

ABSTRACT This study investigated the effect of progressive muscle relaxation technique on level of anxiety among primary care giver of bedridden patients in selected palliative care centres at Thiruvananthapuram district. The research design of this study is quasi experimental design. The sample consisted of 30 primary care givers of bedridden patients from selected palliative care centres, Trivandrum in the experimental group and control group respectively. Purposive sampling was used. The instruments used in this study were the Burns anxiety inventory and demographic proforma. Participants in the experimental group were given progressive muscle relaxation technique for 30 minutes each day for 7 consecutive days and those in the control group were monitored. The findings revealed that progressive muscle relaxation technique given to primary care giver of bedridden patients had significantly reduced their level of anxiety (P<0.01). Progressive muscle relaxation technique may be an innovative option to promote a healthy environment for care givers doing similar care and in other settings.

KEYWORDS : progressive muscle relaxation technique; anxiety; Primary care giver

INTRODUCTION

Bedridden patients are patients who stay in bed for short or long periods for various reasons, including chronic illnesses, old age, and disability. Bedridden patients cannot perform self-care and medical care partially or completely and need the help of others. Bedridden patients are usually cared for by family members, paid caregivers, and/or health professionals.

Caregivers are at risk of caregiver burden. Caregiver burden is defined as a multidimensional response to perceived stress and negative assessments that derive from providing care to a sick person. The risk factors that have been identified in the literature as affecting caregiving burden include being female, having a lower level of education, living in the same house with the care recipient, providing care for long hours, having depression, being socially isolated, being under financial stress, and having no choice but to be a caregiver.

Progressive muscle relaxation (PMR) is a technique for reducing anxiety by alternately tensing and relaxing the muscles. It was developed by American physician Edmund Jacobson in the early 1920s. Jacobson argued that since muscle tension accompanies anxiety, one can reduce anxiety by learning how to relax the muscular tension. PMR entails a physical and mental component.

In a study researchers exposed 67 volunteers to a stressful situation and then had them practice progressive muscle relaxation, undergo music therapy, or take part in a control group. Results revealed that members of progressive muscle relaxation group experienced greater relaxation (including a more significant decrease in heart rate) than the rest of the study members. Other research indicates that progressive muscle relaxation may also help soothe anxiety and stress by reducing levels of cortisol (a hormone released in response to stress).

Progressive muscle relaxation technique is one of the simplest forms of relaxation technique. The investigator realised that progressive relaxation technique will help the primary care givers to maintain their emotional balance. Keeping this in mind the investigator, by helping the primary care givers to practice daily for 30 minutes would help them to reduce the level of anxiety in order to keep their emotion balance and improve their patient care and support. **TOOL:-** Socio-Demographic data and Burns anxiety inventory.

RESEARCH DESIGN: - Quasi-experimental design. RESEARCH APPROACH: - Experimental approach.

SAMPLING TECHNIQUE: - Purposive sampling technique. **SAMPLE:** - 30 primary care givers of bedridden patients in experimental and 30 in control group.

POPULATION: - Primary care givers of bed ridden patients in Thiruvananthapuram district.

SETTING: - Selected palliative care centres in Thiruvananthapuram district.

DATA ANALYSIS: - Descriptive and inferential statistics. **TOOLS/INSTRUMENTS:** - The data collection instruments used in the present study were:

Burns anxiety inventory

The Burns Anxiety Inventory (BAI) is an assessment tool used to measure anxiety, developed by psychiatrist David. D. Burns.

Scoring: 0-4 Minimal or no anxiety 5-10 Borderline anxiety 11-20 Mild anxiety 21 – 30 Moderate anxiety 31 – 50 Severe anxiety 51–99 Extreme anxiety or panic

Progressive muscle relaxation technique

Progressive muscle relaxation is a technique developed by Dr. Edmund Jacobson for combating anxiety by a series of muscle relaxation exercises involving particularly tensing and relaxing muscles of the whole body and practiced consistently.

Procedure: Progressive muscle relaxation technique refers to a systematic method of deep muscle relaxation which involves alternatively tensing and relaxing the muscles of the body in a particular order for a specific period of time (each session 30 min) in sitting position developed to reduce anxiety and to promote overall health and wellness. Progressive muscle relaxation is given for a period of one week continuously which includes deep breathing exercise followed by relaxation technique. The investigator has undergone certificate course in progressive muscle relaxation technique

RESULTS

Section 1: Description of sample characteristics

1. Based on the age, in experimental group 80% belonged to 31-40 years and 20% belonged to 21-30 years of age. In control group 76.7% were belonged to 31-40 years and 23.3% belonged to 21-30 years of age.

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2. Based on the sex, in experimental group 6.7% were males

in experimental group.

and 93.3% were females and in control group 10% were males and 90% were females.

- 3. Based on religion, in experimental group 86.7% of samples were christians, 10% were Muslims and 3.3% were Hindus. In control group 73.3% were Christians, 10% Muslims and 16.7% were Hindus.
- 4. Regarding the type of family, in experimental group majority 96.7% of samples were in Nuclear family and only 3.3% were in joint family. In control group also majority 73.3% were in Nuclear family and 23.3% were in joint family.
- 5. According to family income, in the experimental group more than half, 53.3% of samples had income up to 10000, 33.3% had income between 10001-20000, 6.7% had income 20001-30000 and income more than 30000. In control group, 46.7% had income up to 10000, 23.3% income between 10001-20000, 13.3% had 20001-30000 and 16.7% had income more than 30000.
- 6. According to number of siblings, in the experimental group 93.3% had 1-2 siblings, 3.3% had no sibling and another 3.3% had more than three siblings. In control group, 86.7% had 1-2 siblings, 6.7% had no siblings and another 6.7% had more than three siblings.
- 7. Based on the hobbies, in experimental group all the samples were interested in hearing music, 23.3% involved in reading books, 16.7% paid attention in playing outdoor games, 13.3% were interested in indoor games and 33.3% engaged in other type of hobbies. In control group majority, 93.3% were interested in hearing music, 45.0% reading books, 20.0% playing indoor and outdoor games and 31.7% were interested in other hobbies.

Section 2: Level of anxiety among Primary care givers

Results shows that in experimental group 23.3% had mild anxiety, 76.7% had moderate anxiety. In control group 36.7% had mild anxiety and 63.3% had moderate anxiety. None of the samples had minimal and severe anxiety in both groups.

Section 3: Effect of progressive muscle relaxation technique on anxiety among Primary care givers

Table 1 Mean, standard deviation and t value of level of anxiety among primary care givers before and after progressive muscle relaxation technique. (N=60)

Group	Stage	mean	SD	Mean difference	df	Paired t	p
Experimental	Pre- test	23.7	5.2	10.7	29	13.99**	0.00
	Post- test	13	5.4				
Control	Pre- test	23.2	6.6	2.4	29	3.1**	0.004
	Post- test	25.6	8.6				

**Significant at 0.01 level

Section 4: Effect of progressive muscle relaxation technique on anxiety subscales.

A preliminary analysis of variance (ANOVA) carried out for pre-test and post-test taken separately shows that the average score regarding anxious feeling at pre-test level is 5.0 and 4.0 respectively for experimental and control groups. The F statistics for the pre-test scores, F=4.35 shows that there is significant difference in the anxious feeling score between the experimental and control groups at pre-test level at p < 0.05level of significance. The F statistics for the post test scores, F=13.75 is significant at 0.01 level. It can be interpreted that the average post-test anxious feeling score of experimental group (2.8) is significantly less than that of the control group (4.4). It can be interpreted that progressive muscle relaxation technique is statistically effective in reducing anxious feeling

Results showed that average anxious thought score among the experimental group before the intervention was 5.0 ± 2.0 and that among the control was 4.0 ± 1.5 . After intervention, among the experimental group anxiety score is reduced to 2.8 ± 1.7 . Reduction in anxiety level after intervention in the experimental group was statistically significant (p<0.01). The mean post-test anxious thought score in the experimental group is 4.5and that in the control group is 9.6. There is significant difference in the mean post-test anxious thoughts score of primary care givers in experimental and control group at 0.01 level of significance.

The average physical symptoms score among the experimental group before the intervention was 10.5 ± 2.7 and that among the control was 11.0±2.8. After intervention, among the experimental group the score is reduced to 5.7 ± 2.3 . Reduction in physical symptoms level after intervention in the experimental group was statistically significant (p<0.01). The mean post-test physical symptoms score of primary care givers in experimental group is 5.4 and that in control group is 11.6. There is significant difference in the mean post-test physical symptoms score of primary care givers in experimental and control group at 0.01 level of significance.

Section 5: Association between level of anxiety and selected demographic variables.

Chi square test and Fisher's exact test were done to find out association between level of anxiety and selected demographic variables. There was significant association between level of anxiety and family income (2 = 5.88). There was no association between level of anxiety and other selected socio-demographic variables.

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