



## A STUDY TO DETERMINE THE EFFECT OF RELAXATION THERAPY ON ANXIETY, DEPRESSION AND STRESS AMONG DIALYSIS PATIENTS AT A SELECTED HOSPITAL, KOLKATA

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### ABSTRACT

**Introduction:** Haemodialysis is the most common treatment for chronic renal failure patients which act as a stressor. There are evidences that this chronic condition may lead depression, anxiety and stress among the patients and relaxation therapy can reduce the severity of these psychological problems. **Methodology:** A quasi-experimental non randomized control group design was adopted for the study to determine the effect of relaxation therapy on anxiety, depression and stress among dialysis patients. Study participants were selected from haemodialysis patients of Apollo Gleneagles Hospital, Kolkata. Sample size was 60 which were divided into 30 patients in experimental and 30 in control group. Data were collected by DAS scale, observational checklist on Benson's relaxation therapy and practice log book on Benson's relaxation therapy at home. **Results:** The findings of the study revealed that there was a significant difference between post anxiety, depression and stress scores of experimental group and same of control group among dialysis patients at 0.05 level of significance after administration of relaxation therapy. **Conclusion:** It can be concluded that Benson's relaxation therapy is an effective measure for significant reduction of stress level among haemodialysis patients.

**KEYWORDS :** Relaxation Therapy, Anxiety, Depression, Stress, Dialysis

### INTRODUCTION

Long term haemodialysis (HD) patients suffer from physical, mental and as well as economical stresses and experience serious changes in lifestyle and personality. The prevalence of psychiatric hospitalization among patients who are on dialysis therapy is 1.5-3 times higher compared with other chronic diseases and adversely affects the quality of life. In several studies, the high prevalence of psychological disorders has been reported among dialysis patients. The present study was conducted to determine the effect of Benson's relaxation therapy on anxiety, depression and stress among haemodialysis patients.

### OBJECTIVES OF THE STUDY

1. To assess the anxiety, depression and stress among individual dialysis patients on 1st day at a selected hospital.
2. To administer relaxation therapy among experimental group of dialysis patients.
3. To determine the effect on anxiety, depression and stress among dialysis patients on respective 8th, 15th, 30th day after administering relaxation therapy.

### Hypothesis

H1 There will be significant differences between pre and post anxiety, depression and stress scores among dialysis patients after administering Benson's relaxation therapy.

H2 There will be significant differences between post anxiety, depression and stress scores among experimental and control group after administering Benson's relaxation therapy.

### MATERIALS AND METHODS

A quasi-experimental non randomized control group in applying interrupted time series design was conducted to assess the effect of relaxation therapy on anxiety, depression and stress among dialysis patients at Dialysis unit of Apollo Gleneagles Hospital, Kolkata. Non probability sampling technique was used to select 60 haemodialysis patients from renal unit of Apollo Gleneagles Hospital, Kolkata who were divided into 30 patients in experimental and 30 patients in control group. The experimental group was trained Benson's relaxation therapy. They performed Benson's relaxation

exercise twice a day for 15 minutes during the period of one month and observed the effect of it on anxiety, depression and stress by the investigators on day 8th, 15th, and day 30th. Data were collected from participants by using socio-demographic proforma, DASS 21 scale to assess anxiety, depression and stress and observational checklist to assess steps of Benson's relaxation therapy.

### RESULTS

**Table:1 Percentage Distribution of Stress, Depression and Anxiety Scores among Experimental and Control Group on 1st, 8<sup>th</sup>, 15<sup>th</sup>, and 30<sup>th</sup> Day N = 60, (nE=30, nC= 30)**

Observation	Mean Diff.	SD of Diff	t value	df	Remarks
Day 1-Day8	1.07	2.02	2.898*	29	Significant
Day1-Day 15	2.67	2.25	6.495*	29	Significant
Day 1- Day30	6.33	4.40	7.889*	29	Significant

t value with df 29 = 2.045,  $p < 0.05 \rightarrow$  \*significant

Data presented in table 2 showed that there were statistically significant differences in mean values of anxiety on 8th, 15th, 30th day compared to same of 1st day. So, the null hypothesis is rejected and research hypothesis is accepted. Hence it can be interpreted that there was an effect of relaxation therapy for significant reduction of anxiety level among experimental group.

**Table:2 Mean difference, SD Difference, t value and df of Depression Scores in Experimental group before and after Administration of Benson's Relaxation Therapy on 8th, 15th, 30<sup>th</sup> day.**

Observation	Mean Diff.	SD of Diff	t value	df	Remarks
Day 1-Day8	1.07	2.02	2.898*	29	Significant
Day1-Day 15	2.67	2.25	6.495*	29	Significant
Day 1- Day30	6.33	4.40	7.889*	29	Significant

t value with df 29 = 2.045,  $p < 0.05 \rightarrow$  \*significant

Data presented in table 2 showed that there were statistically significant differences in mean values of anxiety on 8th, 15th, 30th day compared to same of 1st day. So, the null hypothesis is rejected and research hypothesis is accepted. Hence it can be interpreted that there was an effect of relaxation therapy for

significant reduction of anxiety level among experimental group.

**Table:3 Mean difference, SD Difference, t value and df of Depression Scores in Experimental group before and after Administration of Benson's Relaxation Therapy on 8th, 15th, 30<sup>th</sup> day .N= 60, (nE= 30, nC= 30)**

Observation	SD of Diff	't' value	df	Remarks
Day 1-Day8	3.22	4.762*	29	Significant
Day1-Day 15	3.41	6.591*	29	Significant

**Table: 3 Mean difference, SD Difference, t value and df of Stress Scores in Experimental group before and after Administration of Benson's Relaxation Therapy on 8th, 15th, 30th day.**

Day of observation Variables	1st		8th		15th		30th	
	Experimental	Control	Experimental	Control	Experimental	Control	Experimental	Control
1. Stress								
Extremely severe	16.70	26.70	3.3	30	0	46.70	0	43.30
Severe	63.30	56.70	53.30	63.30	53.30	43.30	16.70	43.30
Moderate	20	13.30	30	3.30	26.70	6.70	56.70	10
Mild	0	0	13.30	3.30	16.70	3.30	16.70	3.30
Normal	0	3.30	0	0	3.30	0	10	0
2. Depression								
Extremely severe	90	70	76.70	70	66.70	83.30	60	90
Severe	10	30	16.70	30	26.70	16.70	26.70	10
Moderate	0	0	6.70	0	6.70	0	13.30	0
Mild	0	0	0	0	0	0	0	0
Normal	0	0	0	0	0	0	0	0
3. Anxiety								
Extremely severe	53.30	60	6.70	70	36.70	86.70	16.70	86.70
Severe	16.70	20	43.30	20	26.70	6.70	16.70	13.30
Moderate	20	20	26.70	10	23.30	6.70	43.30	0
Mild	6.7	0	23.30	0	10	0	10	0
Normal	3.30	0	6.70	0	3.30	0	13.30	0

t' value with df 29 = 2.045, p<0.05 → \*significant

Data in Table3 revealed that there was statistically significant differences in mean values of depression on 8th , 15th , 30th day compared to 1st day. So, the null hypothesis is rejected and research hypothesis is accepted. Hence it can be interpreted that there was an effect of relaxation therapy for significant reduction of depression level among experimental group.

**Table: 4 Mean difference, SD Difference, t value and df of Stress Scores in Experimental group before and after Administration of Benson's Relaxation Therapy on 8th, 15th, 30<sup>th</sup> day.**

Stress	Mean Diff.	SD of Diff	t' value	df	Significance
Day 1-Day8	2.83	3.04	5.103*	29	Significant
Day1-Day 15	4.27	3.39	6.888*	29	Significant
Day 1- Day30	7.33	3.42	11.754*	29	Significant

t' value with df 29 = 2.045, p<0.05 → significant

Data in Table4 revealed that there was statistically significant differences in mean values of Stress Scores on 8th , 15th , 30th day compared to 1st day. So, the null hypothesis is rejected and research hypothesis is accepted. Hence it can be interpreted that there was an effect of relaxation therapy for significant reduction of stress level among experimental group.

**Table: 5 Mean, Mean Difference, SD and t value of Anxiety Scores in Experimental group and Control group on 30th Day after Administration of Benson's Relaxation Therapy**

N= 60, (nE=30, nC= 30)

Group	Mean	Mean difference	Standard deviation	t'	Remarks
Experimental group	13.20	11.67	5.397	8.453*	Significant
Control group	24.87		5.296		

t' value with df(58)=2.003 P<0.05 \*significant

Day 1- Day30	3.74	10.247*	29	Significant
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t' value with df 29 = 2.045, p<0.05 → \*significant

Data in Table3 revealed that there was statistically significant differences in mean values of depression on 8th , 15th , 30th day compared to 1st day. So, the null hypothesis is rejected and research hypothesis is accepted. Hence it can be interpreted that there was an effect of relaxation therapy for significant reduction of depression level among experimental group.

Data presented in Table 5 showed that the mean post anxiety score of control group was greater than the mean post anxiety score of experimental group and there was statistically significant differences of mean values of anxiety scores between experimental and control group. Hence it can be interpreted that there was an effect of relaxation therapy for significant reduction of anxiety level among experimental group.

**Table6:Mean, Mean Difference, SD and t value of Depression Scores in Experimental group and Control group on 30th Day after administration of Benson's relaxation therapy N= 60, (nE=30, nC= 30)**

Group	Mean	Mean difference	Standard deviation	t' value	Remarks
Experimental group	27.20	7.13	5.372	5.177*	Significant
Control group	34.33		5.460		

t' df(58)=2.003 P<0.05 \*significant

Data presented in Table 6 showed that the mean post depression score of control group was greater than the mean post depression score of experimental group and there was statistically significant differences of mean values of depression scores between experimental and control group. Hence it can be interpreted that there was an effect of relaxation therapy for significant reduction of depression level among experimental group.

**Table:7 Mean, Mean Difference, SD and t value of Stress scores in control group and Experimental group on 30th Day after administration of Benson's relaxation therapy = 60, (nE=30, nC= 30)**

Observation	Mean	Mean difference	Standard deviation	t' value	Remarks
Experimental group	21.20	10.47	4.859	8.453*	Significant
Control group	31.67		4.787		

t' df(58)=2.003 P<0.05 \*significant

Data depicted in Table 7 revealed that the mean post stress score of control group was greater than the mean post stress score of experimental group and there was statistically significant differences of mean values of stress scores between experimental and control group. Hence it can be interpreted that there was an effect of relaxation therapy for significant reduction of stress level among experimental group.

## DISCUSSION

In the present study mean difference of post anxiety, depression and stress score on 30th day between experimental and control group was 2.54, 1.73 and 1.80 respectively and it was found statistically significant at 0.05 level of significance. According to findings of the study Benson's Relaxation was effective measures in decreasing the anxiety, depression and stress of dialysis patients which was congruent with the results of the studies conducted by N Hesmatifar, H Sadeghi, A Mahadavi et.al and F Kiani, M A H Zadeh et.l who investigated to see the effect of Benson's Relaxation on anxiety, depression and stress undergoing hemodialysis patients. Their study findings revealed that Benson's relaxation therapy reduce anxiety, depression and stress among dialysis patients.

## CONCLUSION

The present study can be concluded on the basis of objectives that the Benson's relaxation therapy has an effect on reducing anxiety, depression and stress among dialysis patients.

## Conflict of interest: None

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