted with a larger sample size and in multiple old age homes. Comparative studies may assess sleep quality among elderly individuals residing in institutions and those living in the community. Experimental studies may evaluate the effectiveness of sleep hygiene education, relaxation therapy, music therapy, exercise, or other non-pharmacological interventions.

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Table 1: Demographic characteristics of the elderly participants (N = 100)

Variable	Category	n (%)
Age	60–65 years	28 (28.0)
	66–70 years	28 (28.0)
	71–75 years	22 (22.0)
	Above 75 years	22 (22.0)
Gender	Male	42 (42.0)
	Female	58 (58.0)
Marital status	Married	41 (41.0)
	Unmarried	19 (19.0)
	Widowed	19 (19.0)
	Divorced/Widowed	21 (21.0)
Religion	Hindu	52 (52.0)
	Christian	22 (22.0)
	Muslim	16 (16.0)
	Others	10 (10.0)
Education	Illiterate	40 (40.0)
	Primary education	40 (40.0)
	Secondary education	13 (13.0)
	Higher secondary	6 (6.0)
	Graduate and above	1 (1.0)
Monthly income before admission	Below ₹5,000	60 (60.0)
Duration of stay	Less than 1 year	32 (32.0)
	1–3 years	39 (39.0)
	4–6 years	25 (25.0)
	More than 6 years	4 (4.0)
Chronic illness	Present	83 (83.0)
Sleep medication	Regularly	23 (23.0)
	Occasionally	45 (45.0)
	Never	32 (32.0)
Sleep duration	Less than 5 hours	11 (11.0)
	5–7 hours	52 (52.0)
	8 hours and above	37 (37.0)
Physical activity	Regular	20 (20.0)
	Occasional	55 (55.0)
	None	25 (25.0)
Psychological problem	Anxiety present	53 (53.0)

Table 2. Distribution of sleep quality among elderly participants

Level of sleep quality	PSQI score	n	%
Good sleep quality	0–4	0	0.0
Poor sleep quality	5–10	31	31.0
Sleep disturbances	>10	69	69.0
Total		100	100.0

Table 3. Assessment of overall sleep quality scores

Measure	Score
Mean	11.96
Standard deviation	2.97
Median	12.0

Table 4. Significant association between sleep quality and selected demographic variables

Variable	χ^2 value	p-value	Significance
Use of sleep medication	18.059	0.0001	Significant
Presence of psychological problems	11.913	0.003	Significant

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