

A STUDY TO ASSESS THE EFFECTIVENESS OF REFLEXOLOGY AND TWO-MINUTE RELAXATION TECHNIQUE ON FATIGUE REDUCTION AND RELAXATION IN CLIENTS UNDERGOING HAEMODIALYSIS IN SELECTED HOSPITAL AT BIDAR.

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ABSTRACT

Alternative medicine practices are as diverse in their foundations as in their methodologies. Practices may incorporate or base themselves on traditional medicine, folk knowledge, spiritual beliefs, or newly conceived approaches to healing. If scientific investigation establishes the safety and effectiveness of an alternative medical practice, it then becomes mainstream medicine and is no longer “alternative”, and may therefore become widely adopted by conventional practitioners. We cannot determine the exact relationship between the ancient art as practiced by the early Egyptians and Reflexology as we know it today but literally hundreds of reflexology studies have been conducted. Our survey of 170 studies shows a positive result for 83% of areas researched. A Chinese survey of 8,096 case studies noted a 94% effective or significantly effective rate. Significant areas of study include: stress and anxiety; lessening of pain and cancer care as well as health concerns for individuals of all ages. A relaxation technique (also known as relaxation training) is any method, process, procedure, or activity that helps a person to relax; to attain a state of increased calmness; or otherwise reduce levels of anxiety, stress or anger. Relaxation techniques are often employed as one element of a wider stress management program and can decrease muscle tension, lower the blood pressure and slow heart and breathe rates, among other health benefits.

KEY-WORDS: Hypertension, Hemodialysis and Relaxation techniques.

INTRODUCTION

Alternative medicine practices are as diverse in their foundations as in their methodologies. Practices may incorporate or base themselves on traditional medicine, folk knowledge, spiritual beliefs, or newly conceived approaches to healing. Since the 1960s, research has indicated strong correlations between chronic stress and physical and emotional health. Meditation was among the first relaxation techniques shown to have a measurable effect on stress reduction. In the 1970s, self-help books teaching relaxation techniques began to appear on bestsellers lists. The world's disease profile is changing, and chronic diseases now account for the majority of global morbidity and mortality, rather than infectious diseases. The causes of chronic kidney diseases reflect this change and diabetes, together with hypertension, is now the major cause of end-stage renal failure worldwide, not only within the developed world, but also increasingly within the emerging world.

In recent days the use of complementary and alternative medicines has increased in conventional health care settings. Fear of medications side effects and desire for symptom relief are possible reasons for the increasing use of complementary alternative medicine by patients. With consumer interest in complementary, nurses have increasingly incorporated these modalities into their practice.

I.OBJECTIVES OF THE STUDY

1. To assess the level of knowledge about relaxation and fatigue among clients undergoing haemodialysis before introduction of reflexology and two-minute relaxation technique.
2. To assess the level of knowledge about relaxation and fatigue among clients undergoing haemodialysis after introduction of reflexology and two-minute relaxation technique.
3. To compare the pre-test and post-test level of knowledge about relaxation and fatigue among clients undergoing haemodialysis.
4. To associate the pre-test level of knowledge about relaxation and fatigue among clients undergoing haemodialysis with their selected demographic variables.

II. METHODOLOGY

Methodology of research organizes all the components of study in a way that is most likely to lead to valid answers to the problems to have been posed

Research approach:

The selection of the research is a basic procedure for the conduction of research study. In view of the nature of the problem selected for the study and objectives to be accomplished, evaluative research approach.

Research design:

One group pre-test post-test quasi experimental design

Variables under study:

A concept which can take on different qualitative values is called a variable

Independent Variable

Independent variable is the presumed cause for the resulting effects on the dependent variable.

In this present study the dependent variable is Structured Teaching Programme (STP).

Dependent Variable

Dependent variable is the variable the researcher is interested in understanding, explaining or predicting.

In this present study the dependent variable is knowledge regarding relaxation technique among hemodialysis patients

Population:

The population of the present study consists of patients with kidney failure attending hemodialysis in selected hospital of Bidar.

Sample and sample size:

The sample consisted of 60 patients with kidney failure, who are fulfilling the selection criteria.

Sample size- 60 patients with kidney failure were selected.

Sampling technique:

Sampling is a process of selecting a group of people or other element with which to conduct a study

Non-probability purposive sampling method was used to select the samples.

Selection and development of tool:

The tool was exclusively constructed by the investigators to assess the effectiveness of Structured Teaching Programme (STP) among kidney failure patients attending haemodialysis in selected hospital of Bidar.

The investigator after an extensive review of literature, discussion with experts and the investigator experience the items related to Socio-demographic data, structured Knowledge questionnaire about relaxation techniques.

III. RESULTS

The data collected from 60 haemodialysis patients were entered in a master sheet for tabulation and statistical analysis. Data was organized and presented under the following sections.

Section-ITo assess the level of relaxation and fatigue among clients undergoing hemodialysis before introduction of reflexology and two-minute relaxation technique.

Section-II:To assess the level of relaxation and fatigue among clients undergoing haemodialysis after introduction of reflexology and two-minute relaxation technique.

Section-III:To compare the pre-test and post-test level of relaxation and fatigue among clients undergoing haemodialysis.

Section-IV:To associate the pretest level of relaxation and fatigue among clients undergoing hemodialysis with their selected demographic variables

SECTION – I

Socio-Demographic Characteristic of Sample distribution Of Patients according To Age (In Years)



Figure-1: Distribution of patients according to age (in years)

In the above bar diagram, it shows that majority of patients 35% belong to age group of 46-60 years age group. Then 30% of patients belong to 31-45 years age group. Whereas 20% belongs to 18-30 years age group. Only 15% patients belong to age group of above 61-65 years.

Distribution Of Patients According To Gender

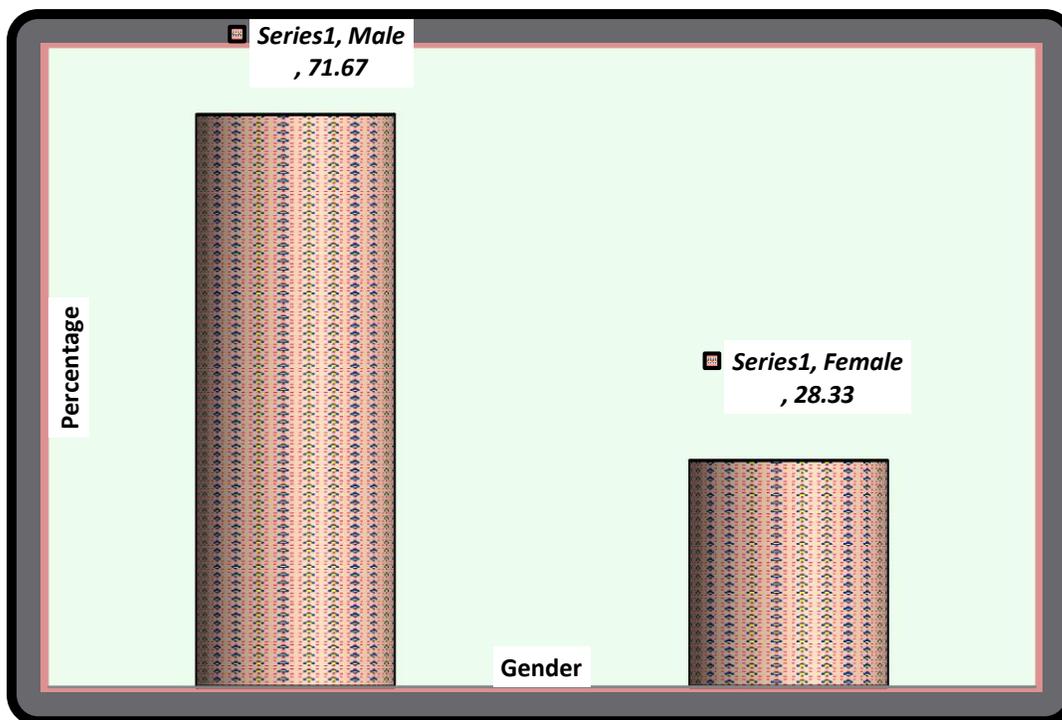


Figure-2: Distribution of patients according to gender

In the above bar diagram, it shows that patients, ie 71.67% are male and 28.33% are females.

Distribution of Patients According To Religion

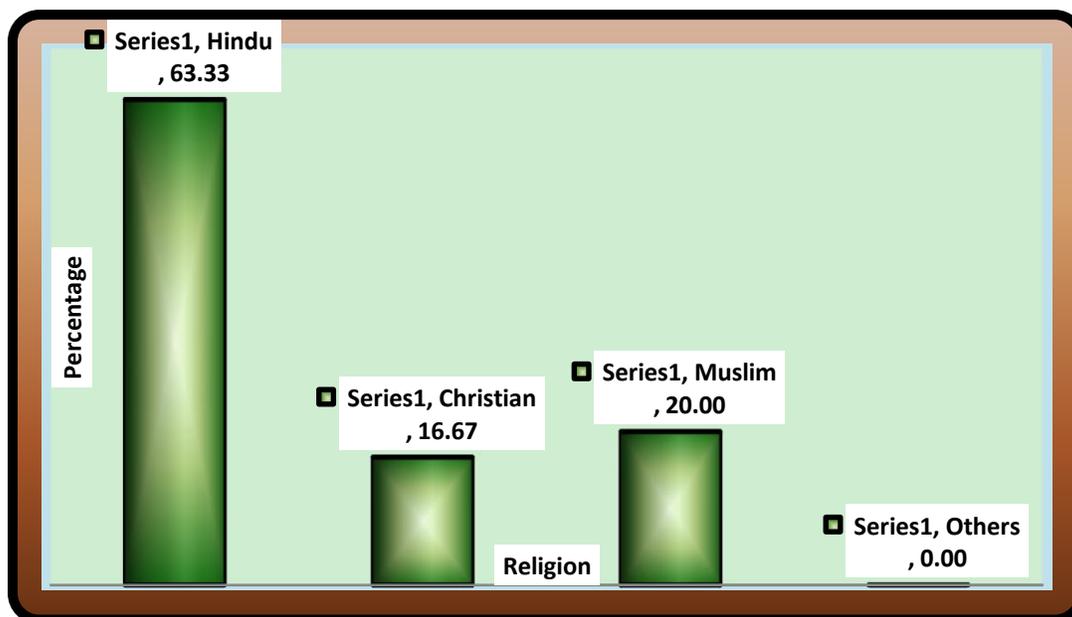


Figure-3: Distribution of patients according to religion

The above diagram shows that 63.33% of patients are Hindus, 16.67% are Christians and 20% are Muslims.

Distribution Of Patients According To Educational Qualification

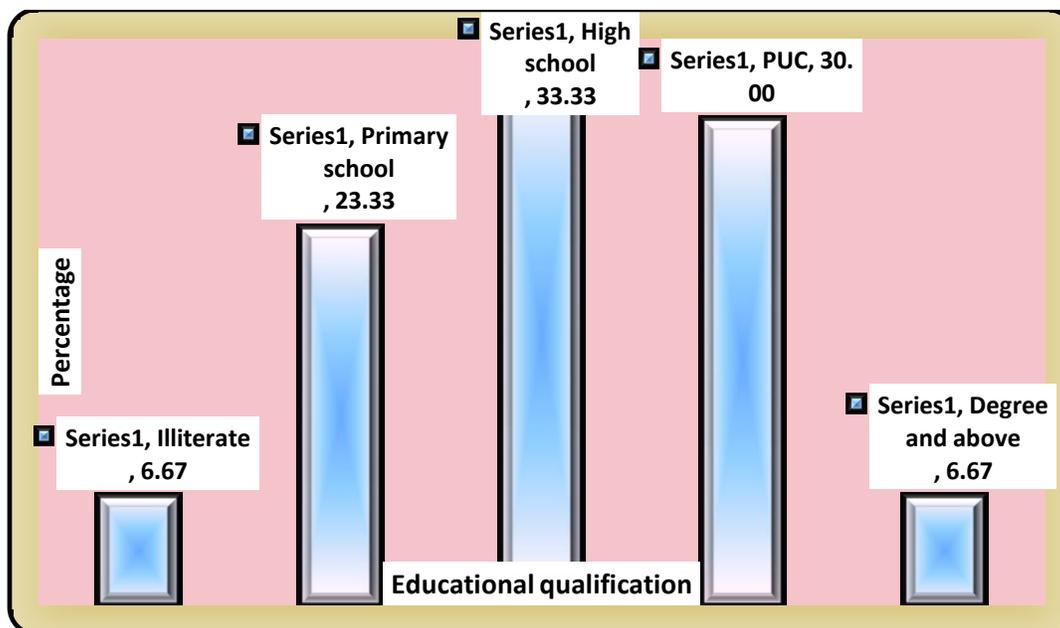


FIGURE-4: DISTRIBUTION OF PATIENTS ACCORDING EDUCATIONAL QUALIFICATION

The above bar diagram depicts, majority of patients i.e, 33.3% had studied upto high school. Then, 30% had studied up to PUC. 23.33 had studied up to primary school. And only 6.67% had studied degree and equal members are illiterate.

Distribution of patients according to marital status

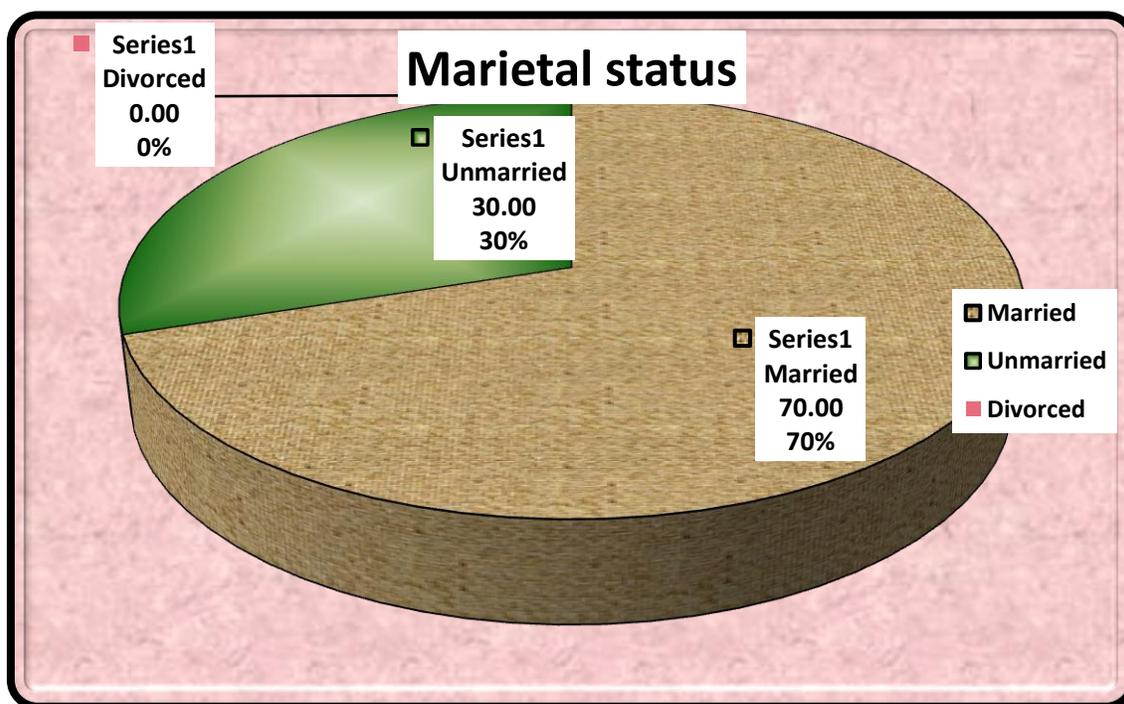


Figure-5: Distribution of patients according to marital status

The above pie diagram depicts, majority of patients i.e,70% are married and only 30% are unmarried.

Distribution Of Patients According To Occupation



Figure-6: Distribution of patients according to occupation

The above bar diagram depicts majority of patients are in private service i.e, 53.33%. Then, 31.67% are government servants. Whereas 11.67% are self-employed. Only 3.33% are agriculturists.

Distribution Of Patients According To Monthly Income

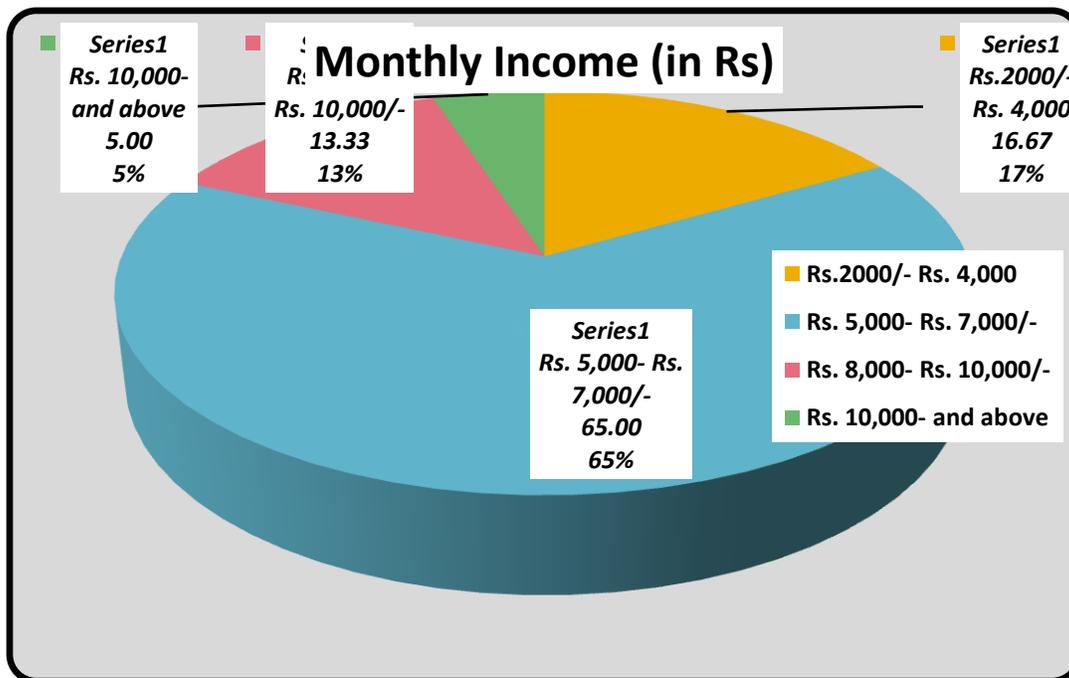


Figure-7: Distribution of patients according to monthly income

The above diagram depicts that, majority of patients income is between Rs 5000/- to Rs. 7,000/-. And 16.67% of patients earn between Rs 2000/- to Rs. 4,000/-. Then 13.33% earn between Rs 8,000/- to Rs. 10,000/-. Only 5% of families earn between Rs. 10,000/- and above.

Distribution Of Patients According To Source Of Information

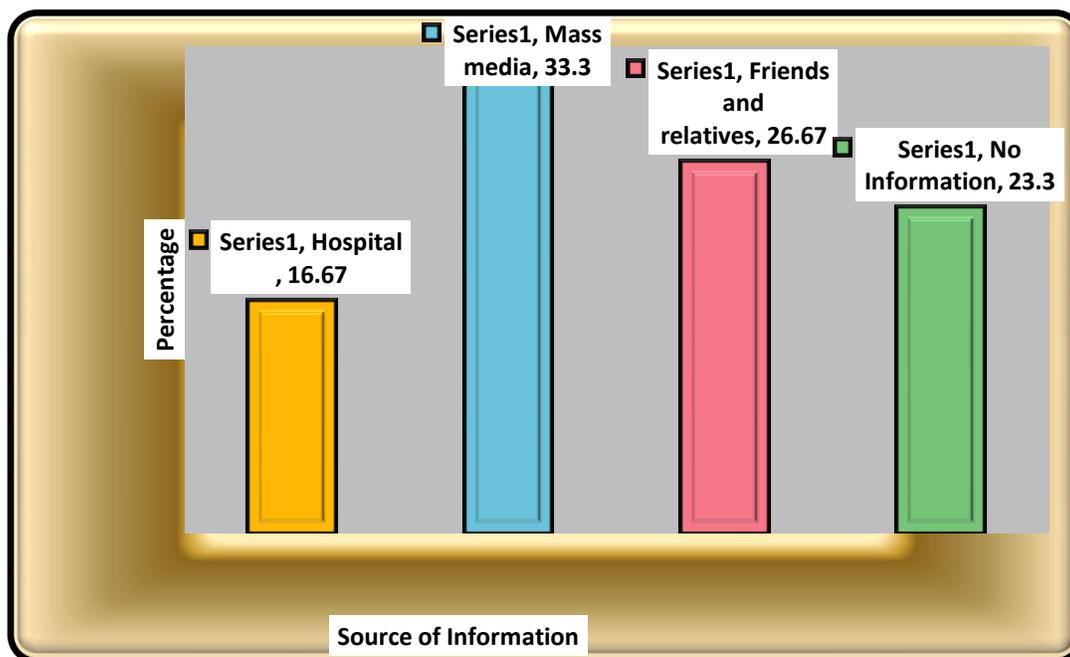


Figure-8: Distribution of patients according to source of information

The above diagram depicts, majority of patients i.e, 33.3% got information about effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation through mass media. 26.67% got information through friends and relatives. Then, 23.33% don't have information about effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation. Only 16.67% got information about effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation.

Objective 1: To assess the level of knowledge about relaxation and fatigue among clients undergoing haemodialysis before introduction of reflexology and two-minute relaxation technique.

Classification of patients on pre-test knowledge level regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis.

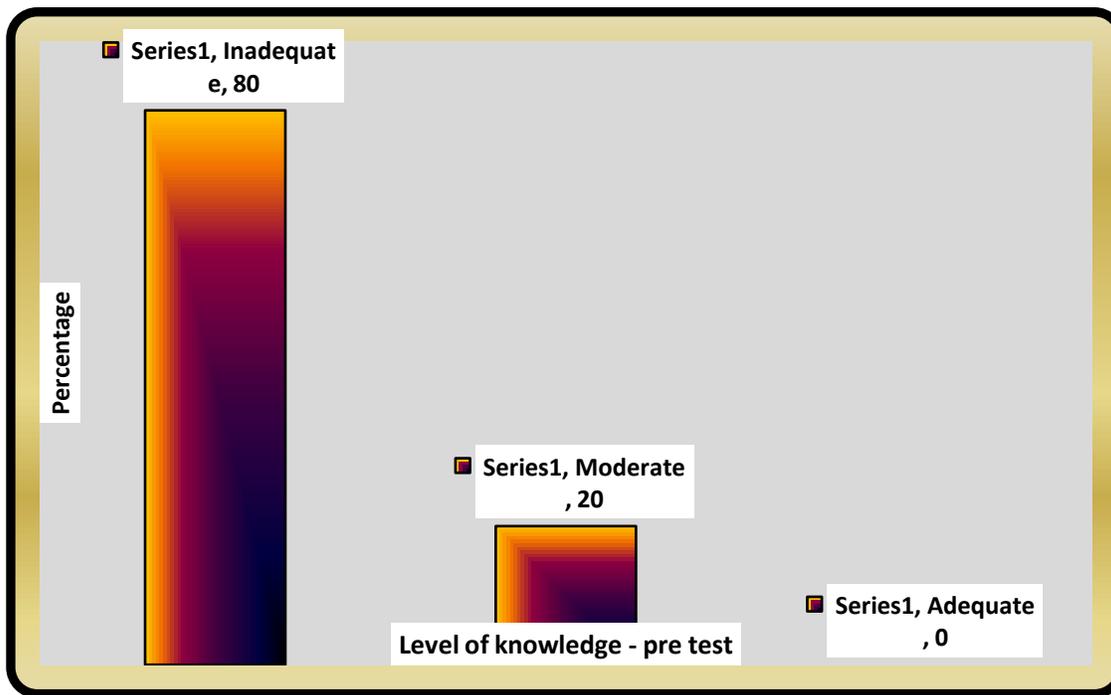


Figure-9: Classification of patients on pre-test knowledge level regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis.

TABLE -1

Classification of patients on pre-test knowledge level regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis

n=60

Level of knowledge	Score	No of Respondents	
		No	%
Inadequate	< 50%	48	80.00
Moderate	50--75%	12	20.00
Adequate	>75%	0	0.00
Total		60	100

The above table-1 and figure-12, shows the pre-test level of knowledge of patients on pre-test knowledge level regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis. In the table it is noticeable that majority of patients 48(80%) had inadequate level of knowledge about effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis, whereas 12(20%) of patients had moderate level of knowledge and none of patients had adequate knowledge regarding effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis before administration of Structured teaching programme.

Aspect wise pre-test mean knowledge scores of patients regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis.

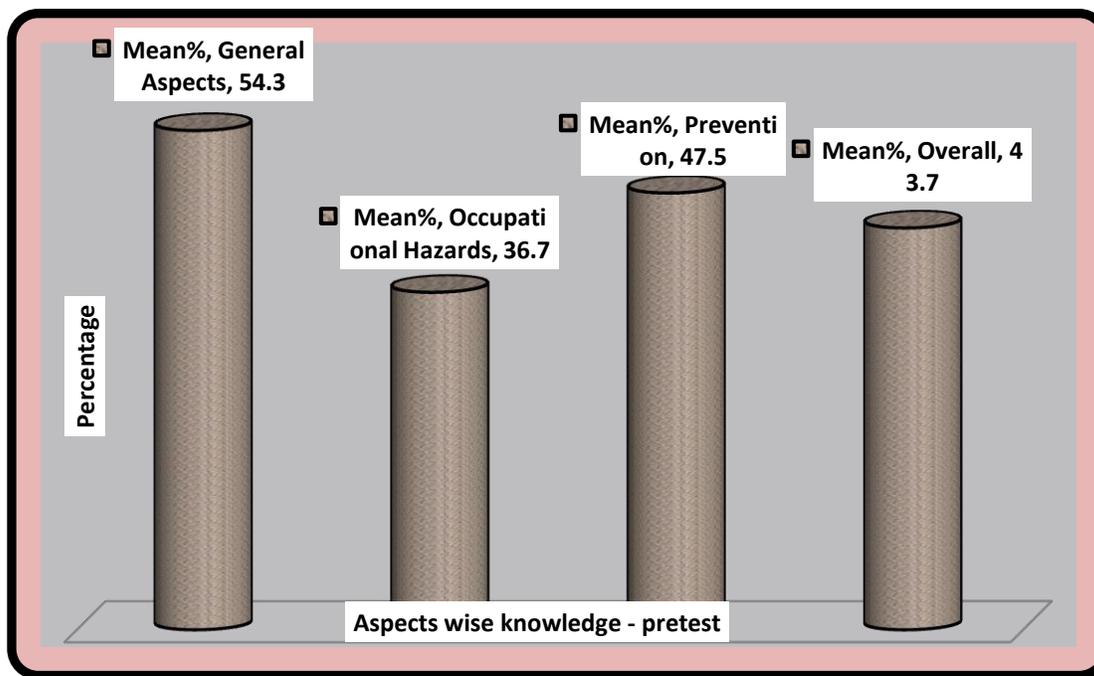


Figure-10: Aspect wise pre-test mean knowledge scores of patients regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis

TABLE – 2

Aspect wise pre-test mean knowledge scores of patients regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis

n=60						
Domain	Max statements	Max Score	Range	Mean	SD	Mean%
Reflexology-mechanism of action and medical uses	7	7	3--5	3.8	1.2	54.3
Reflexology-Techniques	15	15	5--10	5.5	1.4	36.7
Relaxation-Techniques, meditation, autogenics, Progressive muscle relaxation and benefits	8	8	2--4	3.8	1.2	47.5
Overall	30	30	9--16	13.1	2.3	43.7

The above table-2 describes the mean and standard deviation of knowledge score obtained by patients regarding effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis before administration of Structured teaching programme. It is noticeable in the table that the patients had obtained significantly low score in each aspect of effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis before administration of Structured teaching programme that is score ranges from 9-16 with overall mean 13.1(43.7%) and standard deviation 2.3.

Objective 2: To assess the level of knowledge about relaxation and fatigue among clients undergoing haemodialysis after introduction of reflexology and two-minute relaxation technique.

Classification of patients on post-test knowledge level regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis

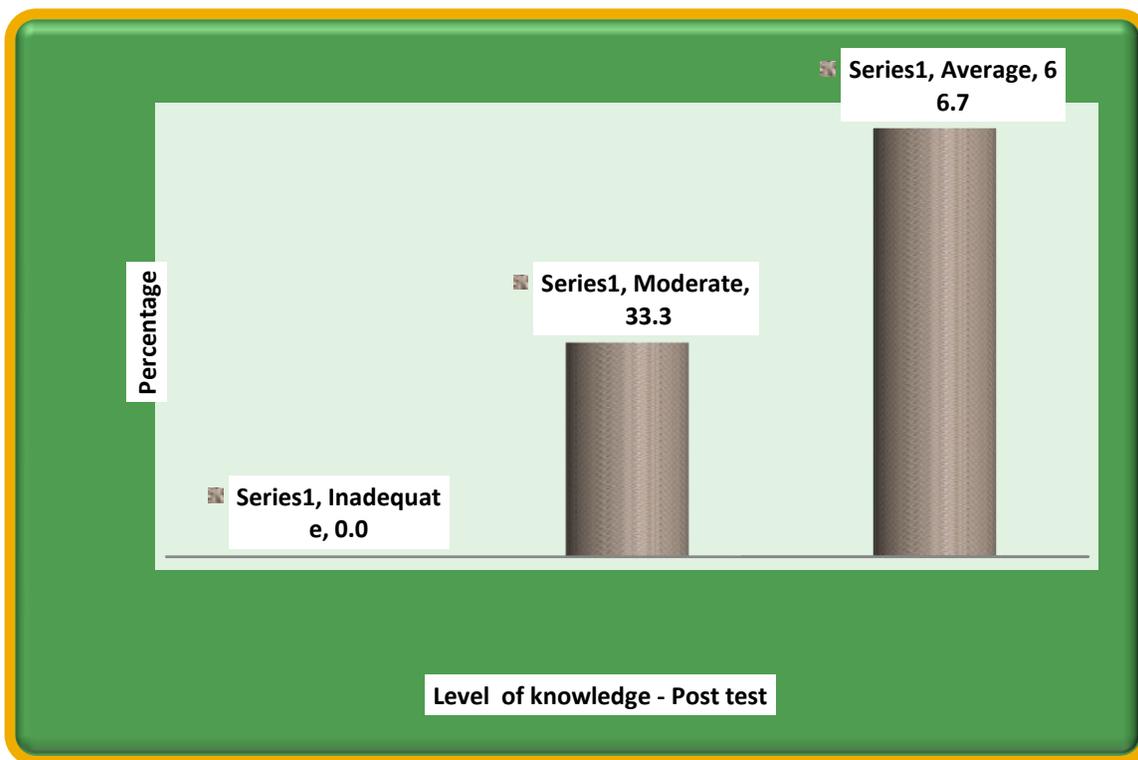


Figure-11: Classification of patients on post-test knowledge level regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis.

TABLE -3

Classification of patients on post-test knowledge level regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis.

n=60

Level of knowledge	Score	No of Respondents	
		No	%
Inadequate	< 50%	0	0.00
Moderate	50--75%	20	33.33
Average	>75%	40	66.67
Total		60	100

The above table-3 and figure-13 shows, the post-test level of knowledge of patients on effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis, in which majority of patients 40(66.67%) had average level of knowledge about effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis, whereas 20(33.33%) of patients had moderate level of knowledge and none of patients had inadequate knowledge regarding effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis, after administration of Structured teaching programme.

TABLE – 4

Aspect wise post-test mean knowledge scores of patients regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing haemodialysis

n=60						
Domain	Max statements	Max Score	Range	Mean	SD	Mean%
Reflexology-medical uses, mechanism of action	7	7	4--7	5.9	1.1	84.3
Reflexology-Techniques	15	15	8--14	10.6	1.5	70.7
Relaxation-Techniques, meditation, autogenics, Progressive muscle relaxation and benefits	8	8	3--7	6.3	0.9	78.8
Overall	30	30	11--23	22.8	2.7	76.0

The above table-4 and Fig-14 Shows that, the mean and standard deviation of knowledge score obtained by patients regarding effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing haemodialysis after administration of Structured teaching programme. It is noticeable in the table that the patients have obtained significantly high score in each aspect of effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing haemodialysis after administration of Structured teaching programme, that is score ranges from 11-23 with overall mean 22.8(76.0%) and standard deviation 2.7.

Aspect wise post-test mean knowledge scores of patients regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis.

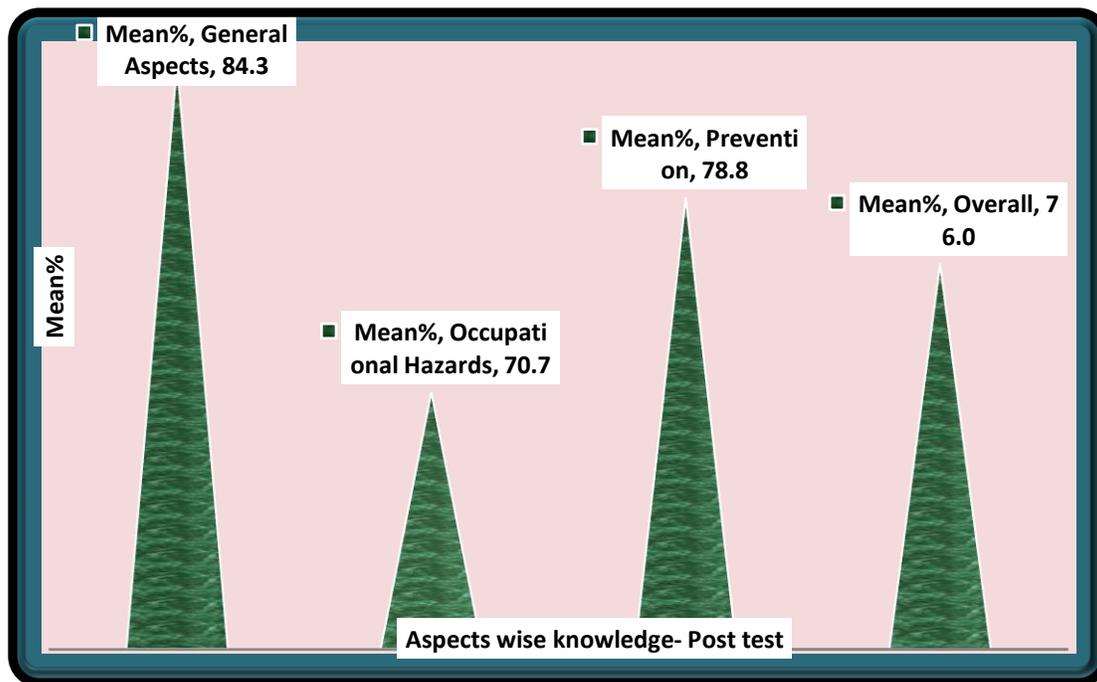


Figure-12: Aspect wise post-test mean knowledge scores of patients regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis

Objective 3: To compare the pre-test and post-test level of knowledge about relaxation and fatigue among clients undergoing haemodialysis.

TABLE-5

Comparison of knowledge of patients regarding effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis comparing pre-test with post-test

n=60

Level of knowledge	Score	Pre test		Post test	
		No	%	No	%
Inadequate	<50%	48	63.33	0	0.00
Moderate	50--75%	12	36.67	20	33.33
Adequate	>75%	0	0.00	40	66.67
Total	100	60	100	60	100

The above table shows the comparison of pretest and post-test knowledge of patients on effectiveness of moist heat therapy on the visibility and palpability of peripheral veins before peripheral venous cannulation. The pre-test table depicts that, pre-test level of knowledge of patients on pre-test knowledge level regarding effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis. In the table it is noticeable that majority of patients 48(80%) had inadequate level of knowledge about effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis, whereas 12(20%) of patients had moderate level of knowledge and none of patients had adequate knowledge regarding effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing haemodialysis before administration of Structured teaching programme.

The post-test table depicts that, post-test level of knowledge of patients on effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis, in which majority of patients 40(66.67%) had average level of knowledge about effectiveness of reflexology and two minute

relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis whereas 20(33.33%) of patients had moderate level of knowledge and none of patients had inadequate knowledge regarding effectiveness of reflexology and two minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis after administration of Structured teaching programme. Hence the data reveals the effectiveness of Structured teaching programme.

TABLE – 6

To evaluate the effectiveness of Structured teaching programme on effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis.

n=60				
Domain	Mean	SD	Mean%	Unpaired 't' test
Reflexology-medical uses, mechanism of action	2.1	0.89	30.0	18.2**
Reflexology-Techniques	5.1	1.6	34.0	24.6**
Relaxation-Techniques, meditation, autogenics, Progressive muscle relaxation and benefits	2.5	1	31.3	27.6**
Overall	9.7	2.2	32.3	34**

****Significant at P<0.01 level, df 59, t value 2**

The above table-6 and Fig-14, depicts the mean and standard deviation of knowledge score obtained by patients in each aspect of effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis after the administration of the Structured teaching programme with mean of 11.2, S.D of 2.9 and mean% of 37.33. The table shows that patients had scored more in relaxation techniques,

meditation, autogenic, progressive muscle relaxation and benefits after the administration of structured teaching programme and are significant at $p < 0.001$ level, $df = 59$, (t-2) by unpaired 't' test.

Effectiveness of Structured teaching programme on effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis

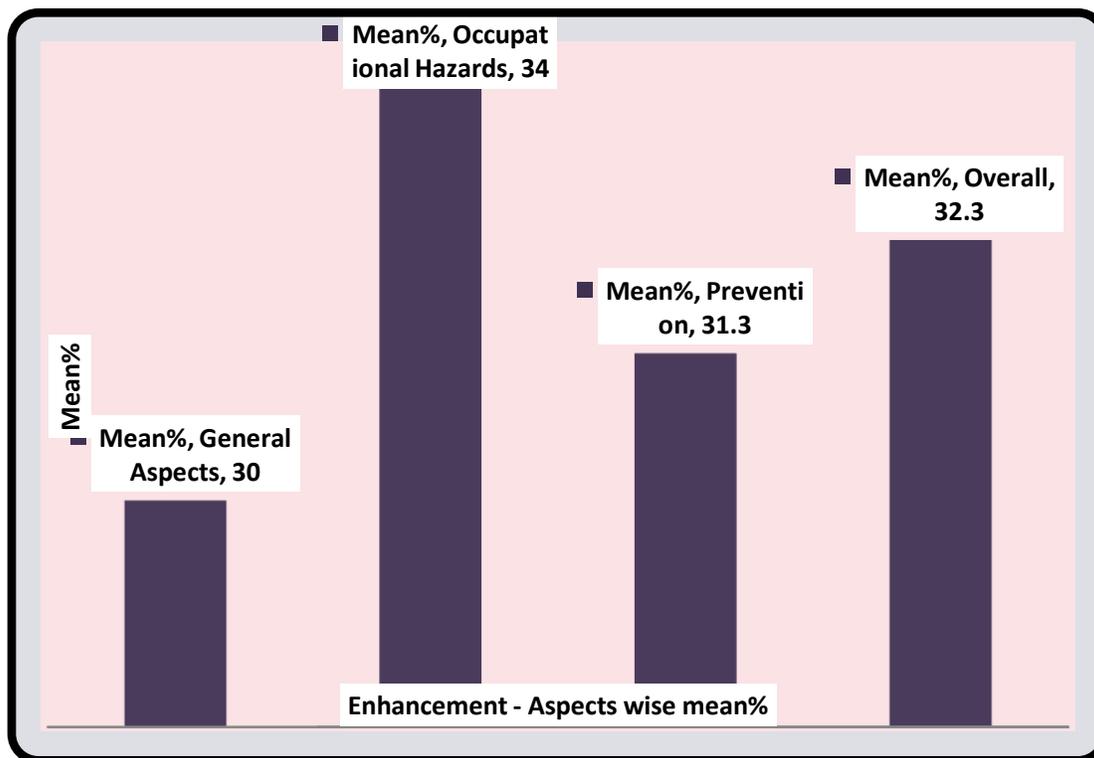


Fig-13: Effectiveness of Structured teaching programme on effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis

Objective-4: To associate the pre-test level of knowledge about relaxation and fatigue among clients undergoing haemodialysis with their selected demographic variables.

TABLE – 7

Association between demographic variables and pre-test knowledge level of patients towards effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis

n=60

S.No	Demographic variables	No	%	Knowledge				Chi-square
				≤ Median (31)		> Median (29)		
				No	%	No	%	
1	Age in years							
	a) 18-30 years	12	20.0	6	50	6	50	4
	b) 31-45 years	18	30.0	11	61.1	7	38.9	df 3
	c) 46-60 years	21	35.0	12	57.1	9	42.9	N.S
	d) 61-65 years	9	15.0	2	22.2	7	77.8	
2	Gender							
	a) Male	43	71.7	21	48.8	22	51.2	0.5
	b) Female	17	28.3	10	58.8	7	41.2	df 1 N.S
3	Religion							
	a) Hindu	38	63.3	24	63.2	14	36.8	5.99
	b) Christian	10	16.7	4	40.0	6	60.0	df 2
	c) Muslim	12	20.0	3	25.0	9	75.0	S
	d) Others	0	0.0	0	0.0	0	0.0	
4	Educational qualification							
	a) Illiterate	4	6.7	4	100	0	0.0	11.8
	b) Primary school	14	23.3	9	64.3	5	35.7	df 3
	c) High school	20	33.3	12	60.0	8	40.0	S
	d) PUC	18	30.0	6	33.3	12	66.7	
	e) Degree and above	4	6.7	0	0.0	4	100	
5	Marietal status							
	a) Married	42	70.0	26	61.9	16	38.1	5.8
	b) Unmarried	18	30.0	5	27.8	13	72.2	df 1
	c) Divorced	0	0.0	0	0.0	0	0.0	S
6	Occupation							
	a) Agriculture	8	13.3	5	62.5	3	37.5	8.2
	b) Self-employed	28	46.7	19	67.9	9	32.1	df 2
	c) Privare	24	40.0	7	29.2	17	70.8	S
	d) Government	12	20.0	5	41.7	7	58.3	0.6
7	Monthly Income							
	a) Rs.2000/- Rs. 4,000	10	16.7	6	60.0	4	40.0	4.5
	b) Rs. 5,000/- Rs. 7,000/-	39	65.0	22	56.4	17	43.6	df 3

	c) Rs. 8,000- Rs. 10,000/-	8	13.3	3	37.5	5	62.5	N.S
	d) Rs. 10,000- and above	3	5.0	0	0.0	3	100.0	
8	Source of Information							
	a) Hospital	10	16.7	6	60.0	4	40.0	1.9
	b) Mass media-T.V, Journals, Newspaper etc.	20	33.3	9	45.0	11	55.0	df 3
	c) Friends and relatives	16	26.7	7	43.8	9	56.3	N.S
	d) No Information	14	23.3	9	64.3	5	35.7	

N.S-Not Significant S- Significant at P<0.05 level

Table-7 shows the association of knowledge level of patients towards effectiveness of reflexology and two-minute relaxation technique on fatigue reduction and relaxation in clients undergoing hemodialysis before administering the structured teaching programme with their selected demographical variables, using Chi –square test. The analysis revealed that there is significant association was found with – religion, educational qualification, marital status and occupation at $p < 0.05$ and no association could be found with other demographic variables of patients.

V. CONCLUSION

On the basis of the study, we can draw the following conclusions, The results of the study shown that pre-test overall knowledge score of clients undergoing haemodialysis was 43.7%, mean and the standard deviation was 2.3. During post-test overall knowledge score of clients undergoing haemodialysis was 76.0% mean and standard deviation was 2.7. Hence the difference between pretest and post-test overall knowledge score was 32.3%. So the results of the study shown the difference between the pre-test and post-test knowledge score of clients undergoing haemodialysis was statistically significant and the difference is due to the administration of STP to patients undergoing intravenous cannulation. The analysis revealed that there is significant association was found with – religion, educational qualification, marital status and occupation at $p < 0.05$ and no association could be found with other demographic variables of patients undergoing haemodialysis.

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