

PROGRESSIVE MUSCLE RELAXATION THERAPY TO DECLINE OCCUPATIONAL STRESS AMONG NURSING PROFESSIONALS IN WESTERN INDIA

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ABSTRACT

Introduction: Progressive muscle relaxation therapy is a systematic therapy for managing stress and achieving a deep state of relaxation that has been effectively used to control stress and anxiety relieve insomnia, and reduce symptoms of the stress. The study was conducted with aim to assess the effectiveness of Progressive Muscle Relaxation Therapy on stress among staff nurses. **Methodology:** In the present study 60 staff nurses were selected using non probability convenient sampling method. Present study was conducted at selected hospitals at Sri Ganganagar. **Results:** The data shows that in pretest 50% staff nurses having mild stress, 41.66% having moderate stress, 8.33% having severe stress, and in post test the 41.66% staff nurses have no stress, 53.33% had mild stress, 5% having moderate stress and no staff nurses having severe stress. The comparison of pre-test and post-test stress score showed that there was a significant reduction in stress scores of staff nurses after administration of Progressive Muscle Relaxation Therapy. **Conclusion:** The study findings concluded that staff nurses had higher stress score before administering Progressive Muscle Relaxation and Therapy after administering the progressive Muscle Relaxation Therapy the stress score had been reduced.

KEYWORDS: Progressive muscle relaxation therapy, Occupational stress, Nursing professionals, Western India.

INTRODUCTION

Stress is a multidimensional phenomenon which is focused on dynamic relationship between the individual and the environment. Stress is the process through which environmental demands tax or exceeds the adaptive capacity of an organism, resulting in distress.^[1] Researchers studying the long-term effects of a prolonged or severe stress response have concluded that it may lead to harmful physiological changes such as increasing the risk for heart disease or diabetes.^[2] Studies indicated that medical professionals such as medical students, nurses and nursing students experience many stressor agents.^[3] Nurses and nursing students are influenced by the various hospital stressor agents in addition to the stress caused by theoretical training environment. Hospitals are considered as one of the most stressful work environments, because there, it is the matter of human's death and life.^[4] The stress which is resulted from the environment can affect the way their personality develops and also cause the incidence of many undesirable behaviors in individual.^[5] It was indicated that stress can cause mental and physical

illnesses, dysfunction and adjustment disorder and ultimately reduction of individual's quality of life.^[6] Nursing profession is generally perceived as a stressful and demanding profession. It is both physically and psychologically challenging. Problem oriented therapies include active methods such as cognitive and behavioral problem solving.^[7] Cognitive-behavioral coping strategies are the most effective methods to reduce the stress.^[8] Considering that all the living organisms experience the stress, the aim of nursing is not removing the whole stress completely, because stress is part of the life. Response to stress can be in an unhealthy way, and the role of the nurse at this time is helping to promote the health. Health promotion includes strategies for reduction and management of the stress, the nurse also can use nursing process in order to manage the stress.^[9] Stress management practices include; yoga relaxation, progressive muscle relaxation, breathing exercises, meditation and mental imagery.^[10] Progressive muscle relaxation therapy is a systematic therapy for managing stress and achieving a deep state of relaxation that has been effectively used to control stress and anxiety relieve

insomnia, and reduce symptoms of the stress. Researcher studying the long-term effects of a prolonged or severe stress response, has concluded that it may lead to harmful physiological changes such as increasing the risk for heart disease or diabetes.^[11] Health professionals, especially mental health nurse have an important role to acknowledge the stress of Staff Nurses. They are in a position to render support and refer them to get further support through own institution and community agencies. Such measures would ensure staff Nurses to cope up with occupational stress. For that, mental health nurse needs to assess the Stress and coping of the Staff Nurses. So investigator feels that the progressive muscle relaxation technique will reduce the stress among nurses who are working in selected hospitals at Sri Ganganagar, Rajasthan and helps to know the intervention effectively reduce the stress among the Nurses.

Primary objective

To assess the level of occupational stress among staff nurses working in selected hospitals at after post-test Sri Ganganagar, Rajasthan.

Secondary objective

To evaluate the effectiveness of progressive muscle relaxation therapy on the level of occupational stress among staff nurses working in selected hospitals at Sri Ganganagar, Rajasthan.

METHODOLOGY

The selected research approach for this study was Quantitative approach and pre-experimental design were used in the present study. The study was done at Sidana hospital, Sri Ganganagar. In the present study the population includes the staff nurses working in Sri Ganganagar. Total sample size for the main study was 60. Non probability convenient sampling was used to select the sample of the study. Data collection was done with help of demographic profile and stress assessment rating scale. The range of stress score was 0-120. The

obtained scores of participants were further divided into 4 categories as no stress (00 - 30), Mild Stress (31 – 60), Moderate Stress (61 - 90) and Severe Stress (91- 120).

INCLUSION CRITERIA

- 1 Staff nurses those are qualified and registered.
- 2 Staff nurses who are willing to participate in the study.
- 3 Staff nurses, who can read, write and understand English language.

EXCLUSION CRITERIA

1. Staff nurse who do not want to participate and practice progressive muscle relaxation therapy.
2. Staff nurses who are having problems regarding pulled muscles, broken bones, or any medical contraindication for physical activities.
3. Staff nurses who receives any other alternative therapy.
4. Staff nurses who have no stress in the result of pre-test.

Plan For Data Collection

Formal permission was taken from concerned authorities and permission was obtained from the selected hospitals. 60 samples were selected by Non probability convenient sampling technique. The data collection period extended from 01/05/2020 to 30/05/2020. Purpose of the study is explained and consent was obtained from samples. Data is collected using tool. Demographic data collection tool was used to know the demographic data of each sample. The pre-test stress of the participant is assessed by Stress assessment rating scale. The demonstration and self-practice of Progressive Muscles Relaxation Therapy is used as intervention to relieve stress among staff nurses working in the Sidana Hospital at Sri Ganganagar, Rajasthan. The administration of progressive muscles relaxation therapy is applied on each sample, one's daily, for 29 days then post test was conducted at 30th day.

RESULTS

Table 1: Frequency and percentage distribution of samples according to their demographic variables. N=60

| S. No. | Demographic Variables | Categories | Frequency(f) | Percentage (%) |
|--------|-------------------------------------|-----------------|--------------|----------------|
| 1 | Age (in years) | 21-25 | 23 | 38.33 |
| | | 26-30 | 22 | 36.66 |
| | | 31-35 | 10 | 16.66 |
| | | 36-40 | 5 | 8.33 |
| 2 | Sex | Male | 25 | 41.66 |
| | | Female | 35 | 58.33 |
| 3 | Marital Status | Married | 40 | 66.66 |
| | | Unmarried | 18 | 30 |
| | | Divorced | 2 | 3.33 |
| | | Widow | 0 | 0.0 |
| 4 | Income of the family per Rs. /month | Up to 5000 | 8 | 13.33 |
| | | 5001-10000 | 25 | 41.66 |
| | | 10001-15000 | 15 | 25 |
| | | Above 15000 | 12 | 20 |
| 5 | Working area | Med. Surg. Ward | 30 | 50 |
| | | Emergency ward | 10 | 16.66 |

| | | | | |
|---|----------------------------------|------------------------|---------|------------|
| | | O.T. Pediatric ward | 15 5 | 25 8.33 |
| 6 | Working experience (in years) | 1-2 | 25 | 41.66 |
| | | 3-5 | 20 | 33.33 |
| | | 6-8 | 10 | 16.66 |
| | | Above 8 | 5 | 8.33 |

As per table-1, 38.33% respondents belong to age category of 21 – 25 years of age which is the youngest category and 36.66% respondents belong to the age group of 26 – 30 years. Regarding Sex of the respondents, 58.33% were female and 41.66% were male. As per marital Status, 66.66% respondents were married and 30% respondents were unmarried. Regarding Monthly Family Income (in Rs.), majority of

the respondents are having 5001-10000 monthly family income i.e. 41.66%, while the 25% of the samples are having monthly family income 10001-15000. Half of the respondents working in Med. Surg. ward. The majority of the sample were having work experience 1-2 years are 41.66% while 33.33 % of samples are having work experience 3 -5 years.

Table 2: Levels of stress among staff nurses in pre-test & posttest. N=60

| S. no. | Stress level | Pretest | | Posttest | |
|--------|-----------------|-----------|------------|-----------|------------|
| | | Frequency | Percentage | Frequency | Percentage |
| 1 | No stress | 0 | 0.0 | 25 | 41.66 |
| 2 | Mild stress | 30 | 50 | 32 | 53.33 |
| 3 | Moderate stress | 25 | 41.66 | 3 | 5 |
| 4 | Severe stress | 5 | 8.33 | 0 | 0.0 |

As per table-2, 50% samples showing mild stress and 41.66% samples showing moderate stress and 5 (8.33%) samples having severe stress. While in post test, 53.33%

samples were having mild stress and 41.66% samples showing had no stress and three (5 %) samples showing moderate stress. No participant has severe level of stress.

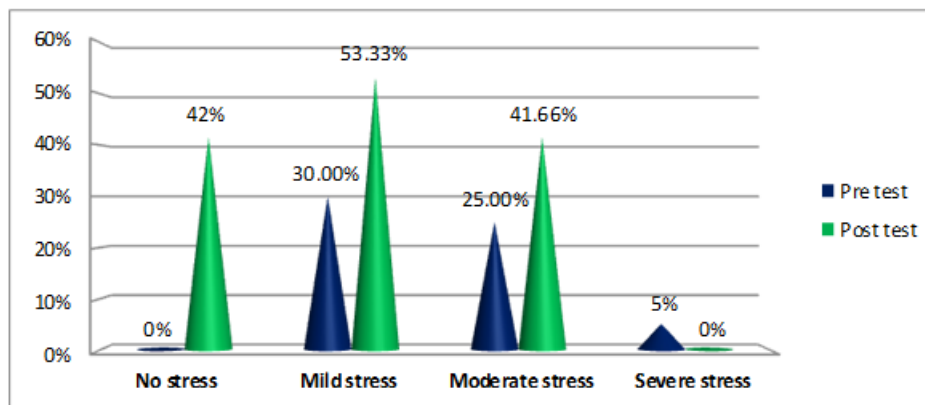


Figure-1: Levels of stress among the participants in pre and post test.

Table 3: Effectiveness of progressive muscle relaxation therapy on stress level among the participants. N-60

| Test | Mean | Std. deviation | t value | p-value |
|-----------|-------|----------------|---------|---------|
| PRE TEST | 63.03 | 17.44 | 14.92 | <0.0001 |
| POST TEST | 35.98 | 14.72 | | |

Above table-3 showed that mean pretest and posttest scores of the participants were 63.03±17.44 and 35.98±14.72 respectively. The calculated t- value was 14.92 which was above the table value at df=59. The

findings highlighted that progressive muscle relaxation therapy on stress among the participants was significantly effective (p-value= <0.0001) in reducing stress scores among the participants.

Table 4: Association between post-test stress level and demographic variables. n=60

| S. no. | Demographic variables | Stress level | | | Chi-sq value |
|--------|---------------------------|--------------|------|----------|--------------|
| | | No | Mild | Moderate | |
| 1 | Age (in years) | 11 | 10 | 2 | 5.90 NS |
| | 21-25 | 10 | 11 | 1 | |
| | 26-30 | 4 | 06 | 0 | |
| | 31-35 | 0 | 05 | 0 | |
| | 36-40 | | | | |
| 2 | Sex | 11 | 12 | 2 | 1.05 NS |
| | Male | 14 | 20 | 1 | |
| | Female | | | | |
| 3 | Marital status | 17 | 21 | 2 | 10.63 S |
| | Married | 7 | 11 | 0 | |
| | Unmarried | 1 | 0 | 1 | |
| | Divorced | 0 | 0 | 0 | |
| | Widow | | | | |
| 4 | Income of family | 5 | 3 | 1 | 7.02 NS |
| | Up to 5000 | 10 | 13 | 2 | |
| | 5001-10000 | 8 | 7 | 0 | |
| | 10001-15000 | 2 | 9 | 0 | |
| | Above 15000 | | | | |
| 5 | Working area | 15 | 13 | 2 | 8.52 NS |
| | Med. Surg. ward | 3 | 6 | 1 | |
| | Emergency ward | 5 | 10 | 0 | |
| | O.T. | 2 | 3 | 0 | |
| | Pediatric ward | | | | |
| 6 | Working experience | 10 | 14 | 1 | 3.29 NS |
| | 1-2 | 08 | 10 | 2 | |
| | 3-5 | 5 | 5 | 0 | |
| | 6-8 | 2 | 3 | 0 | |
| | Above 8 | | | | |

S=significant, NS= Non-significant

Table-4 shown association between post-test stress level and demographic variables. It reveals that there was no significant association between post-test stress score of staff nurses with selected demographic variables such as age, sex, income of family per month, working area and total work experience but there was a significant association between post-test stress score and marital status.

CONCLUSION

The study was conducted to assess the effectiveness of Progressive Muscle Relaxation Therapy on stress among staff nurses working in selected hospitals at Sri Ganganagar. In the present study 60 staff nurses were selected using non probability convenient sampling method. The data shows that in pretest 50%(30)staff nurses having mild stress, 41.66% (25) having moderate stress, 8.33% (05) having severe stress, and in post test the 41.66% (25) staff nurses have no stress, 53.33% (32) had mild stress, 5%(03) having moderate stress and 0% (0) staff nurses having severe stress. The data on table 3&4 reveals that the overall pretest knowledge score Mean is (63.03) and SD is (17.44) and post test knowledge score Mean (35.58) and SD (14.72). The comparison of pre-test and post-test stress score showed that there was a significant reduction in stress scores of staff nurses after administration of Progressive

Muscle Relaxation Therapy .This shows that Progressive Muscle Relaxation Therapy was effective. The study findings concluded that staff nurses had higher stress score before administering Progressive Muscle Relaxation and Therapy after administering the progressive Muscle Relaxation Therapy the stress score had been reduced.

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