



EFFECTIVENESS OF PROGRESSIVE MUSCLE RELAXATION THERAPY ON JOB STRESS AMONG WORKERS IN CASHEW FACTORIES, KOLLAM

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ABSTRACT

A Quasi experimental research study was conducted to evaluate the effectiveness of progressive muscle relaxation therapy on job stress among workers in selected cashew factories, Kollam. The objectives of the study were: to assess the effectiveness of progressive muscle relaxation therapy on job stress among workers in selected cashew factories, Kollam, to find out the association between job stress and selected demographic variables like age, sex, education, marital status, type of family, income, religion and job experience among workers in selected cashew factories, Kollam. Conceptual framework used for this study was based on the General systems theory of Ludwig Von Bertalanffy. Quantitative research approach was selected with quasi experimental non randomized control group design. Simple Random Sampling was used for selecting samples. Sample size included 60 cashew workers, 30 each in experimental group and control group. The researcher assessed the job stress using self prepared job stress assessment scale. After conducting a pretest for both experimental and control group, the experimental group received progressive muscle relaxation therapy for about 20 minutes every day for 20 days. Daily routine programme was given for the control group. Posttest was conducted on the 21st day using the same tool. The findings of the study were, that the mean posttest stress score of experimental group was (37.63), which was lower than the mean posttest stress score of control group (80.1) after the intervention. This indicates that there is significant reduction in the job stress in the experimental group after the progressive muscle relaxation therapy. The association between job stress and selected demographic variables like age, education, type of family, income and job experience were found at 0.05 level of significance. Present study concluded that progressive muscle relaxation therapy was effective in reducing the job stress among workers in cashew factory.

KEYWORDS: Effectiveness, Progressive Muscle Relaxation Therapy, Job Stress, Workers; Cashew factory.

INTRODUCTION

Stress may be viewed as an individual's reaction to any change that requires an adjustment or response, which can be physical, mental, or emotional. Responses directed at stabilizing internal biological processes and preserving self esteem can be viewed as healthy adaptation to stress.^[1] Job stress is the adverse reaction in which people have to undergo excessive pressures or other types of demand placed on them at work. Well-designed, organised and managed work is generally good for us but when insufficient attention to job design, work organisation and management has taken place, it can result in work related stress. It poses a threat to physical health and mental health.^[2] In work situations, organizational stress due to longer working hours, greater workloads, multitasking, lack of job stability and a host of other factors has motivated researchers to

explore the causes and consequences of stress and the possible remedial measures.^[3]

The state of Kerala concern, having the highest proportion of cashew workers more than 3 lakh workers. Many of the insecurities affecting livelihood of cashew workers ranging from health hazards to lack of effective social protection. In Kerala, about 32.3% of total population comprises of women workers. In the factory sector, out of 66% of the women labour force, 50% are accounted in the cashew, coffee, fruit canning and match industry sectors. Cashew, a traditional industry of Kollam district in which 90% of employees are women.^[4]

A study regarding the effect of stress on women health indicates that employed women in the stress scale has higher average score and their health status was poor as

compared to non-employed women. Obviously stress is the major problem in working women throughout the world.^[5] Several studies revealed that workers with job stress, if practice relaxation therapy will help to relieve stress, improve job satisfaction and refresh the mind.

OBJECTIVES

- To assess the effectiveness of progressive muscle relaxation therapy on job stress among workers in selected cashew factories, Kollam.
- To find out the association between job stress and selected demographic variables like age, sex, education, marital status, type of family, income, religion and job experience among workers in selected cashew factories, Kollam.

MATERIALS AND METHODS

A quantitative research approach was adopted to determine the effectiveness of progressive muscle relaxation therapy on job stress among workers in selected cashew factories, Kollam.

Study design

Quasi experimental nonrandomized control group design was used to collect data from 60 workers in selected cashew factories, Kollam and simple random sampling technique was employed to select the cashew workers.

Inclusion criteria

- Workers who are available during the time of study.
- Workers who are willing to participate in the study

Exclusion criteria

- Who received or practice any other relaxation therapy.
- Who are having problems regarding pulled muscles, broken bones or medical contra indication for physical activities.

Tools and techniques

Part 1 – Demographic proforma

Part 2 – Self structured Job stress assessment scale

Technique – Jacobson's Progressive Muscle Relaxation Therapy.

Data collection process

A formal written permission was obtained from the concerned authorities of the selected cashew factories. A total of 60 samples among which 30 in experimental group from one cashew factory and 30 in control group from another cashew factory were selected by simple random sampling method based on inclusion and exclusion criteria. After explaining the purpose of the study to selected samples, written consent was obtained from them. The pretest was conducted on first day to both the groups using demographic proforma and job stress assessment scale. The researcher provided progressive muscle relaxation therapy for the samples in experimental group for about 20 minutes every day for 20 days from first day onwards and only routine work

was given for the control group. Post test was conducted on 21st day both in experimental and control group using the same tool.

STATISTICAL ANALYSIS

The data collected were analyzed according to the objectives. The obtained data were analyzed using descriptive and inferential statistics.

RESULTS

1) Description of demographic variables

a) Age: The data in the figure 1 shows that both in experimental and control group highest percentage (50% each) of samples belong to age group 31-40 yrs and lowest percentage (10%) of samples belong to age group 51-60 yrs. In experimental group 26.67% belong to 41-50 yrs and 13.33% belong to age group 20-30 yrs. In control group 23.33% belongs to 41-50 yrs and 16.67% belong to 20-30yrs.

b) Sex: The data in the figure 2 shows that all samples (100%) both in experimental and control group under study were female.

c) Education: The data in the figure 3 shows that, in experimental group 40% samples completed SSLC education, 26.67% studied higher secondary and primary education and 6.66% were illiterate. In control group 50% samples completed SSLC education 26.67% had higher secondary and 20% had primary education and 3.33% were illiterate.

d) Type of family: The data in the figure 4 shows that, in experimental group remarkable percentage of samples (66.67%) belong to nuclear family and 33.33% belong to joint family. In control group majority of samples (73.33%) belong to nuclear family and 26.67% belong to joint family.

e) Monthly Income: The data in the figure 5 shows that, in experimental group remarkable percentage of samples (63.33%) were having monthly income Rs >15000. 26.67% samples were having monthly income between Rs10001-15000 and very negligible percentage of samples (10%) were having income between Rs5001-10000. In control group majority of samples (86.67%) were having monthly income Rs>15000.10% samples were having monthly income between Rs10001-15000 and 3.33% were having income between Rs5001-10000.

f) Marital Status: The data in the figure 6 shows that, in experimental group majority of samples (53.34%) were married. 13.33% were unmarried and divorced, 3.33% were separated and 16.67% were widow. In control group 66.33% samples were married. 6.67% were unmarried and 10% divorced, 10% were separated and widow.

g) Religion: The data in the figure 7 shows that, in experimental group and in control group 73.33% were

Hindu and 26.67% were Christian. No representation of Muslim in both groups.

h) Job experience: The data in the figure 8 shows that, majority of the samples had more than 4 yrs experience in both experimental and control group (56.66% and 76.66% respectively). Job experiences of 1-2yrs among the samples were same (6.67%) in both the group. No representation of job experience of 2-3 yrs in control group. Samples with job experience <1 yr were 3.33% in experimental group and 6.67% in control group.

2) Frequency and Percentage distribution of job stress scores

a) Frequency and Percentage distribution of job stress scores in experimental group

Data in the table 1 shows that in pretest 70% had moderate level stress, 30% had severe stress and no mild level stress. In posttest, majority (80%) had mild level stress and remaining 20% had moderate level stress.

b) Frequency and Percentage distribution of job stress scores in control group.

Data in the table 2 shows that in pretest 66.67% had moderate level stress and 33.33% had severe level stress. In posttest, 60% had moderate level stress and 40% had severe stress. There was no mild level stress in both pretest and posttest.

3) Evaluation of effectiveness of progressive muscle relaxation therapy on job stress among workers in cashew factory.

a) Mean, Standard Deviation and t value of pretest and posttest job stress scores in experimental group

Data in table 3 shows that the calculated paired t value was greater than the table value at 0.05 level of significance. So there was statistically significant difference between mean pretest and posttest scores of job stress in the experimental group.

b) Mean, Standard Deviation and t value of posttest job stress scores in experimental and control group

Data in the table 4 shows that the calculated unpaired t value was greater than the table value at 0.05 level of significance. So there was statistically significant difference between the posttest scores of experimental and control group.

4) Association between job stress among workers in cashew factories and selected demographic variables.

The data in the table 5 shows that there was significant association between pretest job stress score with age, education, type of family, income, and job experience., since the calculated chi square values were greater than table value at 0.05 level of significance.

1) Description of demographic variables

a) Age N=60

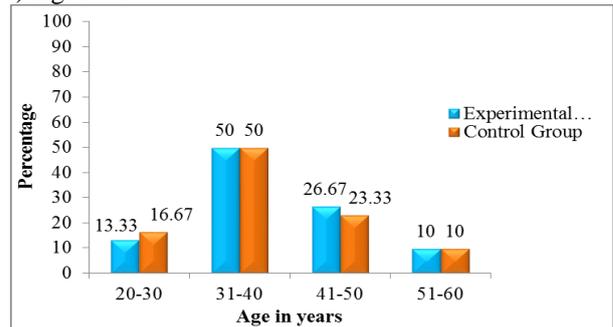


Figure. 1: Percentage distribution of samples according to age.

b) Sex N=60

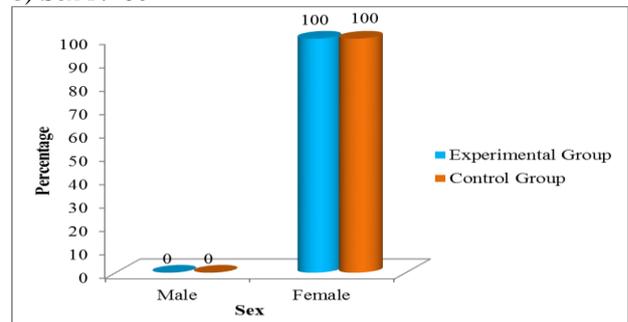


Figure. 2: Percentage distribution of samples according to sex

c) Education N=60

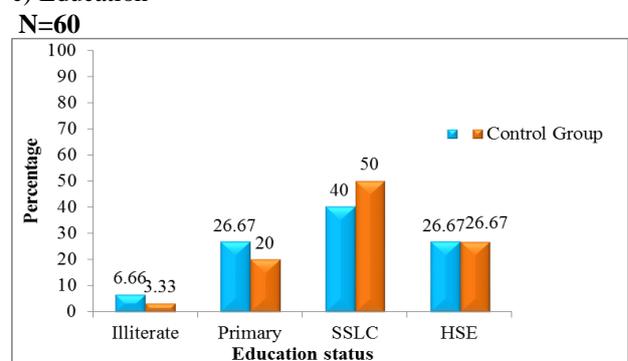


Figure. 3: Percentage distribution of samples according to education.

d) Type of family N=60

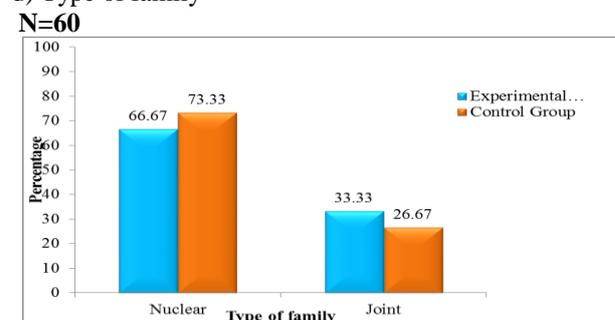


Figure. 4: Percentage distribution of samples according to type of family.

e) Monthly Income
N=60

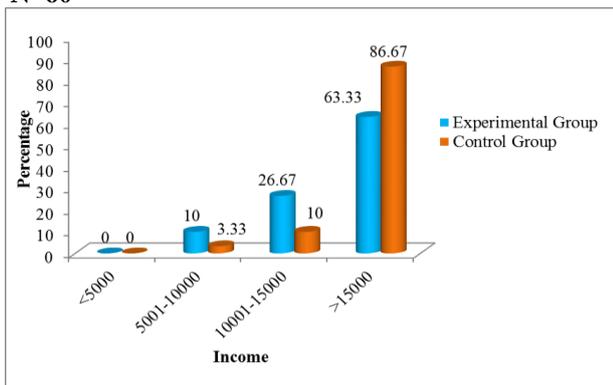


Figure. 5: Percentage distribution of samples according to monthly income.

h) Job experience
N=60

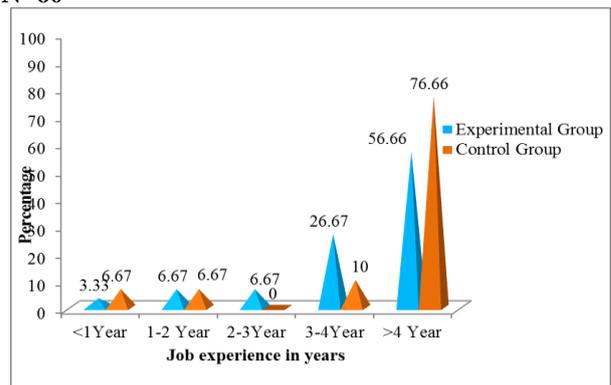


Figure 8: Percentage distribution of samples according to job experience.

f) Marital Status
N=60

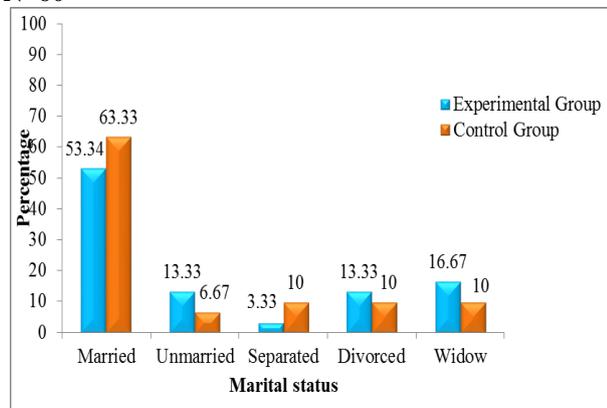


Figure 6: Percentage distribution of samples according to marital status.

g) Religion
N=60

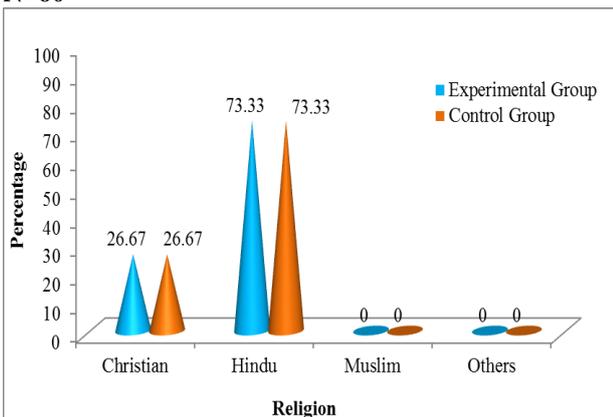


Figure 7: Percentage distribution of samples according to religion

2) Frequency and Percentage distribution of job stress scores

a) Table. 1: Frequency and Percentage distribution of job stress scores in experimental group.

(n=30)

Level of stress	Pretest		Post test	
	Frequency	Percentage	Frequency	Percentage
Mild	0	0	24	80%
Moderate	21	70%	6	20%
Severe	9	30%	0	0%

b) Table 2: Frequency and Percentage distribution of job stress scores in control group.

(n=30)

Level of stress	Pretest		Post test	
	Frequency	Percentage	Frequency	Percentage
Mild	0	0	0	0
Moderate	20	66.67%	18	60%
Severe	10	33.33%	12	40%

3) Evaluation of effectiveness of progressive muscle relaxation therapy on job stress among workers in cashew factory.

a) Table3: Mean, Standard Deviation and t value of pretest and posttest job stress scores in experimental group

(n=30)

	Mean	Standard Deviation	t value
Pre test	79.20	5.64	65.43*
Post test	37.63	2.82	

Tabulated $t_{(29)} = 2.04, p < 0.05$ *Significant

b) Table 4: Mean, Standard Deviation and t value of posttest job stress scores in experimental and control group

N=60

	Mean	Standard Deviation	t value
Experimental group	37.63	2.82	36.62*
Control group	80.10	5.34	

Tabulated $t_{(58)} = 2.0, p < 0.05$ *Significant

4) Association between job stress among workers in cashew factories and selected demographic variables.

N=60

Sl No	Demographic variables	Stress score		df	Chi square value	Table value	Significance
		Moderate	Severe				
1	Age						
	20-30	1	8	3	21.32	7.82	S
	31-40	21	9				
	41-50	14	1				
	51-60	6	0				
2	Sex						
	Male	0	0	1	-	-	NS
3	Education						
	Illiterate	3	0	3	10.78	7.82	S
	Primary	12	2				
	SSLC	20	7				
Higher secondary	6	10					
4	Family						
	Nuclear	26	16	1	4.369	3.84	S
5	Income						
	5001-10,000	1	3	2	9.156	5.99	S
	10001-15,000	5	6				
	>15000	36	9				
6	Marital status						

	Married	24	11	4	5.374	9.49	NS
	Unmarried	3	3				
	Separated	2	2				
	Divorced	5	2				
	Widow	8	0				
7	Religion						
	Christian	9	7	1	1.964	3.84	NS
	Hindu	33	11				
8	Job experience						
	< 1 year	0	3	4	19.729	9.49	S
	1-2 year	0	4				
	2-3 year	1	1				
	3-4 year	8	3				
	>4 year	33	7				

$p < 0.05$ S- Significant NS- Not Significant

DISCUSSION

The present study was conducted to assess the effectiveness of progressive muscle relaxation therapy on job stress among workers in selected cashew factories, Kollam. Self structured job stress assessment scale and Demographic proforma were used to collect data from 60 workers in cashew factories. The findings of the study have been discussed in relation to the objectives and need of the study.

In the present study demographic data revealed that both in experimental and control group highest percentage (50% each) belongs to 31-40 yrs of age group and lowest (10%) were in 51-60 age group and all samples (100%) under study were female. Majority of samples in both group (40% and 50%) completed SSLC education. Regarding type of family, majority samples 66.67% in experimental group and 73.33% in control group were belongs to nuclear family and most of them have monthly income > 15,000. In both group majorities were hindu (73.33%) and highest percentage (53.33% and 66.33%) were married. Majority of the samples had more than 4 yrs experience in both experimental and control group (56.66% and 76.66% respectively).

The present study revealed that the mean posttest stress score of experimental group (37.63) was lower than the mean pretest score (79.20) and mean posttest stress score of control group (80.10). The calculated t value was greater than the table value at 0.05 level of significance. This suggested that Jacobson's progressive muscle relaxation therapy was effective in reducing the job stress among workers in cashew factories. The association was found between the job stress and demographic variables such as age, education, type of family, income and job experience .

CONCLUSION

The present study was aimed to find the effectiveness of progressive muscle relaxation therapy on job stress among workers in selected cashew factories, Kollam. The result showed that there was significant reduction of job stress after the progressive muscle relaxation therapy and were statistically significant at 0.05 level . Also it

showed that there was significant association between job stress and demographic variables such as age, education, type of family, income and job experience.

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