

# ASSESSMENT OF QUALITY OF SLEEP AMONG SENIOR CITIZENS AT SELECTED OLD AGE HOME, CHENNAI

Dr. Vijayalakshmi.K,  
MScN.,M.A(Psy).,M.A(Soc).,M.B.A.,Ph.D(N)  
Head-Research and Development  
Professor cum HOD  
Mental Health Nursing Department  
Apollo College of Nursing, Chennai

Christobel Jesintha J.  
Ph.D., Scholar  
Apollo College of Nursing  
Chennai

## ABSTRACT

### Background

Sleep problems are very common among senior citizens. Moreover, people living in old age homes were being deprived of love from their families and do not report impaired sleep patterns due to various reasons. Early detection of poor sleep quality and disturbed sleep pattern among senior citizens can prevent or slow down the progression of morbidity and mortality and help them to have a good quality of life.

### Objective

To assess the quality of sleep among senior citizens living in selected old age homes in Chennai.

### Methods

A quantitative research approach was used for this study. Sixty older adults who fulfilled the inclusion criteria were used. Nonprobability convenient sampling technique was used for this study. Standardized instrument—the Athens Insomnia Scale (AIS) was used to assess quality of sleep, respectively.

### Results

Participants were 60 senior citizens residing in old age home were selected. Further, 6 (10.0%) of the samples had poor quality of sleep, 46 (76.7%) of the samples had fair quality of sleep and 14 (23.3%) of them had good quality of sleep.

## Conclusion

The majority of older participants presented with decreased sleep quality. In the future, studies should investigate appropriate interventions for older adults that involve exercise and yoga, as well as activities to foster their social relationships.

## INTRODUCTION

Elderly or old age consists of ages nearing or surpassing the average life span of human beings. The boundary of old age cannot be defined exactly because it does not have the same meaning in all societies. As per maintenance and welfare of parents and senior citizens Act, 2007, senior citizen means any person being a citizen of India, who has attained the age of 60 years or above. In, India the size of the elderly population, i.e. persons above the age of 60 years is fast growing although it constituted only 7.4% of total population at the turn of the new millennium.

India is a graying nation, with the growth rate of elderly segment being greater than the growth rate of the population as a whole. It is expected that by 2025 the growth rate of elderly will be 1.5 times higher than the growth rate of the general population. With the advent of the nuclear family, urbanization, migration, break-up of the joint family system, generation gap, influence of western culture and changed lifestyles, there is no space for the senior citizens in the families living in the congested urban society. Due to this they are compelled to live in the old age home (Prasanth, 2020)

Aging can be defined as the normal physical and behavioral changes that occur under normal environmental conditions as people mature and advance in age. Older adults living in old age homes face problems of adjustment with tight and rigid schedules; total or near-total separation from their family, friends and society; anxiety over entrusting oneself to a new environment; diminished physical ability and close and frequent encounter with death and ailments in the institution. These factors make older adults increasingly vulnerable to sleep related problems and their undesirable effects. (Kumar et al., 2012)

## NEED FOR THE STUDY

Sleep problems are not an inherent part of the aging process. Many older adults have good sleep quality until the end of their lives. It is critical that sleep problems are not mistaken for physiologic changes in sleep-awake patterns and sleep architecture that occur throughout the lifespan. Older adults often display an advanced circadian tendency, having an earlier bedtime and an earlier wake-up time. Sleep architecture changes include spending an increased proportion of time in stages N1 and N2 sleep (ie, the lighter stages of sleep), a

decreased proportion of time in stage N3 sleep (ie, a deeper stage of sleep) and in rapid eye movement (REM) sleep. These architecture changes reflect a decrease in deep, restorative sleep and an increase in light, transitory sleep. In addition, older adults tend to spend slightly less time asleep than their younger counterparts. Although some older adults complain of poor night-time sleep or subsequent impairments in daytime functioning, others assume that their difficulties are part of the normal aging process. Therefore, a focused evaluation of sleep, specifically sleep apnea and insomnia, and related daytime functioning should be performed in every older adult in whom sleep disturbances are suspected.(Alessi. C .A, et.al. 2018)

Problems of senior citizens in institutionalized settings were deteriorating health, malnutrition, stress and lack of sleep, fear, depression, senility, isolation, boredom, non productivity, and financial incapacity. The researcher during her interaction with senior citizens in the old age homes found them to be having stress due to family, financial, and health problems. They also had complaints of lack of sleep. This motivated the investigator to assess the quality of sleep of senior citizens at selected old age home in Chennai.

## **STATEMENT OF THE PROBLEM**

A study to assess the quality of sleep among senior citizens at selected old age home in Chennai.

## **OBJECTIVES OF THE STUDY**

1. To assess the quality of sleep among senior citizens
2. To associate the quality of sleep of senior citizens with their demographic variables.

## **OPERATIONAL DEFINITIONS**

**ASSESS** -It refers to the process of obtaining information regarding quality of sleep among senior citizens and analyzing the data using statistical methods

**QUALITY OF SLEEP** -It refers to a state of rest of body and mind with good health and a sense of well being which is assessed using Athens Insomnia Scale.

**SENIOR CITIZENS**- It refers to male and female persons who are 60 years and above and are living in old age homes.

## **REVIEW OF LITERATURE**

Lazarus.E (2023) assessed the level of insomnia and sleep quality among older people living in select old age homes in the rural part of East Godavari District in Andhra Pradesh, India. The study employed a cross-

sectional descriptive design. The convenience sampling technique was used to recruit participants. Two standardized instruments—the Athens Insomnia Scale (AIS) and the Pittsburgh Sleep Quality Index (PSQI)—were used to assess sleep difficulty and sleep quality, respectively. Participants were 100 older adults (mean age:  $70.50 \pm 7.61$  years; age range: 60–81 years). Sixty-seven participants reported highly impaired sleep patterns, indicated by a mean score of 16.42 (standard deviation [SD] = 03.67) out of 24 on the AIS. Further, 66 participants had very poor sleep quality, indicated by a mean score of 13.21 (SD = 02.16) out of 21 on the PSQI. There was a significant positive correlation between sleep patterns and sleep quality. The more severe the sleep impairment, the poorer the sleep quality ( $r = 0.8$ ;  $t = 13.18$ ). The majority of older participants presented with severe sleep pattern impairments and poor sleep quality. The severity of impaired sleep patterns was associated with poor sleep quality. In the future, studies should investigate appropriate interventions for older adults that involve exercise and yoga, as well as activities to foster their social relationships.

## METHODS AND PROCEDURES

A quantitative research approach was used for this study. Sixty older adults who fulfilled the inclusion criteria was used. Nonprobability convenient sampling technique was used for this study. After obtaining approval from the research committee, content validity was obtained from the experts and permission was obtained from the concerned authorities in the old age home to conduct the study. Informed consent was obtained from the samples. Privacy and confidentiality was ensured.

### **The tool for data collection consisted of parts such as**

**Part I – Demographic data :** It consisted of 15 structured items to collect the demographic data of senior citizens such as age, gender, religion, educational status, marital status, financial dependency, source of income, number of children, period of stay at old age home, reason for joining in old age home, visit of children to old age home, history of medical illness, details of treatment taken for medical illness, details of sleeping pills and previous practice of relaxation technique.

**Part II -Assessment of Quality of Sleep-** Athens Insomnia scale was used to assess the quality of sleep which is a standardized tool. It was measured by assessing eight factors amongst which first five factors are related to nocturnal sleep and last three factors are related to daytime dysfunction. It is a descriptive rating scale which ranges from 0 – 3, with maximum score of 24, and minimum score of zero. The score was interpreted as follows:

SCORING	QUALITY OF SLEEP
0-6	Good Quality of Sleep
7- 16	Fair Quality of Sleep
17- 24	Poor Quality of Sleep

## FINDINGS & INTERPRETATION

### Description of the Demographic variables

**Objective 1: The first objective was to assess the quality of sleep among senior citizens.**

Majority 41.7% of the senior citizens belonged to the age group of 71-80 years. All of them were female. 85% of them were Hindus and 45 % of the senior citizens had primary education. 80 % of the samples were married among them 77. 1% of them were widow / widower. Regarding financial dependency, 71.7% of the samples were completely dependent and 15% of them were partially dependent. 70% of the samples were dependent on old age home and 41.7% of samples had no children. 51.7% of samples were staying for more than one year at old age home, 88.3% of them have joined old age home voluntarily. 85% of them used to get visitors, among them 30% of samples had visitors monthly, 36.7 % of samples relatives come to visit them. 53.3 % of the samples had no history of medical illness. 53.3% of the samples were not on any regular treatment. 88.3% of the samples were not taking any medication for sleep. 70% of them were not practicing any relaxation technique.

**Objective 1: : The first objective was to assess the quality of sleep among senior citizens**

**Fig 1: Level of Quality of Sleep**

Level of quality of sleep	Frequency	Percentage(%)
Poor quality of sleep	6	10.0
Fair quality of sleep	40	66.7
Good quality of sleep	14	23.0
<b>Total</b>	<b>60</b>	<b>100</b>

### Inference

6 (10.0%) of the samples had poor quality of sleep, 46 (76.7%) of the samples had fair quality of sleep and 14 (23.3%) of them had good quality of sleep.

**Fig1.1 Frequency and percentage distribution of level of quality of sleep among senior citizens**



**Objective 2: The second objective was to associate the quality of sleep of senior citizens with their demographic variables.**

There was no significant association found between quality of sleep and their demographic variables such as age, gender, religion, education status, marital status, financial dependency, source of income, number of children, period of stay in old age home, reason for joining old age home, history of visitors, history of medical illness, treatment for medical illness, intake of medication for sleep and previous practice of relaxation technique.

## CONCLUSION

Sleep pattern disturbances and poor quality of sleep among elderly are very common, especially among senior citizens with 60 years and above. There were studies conducted in Taiwan, Turkey, China and Nepal between institutionalized and non-institutionalized elderly population on sleep quality and disorders. The study proved that the institutionalized patients exhibit more severe form of sleep disturbances and disorders than the others due to unfavorable setting of the institutions, lack of family and social support, lack of financial support (Yang et al., 2021, Wang et al., 2020b, YURT et al., 2021, Yang et al., 2020, Hu et al., 2020, Zhu et al., 2020).

It was observed that sleep problem are common among senior citizens staying in old age home. The objective of the study was to assess the quality of sleep among senior citizens at selected old age home. The review of literature provided the base and in depth knowledge for the development of tool. The content validity of the tool was obtained from the experts and the reliability was determined. The study was conducted at Annai Old Age Home, Chennai after obtaining prior permission from the head of the institution. Sixty senior citizens who fulfilled the inclusion criteria were selected as samples. Data was collected using interview schedule, the collected data was analyzed, tabulated and the results were interpreted.

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