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Effects of Progressive Muscle Relaxation Technique on Anxiety Among Patient Undergoing Hemodialysis

Ankita Bhoya[1], N. Sriram[2], Srushti Chaudhari[3]

[1]M.Sc. nursing, department of Medical Surgical Nursing, Shri Vinoba Bhave College of Nursing Silvassa
[2]Vice Principal, department of Medical Surgical Nursing, Shri Vinoba Bhave College of Nursing Silvassa
[3]Sister Tutor, department of Mental Health Nursing, Shri Vinoba Bhave College of Nursing Silvassa

Abstract

Introduction: Hemodialysis is a lifesaving treatment for people with kidney failure which help removes waste products and extra fluids from the blood and regulates blood pressure when the kidneys are not able to. Nearly 4 million people in the world are living on kidney replacement therapy and hemodialysis HD remains the commonest form of KRT, accounting for approximately 69 % of all KRT and 89% of all dialysis. Anxiety is the common symptom among patient undergoing hemodialysis. It has been postulated that relaxation technique can be used to decrease muscle tension to reduce the level of anxiety among patient undergoing hemodialysis.

Aim: The aim of the study was evaluate the effects of progressive muscle relaxation technique on anxiety among patient undergoing hemodialysis.

Materials & Methods: A pre-experimental research design (one group pretest posttest) was adopted for the study.80 patients were selected by using a non -probability convenient sampling technique.

Result: The analysis revealed that among 80 patients with demographic data majority of the subjects 58 (72.50%) belong to the age group of >40, Most of the subjects were male 46 (57.50%), maximum subjects 31(38.75%) were home maker, no subjects were exposed for relaxation technique. majority of subjects started hemodialysis 1-5 years ago 42 (52.5%), majority of subjects were undergoing hemodialysis thrice a week 51 (63.25%), there were significant association between anxiety scores, The pretest mean and standard deviation was 19.58 ±2.40 and posttest mean and standard deviation was 14.48± 3.11 and calculated t value(11.3) was highly significant at p <0.001 level of significance and there was significant association between anxiety scores and religion of patients undergoing hemodialysis at 0.05 level of significance

Conclusion: The result highlighted that progressive muscle relaxation technique to be effective method to reduce the anxiety level among patients undergoing hemodialysis**.**

Keywords: progressive muscle relaxation technique, anxiety hemodialysis.

INTRODUCATION

Chronic kidney disease (CKD) is defined as the presence of kidney damage or an estimated glomerular

filtration rate (eGFR) less than 60 ml/min/1.73 mt2, persisting for 3 months or more, irrespective of the causes CKD is associated with decreased quality of life, increased health care expenditures, and premature death. Untreated kidney disease can result in end -stage kidney disease (ESKD)which is final stage of renal failure. It is a state of progressive loss of kidney function, ultimately resulting in the need for renal replacement therapy (dialysis or transplantation).

Haemodialysis is a lifesaving treatment for people with kidney failure which help removes waste products and extra fluids from the blood and regulates blood pressure when the kidneys are not able to. However, it does not fully replace all of the kidney's functions, so it is not considered a cure for advanced CKD or kidney failure. In some cases of sudden AKI, haemodialysis may only be needed for short time until the kidneys get better. However, when kidney disease progresses slowly to kidney failure, kidneys do not get better. people will need dialysis for the rest of life unless people can receive a kidney transplant. Haemodialysis can be performed at a home. Treatments at a dialysis centre are usually done 3 times a week, each taking 3 to 4 hours to complete. Several psychological stressors have an impact on patients with end-stage kidney disease (ESKD). The disease and its treatment modalities impose several lifestyle changes. These include the impact of disease and treatment, dietary and fluid restrictions, functional limitations, sexual dysfunction and future uncertainty and fear of death. Furthermore, family and social issues such as changes in family roles and changes in duties and responsibilities may add to psychological stressors among people on dialysis. Commonly associated psychological issues include depression, anxiety, delirium, withdrawal, and decreased quality of life among them anxiety is the very common among patient undergoing hemodialysis.

Anxiety has two basic components: There is a cognitive load of worry, or the apprehensive expectation of some bad outcome and there are physical symptoms, notably restlessness and edginess, muscle tension, sleep disturbance, and difficulty concentrating .There are various relaxations techniques includes Autogenic relaxation ,visualization ,and other relaxation techniques may include :Deep breathing , Massage, Meditation, Tai chi ,Yoga, Biofeedback, music and Art therapy ,Aromatherapy ,and Hydrotherapy .Among them, the most simple and easy learned techniques for relaxation are progressive muscle Relaxation technique, (PMR) a widely used procedure today that was developed by Dr. Edmund Jacobson in the year 1939.which is also used to reduce anxiety.

Progressive muscle relaxation (PMR) is an anxiety-reduction technique first introduced by American physician Edmund Jacobson in the 1930s. The technique involves alternating tension and relaxation in all of the body's major muscle groups. Progressive muscle relaxation is generally used along with other cognitive behavioral therapy techniques, such as systematic desensitization. However, practicing the technique alone will give greater control over body's anxiety response. Progressive muscle relaxation can be helpful for a range of reasons, including anxiety, High blood pressure, Lower back pain, Migraine, Muscle tension, Neck pain Stress. Chronic stress and anxiety can contribute to various health problems.

Progressive muscle relaxation (PMR) is a relaxation technique. It involves tensing and then relaxing muscles, one by one. This helps person to release physical tension, which may ease anxiety among hemodialysis patients.Hence, study aims to assess the effects of progressive muscle relaxation technique on anxiety among patients undergoing hemodialysis.

Objectives:

1. To assess the existing level of anxiety among patients undergoing haemodialysis
2. To evaluate the effectiveness of progressive muscle relaxation technique on level of anxiety by

comparing pre and post test score of patients undergoing haemodialysis
3. To find the association between level of anxiety and selected demographic variables of patients undergoing haemodialysis

Hypotheses:
H01- There is no significance difference between the pre and post level of anxiety among patients undergoing haemodialysis at 0.05 level of significance
HA1- There is significance difference between the pre and post level of anxiety among patients undergoing haemodialysis at 0.05 level of significance
H02- There is no association between the level of anxiety and selected demographic variables of patients undergoing haemodialysis at 0.05 level of significance
HA2 - There is association between the level of anxiety and selected demographic variable among patients undergoing haemodialysis at 0.05 level of significance.

OPERATIONAL DEFINITIONS:

- **Effect**

It is the determination of, the extent to which the Progressive Muscle Relaxation Technique has achieved the desired effect measured in terms of anxiety level prior to undergoing haemodialysis.

- **Progressive Muscle Relaxation (PMR) Techniques**

In this study it refers to a technique that involves the systematic tensing and relaxing of specific muscle groups such as face, hand, leg, shoulder and abdomen.

- **Anxiety**

It refers to the state of uneasiness, apprehension or fear resulting from the anticipation of a perceived threatening events or situation often impairing physical and psychological functioning as measured by anxiety scale.

- **Patient**

In this study it refers to a person who is undergoing haemodialysis

RESEARCH METHODOLOGY
Research Approach: Quantitative Research Approach.
Research Design: Pre-experimental research design [one group pre-test, post -test design]
VARIABLES –Independent variables: Progressive muscle relaxation technique **Dependent variables:** level of anxiety
RESEARCH SETTING: Dialysis unit of shri Vinoba Bhave civil hospital, Silvassa, Dadra and Nagar Haveli.
POPULATION -Target population: Patients who have undergoing hemodialysis in Dadra and Nagar Haveli
Accessible population: Patients who have undergoing hemodialysis at shri Vinoba Bhave Civil Hospital Silvassa.
SAMPLE AND SAMPLING TECHNIQUE-Sample: Patient who are undergoing hemodialysis at Shri Vinoba Bhave Civil Hospital, Dadra and Nagar haveli.
Sample size: A sample size was 80 patients both male and female who are subjected to undergoing hemodialysis.

Sampling techniques: Non-probability convenient sampling technique.

CRITERIA FOR SAMPLING SELECTION

Inclusive Criteria

The study includes patients who are:
The patients undergoing hemodialysis
• who can speak Hindi or Gujarati
• who are willing to participate in the study.
• who are present at the time of data collection

Exclusive Criteria:

The study includes patient who
The patients undergoing hemodialysis

- who are having temporary hemodialysis
- who are admitted in ICU
- who are having physical disability

DESCRIPTION OF THE TOOL

SECTION I DEMOGRAPHIC DATA:

Demographic perform collects data about the characteristics of the sample population. The items included were Age, Gende, Education, Type of family, Monthly income, Religion, Occupational status, Marital status and exposed for relaxation technique workshop.

SECTION II CLINICAL DATA:

Clinical perform collects data each participant varies from the others, and this could affect the results. Clinical data include when was hemodialysis started, Number of dialysis per week, Duration of hemodialysis, Diagnosis and any co-morbidities and on medications.

SECTION III HAMILTON ANXIETY RATING SCALE:

Hamilton anxiety rating scale is one of the most widely used clinical tools for assessing the severity of the anxiety symptoms

Scoring: Table 3 Scoring of Hamilton rating anxiety scale score

Sr.no	Score	Description of pain
1	< 17	Mild
2	18-24	Mild to Moderate
3	24 and above	Moderate to Severe

DATA ANALYSIS AND INTERPRETATION

Section I: Description of frequency and percentage distribution of demographic variables among haemodialysis patients

Table 1: Description of frequency and percentage distribution of demographic variables among haemodialysis patients n=80

Sr.no	Demographic variables	Frequency	Percentage

1.	**Age in years**		
	25-30	4	5%
	30-35	5	6.25%
	35-40	13	16.25%
	>40	58	72.50%
2.	**Gender**		
	Male	46	57.50%
	Female	34	42.50%
3.	**Education**		
	Intermediate	11	13.75 %
	High school	21	26.25%
	Middle school	9	11.25%
	Primary school	27	33.75%
	Non formal education	12	15%
4	**Type of family**		
	Nuclear	39	49%
	Joint	41	51%
5	**Monthly Income**		
	Rs. <5000	43	53.75%
	Rs.5000-10000	30	37.50%
	Rs.10000-20000	6	7.50%

	Rs.>20000	1	1.25%
6	**Religion**		
	Hindu	74	92.50 %
	Christian	1	1.25%
	Muslim	5	6.25%
7.	**Occupational status**		
	Laborer	7	8.75%
	Self-employee	18	22.50%
	Private employee	7	8.75%
	Government employee	12	15.0%
	Home maker	31	38.75%
	Unemployed	5	6.25%
8.	**Marital status**		
	Married	76	95 %
	Unmarried	1	1.25%
	Widow/widower	3	3.75%
9	**Exposed for relaxation technique workshop**		
	No	80	100%

Table 1. Indicates that the majority of the subjects 58 (72.50%) belong to the age group of > 40 year and less among age group of 25-30 year 4(5%), majority of the subjects are male 46 (57.50%) and less among

female 34(42.50%), majority of subject were educated up to primary school that is 27(33.75%) and less among middle school 9 (11.25%),majority of subject were belongs to joint family that is 41(51%) and less from nuclear family 39(49%). majority of subject were having monthly income of Rs <5000/-that is 43(53.75%) and less monthly income Rs >20,000 that was 1 (1.25%) ,majority of subject are belongs to Hindu that is 74(92.50%) and less subjects belongs to Christian 1 (1.25%),most of subject are home maker that is 31(38.75%),less were unemployed 5 (6.25%),most of subjects were married that is 76(95%),unmarried were 1 (1.25%).no subjects were exposed for relaxation technique that is 80 (100).

SECTION II: DESCRIPTION OF FREQUENCY AND PERCENTAGE DISTRIBUTION OF CLINICAL VARIABLES AMONG HEMODIALYSIS PATIENTS

Table no 2: Description of frequency and percentage distribution of clinical variables among hemodialysis patients n=80

Sr. No	Clinical variable	Frequency	Percentage
1.	**When was Haemodialysis started**		
	<1 year	4	5 %
	1-5 years	42	52.5%
	5-10 years	29	36.25%
	>10 years	5	6.25%
2.	**Number of dialysis per week**		
	Twice a week	29	36.25%
	Thrice a week	51	63.75%
3.	**Duration of haemodialysis**		
	3 hours	51	63.75%
	4 hours	29	36.25%
5.	**Co- Morbidity disease**		
	HTN	45	56.25%

	HTN, DM	27	33.75%
	HTN, Arthritis	2	2.50%
	HTN, CVA	1	1.25%
	HTN, RHD	1	1.25%
	HTN, COPD	1	1.25%
	HTN, Osteoporosis	2	2.50%
	HTN, PE	1	1.25%
6.	**On medications**		
	Yes	80	100 %

Table 4: Indicates majority of subject were hemodialysis started 1-5 years ago 42 (52.5%), minority were hemodialysis started at >10 year ago. majority of subjects has number of dialysis per week that were thrice a week hemodialysis 51 (63.25%),minority from twice a week 29 (36.25%) ,majority of subject were duration of dialysis was 3 hours 51(63.25%),minority was 4 hour 29 (36.25%) all subject were having comorbidity conditions, such as HTN,DM, Arthritis, CVA,RHD,COPD, Osteoporosis, Plural effusion 80(100%) and all subject were on medications80(100%)

SECTION: III ASSESSMENT OF TYPES OF ANXIETY AMONG HEMODIALYSIS PATIENTS

Table 4: Mean, SD, Mean% of pretest and post test scores of patients undergoing hemodialysis n 80

Type of anxiety	Pre-Test score			Post test Score			Difference in mean%
	Mean	SD	Mean%	Mean	SD	Mean%	
Psychic Anxiety	8.95	1.92	37	6.6	3.43	28	**9**
Somatic Anxiety	10.64	1.99	33	8.1	2.28	25	**8**
Overall	19.58	2.40	35	14.48	3.11	26	**9**

Table 5: Indicates that the calculated psychic anxiety pretest mean and standard deviation are 8.95 ± 1.92 and mean percentage was 37.and in posttest mean and standard deviation are 6.6 ± 3.43 and mean percentage was 28 and mean difference is 9 .and overall calculated psychic anxiety pretest mean and standard deviation 19.58±2.40 and mean percentage was 35% and in post test overall calculated psychic anxiety pretest mean and standard deviation 19.5±2.40 and mean percentage was 35%. calculated somatic anxiety pretest mean and standard deviation are 10.64 ± 1.99 and mean percentage was 33.and in posttest

mean and standard deviation are 8.1 ± 2.28 and mean percentage was 25 and mean difference is 8 .and overall calculated somatic anxiety pretest mean and standard deviation 19.58±2.40 and mean percentage was 35% and in posttest overall calculated somatic anxiety pretest mean and standard deviation 19.5±2.40 and mean percentage was 35%. post-test mean %26.

IV. EFFECTIVENESS OF PMR TECHNIQUES ON ANXIETY AMONG HEMODIALYSIS PATIENTS

Table-5: Frequency and percentage wise distribution on level of anxiety among patients undergoing hemodialysis. n=80

Level of anxiety	Pre test		Post test	
	f	%	f	%
Mild	12	15	61	76
Mild to Moderate	66	82.5	19	24
Moderate to Severe	2	2.5	0	0

Table 5: Indicated that level of anxiety among patients undergoing hemodialysis in mild category pretest 12(12 %) and in posttest 61 (76%), mild to moderate in pretest 66(82.5 %) and posttest 19 (24%) and in moderate to severe pretest 2 (2.5 %) .and no one was having moderate to severe anxiety in posttest.

IV. EFFECTIVENESS OF PMR TECHNIQUES ON ANXIETY AMONG HEMODIALYSIS PATIENTS

Table 6: Analysis of paired t test between pretest and post-test anxiety score of haemodialysis patient n=80

Types of Anxiety	Pre-test score			Post test Score			Difference in mean	't' value	p-value
	Mean	SD	Mean%	Mean	SD	Mean%			
Psychic Anxiety	8.95	1.92	37	6.6	3.43	28	**2.35**	**5.59**	**p<0.001*** HS**
Somatic Anxiety	10.64	1.99	33	8.1	2.28	25	**2.54**	**7.35**	**p<0.001*** HS**
Overall	19.58	2.40	35	14.48	3.11	26	**5.1**	**11.3**	**p<0.001*** HS**

Table no -7 Table showed that psychi anxiety at pre test mean and standard deviation were 8.95 ± 1.92 and post test mean and standard deviation were 6.6 ± 3.43 and mean difference was 9 the calculated t values 5.59 is highly significant at p 0.001 level of significance.The Calculated somatic anxiety pre test mean and standard deviation were10.64 ± 1.99 and post test mean and standard deviation were 8.1 ± 2.28 and mean difference was 2.54 the calculated t values 7.35 is highly significant at p <0.0001 level of significance. The overall calculated pre test score mean and standard deviation was 19.58 ±2.40, mean percentage was 35,and calculated post score mean and standard deviation was 14.48± 3.11 and mean percentage was 26 and overall mean difference was 5.1 ,obtained t value(11.3) was highly significant at p 0.001 level of significance hence stated null hypothesis that there is no significance difference between the pre test and post level of anxiety among patient undergoing hemodialysis at 0.05 level of significance was rejected and alterenative hypothesis was accepted. there is significance difference between the pre test and post level of anxiety among patient undergoing hemodialysis at 0.05 level of significance.This

indicates that PMR is effective on reduction of anxiety among patient undergoing hemodialysi

Section v: Association for pretest level of anxiety and selected demographic variable of hemodialysis patients

Table 7: Analysis of chi-square test to find association between pretest level of anxiety and selected demographic data of hemodialysis patients. n=80

Demographic variables	Mild		Mild - Moderate		Moderate – Severe		χ2-value	p-value
	f	%	f	%	F	%		
1.Age in years:							2.47 (df=6)	0.871 NS
25-30	0	0	4	5	0	0		
30-35	1	1.25	4	5	0	0		
35-40	1	1.25	12	15	0	0		
>40	10	12.5	46	57.5	2	2.50		
2.Gender:							3.49 (df=2)	0.175 NS
Male	4	5	41	51.25	1	1.25		
Female	8	10	25	31.25	1	1.25		
3.Education:							5.55 (df=8)	0.697 NS
Intermediate	1	1.25	10	12.5	0	0		
High school	4	5	16	20	1	1.25		
Middle school	3	3.75	6	7.50	0	0		
Primary school	2	2.50	24	30	1	1.25		
Non formal education	2	2.50	10	12.5	0	0		
4.Type of family:							2.19 (df=2)	0.334 NS
Nuclear	6	7.50	31	38.75	2	2.50		
Joint	6	7.50	35	43.75	0	0		
5.Monthly Income:							9.08 (df=6)	0.169 NS
<5000	7	8.75	35	43.75	1	1.25		
5000-10000	2	2.50	27	33.75	1	1.25		
10000-20000	2	2.50	4	5	0	0		
>20000	1	1.25	0	0	0	0		
6.Religion:							10.07 (df=4)	0.039* S
Hindu	10	12.50	63	78.75	1	1.25		
Christian	0	0	1	1.25	0	0		
Muslim	2	2.50	2	2.50	1	1.25		
7. Occupational status:								
Laborer								

Self employee	2	2.50	5	6.25	0	0		
Private employee	2	2.50	16	20	0	0		
Government employee	1	1.25	6	7.50	0	0	4.35	0.930
Home maker	1	1.25	10	12.50	1	1.25	(df=10)	NS
Unemployed	5	6.25	25	31.25	1	1.25		
	1	1.25	4	5	0	0		
8. **Marital status:**								
Married	11	13.75	63	78.75	2	2.50		
Unmarried	1	1.25	0	0	0	0	6.32	0.176
Widow/widower	0	0	3	3.75	0	0	(df=4)	NS
Separated/Divorce	0	0	0	0	0	0		
9.**Exposed for relaxation technique workshop:**								1
	12	15	66	82.5	2	2.50	(df=2)	NS
No								

***p<0.05 significant, ** p<0.01 & ***p<0.001 Highly significant.**

Table no 9 -Among the all demographic variables, the calculated chi-square and p value of Age(x2=2.47,p-0.871), gender(x2 = 3.49.p-0.175), education (x2= 5.55 ,p- 0.697) ,type of family (x2= 2.19,p-0.334),monthly income (x2 = 9.08,p-0.169),religion (x2=10.07,p-0.039),occupational status(x2 = 4.35,p-0.930) ,marital status ,(x2 = 6.32,p-0.176),exposed for relaxation (x2= 0,p-1) were higher than p <0.05 level of significance , Hence stated null hypothesis that there is no association between the level of anxiety and selected demographic variables of patients undergoing hemodialysis at 0.05 level of significance was accepted in above mentioned variables. Hence there was no association between anxiety score of Hemodialysis patients with gender, type of family, religion, marital status, exposed for relaxation technique workshop at 0.05 level of significance. The calculated chi-square and p value of Religion (x2-10.07, p-0.039) was lesser than p <0.05 level of significance, hence stated null hypothesis that there is no association between the level of anxiety and selected demographic variables of patients undergoing hemodialysis at 0.05 level of significance was rejected with religion of hemodialysis patients and accepted the null hypothesis that there was significant association between anxiety scores with religion of Hemodialysis patients

Section vi: Association for pre-test level of anxiety and selected clinical data of haemodialysis patients.

Table 8: Analysis of chi-square test between pretest level of anxiety and selected clinical data of Haemodialysis patients

Clinical variables	**Mild**		**Mild - Moderate**		**Moderate – Severe**		**χ2-value**	**p-value**
	f	**%**	**f**	**%**	**F**	**%**		
When was Haemodialysis started**:**							3.972	0.680
<1 year	1	1.25	3	3.75	0	0	(df=6)	NS
1-5 years	5	6.25	35	43.75	2	2.50		

5-10 years	6 0	7.50 0	23 5	28.75 6.25	0 0	0 0		
Number of dialysis per week Twice a week Thrice a week	 4 8	 5 10	 25 41	 31.25 51.25	 0 2	 0 2.5	1.25 (df=2)	0.533 NS
Duration of haemodialysis 3 hours 4 hours	 8 4	 10 5	 41 25	 51.25 31.25	 2 0	 2.50 0	1.25 (df=2)	0.533 NS
Diagnosis and any co-morbidity Yes	 12	 15	 66	 82.5	 2	 2.50	0 (df=1)	1 NS
Co- Morbidity disease: HTN HTN, DM HTN, Arthritis HTN, CVA HTN, RHD HTN, COPD HTN, Osteoporosis HTN, PE	 6 3 0 0 0 1 2 0	 7.50 3.75 0 0 0 1.25 2.50 0	 39 22 2 1 1 0 0 1	 48.75 27.50 2.50 1.25 1.25 0 0 1.25	 0 2 0 0 0 0 0 0	 0 2.5 0 0 0 0 0 0	 22.24 (df=14)	 0.074 NS
On medications Yes	 12	 15	 66	 82.5	 2	 2.50	0 (df=1)	1 NS

***p<0.05 significant, ** p<0.01 & ***p<0.001 Highly significant.**

Table no 10: Indicated that among the all clinical variables, the calculated chi-square and p value of when was hemodialysis started (x2=3.972,p-0.680), number of dialysis per week (x2 =1.25,p-0.533),duration of hemodialysis (x2=1.25 ,p-0.533) ,(x2=2.19,p- 0.334),diagnosis and any co-morbidity (x2 = 0,p-1),on medications (x2=0,p-1), were higher then the p<0.05 level of significance , Hence stated null hypothesis that there is no association between the level of anxiety and selected clinical variables of patients undergoing hemodialysis at 0.05 level of significance was accepted in above mentioned variables Hence there was no association between anxiety score of Hemodialysis patients with when was hemodialysis started, number of dialysis per week ,duration of hemodialysis ,diagnosis and any co-morbidity ,on medications at 0.05 level of significance.

DISCUSSION:

In this present study Calculated pretest score of anxiety mild is 15%, mild to moderate 82.5%, moderate to severe 2.5 % and post test score of mild is 76 % mild to moderate were 24%.and moderate to severe is 0%.The present study the pretest Calculated psychic anxiety pretest mean and standard deviation are 8.95 ± 1.92 and posttest mean and standard deviation are 6.6 ± 3.43 and mean difference is 9 the calculated t values 5.59 is highly significant at p 0.001 level of significance .Calculated somatic anxiety pretest mean and standard deviation are10.64 ±1.99 and posttest mean and standard deviation are 8.1 ± 2.28 and mean difference is 2.54 the calculated t values 7.35 is highly significant at p <0.0001 level of significance. The variables among the all-demographic variables only religion, have significant association with pretest level of anxiety at <0.05 level of significance so research hypothesis was accepted and there was no association between age, gender type of family monthly income, marital status, education, monthly income, occupational status among having < 0.05 level of anxiety among patient undergoing hemodialysis. The variables among the all-clinical variables amount of dialysis per week, duration of hemodialysis, on medications have significance association with level of anxiety at <0.05 level of significance and there was no association between when was hemodialysis started, and co morbidity diseases among level of anxiety among patient undergoing hemodialysis.

CONCLUSION:

Anxiety is the very common among patient undergoing hemodialysis. It estimated that pretest anxiety mild was 15%, patient have mild to moderate anxiety 82.5% and moderate to severe anxiety was 24% patient experience who were undergoing hemodialysis. Anxiety in patients undergoing hemodialysis is often linked to physical discomfort and stress, and progressive muscle relaxation technique helps alleviate this by reducing muscle tension and promoting a calming effect. Therefore, this study was selected PMR technique for better result. A pre-experimental design (pretest -posttest) adopted for the study, where 80 patients who are undergoing hemodialysis was selected by using the convenience sampling technique. The data collected was analyzed and interpreted based on descriptive and inferential statistics. On the basis of the present study, it can be concluded that anxiety among patient undergoing hemodialysis was reduced due to Progressive muscle relaxation technique which was evidenced by mean value of anxiety scores of subjects. Hence, progressive muscle relaxation technique is a safe, better and inexpensive measures which brings about a higher level of relaxation and reduction of anxiety. patient have greater comfort during hemodialysis.

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