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RESEARCH ARTICLE

EFFECTIVENESS OF PROGRESSIVE MUSCLE RELAXATION TECHNIQUE ON STRESS, ANXIETY AND DEPRESSION AMONG PATIENTS UNDERGOING CANCER TREATMENT IN PUDUCHERRY CANCER TRUST HOSPITAL AND RESEARCH CENTRE AT PUDUCHERRY

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ABSTRACT

Cancer is the second most serious health problem and the second leading cause of death in human. The cancer patient undergoing treatment experiences Physical and Psychological problem. The physical problems, like hair loss, nausea and vomiting and initial diagnostic phase can be very stressful. The cancer patient undergoing treatment experiences a psychological distress including anger, anxiety, sadness, fear, stress, feeling out of control, feelings of depression, impairment of concentration, sleep disorders, mental and cognitive reservation and psychiatric disorders. In India the cancer patient undergoing treatment were having the depressive disorders 4.5%, anxiety disorders 3%, stress disorder 4% in total population. Progressive Muscle Relaxation Technique is help to reduce the stress, anxiety and depression among cancer patient to promote general wellbeing. A study to assess the Effectiveness of Progressive Muscle Relaxation Technique on Stress, Anxiety and Depression among Patients undergoing Cancer Treatment in Puducherry Cancer Trust Hospital and Research Centre at Puducherry. The Research design chosen for this study was Quasi – Experimental Design (One group pre-test and post-test design). The study conducted in selected Hospital at Puducherry. The population includes the patient undergoing cancer treatment are taken as population and out of that 60 patients were selected for this study. The sampling technique used for this study is Simple Random Sampling technique (Lottery method). The Frequency and Percentage distribution are used to assess the Pre-test and Post-test level of stress, anxiety and depression among patients, Wilcoxon Signed Ranks test are used to evaluate the Effectiveness of Progressive Muscle Relaxation Technique on level of Stress, Anxiety and Depression among patients and Chi-square test to associate the level of Stress, Anxiety and Depression with the selected demographic variables of Patient Undergoing Cancer treatment.

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INTRODUCTION

Cancer is the second most serious health problem and the second leading cause of death in human. The cancer patient undergoing treatment experiences Physical and Psychological problem. The physical problems, like hair loss, nausea and vomiting and initial diagnostic phase can be very stressful. The cancer patient undergoing treatment experiences a psychological distress including anger, anxiety, sadness, fear, stress, feeling out of control, feelings of depression, impairment of concentration, sleep disorders, mental and cognitive reservation and psychiatric disorders. The incidence of cancer is rising steadily and there are about one in three people diagnosed during their lifetime. Patients with cancer have a high rate of psychiatric co-morbidity; approximately one-half exhibit emotional difficulties.

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The psychological complications generally take the form of depressed mood, anxiety, Stress and impoverished life satisfaction, or loss of self-esteem. Depression, anxiety and stress is the most common psychological disorder in cancer patients. Cancer-related depression is a pathological affective response to loss of normality and one's personal world as a result of cancer diagnosis, treatment, or impending complications. A long course of treatment, repeated hospitalizations, and the side-effects of chemotherapy along with the stigma of being diagnosed with cancer has a significant effect on the psyche of the cancer patients. Cancer and subsequent chemotherapy can have an additive effect in causing depression in cancer patients who underwent chemotherapy than in patients who had not received chemotherapy. Several studies have indicated that such depression not only causes great suffering but also diminishes the quality of life, amplifies pain and other symptoms, decreases adherence to anti-cancer treatments, leads to suicide in certain cases.

There are many type of treatments are available for cancer such as chemotherapy, radiation therapy, surgery and complementary therapy. Progressive Muscle Relaxation is the best complementary therapy which having effective results in treatment of cancer and also its is non pain full treatment with no side effects, complication for the cancer patients and also is very cost effective treatment methods among all the complementary therapies. Progressive Muscle Relaxation having effective results of treating the physical illness and psychological problem like nausea and vomiting and initial diagnostic phase can be very stress anxiety and depression. And it can cause a great deal of psychological turmoil, including sadness, fear, feeling out of control, fatigue stress and insomnia.

Need for the study: Cancer is one of the major leading causes of morbidity and mortality worldwide. It is one of the most stressful events when a person is diagnosed as cancer and it worsen the individuals' quality life. It has high prevalence of depression, anxiety and stress and their severity among various cancer patients. In 2016, 322 million people are living with depression and anxiety worldwide and nearly half of them live in South East Asian and Western Pacific region, reflecting relatively large populations of India and China. "The total number of people living with depression, anxiety in the world is 322 million. The total estimated number of people living with depression increased by 18.4% between 2005 and 2017. In India the cancer patient undergoing treatment were having the depressive disorders 4.5%, anxiety disorders 3%, stress disorder 4% in total population.

In 2016 the state wise cancer cases

- Uttra Pradesh - 96.2% cancer cases,
- Bihar - 89.4%
- Andhra Pradesh - 48.6%
- Karnataka - 57.8%
- Kerala - 32.5%
- Tamilnadu - 64.4%
- Puducherry – 16.8%

Tamilnadu cancer patient having 56% of depression, 43.8% of stress and 63.8% of anxiety in cancer cases. Progressive Muscle Relaxation Technique is help to reduce the stress, anxiety and depression among cancer patient to promote general wellbeing.

Statement of the problem: Effectiveness of Progressive Muscle Relaxation Technique on Stress, Anxiety and Depression among Patients undergoing Cancer Treatment in Puducherry Cancer Trust Hospital and Research Centre at Puducherry **.**

General Objectives

- To assess the level of Stress, Anxiety and Depression among Patients undergoing Cancer treatment.
- To evaluate the effectiveness of Progressive Muscle Relaxation Technique on Stress, Anxiety and Depression among Patients undergoing Cancer treatment.
- To associate the level of Stress, Anxiety and Depression among Patients undergoing Cancer treatment with selected demographic variables.

Hypotheses

- **H_1** - There is a difference in the level of Stress, Anxiety and Depression before and after Progressive Muscle Relaxation Technique among Patients undergoing Cancer treatment.
- **H_2** - There is an association between the level of Stress, Anxiety and Depression among Patients undergoing Cancer treatment with selected demographic variables.

MATERIALS AND METHODS

Research design: Quasi – Experimental Design (One group pre-test and post-test design) design was used for this study.

Research approach: The quantitative research approach was used for this study.

Sample: Patients who are taking cancer treatment at the selected Hospital, and who fulfills the inclusion criteria.

Sample size: The sample size for this study was 60 patients.

Sample technique: The target population who fulfill the inclusion criteria are selected and sample selected by using Simple Random Sampling Technique (Lottery Method).

Research Variables

Independent variable: Progressive Muscle Relaxation Technique

Dependent variable: Stress, Anxiety and Depression

Sample selection criteria

Inclusion criteria

- Patients undergoing Cancer treatment with the age above 25 years
- Patients undergoing Cancer treatment those who having the symptoms of Stress, Anxiety and Depression
- Patients undergoing Cancer treatment who knows Tamil and English.

Exclusion criteria

- Patients undergoing Cancer treatment who are suffering with Psychiatric Illness.
- Patients undergoing Cancer treatment who are suffering with any Physical injuries
- (Burns and Undergoing any Surgery).
- Patients undergoing Cancer treatment who are not willing to participate in this Study

Population: Population of study will be Patients undergoing cancer treatment at selected Hospital at Puducherry.

Description of tool: It consists of two parts: Section A, Section B

Section A: Items on The demographic variables include age, sex, religion, educational status, marital status, source of

income, mode of admission, duration of treatment taken, number of children and family support**.**

Section B: Depression, Anxiety and Stress Scale

The Depression, Anxiety and Stress Scale - 21 Items (DASS-21) is a set of three self-report scales designed to measure the emotional states of depression, anxiety and stress. DASS-21 scales contains of the three division and each division contains 7 items, divided into subscales with similar content. Scores for depression, anxiety and stress are calculated by summing the scores for the relevant items. Totally 21 items are there in DASS-21.Each item is scored on a rate number 0, 1, 2 or 3 which indicates how much the statement applied to you over the past week. There is no right or wrong answers

Scoring interpretation: The score on DASS-21 will need to be multiplied by 2 to calculate the final score.

Plan for data collection: The data was collected after obtaining formal permission from the concern authorities, the investigator obtained the informed consent from the patients after explaining about the study procedure regarding their willingness to participate in the study and subjects were made by comfortable and relaxed while participating the study. One to One interview method was used to collect the data with the help of standardized tool.

Phase 1: Through the interview method, pre-test level of stress, anxiety and depression was assessed by using Depression Anxiety Stress Scale (DASS).

Phase 2: 60 Patients undergone Cancer treatment were selected and Progressive Muscle Relaxation Technique was administered for the duration of 20 min daily for 21 days.

Phase 3: Post-test level of stress, anxiety and depression was assessed after 21 days of Progressive Muscle Relaxation Technique intervention with Depression Anxiety Stress Scale (DASS) and the data were analyzed in terms of both descriptive and inferential statistics.

Plan for data analysis: Data will be obtained from the sample will be organized and summarized with to the descriptive and inferential statistics.

Section A: Distribution of demographic variables of Patients undergone Cancer treatment with Stress, Anxiety and Depression. This table Describes the frequency and distribution of demographic variables of patients undergoing cancer treatment such as age, sex, religion, educational status, marital status, source of income, mode of admission, duration of treatment taken, number of children and family support**.**

Section B: Assessment of Pre-test and Post-test level of Stress, Anxiety and Depression among Patients undergone Cancer treatment.

Assessment of Pre-test and Post-test level of Stress among Patients undergone Cancer treatment

The above table and graph reveals that, out of 60 Patients undergone Cancer treatment, 3 (5%) of them have moderate level of stress, 24 (40%) of them had severe level of stress and 33 (55%) of them had extremely severe level of stress. After Progressive Muscle Relaxation Technique for 21 days, the level of stress reduced to normal level of stress among 50(83.3.%) of patients, mild level of stress among 9 (15%) of patients and moderate level of stress among 1 (1.70%) of the patients.

Assessment of Pre-test and Post-test Level of Anxiety among Patients undergone Cancer treatment: The above table and graph reveals that, out of 60 Patients undergone Cancer treatment, 4 (6.70%) of them have moderate level of anxiety, 25 (41.70%) of them had severe level of anxiety and 31 (51.70%) of them had extremely severe level of anxiety. After Progressive Muscle Relaxation Technique for 21 days, the level of anxiety reduced to normal level of anxiety among 54(90%) of patients, mild level of anxiety among 6 (10%) of the patients.

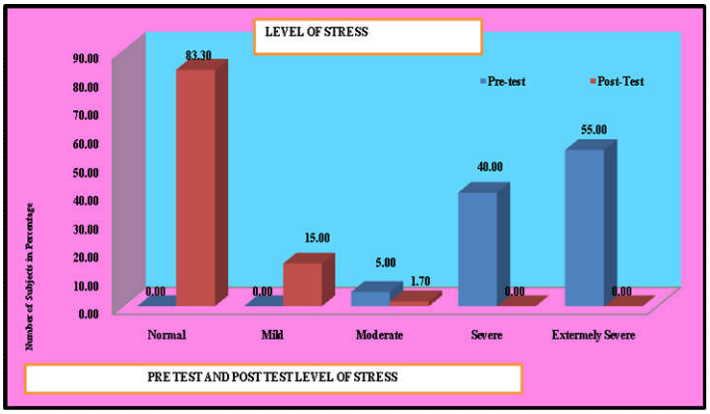
Assessment of Pre-test and Post-test Level of Depression among Patients undergone Cancer treatment: The above table and graph shows that the post-test level of stress median score (5) was significantly less than the pre-test level of stress median score (17.5) by using Wilcoxon Signed Ranks test (6.742) and indicates that Progressive Muscle Relaxation Technique is significantly effective in reducing stress at $P < 0.001$. The above table shows that there is a significant association between the level of stress was associated with residential area at $p < 0.001$, with the mean score 17 urban and 12 rural area people. It shows that Urban people having more stress than the people residential to rural area. The above table shows that there is a significant association between the level of anxiety with selected demographic variables such as occupation, educational status, monthly income of family.

The above figure shows that anxiety was associated with the occupation of Patients undergone Cancer treatment with the mean score of 12.5 Private employee, 10 Government employee and business people, 8.5 Home maid and 8 Daily wages people. It shows that Private employee, Government employee and business people were having more anxiety than the Home maid and Daily wages people at $p<0.001$. The above figure shows that anxiety was associated with the education status of Patients undergone Cancer treatment with the mean score of 12.5 Higher secondary education, 10.5 Graduate and 9 Primary education people. It shows that patient with Higher secondary education, Graduate and Primary education people were having more anxiety than the other people at $p<0.001$. The above figure shows that anxiety was associated with monthly income of Patients undergone Cancer treatment with the mean score of 12 having more than10000, 9 having patient with 5000 to 10000 monthly income people. It shows that people earning high income were having more anxiety than the people having low monthly income at $p<0.001$.The above table shows that there is a significant association between the level of depression with selected demographic variables such as dietary pattern, Type of family. The above figure shows that depression was associated with dietary pattern of Patients undergone Cancer treatment with the mean score of 17 for vegetarian people, 14 for non-vegetarian people. It shows that vegetarian people were having more depression than the non-vegetarian people at $p<0.001$. The above figure shows that depression was associated with Family Type of Patients undergone Cancer treatment with the mean score of 15 for people in nuclear family, 12 for people in joint family type. It shows that people in nuclear family were having more depression than the people in joint family at $p<0.001$.

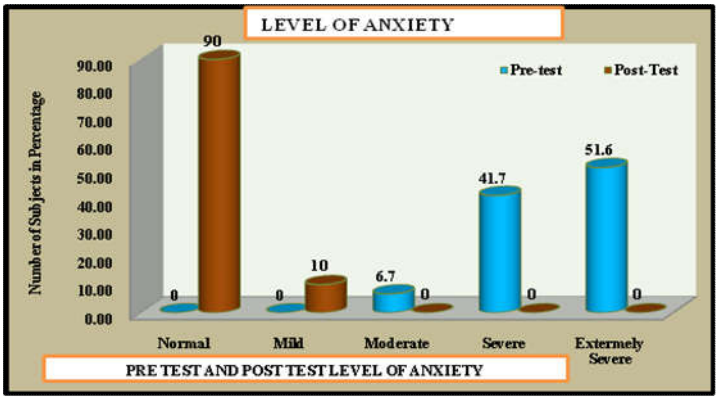
CATEGORY	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely Severe	28+	20+	34+

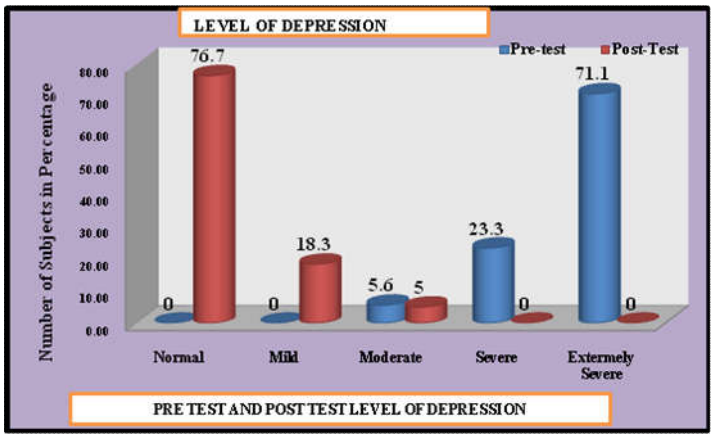
SL.NO	DEMOGRAPHI VARIABLES	NO.OF: PERSON (n)	PERCENATGE %
1	Age in Years		
	25-35	1	1.7
	36-45	21	35
	46-55	27	45
	56-65	11	18.3
2	Sex		
	Male	18	30
	Female	42	70
3	Religion		
	Hindu	37	61.7
	Muslim	10	16.7
	Christian	13	21.7
4	Highest Educational Status		
	No formal education	9	15
	Primary education	4	6.7
	Higher education	11	18.3
	Higher secondary education	26	43.3
	Graduate and above	10	16.7
5	Present Occupational status		
	Unemployed	6	10
	Business	7	11.7
	Private employee	34	56.7
	Government employee	3	5
	Daily wages	10	16.7
6	Monthly income		
	< 2000	4	6.7
	2001 – 5000	6	10
	5001 – 10000	9	15
	10001 <	41	68.3
7	Dietary pattern		
	Vegetarian	3	5
	Non-Vegetarian	57	95
8	Marital status		
	Unmarried	1	1.7
	Married	49	81.7
	Divorced	2	3.3
	Widow/Widower	8	13.3
9	Number of child		
	Nil	4	6.7
	One child	17	28.3
	Two child	30	50
	More than Two child	9	15
10	Type of family		
	Nuclear	55	91.7
	Joint	5	8.3
11	Residential area		
	Urban	31	51.7
	Rural	29	48.3
12	Financial Resources		
	Governmental aid	2	3.3
	NGO	1	0
	Pension money	28	1.7
	Family member	29	46.7
	Insurance	60	48.3
13	Any previous illness		
	Yes	28	46.7
	No	32	53.3
14	If yes mention the illness		
	Diabetes	6	10
	Hypertension	15	25
	Cardiac problem	6	10
	Respiratory Problem	1	1.7
	Any other illness	0	0
15	Frequency of treatment taken		
	Daily	50	83.3
	Weekly once	0	0
	Weekly Twice	10	16.7
	Two weeks once	0	0
	Monthly once	0	0
16	Duration of total treatment taken for cancer at hospital		
	< 1 Year		
	1-3 Years	1	1.7
	4-5Years	31	51.7
	> 5 Years	24	40
		4	6.7
17	Mode of transport		
	Two wheeler	3	5
	Route bus	44	73.3
	Hospital vehicle/ Van	10	16.7
	Car	3	5

LEVEL OF STRESS	Pre-Test		Post-Test	
	Frequency	Percentage %	Frequency	Percentage %
Normal	0	0	50	83.3
Mild	0	0	9	15.0
Moderate	3	5.0	1	1.7
Severe	24	40.0	0	0
Extremely Severe	33	55.0	0	0



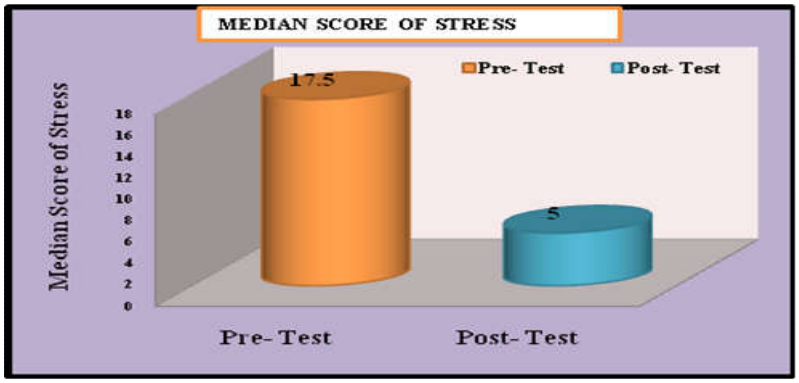
LEVEL OF ANXIETY	Pre-Test		Post-Test	
	Frequency	Percentage %	Frequency	Percentage %
Normal	0	0	54	90
Mild	0	0	6	10
Moderate	4	6.7	0	0
Severe	25	41.7	0	0
Extremely Severe	31	51.7	0	0





Level of Stress	Median	Wilcoxon Signed Ranks Test	p-value
Pre- Test	17.5	6.742	<0.001
Post- Test	5		***HSS

***HSS – Highly Statistically Significant



Level of Anxiety	Median	Wilcoxon Signed Ranks Test	p-value
Pre- Test	10	6.746	<0.001
Post- Test	2		***HSS

***HSS – Highly Statistically Significant

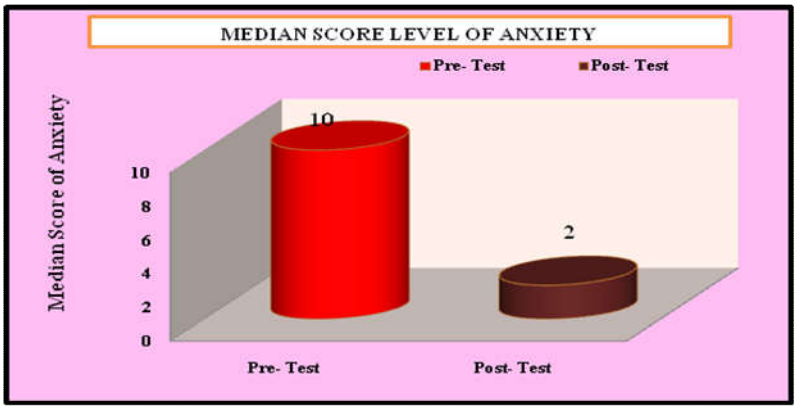
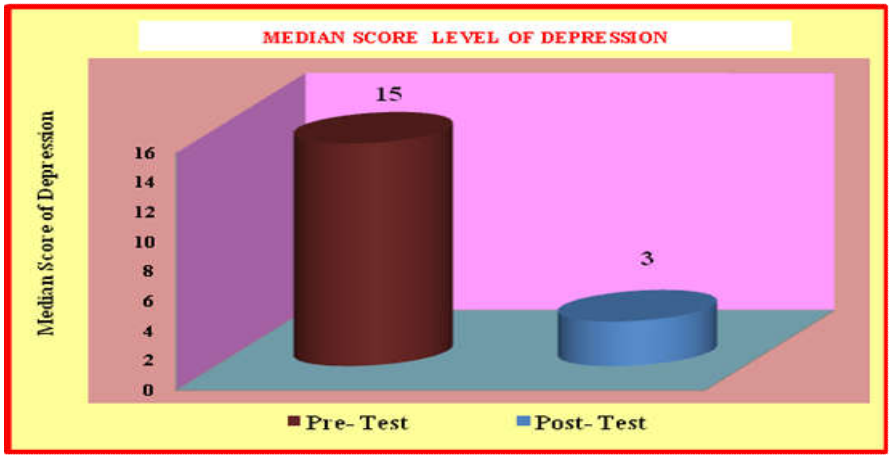


Table 4.3.3. Effectiveness of Progressive Muscle Relaxation Technique on Level of Depression among Patients undergone Cancer treatment

Level of Depression	Median	Wilcoxon Signed Ranks Test	p-value
Pre- Test	15	6.752	<0.001
Post- Test	3		***HSS

***HSS – Highly Statistically Significant



RESULTS

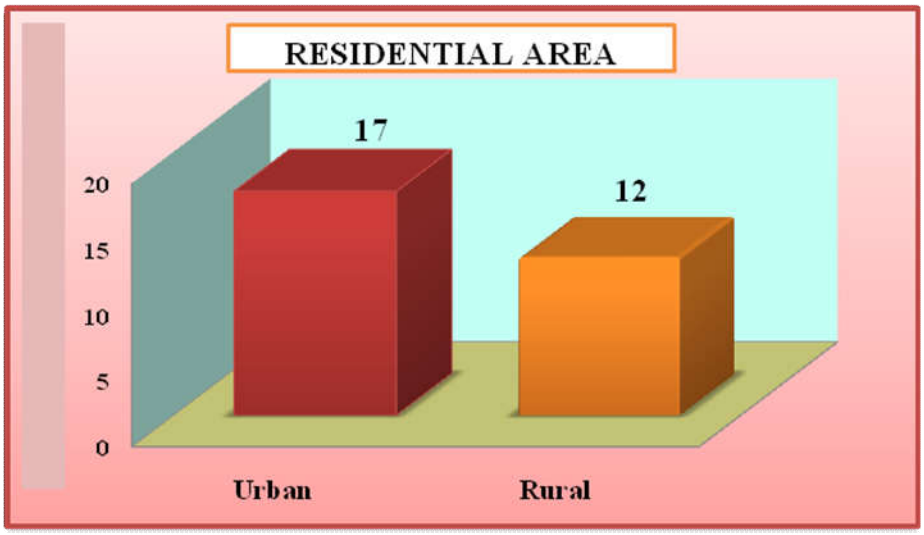
The study finding shown that the Post-test level of Stress among patients undergone cancer treatment median score (5) are significantly less than the Pre-test level of Stress median score (17.5). The Post-test level of Anxiety median scores (2) are significantly less than the Pre-test level of Anxiety median scores (10).

The Post-test level of Depression median scores (3) are significantly less than the Pre-test level of Depression median scores (15) by using Wilcoxon Signed Rank test (6.752). This study reveals that progressive muscle relaxation technique has highly statistical significance in reduction of stress, anxiety and depression among patients undergone cancer treatment at P <0.001.

Association between the Level of Stress among Patients undergone Cancer treatment with their selected Demographic Variables

DEMOGRAPHIC VARIABLES		N	STRESS		Chi square	p-value
			Mean	Median		
Age in Years	25-35	4	17.25	17	1.8722	0.5994 NS
	36-45	20	16.6	16.5		
	46-55	27	17.37	18		
	56-65	9	16.67	16		
Sex	Male	18	16.89	16	0.2914	0.5893 NS
	Female	42	17.05	18		
Religion	Hindu	37	17.11	18	1.1428	0.5647 NS
	Muslim	10	16.5	16		
	Christian	13	17.08	17		
Highest Educational Status	No formal education	9	16.22	16	7.9049	0.0951 NS
	Primary education	4	15	15		
	High School education	11	17.45	16		
	Higher Secondary education	26	17.23	18		
	Graduate and above	10	17.4	16.5		
Present Occupational status	Unemployed	6	16.17	16	5.5862	0.2323 NS
	Business	7	17.71	18		
	Private employee	34	17.21	18		
	Government employee	3	17.67	19		
	Daily wages	10	16.1	15.5		
Monthly income	< 2000	4	17	17	2.2936	0.5137 NS
	2001 - 5000	6	16.33	16		
	5001 - 10000	9	16.33	16		
	10001 <	41	17.24	18		
Dietary pattern	Vegetarian	3	16.33	18	0.0296	0.8635 NS
	Non-Vegetarian	57	17.04	17		
Marital status	Unmarried	1	16	16	4.5972	0.2038 NS
	Married	49	17.14	18		
	divorced	2	18.5	18.5		
	Widow/Widower	8	15.88	15		
Number of child	Nil	4	17	17.5	2.9941	0.3925 NS
	One child	17	17.41	18		
	Two child	30	17.03	18		
	More than Two child	9	16.11	16		
Type of family	Nuclear	55	16.98	18	0.009	0.9999 NS
	Joint	5	17.2	17		
Residential area	Urban	4	17.25	17	18.0722	0.004 HSS
	Rural	20	12.4	12		
Financial Resources	Governmental aid	2	16.5	16.5	0.6252	0.8906 NS
	NGO	0	0	0		
	Pension money	1	16	16		
	Family member	28	16.96	18		
	Insurance	29	17.1	17		
Any previous illness	Yes	28	16.61	16	1.6504	0.1989 NS
	No	32	17.34	18		
If yes mention the illness	Diabetes	6	17	17	0	0 NS
	Hypertension	15	15.93	16		
	Cardiac problem	6	17.5	18.5		
	Respiratory Problem	1	19	19		
	Any other illness	32	17.34	18		
Frequency of treatment taken	Daily	50	17.12	18	0.6153	0.4328 NS
	Weekly once	0	0	0		
	Weekly Twice	10	16.4	16.5		
	Two weeks once	0	0	0		
	Monthly once	0	0	0		
Duration of total treatment taken for cancer at hospital	< 1 Year	1	18	18	1.1614	0.7623 NS
	1-3 Years	31	16.77	16		
	4-5Years	24	17.17	18		
	> 5 Years	4	17.5	17.5		
Mode of transport	Two wheeler	3	16	16	3.9908	0.2625 NS
	Route bus	44	17.23	18		
	Hospital vehicle/ Van	10	16.7	16.5		
	Car	3	15.67	16		

NS – Non Significant; S – Significant; HSS – Highly Statistically Significant



Association between the Level of Anxiety among Patients undergone Cancer treatment with their selected Demographic Variables

DEMOGRAPHIC VARIABLES		N	DEPRESSION		Chi square	p-value
			Mean	Median		
Age in years	25-35	4	14.5	14.5	5.5463	0.1359 NS
	36-45	20	15.35	16		
	46-55	27	14.96	15		
	56-65	9	13.44	13		
Sex	Male	18	14.83	15	0.0067	0.9999 NS
	Female	42	14.83	15		
Religion	Hindu	37	15.08	15	3.8203	0.1481 NS
	Muslim	10	13.4	13		
	Christian	13	15.23	15		
Highest Educational Status	No formal education	9	14.78	15	4.6359	4.6359 NS
	Primary education	4	13.25	14.5		
	High School Education	11	13.82	14		
	Higher Secondary education	26	15.54	15		
	Graduate and above	10	14.8	15		
Present Occupational status	Unemployed	6	14.83	15.5	3.6373	0.4573 NS
	Business	7	13.86	14		
	Private employee	34	15.15	15		
	Government employee	3	15.67	15		
	Daily wages	10	14.2	15		
Monthly income	< 2000	4	15.25	15.5	4.4491	0.2169 NS
	2001 – 5000	6	14	15		
	5001 – 10000	9	13.33	14		
	10001 <	41	15.24	15		
Dietary pattern	Vegetarian	3	17.33	17	18.622	0.003 HSS
	Non-Vegetarian	57	14.3	14		
Marital status	Unmarried	1	13	13	4.2564	0.2351 NS
	Married	49	15.1	15		
	Divorced	2	12.5	12.5		
	Widow/Widower	8	14	15		

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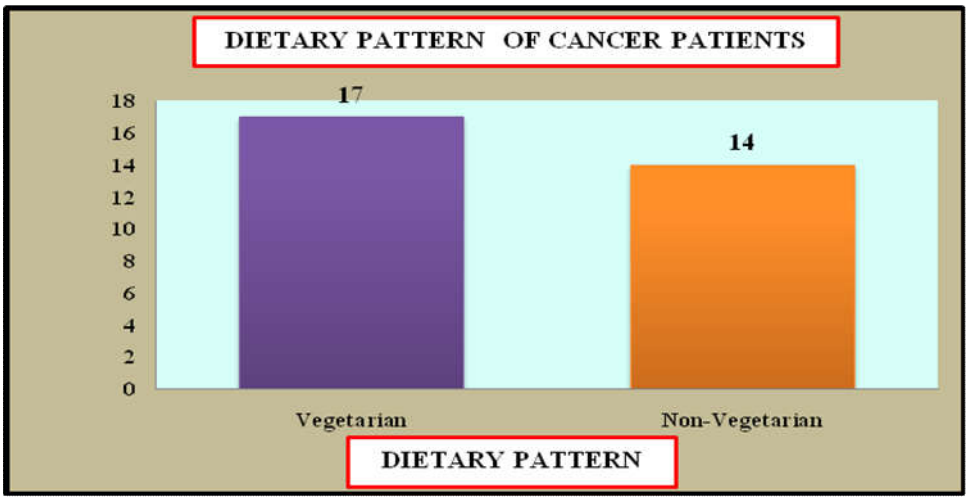
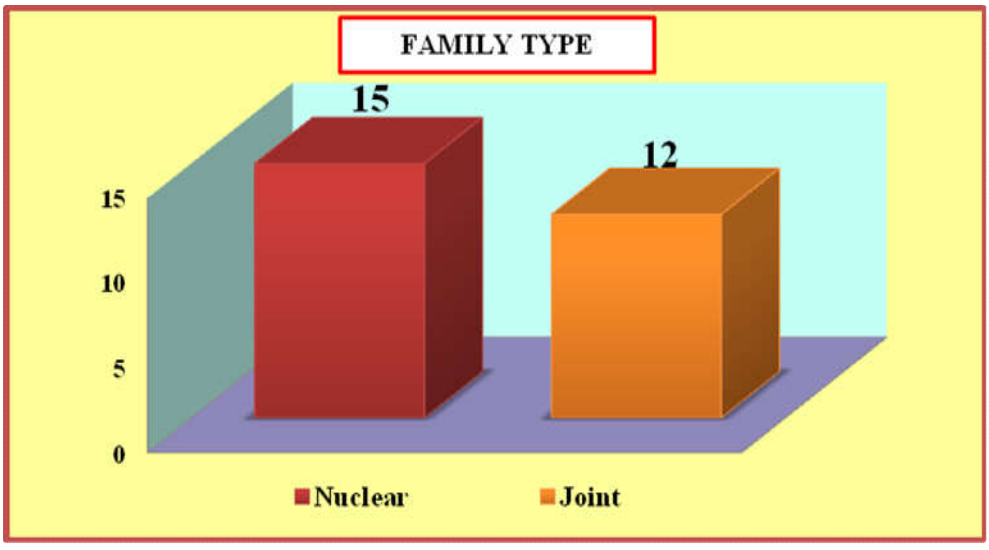
Number of child	Nil	4	12	12	4.8114	0.1861 NS
	One child	17	15.06	15		
	Two child	30	15	15		
	Two child	9	15.11	15		
Type of family	Nuclear	55	14.84	15	19.581	0.0002 HSS
	Joint	5	12.3	12		
Residential area	Urban	31	14.5	14.5	5.3915	0.1453 NS
	Rural	29	15.35	16		
Financial Resources	Governmental aid	2	14.5	14.5	1.0673	0.785 NS
	NGO	0	0	0		
	Pension money	1	14	14		
	Family member	28	15.14	15		
	Insurance	29	14.59	15		
Any previous illness	Yes	28	14.54	15	0.785	0.8334 NS
	No	32	15.09	15		
If yes mention the illness	Diabetes	6	14.33	14.5	0	0 NS
	Hypertension	15	14.53	15		
	Cardiac problem	6	14.5	15		
	Respiratory Problem	1	16	16		
	Any other illness	32	15.09	15		
Frequency of treatment taken	Daily	50	14.82	15	0.005	0.9999 NS
	Weekly once	0	0	0		
	Weekly Twice	10	14.9	15		
	Two weeks once	0	0	0		
	Monthly once	0	0	0		
Duration of total treatment taken for cancer at hospital	< 1 Year	1	14	14	4.329	0.2281 NS
	1-3 Years	31	14.52	15		
	4-5Years	24	15.58	15		
	> 5 Years	4	13	13		
Mode of transport	Two wheeler	3	14.67	15	0.1545	0.9846 NS
	Route bus	44	14.82	15		
	Hospital vehicle/ Van	10	14.9	15		
	Car	3	15	15		

NS – Non Significant; S – Significant; HSS – Highly Statistically Significant





Conclusion

The research study was done in a view to assess the Effectiveness of Progressive Muscle Relaxation Technique on Stress, Anxiety and Depression among Patient undergoing Cancer treatment at Puducherry Cancer Trust Hospital and Research Centre, Puducherry. The study was done with 60 samples in selected hospital. The present findings of this study reveal the Frequency and Percentage distribution of subjects by Pre-test and Post-test Level of stress, anxiety and depression and Effectiveness of progressive muscle relaxation technique on Stress, Anxiety and Depression score after administration of progressive muscle relaxation technique among patient undergone cancer treatment at selected hospital. Thus, this study proves that progressive muscle relaxation technique was effective in reduction of stress, anxiety and depression among patients undergone cancer treatment.

REFERENCES

American Cancer Society | Information and Resources about for Cancer: Breast, Colon, Lung, Prostate, Skin. https://www.cancer.org.

Brendan T *et al*., 2015. Study to assess the prevalence depression and anxiety in cancer patients *National Journal Of Community Medicine.* Volume 2 Issue 1 17.

Caroline Burgess *et al*., 2015. Progressive muscle relaxation on stress, anxiety among female cancer patient with breast cancer. *Int. Journal of Health Science.,* 12(4): 14-5.

Dalbirkaur, *et al*. 2014. "Prevalence of anxiety and its correlates among older adults" *IOSR Journal of Health Science,* 3(6).e-ISSN:2320-1959.

Fahimeh Kashani *et al*., 2013. Quasi experimental study on relaxation technique on depression, anxiety and stress among breast cancer. *Br J Psychiatry.,* P: 38- 41.

King, I.M. 1971. Toward a theory for Nursing: General Concepts of Human Behavior. New York: Wiley.

Lolak S. *et al*., 2012. This prospective study to examined progressive muscle relaxation (PMR) training on anxiety and depression breathing difficulty patient. *Ind J medicine* ., P.32 - 3.

Lovibond, S.H. and Lovibond, P.F. 1995. Manual for the Depression Anxiety and Stress Scales. (2nd Ed.) Sydney: Psychology Foundation.

Mary Jane Massie, 2014. Descriptive study on assess the depression among cancer patient, *Nurse J India*.

Mathew S. C. *et al*., 2016. Progressive muscle relaxation for stress among third stage of cancer patient. *Int. Journal of Nursing,* 5(6):16-21.

Raja Paramjeet Banipal Singh *et al*., 2015. Observational study stress, anxiety and depression among cancer patient. *AP J Psycho Med.,* P.23-5.

Stark D. *et al*. 2016. Progressive muscle relaxation on stress, anxiety among cancer patient. *IOSR Journal of Health Science,* 10(4): 24-1.

Sutanay Bhattacharyya *et al*., 2016. Progressive muscle relaxation for stress among cancer patient. *Nitte Nursing J.,* July;3(6):10-14.

Tribute to the theorists: Imogene M. King over the years. Nurse science, July 2007:198, doi: 10.1177.

Yuk Lung Cheung *et al*., Quasi experimental study to determine the effect of progressive muscle relaxation on anxiety and quality of life in colorectal cancer patients, *Am J Public Health*., 204. P: 28–33.

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