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**A STUDY TO ASSESS THE EFFECTIVENESS OF PROGRESSIVE
MUSCLE RELAXATION THERAPY ON STRESS AMONG NURSING
TEACHERS WORKING IN SELECTED NURSING COLLEGES AT
VADODARA**

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ABSTRACT

Aim: To assess the effects of progressive muscle therapy on level of stress among nursing teachers working in selected colleges of vadodara. **Materials & Methods:** Pre-experimental research design was adopted in the present study. Research process carried out in three steps informed concern was taken before doing procedure. Step-1: Working related stress assessment scale (self structured) was used to find out level of stress among nursing teachers. Based on the result 42 nursing teachers were selected from the different nursing institute. In step-2: Progressive Muscle Relaxation Therapy was demonstrated and advised to perform twice in a day for seven days. In Step-3: On seventh day, stress level was reexamined to know the effectiveness of PMRT. The statistics used for the study is inferential and paired 't' test used to find out effectiveness. We conducted the study in selected colleges of vadodara as follows: Sumandeep Nursing college, Nupur Nursing college, Indu nursing college, and Royal institute of nursing.

The total number of the sample collected are 42 nursing teachers. **Result:** Before administration of the progressive muscle relaxation therapy ten (23.8%) samples showing no stress, twenty-seven (64.3%) samples showing mild stress and five(11.9%) sample having moderate stress. And after the administration of progressive muscle therapy the seventeen (40.5%) samples were showing no stress and twenty-five (59.5%) samples showing mild stress. there are no samples having moderate stress and severe level of stress. There are significant difference in the level of stress before and after administering Progressive muscle relaxation therapy. **Conclusion:** The result indicated that progressive muscle relaxation therapy to be effective to reduce stress among the nursing teachers. These conclude that the PMRT is used in the other personnel like who suffer from the stress.

Keywords: Nursing teachers, Progressive muscle relaxation therapy, Stress, Nursing Colleges

INTRODUCTION

Stress is the emotional and physical strain caused as a result of our response to what happens around us. Stress is a feeling of emotional or physical tension. It can come from any event or thought that makes you feel frustrated, angry, or nervous. Today teaching is one of the stressful occupations in the countries. Teachers play a critical role in shaping the live of our nation's children. Teachers not only facilitate learning, but also influence a child's social and emotional development. Teachers stress is linked to teaching performance and students academic outcomes. High stress level are causing teachers to leave their profession, Which cause instability among staff students and community. In response the academic performance of the students are lower. Stress is a multidimensional phenomenon which is

focused on dynamic relationship between the individual and the environment. It is also defined as a stressor, individual's response to the stimuli and interaction between the individual and the environment. It should be noted that some degree of stress can be effective on increasing and improving individuals' performance. Evidences indicate that most of the human successes are created in stressful conditions; but high rate of stress would followed by numerous consequences, including mental and physical illnesses, sleep disorders, restlessness, irritability, forgetfulness, abnormal fatigue, reduced individual's resistance and recurrent infections, headaches, poor concentration, memory impairment and reduce in problem solving ability [1]. Stress in nursing education is gaining the attention of nurse

educators and nurse researchers as the effects of stress on learning, persistence, academic success, and student satisfaction have been recognized [2]. Job stress among nursing teachers engaged in nursing activity were physical work load and job control among men and women, as well as interpersonal conflict and reward to the work among men and qualitative work load among women [3]. 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 [4]. The term nursing teachers' job stress is rarely determined through examination. There has been no systematic, large-scale research or small-scale research which uses an actual test to examine between age, gender, education level, years of experiences, and psychological indicators in the Region of Asia. where as teacher stress is defined in terms of relationship between teacher and student. We should note that teacher stress seems as an interaction of teacher, students and environment (Kayastha, Krishnamurthy & Adhikary, 2012) [5].

Statement of problem:

“A study to assess the effectiveness of progressive muscle relaxation therapy on stress among nursing teachers working

in selected nursing colleges at Vadodara.”

Objectives:

- To determine the effectiveness of the Progressive Muscles Relaxation Therapy on level of stress among nursing teachers working in selected colleges.
- To find out the association between the pre-test stress score with their selected demographic variables.

Hypothesis:

H₀₁ – There will be no significant difference in the level of stress before and after administering Progressive Muscle Relaxation Therapy among nursing teachers working in selected colleges at Vadodara city.

H₀₂ – There will be no significant association between level of pre test stress of nursing teachers with the selected demographic variables.

REVIEW OF LITERATURE

Lagerlund M, Sharp L, et al (April 2015), A study was conducted on Intention to leave the workplace among nurses working with cancer patients in acute care hospitals in Sweden. The data originated from the Swedish component of RN4CAST, based on a survey of RNs working with in-patient care in all acute care hospitals in Sweden. The 7412 RNs reporting $\geq 10\%$

patients with cancer on their unit were included in this analysis. About 1/3 of all RNs intended to leave their workplace within the next year. Who had worked \leq two years as RN, who reported having inadequate cancer care education, and with higher burnout scores? Associations between leadership and intention to leave were stronger among RNs in the profession $>$ two years, who reported having adequate cancer care education, and with lower burnout scores [6].

MATERIALS & METHODS

Research approach: The selected research approach for this study is Quantitative approach.

Research design: The research design selected for the present study is Pre-Experimental (one group pre-test post-test design).

O1 = It is the First Observation means assessment of pre-test score of stress among nursing teachers

X = Treatment to the group is the administration of the Progressive Muscles Relaxation therapy.

O2 = It is the second observation means assessment of post-test score of stress among nursing teachers working in selected colleges at Vadodara.

Setting: The study will be conducted in selected colleges which are in the vadodara city.

Research variable:

Independent Variable: Progressive muscles relaxation therapy

Dependent Variable: Stress among the nursing teachers working in the selected colleges of Vadodara.

Criteria for sample selection:

Inclusion Criteria:

- Nursing teachers that are qualified and registered.
- Nursing teachers whose age group of 23 years to 36 years.
- Nursing teachers who are willing to participate in the study.

Exclusion Criteria:

- Nursing teachers who do not want to participate and practice progressive muscle relaxation therapy.
- If anyone has problems regarding pulled muscles, broken bones, or any medical contraindication for physical activities (within last three month), need to consult the doctor first. If doctor advise then only included.

Sample and Sampling Technique: The samples of the study will be selected by using non probability purposive sampling technique.

Target Population: All the qualified nursing teachers working in the selected colleges at Vadodara

Procedure for Progressive muscle relaxation therapy: Bernstein & Borkovec's method for relaxation.

ANALYSIS AND INTERPRETATION:

This chapter deals with the analysis and interpretation of the data collect from 42 nursing teachers who are working in selected colleges at Vadodara to evaluate the effectiveness of progressive muscle relaxation therapy on level of stress. The collected data was tabulated, organized, analyzed and interpreted by using descriptive and inferential statistics.

The research process and proposed methodology guided the researcher in the selection of the appropriate data analysis technique. The data collected was analyzed on the basis of objectives of the study.

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H₀₁ – There will be no significant difference in the level of stress before and after administering Progressive Muscle Relaxation Therapy among nursing teachers working in selected colleges at Vadodara city.

H₀₂ – There will be no significant association between level of pre test stress of nursing teachers with the selected demographic variables.

Major findings of the study presented under following headings:

Section I: - The analysis and Interpretation of selected demographic variables of the samples.

Section II: - The analysis and Interpretation of the stress level of the sample collected on working related stress assessment scale before and after administration of Progressive Muscle Relaxation Therapy.

Section III: To evaluate the effectiveness of the Progressive Muscle Relaxation Therapy.

Section IV: - Find an association between pre-test stress scores of the nursing teachers with selected demographic variables.

Table 1 shows the frequency and percentage of the demographic variables which include Mean age of the selected sample, Sex, marital status, monthly income, satisfied with income, qualification, total work experience, and

additional responsibilities. The data of these demographic variable are mentioned in **Table 1**.

Table 2 reveals that the differences in the frequency and percentage of the pretest of the sample and posttest which carried out after administration of the Progressive muscle relaxation therapy.

Evaluate the effectiveness of the Progressive Muscle Relaxation Therapy (**Table 3**).

Table 3 shows that statistically there was significant difference in stress score of the nursing teachers working in selected colleges at vadodara. The paired 't' value 1.671 was less than the tabulated 't' value 4.050 at 0.05% level of significance.

So statistically prove that there was significant difference in stress score of the nursing teacher after administering the progressive muscle relaxation therapy. Hypothesis was tested by using paired "t"

test. The value of "t" was calculated to analyze the difference in stress level of the nursing teacher with their pre-test and post-test scores.

The research null hypothesis H_{01} was formulated to test there will be no significant difference in the level of stress before and after administering Progressive Muscle Relaxation Therapy among nursing teachers working in selected colleges at Vadodara city. H_{01} was failed to accept.

Table 4 show that there are no association between pre test score of nursing teachers and selected demographic variable sex, marital status, monthly income, qualification, total work experience, additional responsibilities except there are significant association of satisfied with income. So we conclude that the null hypothesis H_{02} was accepted.

Table 1: Frequency and percentage distribution of demographic variables (N=42)

S. No.	Demographic variable	Characteristics	Frequency	Percentage
1		Mean age: 26 years is the mean age of sample		
2	Sex	Male	9	21.4
		Female	33	78.6
3	Marital status	Married	23	54.8
		Unmarried	19	45.2
4	Monthly income	Up to 15000	17	40.5
		15000-20000	10	23.8
		20000-25000	2	4.8
		Above 25000	13	31
5	Satisfied with income	Yes	17	40.5
		No	25	59.5
6	Qualification	M.Sc.	17	40.5
		B.Sc / Pb.Bsc.	25	59.5
7	Total work experience	<5 years	32	76.2
		5 years – 10 years	8	19
		10 years – 15 years	2	4.8
8	Additional responsibilities	Yes	35	83.3
		No	7	16.7

Table 2: Analysis And Interpretation Of The Stress Level Of The Sample Collected On Working related stress assessment scale Before And After Administration Of Progressive Muscle Relaxation Therapy

S. No.	Stress level	Pre test		Post test	
		Frequency	Percentage	Frequency	Percentage
1	No stress	10	23.8	17	40.5
2	Mild stress	27	64.3	25	59.5
3	Moderate stress	5	11.9	-	-
4	Severe stress	-	-	-	-

Table 3: Testing the Research Hypothesis H₀₁

Over all stress level	Mean	Mean difference	Standard deviation	T	df	Paired 't' value
PRE TEST	1.8810	0.2858	.59274	4.050	41	1.671
POST TEST	1.5952		.49680			

Table 4: Association between pretest stress score and demographic variables

S. No.	Demographic variable		Pre test			Total	Chi.sq.		d f	Ass o.
			No stress	Mild stress	Moder. stress		Cal. value	t- value		
1	Sex	Male	3	6	0	9	1.810 ^a	5.991	2	Ns
		Female	7	27	5	33				
	Total	10	27	5	42					
2	Marital status	Married	7	13	3	23	1.469 ^a	5.991	2	Ns
		unmarried	3	14	2	19				
	Total	10	27	5	42					
3	Monthly income	< 15000	5	10	2	17	3.247 ^a	12.592	6	Ns
		15000-20000	1	8	1	10				
		20000-25000	0	2	0	2				
		>25000	4	7	2	13				
	Total	10	27	5	42					
4	Satisfied with income	Yes	7	7	3	17	6.781 ^a	5.991	2	S
		No	3	20	2	25				
	Total	10	27	5	42					
5	Qualification	M.sc	4	11	2	17	.1211 ^a	5.991	2	Ns
		B.sc/ Pb.B.sc	6	16	3	25				
	Total	10	27	5	42					
6	Total work experience	<5 yr	6	22	4	32	2.217 ^a	9.488	4	Ns
		5-10 yr	3	4	1	8				
		10-15 yr	1	1	0	2				
	Total	10	27	5	42					
7	Additional responsibility	Yes	10	21	4	35	2.640 ^a	5.991	2	Ns
		No	0	6	1	7				
	Total	10	27	5	42					

DISCUSSION

This chapter deals with discussion part according to the results, obtained from

Statistical analysis based on the data of the study, the reviewed literature, hypothesis which was selected for the study. The present study was conducted to determine the

effectiveness of progressive muscle relaxation therapy on level of stress among nursing teachers in selected colleges at vadodara. In order to achieve the objective of study, Pre-Experimental (one group pre-test post-test design) is used in this study It helps the investigator to manipulate independent variable the progressive muscles relaxation technique and observe its effect on the dependent variables stress of the samples Non probability purposive sampling technique was used to select the sample. The data was collected from 42 respondents before and after administering progressive muscle relaxation therapy. The findings of the study have been discussed with reference to the objectives, hypothesis, and with the findings of other studies.

SECTION I

In the section-I the frequency and percentage of the demographic data are shown which include the age , sex, marital status, monthly income, satisfied with income, total work experience and Additional responsibilities.

SECTION II

Analysis And Interpretation of the stress level of the sample Collected On working related Stress assessment scale before And After Administration of Progressive Muscle Relaxation Therapy.

Pre test score:

Majority of the nursing teachers 64.3% are having a mild stress while, 23.8% nursing teachers have no stress. 11.9% nursing teachers having a moderate stress.

Post test score:

Majority of the nursing teachers 59.5% having a mild stress, while 40.5% having a no stress.

SECTION III

It was found that there was significant difference in stress score of the nursing teachers working in selected colleges at vadodara. The paired 't' value 1.671 was less than the tabulated 't' value 4.050 at 0.05% level of significance.

So statistically prove that there was significant difference in stress score of the nursing teacher after administering the progressive muscle relaxation therapy. Hypothesis was tested by using paired "t" test. The value of "t" was calculated to analyze the difference in stress level of the nursing teacher with their pre-test and post-test scores.

The research hypothesis H_0 1 was formulated to test there will be no significant difference in the level of stress before and after administering Progressive Muscle Relaxation Therapy among nursing teachers

working in selected colleges at Vadodara city. H_0 : was failed to accept.

SECTION IV

The association between the pre test level of stress and demographic variable. The analysis of variance value shows there is no significant association between pre test stress score of nursing teachers with selected demographic variables such as age, sex, marital status, monthly income, qualification, total work experience and Additional responsibilities but there was significant association between pre test stress score and Satisfied with income.

CONCLUSION

The study was conducted to assess the effectiveness of progressive muscle relaxation therapy on level of stress among nursing teachers working in selected colleges at vadodara. In the present study 42 nursing teachers were selected using non probability convenient sampling method.

The findings of the present study showed the mean post-test stress score (1.5952) was lower than the mean pre-test stress score (1.8810). The comparison of level of stress before and after administering the progressive muscle relaxation therapy. It shows that in pre test most of the nursing teachers had mild stress 64.3%, 11.9% had moderate stress and 23.8% had no stress. In

post test most of the nurses had mild stress 59.5% and no stress 40.5%.

The comparison of pre-test and post-test stress score showed that there was a significant reduction in stress scores of nursing teachers after administration of progressive muscle relaxation therapy .This shows that progressive muscle relaxation therapy was effective.

CONSENT

Informed consent has been obtain from the samples.

ETHICAL APPROVAL

Ethical approval was obtained prior to the conduction of study. The study was approved from ethical committee, ethical approval number is SVIEC/ON/NURS/SRP/21059.

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