



# Assessment of Sleep Quality among Elderly in Selected Districts, Tamilnadu, India

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## ABSTRACT

A descriptive study was conducted to assess the sleep quality among elderly in selected districts in Tamil Nadu, India. The objectives of the study were to assess the level of sleep quality among elderly and to associate the level of sleep quality with selected demographic variables of elderly. Convenient sampling technique were used to select the study participants. 50 samples were selected for our study. We have used Pittsburgh Sleep Quality Index Scale to assess the sleep quality of the elderly. The study findings revealed that 38% of the elderly have poor sleep quality and 34% of the elderly has moderate sleep quality, 24% of the elderly has mild difficulty and 4% has no difficulty. The mean score of sleep quality is 11.48 and standard deviation is 5.47. In association aspects, it revealed that there was significant association between the level of sleep quality and age of the elderly people. And due to COVID pandemic situation many elderly were staying inside the home without going out and not exposed to outdoor, they may sleep for long hours but the quality of the sleep will not satisfactory. Sleep quality to be assessed during their routine physician consultation to diagnose any sleep issues and treat them appropriately.

**Key words:** SleepQuality, Elderly

## INTRODUCTION

Hypno, a word Greek origin means sleep. It is derived from the ancient Greek God of sleep “Hypnos”. It is essential to a person’s physical and emotional well being. An average of 7 or 8 hours of sleep each night is necessary to feel fully alert during the day. Sleep is actually an active and organized process. Sleep is a partial detachment from the world if where most external stimuli are blocked from the senses. According to the statistical data given by ICMR survey (India) as many as 69% of elderly individuals complain about sleep problems such as disturbed or light sleep, frequent awakenings, early morning awakenings and undesired daytime sleepiness.

According to **NATIONAL SLEEP FOUNDATION**, new sleep time for elderly people range s to 7-8 hours. As many as, 50 % elderly people complain about difficulty initiating or maintaining sleep.

Sleep quality is an important predictor of well being in the elders. However, the effects of depression among elderly are less clear. sleep disturbance is a complex health problem in ageing populations decreasing quality of life among many elderly people. Problem with sleep increases sharply with age. Poor sleep quality is associated with serious consequences on physical, mental, and social aspects of well being. One of the physical changes in elderly people is in the characteristics of their sleep. Changes in sleep duration, pattern, and quality occur in elderly people. The difficulty of falling asleep, maintain sleep, sleep fragmentation, getting up too early in the morning, and more day sleep are the other changes that occur in elderly people. Poor sleep quality can have intense physical effects on the elderly, including fatigability and an increased risk of falls. Poor sleep quality and sleep deprivation are also associated with effects on activities of daily living and cognitive impairment in the elderly people. Better quality of life in elderly people can be achieved by increase in sleep quality as well as promoting good sleep. The researchers aimed to assess the sleep quality among elderly through online survey.

### Statement Of The Problem

A study to assess the sleep quality among elderly in selected districts, Tamil Nadu, India.



### **Objectives**

1. To assess the level of sleep quality among elderly.
2. To associate the level of sleep quality with selected demographic variables of elderly.

## **METHODOLOGY**

### **Research Approach**

Quantitative approach was adopted for the study.

### **Research Design**

Non experimental descriptive survey method was found to be appropriate to assess the sleep quality among elderly.

### **Research Setting**

The study was conducted in Chengalpattu district and Vellore district in Tamilnadu, India.

### **Population**

All the elderly who were in the age of 65 and above in selected districts.

### **Sample And Sampling Technique**

Convenient sampling technique was used to select 50 study participants in online.

### **Sampling Criteria**

#### **Inclusion Criteria**

- Elderly who were in the age group of 65 years and above
- Elderly who were willing to participate through online survey.
- Elderly who were present during the period of data collection.
- Elderly who can understand English and Tamil.

#### **Exclusion Criteria**

- Elderly who were bedridden.
- Elderly with mental illness.

### **Selection And Development Of The Study Instrument**

#### **Section I:**

Socio - demographic data which includes age, gender, marital status, educational qualification, type of family, presence of physical illness, status of regular medication intake, range of mobility, perception of sleep adequacy and any kind of pain of the elderly people.

#### **Section II:**

Pittsburgh Sleep Quality Index Scale is standardized tool used to assess the sleep quality which consists of 10 items in which the item 10 does not contribute the PSQI Score.

In scoring the PQSI, seven component score are derived, each score 0 (no difficulty) to 3(severe difficulty). The component score are summed to produce a global score (range 0 to 21). Higher score indicates worse sleep quality.

### **Plan For Data Collection**

The researcher conducted an online survey to collect data. The personal information data and Pittsburgh sleep quality index scale were framed in google forms and sent through Whatsapp. Data collection done for the period of 6 days.

### **Plan For Data Analysis**

Descriptive statistics like frequency and percentage were used. Inferential statistical like mean, standard deviation and chi-square test were used to analyze the data.

## **RESULTS AND DISCUSSION**

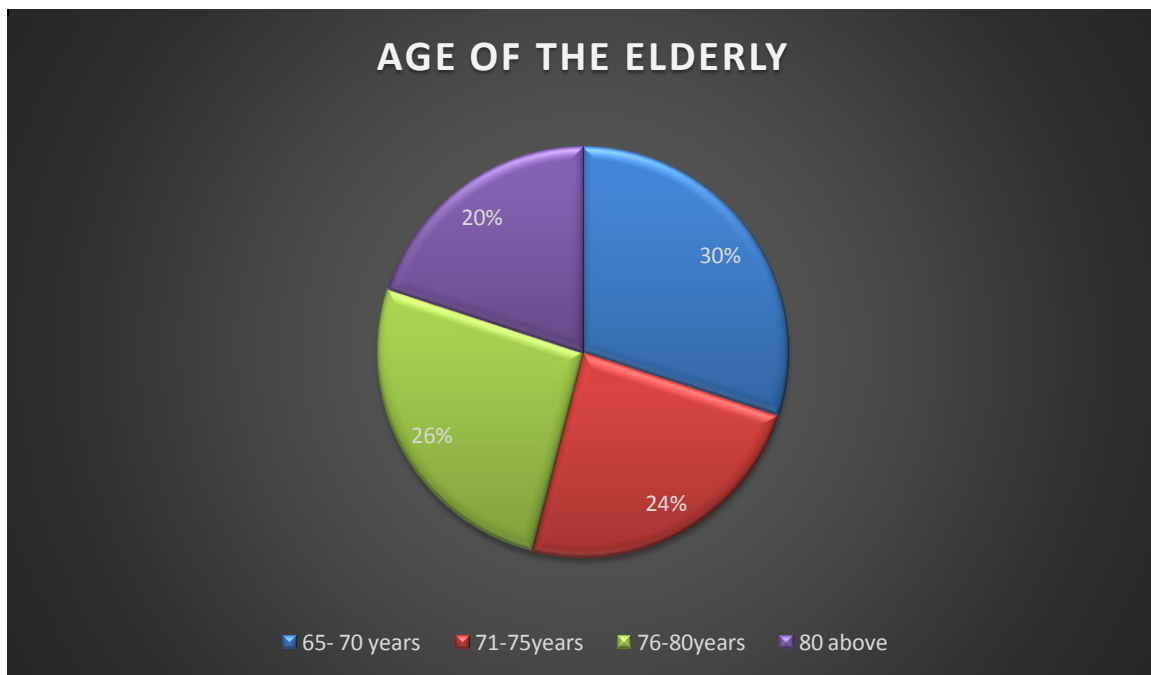
The study findings highlighted that majority of the elderly (69%) were not having formal education, more than half of the elderly (58%) belongs to the nuclear type of family, most of the elderly (58%) have physical illness, three fourth of the elderly (72%) were on regular medications, almost (96%) of the elderly have active range of mobility, (88%) of the elderly

perceive that they have adequate sleep, majority of the elderly (64%) were expressed that they have some kind of pain.

**Table 1: Level of Sleepquality, mean and standard deviation aspects of elderly.**

Level of Sleep Quality	No of Elderly	Total No of Questions	Score Range	Frequency	Mean	SD	Level of Sleep Quality	
							Individuals	Total
No difficulty	50	9	0	2	11.48	5.47	4%	100%
Mild difficulty			1 – 7	12			24%	
Moderate difficulty			8 – 14	17			34%	
Poor Sleep quality			15 – 21	19			38%	

**From the table 1:** it reveals mean (11.48) and standard deviation (5.47) aspect of elderly. the sleep quality scores of the elderly. (38%) had poor sleep quality, (34%) had moderate difficulty, (24%) had mild difficulty, (4%) have no difficulty sleep among the elderly.



**Figure-1: Percentage distribution of the elderly based on their age group.**

**Table 2: Association of level of sleep quality with selected demographic variables of Elderly (N=50)**

Demographic variables	Categories	Level of Sleep quality				Chi – square	P value
		No difficulty	Mild difficulty	Moderate difficulty	Poor sleep Quality		
Age in years	65-70	10	0	3	2	22.34	16.92*
	71-75	2	5	3	2		
	76-80	3	5	3	2		
	Above 80	5	0	0	5		
Gender	Male	4	4	4	4	0.8008	12.59
	Female	5	1	9	1		
	Transgender	0	0	0	0		
Marital status	Single	1	0	0	1	15.77	16.92
	Married	3	6	6	8		
	Divorced	0	0	0	0		
	Widower	3	7	7	8		
Type of family	Nuclear	10	8	5	5	1.833	12.59
	Joint	9	3	6	4		
	Extended	0	0	0	0		
Education	no formal education	5	5	3	2	10.50	21.03
	Primary school	3	3	3	2		
	High school	2	0	1	1		
	High secondary	1	1	0	1		

	Graduation	0	0	0	2		
Presence of physical illness	Yes	5	9	5	10	0.885	7.82
	No	5	5	5	6		
Taking medication	Yes	5	5	16	10	5.777	7.82
	No	4	5	3	2		
Range of mobility	Active	8	12	18	10	1.654	12.59
	Walker	0	0	1	1		
	Wheel chair	0	0	0	0		
	Through relative	0	1	0	3		
Perception of sleep	Adequate	4	15	10	15	4.821	7.82
	Not adequate	2	3	0	1		
Any kind of pain	Yes	10	6	6	10	4.737	7.82
	No	5	8	3	2		

**\*Statistically significant at 0.05 level of significance.**

**Table: 2** reveals that there was significant association between the levels of sleep quality and age ( $\chi^2=22.34$ ). Hence the researcher rejects the research hypothesis. It also reveals that there was no significant association between the levels of sleep quality and gender ( $\chi^2=0.800$ ), marital status ( $\chi^2=15.77$ ), type of family ( $\chi^2=1.833$ ), education ( $\chi^2=10.5089$ ), presence of physical illness ( $\chi^2=0.885$ ), taking medication ( $\chi^2=5.777$ ), range of mobility ( $\chi^2=1.654$ ), perception of sleep adequacy ( $\chi^2=4.821$ ) and any kind of pain ( $\chi^2=4.73$ ). Hence the researcher accepts the research hypothesis.

### CONCLUSION

The study concludes that 38% of the elderly had poor sleep quality, 34% of the elderly had moderate sleep quality, 24% of the elderly had mild difficulty and 4% of the elderly had no difficulty. The study revealed that there was significant association between the sleep quality and age of the elderly. There was no significant association between the level of sleep quality and other demographic variables of elderly.

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**ETHICAL CLEARANCE:**

Chettinad Academy of Research and Education, Institutional Human Ethics Committee on 03/12/2019.



**CONFLICT OF INTEREST:** Nil.

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