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EFFECTIVENESS OF STRETCHING EXERCISES ON RESTLESS LEGS SYNDROME AND FATIGUE AMONG PATIENTS WITH CHRONIC RENAL FAILURE IN SELECTED HOSPITALS AT ERODE

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ABSTRACT

An experimental study to assess the effectiveness of stretching exercises on restless legs syndrome and fatigue among patients with chronic renal failure in selected hospitals at Erode. The research design adopted for the present study was Quasi experimental non-equivalent control group pre-test post-test design. Walter's International Restless legs syndrome Study Group Rating Scale was used to assess the level of restless legs syndrome. Helen Michielsen fatigue assessment scale was used to assess the level of fatigue among patients with chronic renal failure. The mean post-test of level of severity of restless legs syndrome scores in experimental group 17.4 (SD±2.47) was significantly lower than the mean post-test level of severity of restless legs syndrome scores in control group 27 (SD±4.35). The mean post-test of level of fatigue scores in experimental group 18.4 (SD±1.97) was significantly lower than the mean posttest level of fatigue scores in control group 26.6 (SD±5.1). The Independent 't' value was 20.4 (table value=2.002) which was significant at $P < 0.05$ level. The mean posttest of level of fatigue scores in experimental group 18.4 (SD±1.97) was significantly lower than the mean posttest level of fatigue scores in control group 26.6 (SD±5.1). The Independent 't' value was 20.4 (table value=2.002) which was significant at $P < 0.05$ level. Hence it was concluded that stretching exercises was effective in reducing the severity of restless legs syndrome and fatigue among patients with chronic renal failure.

KEYWORDS

Restless legs, Syndrome and Fatigue.

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INTRODUCTION

"The imagination is a muscle. If it is not exercised, it atrophies''

Chronic Kidney Disease is defined as the presence of kidney damage or glomerular filtration rate (GFR) of <60mL/min/1.73m^2 for less than 3 months. CKD is further classified into Stages I–V according to the

estimated GFR (eGFR). Diabetes and high blood pressure are the most common causes of chronic kidney disease (CKD).

Stretching is believed to be one of the potential ways to reduce restless legs symptoms, both before an attack and during. Jasvinder Kaur *et al*, (2016), the study was aimed to find out the effectiveness of muscle stretching exercise in Restlessness leg syndrome among haemodialysis patients.

STATEMENT OF THE PROBLEM

A study to evaluate the effectiveness of stretching exercises on restless legs syndrome and fatigue among patients with chronic renal failure in selected hospitals at Erode.

OBJECTIVES

To assess the pretest and posttest level of severity of restless legs syndrome and fatigue among patients with chronic renal failure in experimental and control group.

To compare the pretest and posttest level of severity of restless legs syndrome among patients with chronic renal failure in experimental group.

To compare the pretest and posttest level of fatigue among patients with chronic renal failure in experimental group.

To evaluate the effectiveness of stretching exercises on severity of restless legs syndrome among patients with chronic renal failure between experimental and control group.

To evaluate the effectiveness of stretching exercises on fatigue among patients with chronic renal failure between experimental and control group.

To find the association between the posttest level of restless legs syndrome among patients with chronic renal failure and their selected demographic variables in experimental group.

To find the association between the posttest level of fatigue among patients with chronic renal failure and their selected demographic variables in experimental group.

METHODOLOGY

An evaluative approach was selected for this study. Quasi experimental non equivalent control group pretest posttest design was used. The study has been conducted at Nallaswamy kidney center and Maaruti medical center, Erode. In Erode kidney centre, Nallaswamy kidney center, it is 65 bedded hospital land number of outpatients treated in this hospital were 200 per day and number of inpatients were 60. Maaruthi medical centre and hospital, Erode, it is a 50 bedded hospital and number of outpatients treated in this hospital were 100 per day and number of Inpatients treated were 40. The sample size for this study consists of 60; 30 were in experimental group and 30 were in control group.

Non probability purposive sampling technique was used to select the samples for experimental and control group.

CRITERIA FOR SELECTION OF SAMPLE

Inclusion criteria

Adults who are between the age group of 40-65 years

Patients who are diagnosed/confirmed as restless legs syndrome with a screening scores of 5.

Both male and female patients.

Patients who are willing to participate in the study.

Patients who are admitted in the nephrology ward with a minimum stay of 16 days.

Exclusion criteria

Patients who are having any injuries in legs or vascular problems in legs and presence of any orthopedic problems.

Patients who are physically challenged.

Patients who are critically ill.

Description and interpretation of tools:

The tool consists of four parts.

PART- I

It consists of demographic variables such as age, sex, marital status, education, occupation, family monthly income, duration of haemodialysis treatment.

PART-II

Screening tool

International Restless legs syndrome Study Group criteria for the diagnosis of restless legs syndrome was used to screen the patients for restless legs syndrome. It consists of 5 Yes/No Questions. It is rated as Normal, and diagnosed/confirmed restless legs syndrome. The total score is 5.

PART-III

Severity of restless legs syndrome

Walter's International Restless legs syndrome Study Group Rating Scale was used to assess the level of restless legs syndrome. It consists of 10 questions, each with 5 options and scored as 0,1,2,3,4. The total score is 40.

PART-IV

Fatigue assessment scale

Helen Michielsen fatigue assessment scale was used to assess the level of fatigue among patients with chronic renal failure. It consists of 10 statements. It is rated as never, sometimes, regularly, often, always and scored as 1, 2, 3, 4, 5. The total score is 50 and it has reverse scores for the questions 4 and 10.

SCORING PROCEDURE

PART – III

SEVERITY OF RESTLESS LEGS SYNDROME

Walter's International Restless legs syndrome Study Group Rating Scale was used to assess the level of restless legs syndrome, Scores were interpreted as follows.

PART-IV

Helen Michielsen fatigue assessment scale was used to assess the level of fatigue and its scores were interpreted as follows

RESULTS AND DISCUSSION

Effectiveness of stretching exercise on reduction of restless legs syndrome and fatigue among patients with chronic renal failure.

Table No.3 showed that the mean posttest level of severity of restless legs syndrome scores in experimental group 17.4 (SD$\pm$2.47) was significantly lower than the mean posttest level of severity of restless legs syndrome scores in control group 27(SD$\pm$4.35) and mean difference is 9.6. The independent 't' value was 23.8 which was significant at $P < 0.05$ level. Hence, H_3 the mean posttest level of restless legs syndrome score in experimental group is significantly lower than the mean pretest level of restless legs syndrome score in control group was accepted.

Section F: Find out the effectiveness of Stretching exercise on fatigue score among patients with chronic renal failure between experimental and control group

Table No.4 showed that the mean posttest of level of fatigue scores in experimental group 18.4 (SD $\pm$ 1.97) was significantly lower than the mean posttest level of fatigue scores in control group 26.6 (SD $\pm$ 5.1) and mean difference is 8.2. The independent 't' value was 20.4 which was significant at $P < 0.05$ level. Hence, H_4 the mean posttest level of fatigue scores in experimental group is significantly lower than the mean posttest level of fatigue scores in control group was accepted.

Table No.1: Severity of restless legs syndrome

S.No	Level of severity of restless legs Syndrome	Score	Percentage (%)
1	Normal	0	0
2	Mild	1-10	1-25%
3	Moderate	11-20	26-50%
4	Severe	21-30	51-75%
5	Very Severe	31-40	76-100%

Table No.2: Assess the level of fatigue and its scores were interpreted

S.No	Level of fatigue	Score	Percentage (%)
1	Normal (Never)	1 -10	0 – 20
2	Mild fatigue (Sometimes)	11-20	21 -40
3	Moderate fatigue (Regularly)	21-30	41 – 60
4	Severe fatigue (Often)	31-40	61 -80
5	Extreme fatigue (Always)	41 -50	81 -100

Table No.3: Comparison of mean, standard deviation, mean deviation and independent 't' value of posttest level of severity of restless legs syndrome among patients with chronic renal failure between experimental and control group $n_1 = 30$, $n_2 = 30$

S.No	Group	Mean	Standard deviation	Mean difference	Independent 't' value	Table value
1	Experimental group	17.4	2.47	9.6	23.8	2.002
2	Control group	27	4.35			

df=58 $p<0.05$

Table No.4: Comparison of mean, standard deviation, mean deviation and independent't' value of posttest level of fatigue scores among patients with chronic renal failure between experimental and control group: $n_1 = 30$, $n_2 = 30$

S.No	Group	Mean	Standard deviation	Mean difference	Independent 't' value	Table value
1	Experimental group	18.4	1.97	8.2	20.4	2.002
2	Control group	26.6	5.1			

df=58 $p<0.05$

CONCLUSION

The present study was conducted to evaluate the effectiveness of stretching exercise on severity of restless legs syndrome and fatigue among patients with chronic renal failure in Nallaswamy kidney center and Maaruthi medical Centre at Erode. The study revealed that stretching exercises was effective in reducing the severity of restless legs syndrome and fatigue among patients with chronic renal failure at selected hospitals, Erode.

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CONFLICT OF INTEREST

We declare that we have no conflict of interest.

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