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Sleep Quality among Elderly Residing at Selected Old Age Home at Chennai

Authors

Mrs. Lisy Joseph, M.Sc (N)[1], Dr. T.V.Ramakrishnan, MD (Anaesthesiology)[2], Mrs. S. Nalini , M.Sc(N) [3]

[1]Lecturer, Faculty of Nursing, Sri Ramachandra University, Porur, Chennai, Tamil Nadu, India
[2]Professor of Anaesthesiology & Head of Clinical Services, SRMC& RI, Porur, Chennai, Tamil Nadu, India
[3]Lecturer, Faculty of Nursing, Sri Ramachandra University, Porur, Chennai, Tamil Nadu, India

Corresponding Author

Mrs. Lisy Joseph

Lecturer, Faculty of Nursing, Sri Ramachandra University, Porur, Chennai Pin code: 600 068
Email: *lisyshine@gmail.com, Phone no: 9841548337*

ABSTRACT

Surviving to old age is a remarkable attainment. Basic life requirements like adequate nutrition, rest, sleep and safety needs to come across to attain a healthy aging process. All human beings need to be away from routine activity and stimulation to renew them in the form of sleep. Nearly one-third of our life-time is spent sleeping and resting. The present study aims to determine the sleep quality among elderly residing at selected old age home with 50 samples. The results revealed an overall poor quality of sleep among the residents of old age home. Sleep is a mirror which rates our state of health and well-being, hence appropriate cost-effective measures should be taken to improve the sleep quality among elderly.

Keywords: *Sleep, Elderly, Old age home*

INTRODUCTION

Ageing process brings about changes in the sleep pattern, due to internal changes occurring in the circadian rhythm, which is the body's natural day-night cycle. Elderly are often unable to obtain sufficient sleep due to varied reasons like pain, depression, stress, nocturia, incontinence, orthopnea, muscle cramps and tremors. Environmental factors like noise, lighting, room temperature also plays a vital role in determining the quality and quantity of sleep among elderly. Sleep pattern disturbances can lead to problems like increased fatigue, loss of energy to do day to day activities, day time sleepiness and lack of concentration.

Use of complementary or alternative therapies like Tai chi therapy along with a warm bath at bedtime and back rub can promote muscle relaxation and encourage sleep. The current computer ear with a rapid expansion in nuclear family system there has been a drastic increase in the number of elderly put up in old age homes. Recent research confirms

that comfort and sleep are least attended to in the old age homes when compared to elderly staying at their own place of residence. Loneliness along with impaired sleep pattern results in depression among most of the residents of old age homes. Measures taken to improve sleep quality and quantity can result in better quality of life among elderly.

AIMS AND OBJECTIVES

Purpose of present study is limited to identification of sleep quality among residents of old age home and factors contributing to it. Literature reveals a significant percentage of residents of old age homes suffer from depression , poor quality of life ,co-morbid conditions like diabetes, hypertension and arthritis, all of which is directly associated with poor quality and quantity of sleep.

The objectives are

1. To study the sleep quality among elderly residing at selected old age home.
2. To associate sleep quality with socio demographic data.

The study was conducted at Little Drops old age home in Chennai. The study population comprises of elderly residents of old age home. From the target population, 50 elderly who fulfil the inclusion criteria become the samples of the study. The sampling technique used for this study was non probability convenience sampling method. The tool consists of two sections. Section–A includes demographic variables such as age, educational qualification, marital status, source of income, duration of stay in old age home, frequency of getting visitors and history of substance abuse.

Section – B consists of – Pittsburgh sleep quality index(PSQI) which is a tool developed by Buysse, D.J, Reynolds ,C.F.,Monk, T.H.,Berman, S.R.,& Kupfer, D.J in the year 1989. It is a 19 item self-report instrument designed to measure sleep quality and disturbance. This tool consists of seven components namely subjective sleep quality, sleep latency, sleep duration, sleep efficiency, sleep disturbance, use of sleep medications and daytime dysfunction. The minimum score is 0 and maximum score is 21. Higher scores indicate worse sleep quality.

Score Interpretation

S. No	PSQI score	Quality of sleep
1.	0-7	Good sleep quality
2.	8-14	Moderate sleep quality
3.	15-21	Poor sleep quality

Data Analysis

Descriptive statistics- The frequency and percentage distribution were used to describe demographic variables by using descriptive statistics. Frequency, percentage, mean and standard deviation were used to assess the sleep quality among elderly. Inferential statistics was done to associate the sleep quality among elderly with their selected demographic variables.

Ethical Consideration

Ethical clearance obtained from institutional ethical committee of SRU. A formal written permission was obtained from the managing trustee of the old age home for conducting the study. The investigator introduced her to the study participants and explained about the study procedure. The samples were selected through non probability convenience sampling technique. The sample size was 50 who meet the inclusion criteria. The written informed consent was obtained from the study participants.Assurance was made about the confidentiality about their responses. Privacy was maintained during the data collection process.

OBSERVATIONS

The collected data were grouped and analyzed using descriptive and inferential statistics.

Table 1. Frequency and percentage distribution of demographic variables among elderly(N=50)

Demographic Variables	Frequency	Percentage
1.Educational qualification		
a. No formal education	24	48
b. Primary education	12	24
c. Secondary education	10	20
d. Higher secondary education	4	8
2. Marital status		
a. Unmarried	5	10
b. Married	15	30
c. Divorced	10	20
d. Widow/Widower	20	40
3.Duration of stay in old age home		
a. Less than 1 year	25	50
b. 1 – 5 years	20	40
c. 6 – 10 year	5	10

Table 2. Frequency and percentage distribution of demographic variables among elderly(N=50)

Demographic Variables	Frequency	Percentage
4.Frequency of getting visitors		
a. No visitors	18	36
b. Once a week	8	16
c. Once a month	10	20
d. Once a year	9	18
e. Very rare	5	10
5. Substance abuse		
a. No abuse	15	30
b. Tobacco	10	20
c. Betel leaves	15	30
d. Alcohol	10	20

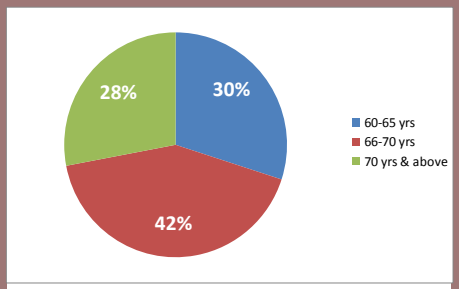

Figure 1.Percentage distribution of age of elderly persons

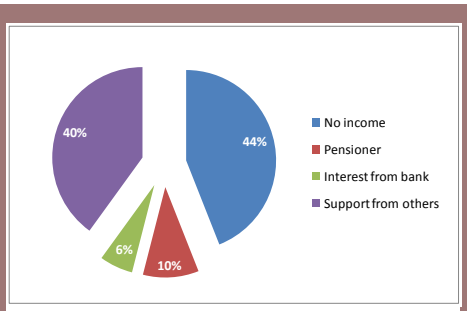

Figure 2. Percentage distribution of Source of Income of elderly persons

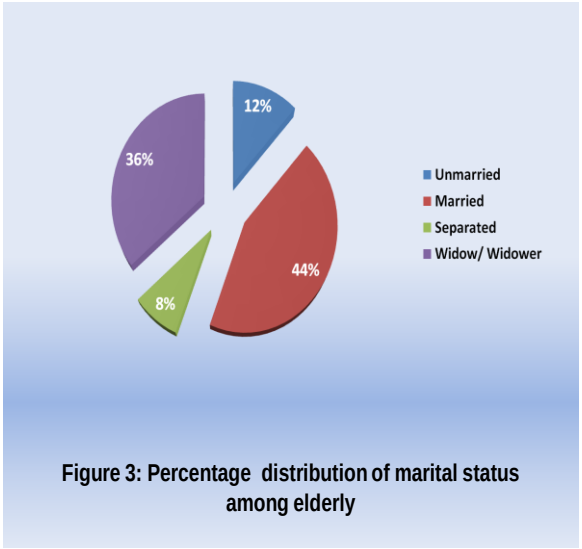

Figure 3: Percentage distribution of marital status among elderly

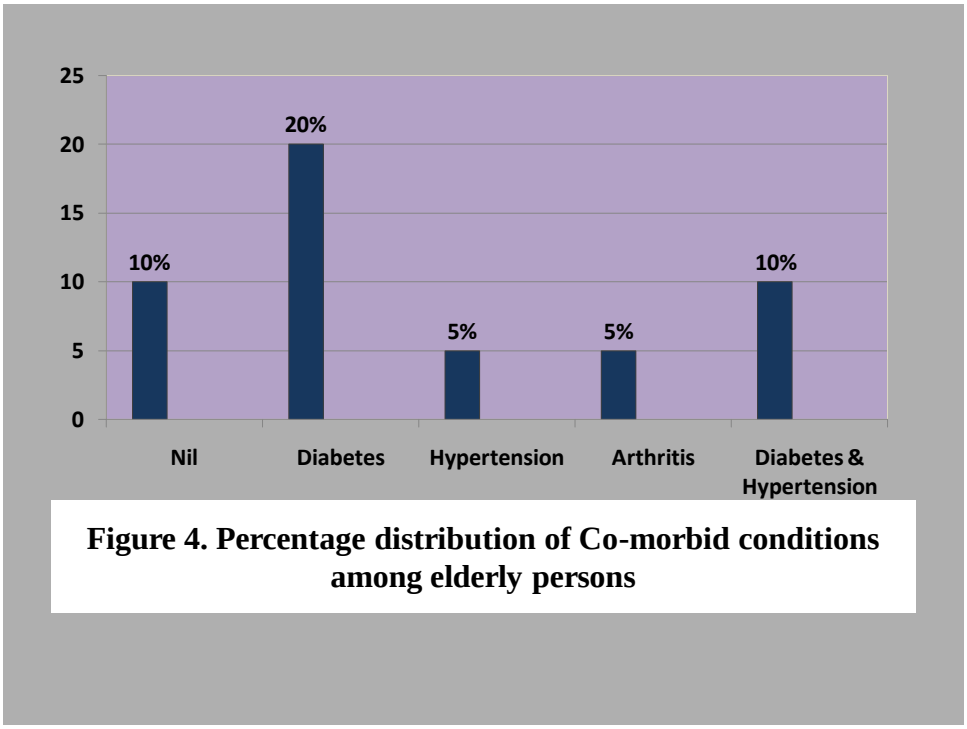

Figure 4. Percentage distribution of Co-morbid conditions among elderly persons

Figure 4 depicts that majority of sample 20% had diabetes as co-morbid illness and 10% of them had both diabetes and hypertension.

Table 3. Mean and standard deviation of sleep quality among elderly

Sleep quality	Mean	Standard deviation
Good sleep quality (0-7)	3.62	2.066
Moderate sleep quality (8-14)	10.68	1.585
Poor sleep quality(15- 21)	17.85	1.843

Observation of table 3 revealed that only 8 (16%) had good sleep quality, 22 (44%) had moderate sleep quality and 20 (40%) had poor sleep quality. There was no significant association found between the sleep quality with their selected demographic variables.

DISCUSSION

Sleep pattern disturbance is found common among elderly, especially among those put up at old age homes than those who reside at their own place of residence. The study reveals that 42% of the samples were in the age group of 66 to 70 years and 44% of them had no source of income to meet their basic needs. Figure 3 findings show that 20% of the samples had diabetes, 10% had both diabetes and hypertension, 5% had hypertension and 5% had arthritis as co-morbid conditions. Table 3 represents that majority of the samples 44% had moderate sleep quality, 40% of them had poor sleep quality and only 16% of the samples had good sleep quality. Some of the most common factors associated with sleep disturbance among elderly were pain especially in the joints, breathing difficulty, nocturia, depression due to separation from family members, poor ventilation and disturbances from other inhabitants of the home. Normally in a country like India reduced sleep quantity and quality among elderly is attributed to their developmental process. If adequate measures are taken to improve the sleep quality among elderly, many of the co-morbid conditions can be prevented or controlled, which in turn will add life to their ages. Assessment of sleep pattern should be done on a regular bases and appropriate steps to be taken to improve the sleep quality among elderly in any setting.

LIMITATION OF THE STUDY

The present study has its limitations, as it is an old age home based study done on elderly samples. Further the study was done only in 50 elderly available during the study period. A larger number of study samples would have resulted in better generalization of the results but this was not possible due to restriction of duration of study.

CONCLUSION

In this current technological era, old age homes have become a place with full of pain, both physical and psychological and have resulted in many elderly ending up with several forms of depression and poor quality of life due to decreased sleep quality. Insufficient sleep quality and quantity were often inadequately diagnosed and treated at old age homes. Health care providers including nurses should be well trained to identify sleep quality among elderly, so that they can be effectively monitored and needy remedial measures can be undertaken, to enable the elderly to lead a good quality life.

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