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Effectiveness of Progressive Muscle Relaxation Technique in Reducing the Levels of Anxiety, Nausea and Vomiting for Cancer Patients Receiving Chemotherapy

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ABSTRACT; Cancer is a life threatening health problem in India and World wide. Thou cancer is curable in early stages, owing to late diagnosis and inappropriate management, cancer cases increase the high mortality rate. Even though ,Chemotherapy is one of the best treatment for cancer, it gives many side effects and discomforts for patients who receives chemotherapy.Hence the Investigator done the study on reducing the levels of anxiety,nausea and vomiting by administering progressive muscle relaxation techniques.

KEYWORDS; Cancer, Chemotherapy Progressive Muscle Relaxation Technique, Anxiety,Nausea,Vomiting,

I. INTRODUCTION

The advancement of science and technology in the modern World increased the life expectancy of the population. Adopting people lifestyle into their technological advancements creates both increase in the longevity of people and at the same time they also put at the greatest risk to chronic diseases. Cancer is an important public health concern in India and throughout the world. There is a special challenge inherent in caring for people with cancer, because the 'word "cancer" is often equated with pain and death in our society. Though cancer is curable in its early stages, owing to late diagnosis and inappropriate management ,cancer cases increase the high mortality rate. In 2004 WHO estimated that 6 million people world wide die annually from cancer. Also it estimates that new cancer cases would exceed 10million with 62% of these cases throughout the world.

The national cancer registry data in 2005estimated that the new cases globally were 53,72,225 males and 46,46,128 females. Chennai population based cancer Registry 2001 in India estimated that the males affected with cancer were about 93,000 and female about 413,000 and in Tamil Nadu males were about 26,700per 33 million populations and female were about 30,500 per 32 million populations. Today cancer treated by various modalities such as radiotherapy,chemotherapy,brachytherapy and surgical intervention.

So Progressive muscle relaxation technique in reducing the levels of these side effects are proved to be effective.

II. OBJECTIVES & HYPOTHEIS

OBJECTIVES

- 1.Assess the level of anxiety ,Nausea and vomiting scores before and after administering Progressive muscle relaxation technique for cancer patients receiving chemotherapy.
- 2.To compare the levels of mean anxiety ,Nausea and vomiting scores in pre and post test scores for cancer patients receiving chemotherapy.
- 3.To Associate the level of anxiety, Nausea and vomiting scores with selected demographic variables.

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HYPOTHEIS

1. Mean anxiety, Nausea and Vomiting scores after the use of progressive muscle relaxation technique will be significantly lower than the Mean anxiety, Nausea and Vomiting scores before the use of progressive muscle relaxation technique among cancer patients receiving chemotherapy.
2. There will be significant relationship between the anxiety, Nausea and vomiting with their selected demographic variables among cancer patients receiving chemotherapy.

III. METHODOLOGY

Evaluative Research approach was used to conduct this study. Quasiexperimental research design with one group pre and post test design was adopted for the research design. Population comprised of all the hospitalized oncology patients receiving chemotherapy who fulfil the inclusion criteria with 50 sample by using purposive sampling technique in Dr. Rai Memorial Hospital and Dr. Kamatchi memorial hospital, Chennai. The instrument consists of demographic variables, State anxiety inventory form I and Duke descriptive scale for nausea and vomiting. State anxiety score of both positive and negative items were added to get a total score on this scale, higher the score on this scale thought to indicate a higher feeling of anxiety. Duke descriptive scale consists of two categories such as nausea and vomiting. Each subscale range from 0-4 scores with the higher the score higher the level of nausea and vomiting.

ANALYSIS:

Analysis and interpretation of the data were based on collection of the data through purposive sampling. In order to analyze the demographic data descriptive statistics like frequency and percentage were used. To assess the effectiveness of progressive muscle relaxation in reducing the levels of anxiety, nausea, vomiting the statistical method was used inferential statistics such as paired student T-test, to found out the association with the demographic variables Chi-square was used.

IV. RESULTS

During pre test the mean anxiety score was 62.86 where as in the post test its dramatically reduced to 30.50 with SD of 7.64 & 4.53 respectively. This dramatic reduction of state anxiety score tells that there was effectiveness of progressive muscle relaxation technique in reducing the levels of anxiety for cancer patients receiving chemotherapy.

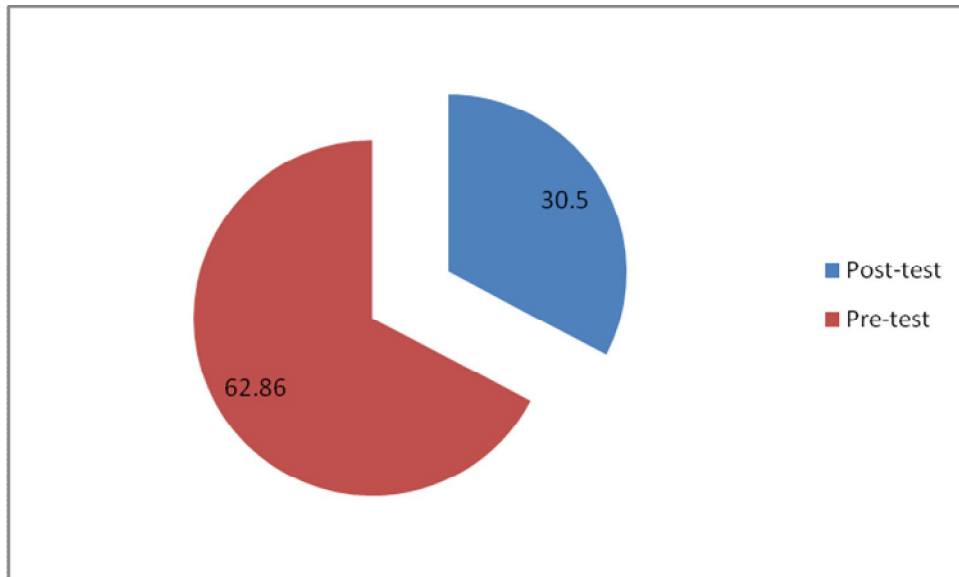
State Anxiety Score	Mean	SD	Paired t Test
Pre Test	62.86	7.64	t = 32.6 p => 0.001 **
Post Test	30.50	4.53	

** highly significant

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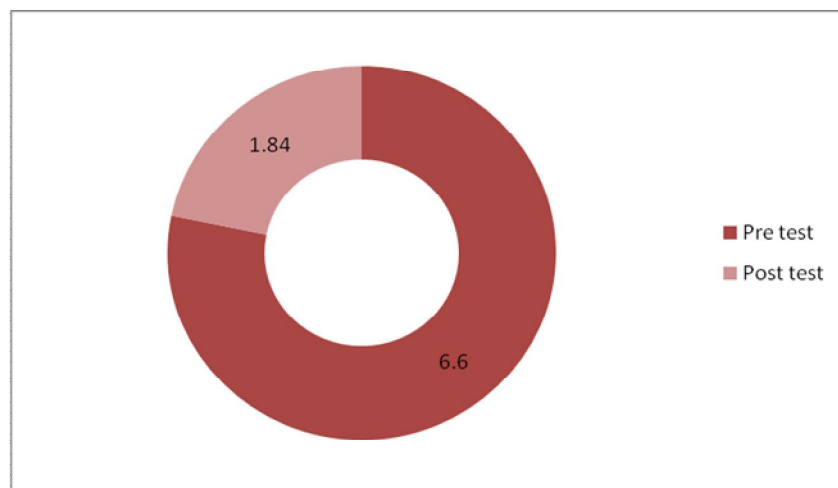
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MEAN NAUSEA SCORE OF PRE TEST AND POST TEST

The Comparison of pre and post test mean nausea score in between pre and post test score .In pre test the average mean score was 6.60 with the SD of 1.70. Where as in the post it was highly reduced to 1.84 with SD of 1.17. So its very clearly states that there was a statistical difference between the pre & post test nausea .



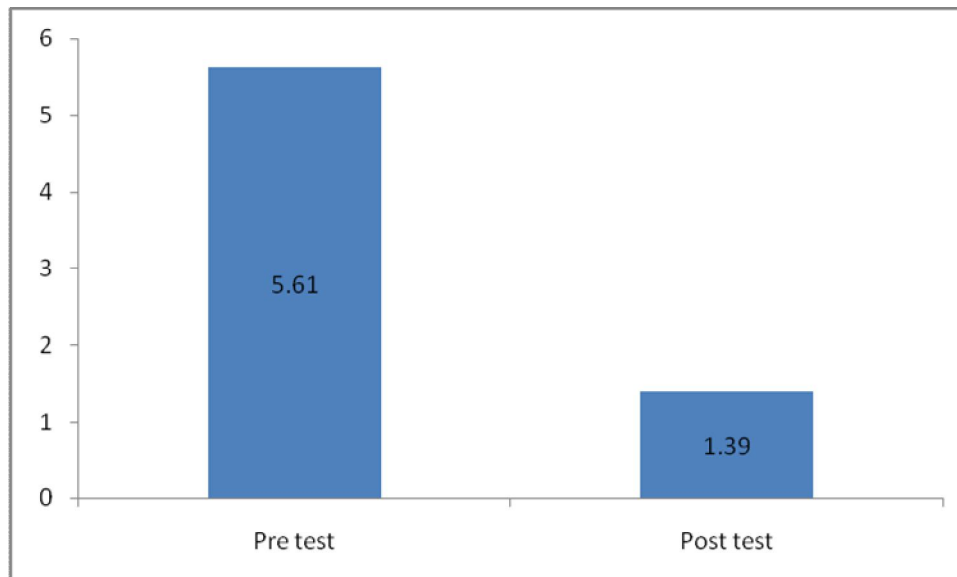
PRE TEST AND POST TEST MEAN SCORES OF VOMITING

In pre test the mean values for vomiting was 5.61 but in the post test it was obviously reduced to 1.39 with the SD of 2.48 ,1.12 respectively. The difference between the pre and post test mean score was evidenced that the statistical significance at 0.05 level. This statistical significance was calculated by using paired t test . $p = < 0.001$

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V. DISCUSSION

In pre test the majority of study participants 27 (54%) had severe level of state anxiety score, 17 (34%) had moderate level of anxiety and only 6(12%) had mild level of anxiety score in pre test. Whereas in post test none of them had severe level of anxiety and very high, 43(86%) had mild anxiety score and 7(14%) of them had moderate level of anxiety.

For nausea in pre test average mean nausea score was 6.60, whereas in post test it was dramatically reduced to 1.84 with SD of 1.70 and 1.17 with mean difference of 4.76. The difference in-between pre and post test mean value was statistically significant.

For vomiting in pre test average mean score was 5.61, whereas in post test it was dramatically reduced to 1.39 with SD of 2.48 and 1.12 with mean difference of 3.13. The difference in-between pre and post test mean value was statistically significant.

The Hypothesis (i) the mean anxiety score before using progressive muscle relaxation technique was 62.86 but in post test it was reduced to 30.50. It shows there was a effectiveness of relaxation in reducing the level of anxiety.

VI. DEMOGRAPHIC FINDINGS

Among 50 study participants majority of the patients exactly 60% belong to age group of 41-60 years, 28% are more than 61 years and only 12% were lying in between 20-40 years of age.

Gender:

Majority of patients 52% were female and remaining 48% were males.

Educational status majority of the study participants are high school nearly about 32%. Middle school and higher secondary are in equal percentage 24% and very less education were graduated only 20%

Monthly income 40% were less than 2000, 16% were 2001-3501, 26% were 3501-5000, and 18% were 5001-7000

Location of the cancer majority are 34% of had gastro intestinal system cancer such as cancer stomach, esophagus, large intestine and colon. 24% from genitourinary system such as cancer in the bladder. The patients affected from head and neck cancer are 20% and very less percentage (18%) of the study participants are affected with reproductive cancer such as cancer cervix and penis.

About the course of chemotherapy majority of them are III course of chemotherapy 44%, IV course of chemotherapy was 30% and 26% are II course of chemotherapy.

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VII. CONCLUSION

Diagnosis and treatment of cancer creates many stress and noncompliance from the treatment due tremendous side effects of the chemotherapy, so the investigator viewed to reduce the levels of side effects and promote the treatment regimen. The investigator reviewed may literature to support and extend the knowledge in regards with controlling the side effects. Anxiety, nausea and vomiting is one of the primary concern of oncology patients during and after the chemotherapy and its management is essential for improving the quality of life and promote sense of well being. Progressive muscle relaxation can be an effective non-pharmacologic intervention to reduce the above mentioned side effects. In addition to many beneficial effects of progressive muscle relaxation on the human body.

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