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"EFFECTIVENESS OF JACOBSON PROGRESSIVE MUSCLE RELAXATION TECHNIQUE RELATED TO OCCUPATIONAL STRESS AMONG TEACHING STAFF OF SELECTED SECONDARY SCHOOLS OF THE URBAN CITY"

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Abstract: Although the teaching profession has traditionally been regarded as low stress occupation (French et al.,1982) but during the past two decades the situation is somersaulted (Olivier & Venter,2003)Teaching is becoming more challenging as a profession, a more paper work, more bureaucracy and more unruly classes. Worldwide surveys reveal widespread concern about the effects of stress on teachers' sense of well-being and their willingness to stay in the profession. Progressive muscle relaxation [PMR] was first identified by Jacobson in 1934 as tensing and releasing of 16 muscle groups. Wolpe adapted it for use with systematic desensitization in 1948 and Bernstein and Borkovec in 1973 studied adjustments to the technique to fit cognitive behavioural stress management. Some of these adjustments are: 7 and 4 muscle groups, relaxation through recall, recall and counting, and counting. Empirical evidence supports the use of PMR in high level tension responses and mind body techniques. The aim of the study was to assess the effectiveness of Jacobson progressive muscle relaxation technique related to occupational stress among teaching staff of selected secondary schools of the urban city.

Methods : A pre experimental method was undertaken where 80 teaching staff of secondary school were recruited as sample by non- probability convenient sampling method. Using NIOSH (National Institute for Occupational Safety and Health) Modified generic job stress scale data was collected. Data analyzed using both descriptive and inferential statistics to describe and show the association between occupational stress and the variables.

Result : The study result depicted that, in pre-test 50% of the teaching staff had moderate(score 60-90) and 29% of them had severe (score 91-120) and 21% subjects had mild stress, while in post-test only 1% of the teaching staff remained in severe category of occupational stress (score 91-120), 75% of them had moved to mild occupational stress (score 31-60) and 24% of subjects had moderate occupational stress (score 61-90).The comparisons of the pre- test and post- test means of the occupational stress were done by the paired t test. Average occupational stress score in pre-test was 69.62 which has reduced to 52.42 in post-test. t-value for this test was 9.07 with 79 degrees of freedom. Corresponding p-value was small (less than 0.05).Occupational stress score in post-test was significantly low as compared to that in pre-test.

Conclusion : It is concluded that the level of occupational stress among teaching staff was reduced significantly after application of Jacobson progressive muscle relaxation technique**.**

Keywords: Jacobson progressive muscle relaxation technique, occupational stress, teaching staff, schools.

INTRODUCTION

An occupational stress is any force that pushes a psychological or physical factor behind its range of stability, producing a strain within the individuals. Knowledge that stress is likely to occur constitutes a threat to the individual. A threat can cause a strain because of what it signifies to the person. As occupational stress begins to take toll on the body and mind, a variety of symptoms can result. [1]

Occupational stress is one of the concerning in working environment or their nature of work that causes each individual suffering from stress. Teacher stress can be defined as the experience by a teacher of unpleasant negative and nervousness, resulting from some aspect of their work. The teacher are exposed to a guide variety of multidimensional stressors, within the work situation, inadequate working conditions, role conflict, ambiguity, pupil problem, time pressures and redundancy work pressure, little participation in decision 3 making, distribution of tasks, stereo types discrimination and crown of all inadequate salaries.[2]

Stress experienced by teachers is a subject of intense interest in recent years. Various factors have been identified linked with teacher's occupational stress. The most important of these factors are: business requirements, many different activities within the school environment, lack of professional recognition, discipline problems in the classroom, bureaucracy, lack of support, workload, time pressure, lack of benefits (Mearns & Chain, 2003). It has been argued that when teachers feel that they invest more in students, colleagues, and school than they receive from them, then they are more likely to face emotional, psychological and occupational difficulties. The sources of stress experienced by a particular teacher are unique to him/her and depend on the interaction between personality, values and skills and the circumstances. All mentioned stressors have been shown to lead to teachers' burnout.[3]

Although the teaching profession has traditionally been regarded as low stress occupation (French et al.,1982) but during the past two decades the situation is somersaulted(Olivier & Venter,2003)Teaching is becoming more challenging as a profession: a more paper work, more bureaucracy and more unruly classes. Worldwide surveys reveal widespread concern about the effects of stress on teachers' sense of well-being and their willingness to stay in the profession. Compared to the general population, teachers are at risk for higher levels of psychological distress and lower levels of job satisfaction (Schonfield, 1990). Borg (1990) reported that up to one third of the teachers perceive their occupation as highly stressful.[4]

Teacher stress is defined as an uncomfortable feeling, negative emotion such as anger, anxiety, pressure and disappointment sourced from their work aspects as a teacher (Kyriacou & Sutcliffe, 1978). For this matter, a stressed is someone with uncontrollable emotion towards changes in education culture which requires a teacher to give their knowledge, and at the same time, they have to educate students to be a good community member. Normally, high level of stress will lead into unsatisfactory work, work absenteeism, and work abandon. Stress adapting reactions of a teacher includes psychological erections (anxiety and sadness), physiological (headache, high blood pressure) and attitude related (alcohol and smoking addiction, lifestyle and insomnia). Bad working environment will lead into stress factor and causing unsatisfactory work too. Ultimately, a teacher will have desire to leave their profession. High stress level of a teacher causes disappointment, aggressive behavior, anxiety, avoidance of work, absence from work, and poor work performance (Rupp, 2005).[5]

De Simone S, Cicotto G, Lampis J. (2016) conducted a study to investigate the relationship between occupational stress, job satisfaction and physical health in Italian teachers. Study was conducted at upper secondary schools in Italy. Sample of study were teachers working in different upper secondary schools. Sample size was 565. A questionnaire was used as tool to collect data. The results showed that workload, perception of work environment, teachers' perceptions of senior management and attitude towards change were specific perceived occupational difficulties of the Italian teachers involved in the research. In particular, workload and attitude towards change had significant direct effects on physical symptoms, and

indirect effects on physical symptoms through job satisfaction. Also, job satisfaction decreased physical symptoms. Study concluded that the level of stress and its consequences could be reduced and prevented through an accurate identification of its sources, with a positive effect on individual and organizational health.[6]

Progressive muscle relaxation [PMR] was first identified by Jacobson in 1934 as tensing and releasing of 16 muscle groups. Wolpe adapted it for use with systematic desensitization in 1948 and Bernstein and Borkovec in 1973 studied adjustments to the technique to fit cognitive behavioral stress management. Some of these adjustments are: 7 and 4 muscle groups, relaxation through recall, recall and counting, and counting. Empirical evidence supports the use of PMR in high level tension responses and mind body techniques such as: reducing tension headaches, insomnia, adjunct treatment in cancer, chronic pain management in inflammatory arthritis and irritable bowel syndrome.[7]

Education Staff Health Survey (2014) report stated that 88% of people working in education have suffered from stress, 72% anxiety and 4% had depression. The leading cause of stress were work load, rapid change of place, unreasonable demands from supervisors and changes in students' behavior.[2]

Understanding teachers' stress is of critical importance to address the challenges in today's educational climate. Growing numbers of teachers are reporting high levels of occupational stress, and high levels of teacher turnover are having a negative impact on education quality.[8]

When individual feel stressed, the muscles straighten out. At the point when muscles straighten out an excess of then individual can't have open to feeling or to state get undesirable sentiments, for example. It alteration may be settle down by the help of some of muscle relaxation technique, hence among all the Jacobson Progressive Muscle Relaxation is widely used technique. Researcher gathered enough evidence that this technique is unique and helped to relax the muscle at comfortable level. As the use of such technique also promoted by WHO by stating utilizing of non-pharmacological therapies.[9]

PROBLEM STATEMENT

Effectiveness of Jacobson progressive muscle relaxation technique related to occupational stress among teaching staff of selected secondary schools of the urban city.

OBJECTIVES OF THE STUDY:

The objectives of the study were -

1. To assess the demographic data of teaching staff of selected secondary schools of the urban city.
2. To assess the pretest score regarding occupational stress among teaching staff of selected secondary schools of the urban city.
3. To assess the effectiveness of Jacobson progressive muscle relaxation technique related to occupational stress among teaching staff of selected secondary schools of the urban city.
4. To find out the association between pre-test findings with selected demographic variables.

MATERIALS & METHODS

As the research methodology is the framework for conducting the study, it is the most important element of research project.

Research Design: Pre Experimental**,** one group pre-test post-test Research Design
Research Approach: Quantitative Research Approach
Sample: Teaching staff of selected secondary schools of the urban city
Sample Size: 80 teaching staff
Sampling Technique: Non Probability Convenience sampling.

Data collection tool: NIOSH Modified generic job stress scale was used for data collection.

Criteria for Sample selection:

a. Inclusion criteria:

1. Whose age between 21 to 58 years.
2. Both male and female
3. Who can read and write English and Marathi.
4. Who are willing to participate in study and will provide written informed consent

b. Exclusion criteria:

1. Teaching staff of selected secondary schools with co morbidity
2. Teaching staff of selected secondary school are not available at the time of data collection.
3. Teaching staff of selected secondary schools who come as guest lecturer.

The approval was obtained from the institute of ethics committee. The legal permission was sought from the concern authority. An informed consent from the entire participant was taken. The researcher personally approached each teaching staff and explained the purpose of the study and explained how it will be beneficial for them. She confirmed their willingness participate in the study. The researcher collected group of samples, made them comfortable and orient them study and administered NIOSH modified generic job stress scale to them, instructed them not to interact with each other and doubts were clarified. The scale (pretest) was completed after the approximately 10 minute's duration, Jacobson's progressive muscle relaxation technique was initiated by the researcher. Posttest was administered with the same NIOSH modified generic job stress scale on 7th day. The inferential statistics that is chi-square test was used to find the association between knowledge score with their selected demographic variables. The data was planned and presented in the form of tables and figures.

RESULT

The data collected is entered in the master sheet for tabulation and statistical processing. In order to find out relationship, the data was tabulated, analyzed and interpreted using descriptive and inferential statistics.

Table 1 : Description of teaching staff based on their personal characteristics in terms of frequency and percentage

n=80

Demographic variable	Frequency	Percentages
Age		
21 -30years	8	10
30.1 - 40 years	44	55
40.1 - 50 years	24	30
50.1 - 58 years	4	5
Gender		
Male	17	21.25
Female	63	78.75
Transgender	0	0
Marital status		

Unmarried	4	5
Married	75	93.75
Divorcee	1	1.25
Widow	0	0
Monthly Income		
Less than Rs. 10000	34	42.5
Rs. 10001 - Rs. 15,000	16	20
Rs. 15,001 - Rs. 20,000	9	11.25
above Rs. 20,000	21	26.25
Mode of conveyance		
Walking distance	34	42.5
Own vehicle	45	56.25
Public transportation	1	1.25
School transportation	0	0
Years of Experience		
Less than 1 year	8	10
1.1 - 5 years	21	26.25
5.1 -10 years	18	22.5
Above 10 years	33	41.25
Nature of Job		
Permanent	32	40
Temporary	48	60

The above table 1 shows that major 55% of them had age 30.1-40 years, 30% of them had age 40.1-50 years. Gender depicts that highest percentage 79% were female and 21% of them were male. Most of means 94% of teaching staff were married. Majority 42% of teaching staff were having the income less than Rs.10000. 56.25% of teaching staff were having their own vehicle, 42.5% were staying nearby on walking distance. 41.25% of teaching staff were having the work experience more than 10 years, 22.5% were having 5.1-10 years. Majority 60% of teaching staff were working on temporary basis and 40% of teaching staff were having permanent job.

Table 2 : Effect of Jacobson progressive muscle relaxation technique regarding related to occupational stress among teaching staff

n=80

Occupational stress	**Pre-test**		**Post-test**	
	Frequency	**Percentages**	**Frequency**	**Percentages**
Mild	17	21.25%	60	75%
Moderate	40	50%	19	23.75%
Severe	23	28.75%	1	1.25%

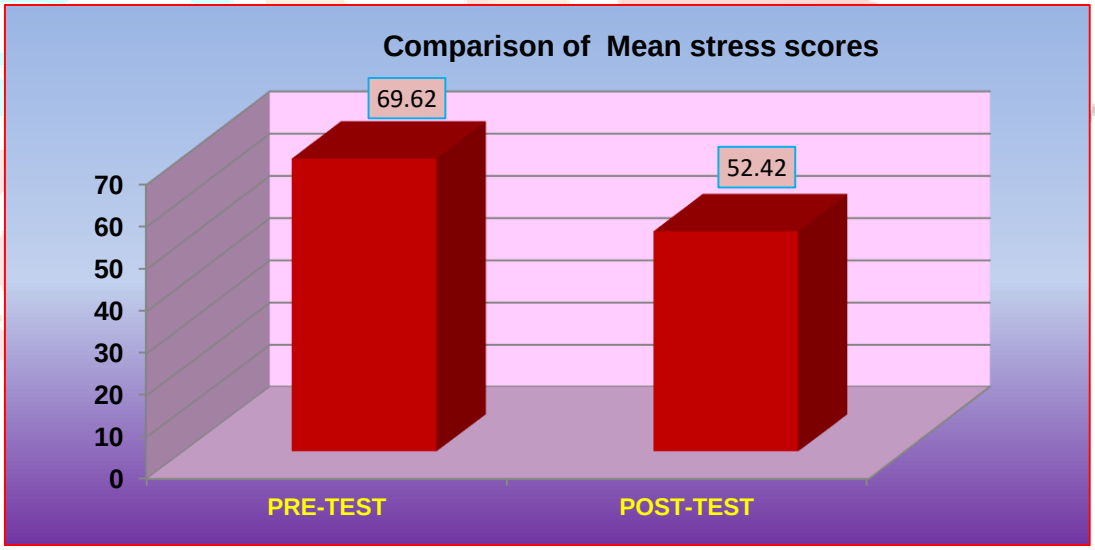
The above table 2 depicts that in pre-test 50% of the teaching staff had moderate (score 60-90) and 29% of them had severe (score 91-120) and 21% subjects had mild stress, while in post-test only 1% of the teaching staff remained in severe category of occupational stress (score 91-120), 75% of them had moved to mild occupational stress (score 31-60) and 24% of subjects had moderate occupational stress (score 61-90). This indicates that occupational stress of teaching staff was remarkably reduced after applying Jacobson progressive muscle relaxation technique.

Table 3 : Paired t-test for the effect of Jacobson progressive muscle relaxation technique regarding related to occupational stress among teaching staff

n=80

Tests	Mean	SD	t-value	df	p-value
Pre Test	69.62	17.00	9.07	79	0.000 P<0.05
Post Test	52.42	10.56			

The comparisons of the pre- test and post- test means of the occupational stress were done by the paired t test. Average occupational stress score in pre-test was 69.62 which has reduced to 52.42 in post-test. t-value for this test was 9.07 with 79 degrees of freedom. Corresponding p-value was small (less than 0.05), thus the null hypothesis is rejected. Occupational stress score in post-test was significantly low as compared to that in pre-test. It is evident that the level of occupational stress among teaching staff was reduced significantly after application of Jacobson progressive muscle relaxation technique.



DISCUSSION

Analysis of demographic data of teaching staff of selected secondary schools of the urban city.

The present study shows that that major 55% of them had age 30.1-40 years, 30% of them had age 40.1-50 years.Gender depicts that highest percentage 79% were female and 21% of them were male. Most of means 94% of teaching staff were married. Majority 42% of teaching staff were having the income less than Rs.10000. 56.25% of teaching staff were having their own vehicle, 42.5% were staying nearby on walking distance. 41.25% of teaching staff were having the work experience more than 10 years, 22.5% were having 5.1-10 years. Majority 60% of teaching staff were working on temporary basis and 40% of teaching staff were having permanent job.

This study findings are supported by a study conducted by Ms. A. Kanaga Jothia**,** The study showed that in the experimental group, majority 17(56.67%) were in the age group of 31 ± 35 years, 25(83.33%) were female, 26(86.67%) were post graduates, 10(33.33%) major subjects were maths, 23(76.67%) were married,

15(50%) had one child, 23(76.67%) had a monthly income of Rs.6001 ± Rs.10,000, 22(73.33%) had family support, 11(36.67%) travelling time were 15 ± 30 min and 30 min ± 1 hour, 17(56.67%) of teachers mode of travel was bus, 26(86.67%) worked 10 hours, 25(83.33%) were moderately satisfied in the job, 21(70%) had 2 ± 3 years of experience and 27(90%) were temporarily employed. Where as in the control group, majority 16(53.33%) were in the age group of 31 ± 35 years, 24(80.3%) were female, 27(90%) were post graduates, 13(43.33%) major subjects was Maths, 25(83.33%) were married, 1(63.33%) had one child, 16(53.33%) had a monthly income of Rs.6001 ± Rs.10,000, 28(93.33%) had family support, 15(507%) travelling time was 15 ± 30 min and 30 min ± 1 hour, 17(56.67%) of teachers mode of travel was bus, 26(86.67%) worked 10 hours, 195(63.33%) were moderately satisfied in the job, 22(73.33%) had 2 ± 3 years of experience and 28(93.330%) were temporarily employed.[10]

Analysis of data related to occupational stress among teaching staff of selected secondary schools of the urban city.

The present study shows that in pre-test 50% of the teaching staff had moderate(score 60-90) and 29% of them had severe (score 91-120) and 21% subjects had mild stress, while in post-test only 1% of the teaching staff remained in severe category of occupational stress (score 91-120), 75% of them had moved to mild occupational stress (score 31-60) and 24% of subjects had moderate occupational stress (score 61-90).

Analysis of data related to the effect of Jacobson progressive muscle relaxation technique related to occupational stress among teaching staff of selected secondary schools of the urban city.

The present study shows that the comparisons of the pre- test and post- test means of the occupational stress were done by the paired t test. Average occupational stress score in pre-test was 69.62 which has reduced to 52.42 in post-test. t-value for this test was 9.07 with 79 degrees of freedom. Corresponding p-value was small (less than 0.05), thus the null hypothesis is rejected. Occupational stress score in post-test was significantly low as compared to that in pre-test. It is evident that the level of occupational stress among teaching staff was reduced significantly after application of Jacobson progressive muscle relaxation technique.

This study finding are supported by a study conducted by **Justin V Sebastian,** A quasi experimental study to evaluate the effectiveness of progressive muscle relaxation technique on stress among staff nurses working in selected hospitals, Kolkata. The study shows that the comparison of the pre and posttest levels of stress in the experimental group shows that the pretest mean value of stress was 71.50 with S.D 12.28 and the post test mean value of stress was 51.70 with S.D 4.95. The calculated paired "t" value of t = 4.2776 was found to be statistically significant at the $p<0.05$ level. This clearly indicates that the progressive muscle relaxation technique on stress was effective in reducing the stress level of staff nurses. The comparison of the pre and post-test levels of stress in the control group shows that the pretest mean value of stress was 79.90 with S.D 9.71 and the post-test mean value of stress was 79.90 with S.D 10.86. The calculated paired "t" value of t = 0.0000 was not found to be statistically significant at the $p<0.05$ level. This clearly shows that there was no significant difference between the pretest and posttest stress scores among staff nurses in the control group. When comparing the post-test stress score between the experimental and control groups, the post-test mean score in the experimental group was 51.70 with an S.D of 4.95 and the post-test mean score in the control group was 79.90 with an S.D of 10.86. The calculated unpaired "t" value of t = 7.4747 was found to be statistically significant at the $p<0.05$ level. The post-test stress score of staff nurses in the experimental group decreased significantly after receiving the progressive muscle relaxation treatment for stress. So, the progressive muscle relaxation technique helped the nurses in the experimental group feel less stressed after the test than the nurses in the control group.[11]

Analysis of data related to association between occupational stress and selected demographic variables among teaching staff of selected secondary schools of the urban city.

In present study, association between occupational stress score and demographic variables was assessed by using chi-square. Since corresponding p-values of all the demographic variables except work experience and nature of job were larger (less than 0.05), the demographic variables like age, gender, income, marital status and mode of convenience were found to have no significant association with occupational stress among teaching staff. Demographic variable like years of work experience and nature of job have significant association of occupational stress with it.

CONCLUSION

Present study focuses on assessment of the effect of Jacobson progressive muscle relaxation technique related to occupational stress among teaching staff of selected secondary schools of the urban city. Total 80 teaching staff were selected as sample. In pre-test 50% of the teaching staff had moderate(score 60-90) and 29% of them had severe (score 91-120) and 21% subjects had mild stress, while in post-test only 1% of the teaching staff remained in severe category of occupational stress (score 91-120), 75% of them had moved to mild occupational stress (score 31-60) and 24% of subjects had moderate occupational stress (score 61-90).The comparisons of the pre- test and post- test means of the occupational stress were done by the paired t test. Average occupational stress score in pre-test was 69.62 which have reduced to 52.42 in post-test. t-value for this test was 9.07 with 79 degrees of freedom. Corresponding p-value was small (less than 0.05). Occupational stress score in post-test was significantly low as compared to that in pre-test. It is concluded that the level of occupational stress among teaching staff was reduced significantly after application of Jacobson progressive muscle relaxation technique.

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