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Original Research Article

A Study on Prevalence of Depressive Symptoms and its Relation with Sleeping Pattern among Hemodialysis Patient in Selected Hospitals at Mangalore

Mr.Jaison.T.J[1], Mrs. Nalini[2], Mr.Duggahatti Veerabhadra Swami[3]

[1]*Lecturer, Sunrise College Of Nursing, Udaipur, Rajasthan*

[2]*Associate Professor (H.O.D) of NITTE Usha Institute of Nursing Science, Mangaluru .Karnataka, India.*

[3]*Associate Professor, NITTE Usha Institute of Nursing Science, Mangaluru, Karnataka, India[3]*

Abstract

Around 121 million people worldwide area affected by depression. People with severe depression may commit suicide, i.e. 8, 50,000 deaths due to suicide every year. The prevalence of depression in patients may be as high as 40% in hospital and nursing home settings and 8%–15% in community settings. High prevalence of sleep problems, fatigue and depression are reported in end-stage renal disease (ESRD) patients. Research approach selected for the present study was descriptive (survey research) and cross sectional design. The sample of the study was newly appointed staff nurses working in K.C.G Hospital, Bangalore. The sample size was 100 hemodialysis patients, selected by non-probability purposive sampling who met the inclusion criteria. The researcher collected data from 2 selected hospitals and the data were analyzed by the one of descriptive and inferential statistics. Findings shows that majority of the hemodialysis patient 51% (51) had severe depression and 41% (41) had moderate and 8% (8) had mild depression and 61% (61) had severe sleep disturbance and 35% (35) had moderate and 4% had mild sleep disturbance and there is no relation between between sleep pattern and depression among hemodialysis patients. Further analysis was calculated by Chi-square and there is a significant association for personal habits with sleep pattern at 5% level of significance. Fisher's exact test of sleep shown the association between physical activity and the level of sleep pattern and there is a significant association for worthless feeling, and there is no association for remaining demographic variable with level of depression at 5% level of significance

Keywords: Sleeping Pattern, Hemodialysis Patients, Depressive Symptoms

Introduction

Depression plays a crucial role in the progression of chronic medical illnesses and chronic kidney disease is also a chronic medical illness [1]. People with depression feel so hopeless that they abandon the will to survive [2]. Amongst all psychiatric disorders depression is the most important and common in patients with ESRD [3]. Depression in dialysis patients not only effect mortality rate but increased rate of hospitalizations and dialysis withdrawal is also very common. Suicidal tendencies or attempt is significantly more common among dialysis patients than general population. The incidence of depression in dialysis patients ranges from 10% to 66% [4].

End-stage renal disease (ESRD) patients suffer from psychosocial factors that are amenable to therapy and adversely affect patient's outcome and quality of life (QOL), including depression, fatigue and insomnia. Insomnia is commonly defined as the subjective sensation of short, unsatisfying sleep pattern, despite the ability to sleep [5]. Sleep disturbances are extremely common among dialysis patients, with prevalence of sleep-wake complaints noted in 51-80% of the cases. The sleep abnormalities appear to have significant negative effects on QOL, health status and outcome. Over 70% of dialysis patients suffer chronically from severe fatigue and tiredness. Approximately 25-50% of the ESRD population suffers from depression, which increases the risk of mortality, and ranges from mild to severe [6].

Objectives of the study

1) To assess the prevalence of depressive symptoms and sleep pattern among hemodialysis patients.

2) To find relation between the depressive symptoms and sleep pattern among hemodialysis patients.
3) To find the association between depressive symptoms and sleep pattern with selected demographic variables

Hypothesis

H_1: there will be a significant relation between depressive symptoms and sleep pattern.

H_2: there will be a significant association between depressive symptoms with selected demographic variables

H_3: there will be a significant association between sleep patterns with selected demographic variables.

Material and Methods used

Research design: the present study was descriptive (survey research) design.

Research approach: approach was adopted for the present study cross sectional design.

Setting of the study: The study was conducted in selected Hospital, Mangalore.

Population: Population for the present study was the age group 25- 65 irrespective of gender undergoing Hemodialysis in selected hospitals at Mangalore.

Sampling and sample size: In this study purposive sampling method will be used to select the subjects. In this study, out of 5 hospitals 2 hospitals were selected through simple random sampling And 100 hemodialysis patients will be selected by using purposive sampling Technique who met the inclusion criteria.

Variables

Demographic variable: Relationship with patients, Age,Gender, Education, annual Income (INR), Religion, Number of children at home, personal habits, family history of kidney disease, sleeping hours of the day, physical activity, sleep hygiene, suicide thoughts, attempted for suicide, co-morbid disorder.

Sampling criteria

Inclusion criteria

- Patients who were on hemodialysis
- Patients, who were able to read, speak and understand Kannada, Malayalam or English.
- Patients who were willing to participate in this study.

Exclusion criteria

Patients who were:

- Chronically ill
- Having other co morbid disorders and altered mental status and deaf and dumb

Development and description of tools used in the study

The tool consists of three sections**:**

Tool 1: Demographic Performa
Tool 2: Beck depression inventory
Tool 3: Pittsburgh sleep quality index

Data Collection Procedure

To conduct study in hospitals at Mangalore, formal written permission was obtained from the hospital medical officers at Mangalore. Data was collected from November 15th 2014 to January 15th 2015. The investigator had given a brief introduction before collecting the data. The patients were explained how to fill the demographic Performa and standardized tools.

Plan for Data Analysis

The data was entered in master data sheet for tabulation and statistical processing. It consists of both descriptive and inferential statistics. Frequencies, percentage, mean Karl Pearson coefficient correlation and chi square / Fishers exact test. The obtained data were analyzed, organized and presented under the following headings;

1) To identify the level of depression and sleep pattern number, percentage, mean and standard deviation will be used
2) To find the relation between depressions and sleep pattern Karl Pearson coefficient correlation will be used.

To find the association of depressive symptom and sleep pattern with selected demographic variable Chi square test / fisher's exact test will be used

Data Analysis and Major Findings

1. The highest percentage 40% (40) hemodialysis patients were in the age group of 46 to 65 years, 39%(39) were in the age group of 36 to 45 years, 14% (14 were in the age group of more than ≥55 years and 7% (7) were in the age group of 25 to 35.
2. Majority 58% (58) of hemodialysis patients were female, 42% (42) of were male.
3. Majority 67% (67) of hemodialysis patients were no personal habits 22% (22) of were alcoholism 11(11) of were tobacco chewing.
4. Majority 69% (69) of hemodialysis patients were no family history of kidney disease 31% (31) of were having kidney disease.

5. Majority 48% (48) of hemodialysis patients were sleeping hours in a day is 3-5 and35 % (35) were 6-8 then 17 % (17) were <3.
6. Majority 42% (42) of hemodialysis patients physical activity were fairly bad and 33% (33) were fairly good then 20 %(20) were fairly bad 5 %(5) were very good.
7. Most of the hemodialysis patients sleep hygiene 43%(43) were fairly bad and 39%(39) were fairly good then14%(14) were very bad balance were 4%(4).
8. Majority 61% (61) of hemodialysis patients suicidal thought were present and 39% (39) of were absent.
9. Majority 87% (87) of hemodialysis patients attempted suicide and none attempted were 13 %(13).
10. Majority 71% (71) of hemodialysis patients worthless feeling were present and 29% (29) of were absent.
11. Majority 72% (72) of hemodialysis patient's co morbid disorder was present and 28% (28) of were absent.
12. Chi-square values are more than the chi-square table value (5.991) for the remaining demographic variables 'P' value is less than 0.05; there is a significant association for personal habits. And there is no association for rest of the demographic variable with sleep pattern at 5% level of significance
13. Chi-square value more than the chi-square table value (3.841) and the 'P' value is less than 0.05, there is a significant association for worthless feeling, and there is no association for remaining demographic variable with level of depression at 5% level of significance

Table 1. Prevalence of sleep pattern disturbance among hemodialysis patients

[N=100]

Sleep Patten	Frequency	Percentage
Mild (0-7)	4	4
Moderate (8-14)	35	35
Severe (15-21)	61	61

Table 1 shows that out off 100 samples 61 (61%) were having severe, 35 (35%) were in moderate and 4 (4%) were in mild level of sleep pattern disturbance

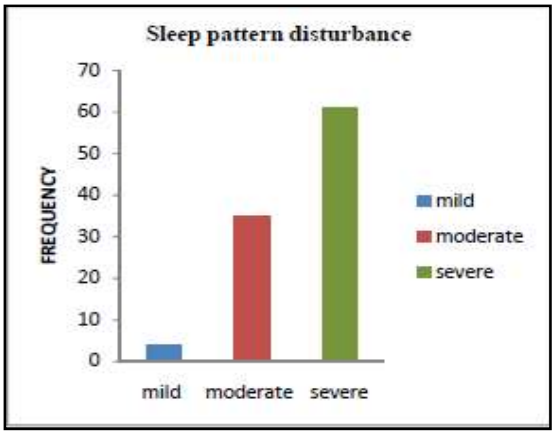

Fig. 1: Bar diagram showing the frequency distribution of sleep pattern disturbance

Table 2. Prevalence of depression among heamodialysis patients.

[N=100]

Depression	Frequency	Percentage
≤20 Mild	8	8
21-25 Moderate	41	41
≥26 Severe	51	51

Table 2 shows out off 100 samples 51 (51%) were having severe level 41 (41%) having moderate level and 8(8%) having mild level of depression.

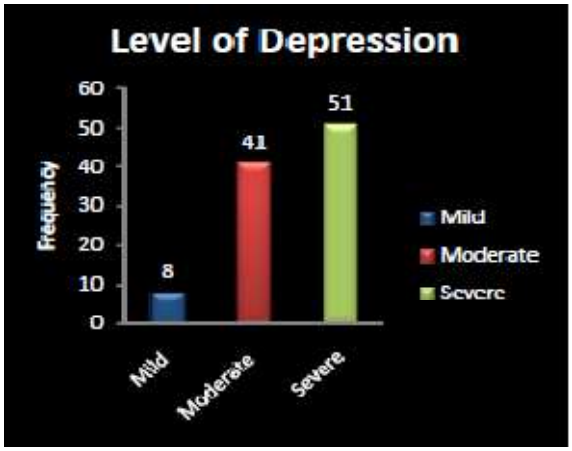

Fig. 2. Bar diagram showing the level of depression

Table 3. Relation between sleep Patten and depression

Sleep	Depression		
	Mild (0-7)	Moderate (8-14)	Severe (15-21)
Mild	--	1	3
Moderate	2	15	18
Severe	6	25	30

Table 3 shows the relation between the sleep pattern disturbance and depression among hemodialysis patient, out off 100, 01 sample had moderate and 03 samples had severe level of depression with mild sleep pattern disturbances, with moderate sleep pattern disturbances 2 had mild, 15 had moderate and 18 had severe level of depression. 6 samples had mild depression, 25 had moderate depression and 30 had severe depression those who having severe level of depression

Recommendations

On the basis of finding, it was recommended that,

1. The study can be repeated by taking a large sample in other parts of the country.
2. A descriptive study can be conducted on depressive symptoms among heamodialysis and non hemodialysis renal patients.
3. An experimental study can be carried out to find out the effectiveness of relaxation techniques to reduce the depression among heamodialysis patients.

Conclusion:

The study shows that majority of the hemodialysis patient 51% (51) had severe depression and 41% (41) had moderate and 8% (8) had mild depression and 61% (61) had severe sleep disturbance and 35% (35) had moderate and 4% had mild sleep disturbance and there is no relation between between sleep pattern and depression among hemodialysis patients. Further analysis was calculated by Chi-square and there is a significant association for personal habits with sleep pattern at 5% level of significance. Fisher's exact test of sleep shown the association between physical activity and the level of sleep pattern and there is a significant association for worthless feeling, and there is no association for remaining demographic variable with level of depression at 5% level of significance

Bibliography

[1] Fukuhara S, Green J, Albert J, Mihara H, Pisoni R, Yamazaki S. Symptoms of depression, prescription of benzodiazepines, and the risk of death in hemodialysis patients in Japan. Kidney Inter 2006; 70, 1866-72.

[2] Hedayati SS, Grambow SC, Szezech LA, Stechuckak KM, Allen AS, Bosworth HB, Physician-diagnosed depression as a correlate of hospitalization in patients receiving long term hemodialysis: Am J Kidney Dis 2005;46(4):642-9.

[3] McDade-Montez EA, Christensen AJ, Cvengros JA, Lawton WJ. The role of depression in dialysis withdrawal: Health Psychol 2006; 25(2):198-204.

[4] Kurella M, Kimmel PL, Young BS, Chertow GM. Suicide in the United States end-stage renal disease program. J Am Soc Nephrol 2005; 16(3):774-81.

[5] Lopes AA, Albert JM, Young EW, Stayathum S, Pisoni RL, Andreucci VE, et al. screening for depression in hemodialysis patients: associations with diagnosis, treatment, and outcomes in the DOPPS. Kidney Int 2004; 66(5):2047-53.

[6] Finkelstein FO, Finkelstein SH. Psychological adaptation and quality of life of the patient with end-stage renal disease. In: Brown E, Parfrey P, eds. Complications of Long Term Dialysis, Oxford: Oxford University Press; 1999. p. 168-87.