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## A STUDY TO ASSESS QUALITY OF SLEEP AND SLEEP HYGIENE AMONG PATIENTS WITH HAEMODIALYSIS AT SELECTED HOSPITAL

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### ABSTRACT

**Aim of the study:** - To A study to assess quality of sleep and sleep hygiene among patients with haemodialysis.

**Background:** Sleep is important process for overall physical and mental well-being. Sleep is referred a regular, recurring and easily revocable state of organism which is characterized by relative immobility and significant increase in response threshold to environmental stimuli. Sleep is an important and basic need of human and which takes approximately 1/3 of one's lifetime process. Disturbed sleep common among patients with end stage renal disease (ESRD) on haemodialysis (HD). The prevalence of abnormal sleep in this population (60-85%) is substantially greater than that reported in the general population. The most common sleep disturbances among ESRD patients because of irregularity in sleeping habits, difficulty falling asleep, early morning awakening, frequent awakening at night, sleep apnoea, periodic limb movement during sleep and restless legs syndrome.

**Design:** Descriptive research design.

**Methods:** Non – probability - Convenience Sampling Technique was used to select the samples for this study. A total of 50 patients participated in the study. Pittsburgh sleep assessment scale and sleep hygiene assessment questionnaire was used to assess the quality of sleep and sleep hygiene for data collection.

**Result** frequency and percentage distribution of selected demographic variables among patient with Haemodialysis is 15(30%) were in the age group of 31 – 40 years, 26(52%) were female, 41(82%) were married, 21(42%) had high school education, 43(86%) doing low physical activity, 22(44) are doing dialysis 7-9months and 20(40) had co morbidity of HTN, DM The mean score of quality of sleep was 62.57±13.41 and mean score of quality of sleep hygiene was 51.4±15.77 among patients with Hemodialysis .

**Conclusion:** The study finding revealed that assessment results show that the quality of sleep ad sleep hygiene was poor among haemodialysis patient.

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### INTRODUCTION

Sleep is important process for overall physical and mental well-being. Sleep is referred a regular, recurring and easily revocable state of organism which is characterized by relative immobility and significant increase in response threshold to

environmental stimuli. Sleep is an important and basic need of human and which takes approximately 1/3 of one's lifetime process. Disturbed sleep common among patients with end stage renal disease (ESRD) on haemodialysis (HD). The prevalence of abnormal sleep in this population (60-85%) is

substantially greater than that reported in the general population. The most common sleep disturbances among ESRD patients because of irregularity in sleeping habits, difficulty falling asleep, early morning awakening, frequent awakening at night, sleep apnoea, periodic limb movement during sleep and restless legs syndrome. Poor sleep quality affects haemodialysis in many ways and can potentially it predict morbidity, mortality, quality of life and pattern of medication use. The prevalence of poor sleep, including waking up and breathing disorders during the sleeping period and excessive sleeplessness, is in the range of 65-85%. Several studies carried out in the last 20 years have demonstrated a high percentage of sleep disorders

## Background

In current life style practices many peoples are affected with sleep disturbances is common in all human, in this level of diseases was increased because of aging and lifestyle and other causes. Disturbed sleep occurs most all age groups. Diseased people get more sleeping problem, disease affect people in many ways. Even though people can get many pharmacological interventions, Prevalence of this has risen which leads to long term hospitalization and affects the quality of life of the people.

The Human and economic burden associated with this condition is severe. To reduce the severity of disease, assessment of particular affected people were increased for reduction of further complication due to the sleeping problem. However the ESRD with Haemodialysis patient need more rest and sleep and they need good sleep hygiene ,but normally due to the physiological changes patient sleep pattern was disturbed this leads to decreased optimal function. Good assessment helps the patient to better disease outcome and helps to improve the quality of life, this can be particularly challenging for a patient who is already experiencing same problem. Despite many investigations on the prevalence of sleep disorders in haemodialysis patients and the associated factors, interventional approaches to improve sleep quality in haemodialysis patients have been explored much less frequently. In this study, we seek to take a step to improving sleep quality in haemodialysis patients

G.Sathyaprabha, 2Sneha Elizabeth., et.al (2016) prospective observational study performed in the Department of Nephrology(Dialysis unit), Kovai Medical Centre and Hospital (KMCH) at Coimbatore, Tamil Nadu, improvement of sleep quality with sleep hygiene and assessment of (quality of life) QOL among haemodialysis (HD) patients. Totally 70 patients among this 70 patients, 45(64.3%) were males and 25 (35.7%) were females. Out of which 51 (72.9%) patients were poor sleepers and 19 (27.1%) patients were good sleepers according to PSQI questionnaire. The results showed that there is a significant association between age and co morbidity with sleep quality. While relating the sleep quality and quality of life it was proved that good sleepers had a better quality of life than poor sleepers. Exercise on total knee arthroplasty patients. Sixty adults are Forzani Suleiman, Hossein Motaarefi., et. al. (2015) This study is a randomized controlled clinical trial. The participants of this study were 60 haemodialysis patients admitted to the Dialysis Centre of Shahid Ayatollah Madani Hospital of Khoy, affiliated with the Urmia University of Medical Sciences. Sampling was done randomly and the participants were randomly divided into

intervention group (30 patients) and control group (30patients). Sleep quality of participants was measured before and after the intervention by Pittsburgh Sleep Quality Index (PSQI)

**Aim of the study:** - To A study to assess quality of sleep and sleep hygiene among patients with haemodialysis at Chennai

## MATERIALS AND METHODS

The patient who are Nephrology ward and Dialysis unit were selected as a sample. 50 samples were selected by using convenient sampling technique. After sample selection informed consent was obtained from each sample and general instruction has to be given .The investigator collected the demographic data were collected personally by the investigator .Ethical principles were adhered throughout the study. After selecting the sample, researchers introduced himself and explained the purpose of the study to the patient .The confidentiality of the participants was maintained. The patient were then asked to fill the quality of sleep and sleep hygiene scale and it was assessed by Pittsburgh sleep assessment scale and sleep hygiene assessment questionnaire

**Ethical consideration:** The project has been approved by the ethics committee of the institution. Informed consent was obtained from the participants before initiating the study.

## RESULTS

**SECTION 1:** frequency and percentage distribution of selected demographic variables among patient with Haemodialysis is 15(30%) were in the age group of 31 – 40 years, 26(52%) were female, 41(82%) were married, 21(42%) had high school education, 43(86%) doing low physical activity, 22(44) are doing dialysis 7-9months and 20(40) had co morbidity of HTN, DM.

### SECTION 2:



**Figure 1. Frequency and percentage distribution of quality of sleep among patients with Haemodialysis**

**SECTION 3:** The mean score of quality of sleep was  $62.57 \pm 13.41$  and mean score of quality of sleep hygiene was  $51.4 \pm 15.77$  among patients with Haemodialysis.



**Figure 2. Frequency and percentage distribution of quality of sleep hygiene among patients with Haemodialysis**

**SECTION 4:** The demographic variable age and co morbidity had shown statistically significant association with level of sleep quality at  $p < 0.05$  level (d.f=4).

**SECTION 5:** The demographic variable age, physical activities and co morbidity had shown statistically significant association with level of sleep hygiene at  $p < 0.05$  level (d.f=1).

## DISCUSSION

### *The first objective was to assess the level of quality of sleep and sleep hygiene among haemodialysis patient*

Chronic kidney diseases are considered as major public health problems all around the world .haemodialysis is the most common treatment of this disease. According to the available statistics in the year of 2015, 321 lakhs of peoples affected with ESRD 52% had been treated with haemodialysis, 47% renal transplantation and 1% peritoneal dialysis. Sleep-related complaints have been reported more than 80% for patients with chronic renal failure. Several studies show that sleep apnoea, restless legs syndrome, the periodic limb movement disorder and sleepiness are the most common sleep problems in these patients. A study was conducted at Chennai. The patient who are in haemodialysis and who met the inclusion criteria was selected as samples for the study, level of sleep quality and sleep hygiene was assessed by using Pittsburgh sleep quality scale and sleep hygiene assessment questionnaire. The score in the level of sleep quality and sleep hygiene in the study group was found that 76% in poor sleep quality and 78% in poor level of sleep hygiene. In this first objective the level of Quality of sleep and sleep hygiene was assessed and it shows that higher proportion of the samples were poor sleep quality and sleep hygiene and some of the samples had good level of sleep quality and sleep hygiene.

This study was supported by Forzani solei Mani et.al, (2013) conducted to assess the sleep quality and sleep hygiene in School of Nursing and Midwifery, Shahid Behest University of Medical Sciences, Tehran, Iran. 30 samples were selected and sleep quality was assessed by Pittsburgh sleep assessment scale .the result significantly shows that there majority of the haemodialysis patient had poor sleep quality and sleep hygiene.

This study also supported by Maryam Saeedi et.al (2016) done a study to assess the quality of sleep and sleep hygiene among haemodialysis patient at Arak University of 60 haemodialysis patients were selected by purposive sampling technique. This study revealed that patients who were undergoing haemodialysis need to take more rest and sleep for good leg strength and functional quality of life, in this study they found out of 60 patients 54 patients are having poor quality of sleep and sleep hygienic practice. Hence from the above studies, it was concluded that the majority of haemodialysis patients had inadequate practice of sleep hygiene and quality of sleep. The assessment was useful to take measures to improve the quality of life.

### *The second objective was to associate the level of quality of sleep and sleep hygiene with selected demographic variables*

Sleep disorders are highly prevalent in haemodialysis patients, intensifying their individual and social problems to some extent despite many investigations on the prevalence of sleep disorders in haemodialysis patients and the associated factors, interventional approaches to improve sleep quality in haemodialysis patients have been explored much less frequently. In this study, we seek to take a step to improving sleep quality in haemodialysis patients The researchers conduct a study with 50 samples of patient undergoing haemodialysis who met the inclusion criteria. Investigator assessed the level of quality of sleep and sleep hygiene using PSQI and sleep hygiene assessment questionnaire.

The findings of the present study showed that Haemodialysis patient had poor sleep quality and poor sleep hygiene. This finding shows that age and comorbidity had effect on the sleep quality and sleep hygiene .In the present study, age of haemodialysis patients was negatively correlated with sleep quality, i.e., as age increased, sleep quality decreased. Yoshioka et al. found that advanced age affects patients experiencing sleep problems. It is important to note that the mean age of men and women diagnosed with end stage renal diseases increased from 47 to 53 years in Iran, similar to our population, in which the mean age of patients was 52.5 ( $\pm$ SD = 18.0). While assessing every steps of sleep assessment questionnaire, the investigator made a pause for a moment for the patient to clarify their doubts whereby the haemodialysis patients clarified their doubts by verbally.

## Conclusion

The study finding revealed that assessment results show that the quality of sleep ad sleep hygiene was poor among haemodialysis patient, and the results pointed out that poor quality of sleep had negative effect on quality of life. Thus in order to improve the quality of sleep the nurse shall encourage the patient to engage in good sleep hygiene training. Sleep hygiene practice improve good quality of life.

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