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EFFECTIVENESS OF RELAXATION GROUP TRAINING ON JOB STRESS AND GENERAL MENTAL HEALTH OF NURSES

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ABSTRACT

This study aimed to evaluate the effect of relaxation on job stress and public health nurses of Ahvaz oil company.A total of 60 test subjects were selected randomly in shift workers and day workers of hospital-based oil company and then were divided randomly in 30 patients as the control group and 30 patients as the experimental group. Then 8 sessions for each group of 8 players was training 16 muscle relaxation equally that before the implementation of them, two types of questionnaires were distributed among them.The first questionnaire ESNS prepared for awareness of occupational stress factors and based on the results of the questionnaires were distributed among them another mental health GHQ28 questionnairy.Data analysis were conducted in descriptive statistics and inferential statistics manners that in descriptive statistics section was using the mean and standard deviation and in inferential statistics section was using the multivariate or univariate covariance analysis.

The result of univariate analysis of covariance test revealedthe terms of job stress (F=13.25 and P <0.0001) and public health (F = 9.19 and P <0.0001) have a significant difference between trained and untrained nurses. In addition, training the relaxation techniques to nurses and use of them can reduce their job stress and increase their public health.

Keywords: Relaxation, job stress, nurses, public health

INTRODUCTION

Relaxation techniques are imagination mental models that have direct effect on the actions and behavior of each person and include the mood, personality and sensitivity of each person. Uncoordinated Mental models of oneself to the environment can disorder one's mood and becomes sensitive and fragile the person and due to less stress get psychosomatic diseases. A strong image of a suitable mental model can be shaped a superior personality with confidence and control and strengthening the soul deep down inside. Always someone with a better perspective on things can dominate and the confidence causes the mental comfort. Mental models created in the mind, depending on the social situation, environmental changes and even appearance and ultimately our interpretation of life and the creation of these mental models is effective in providing the tension and relaxation. The most powerful force is " mind " because without interruption for 24 hours works even without the stimulus and has profound effects in our attitudes and thinking and mood (Sanaei, 1390).

Imagination can have one of the strongest relaxation effects because this technique can be used in any situation.Relaxation methods interest to researchers because of usability, low cost, no need for special tools and can be used for persons.

Nursing is one of the most important quality health care and nurses play a vital role in a country's health care system (TajUddin al, 2006). Many studies indicate that there is high job stress and physical and mental reducing in nurses which resulted in the escape of occupation, conflict and displacement among workers, health problems and inability to perform the duties, vulnerability in professional communications, reducing the quality of care provided and finally, dissatisfaction and leave the profession (KhaghaniZade, 1381). 7.4% of nurses are absent per week due to fatigue or stress-related disability that is 80% more than other professional groups (Janet Rajger, 2005). In addition, it should be noted that the military health care environment can affect job performance (Pflanz, 2002). M.F. shaw, (2010) in their study as sleep quality and stress in shift nurses reveals that job stress among shift nurses is significantly higher than others. Nursing managers must create a work environment that not only attract new nurses but also maintain the current nurses and prevent them from moving (Lashonda, 2004). Because the nurses are considered as the basis of

community health any circumstances that led to an increase in nurses overall health, not only to reduce their job stress but also affected the health of all people in the community. Therefore, the institutions responsible nurses should provide favorable working conditions and necessary facilities to provide welfare for this group of community. The present study sought to answer the question whether relaxation training can help to reduce stress and increase the public health of nurses.

According to the importance of public health and nurses job stresses, a study was done in the effect of relaxation therapy on the nurses of oil city of Ahvaz.Access to relevant information concerning recognition of affecting of public health therapy and job stress of nurses will lead to improved conditions and health promotion. This is an applicable method in the different fields of personal, social, marital and job and increases the level of mental health and public health of the people of the community. Because the nurses are considered as the basis of community health any circumstances that led to an increase in nurses overall health, not only to reduce their job stress but also affected the health of all people in the community. The results of this study will help managers to provide favorable working

conditions and necessary facilities to their health. The results of this study can offered to the responsible institutions, organizations and hospitals to provide favorable conditions and facilities and training nurses to improve the physical and mental health and reduce job stress.

METHODOLOGY

The research was aimed to determine the effect of relaxation training on public health and job stress of nurses. . In this project there are two groups, a group trained by the relaxation and the other is the control group that were training normally. Before the project, was performed the public health and job stress test from both groups (pre-test). Then replaced randomly two groups of 30 people due to job stress and public health, the experimental group received relaxation training during 16 sessions, at the end of project and after the 6 week, job stress and public health test were performed for both groups, as the post-test (1 and 2), and results were compared. The research project is an experimental design with two experimental and control groups and pre- and post-test.

The population in this study is all nurses in Ahvaz Oil Company which the number of nurses from the hospital were selected randomly from the list and 60 persons which have higher job stress and low public health

were selected. Then they were divided randomly into 30 patients as the control group and 30 patients as the experimental group.

Table 1 shows the demographic characteristics of the sample.

As can be seen in the table 2, in the experimental group, 21 patients (70%) are men and 9 (30%) patients are women. Also, control group includes 21 patients (70%) men and 9 (30%) patients female.

As can be seen in the table 3, in the experimental group, 8 (26.7%) patients are in the age range of 25-35; 16 patients (53.3%) 36-45 and 6 patients (20%) of them are in 55-46. Also the control group includes 10 (33.3%) patients in the age range of 25-35; 15 patients (50%) are 36 -45 and 5 patients (16.7%) are in the range of 46-55.

As can be seen in the table 4, in the experimental group, 5 patients (16.7%) have an Associate Degree,19 patients (63.3%) are bachelor and 6 patients (20%) have master degree. Also, in the control group, 7 patients (33.3%) are Associate Degree; 20 (50%) are Bachelor and 3 (7.16%) have master degree.

Table 1: pre-test and post-test with control group

RG1	T1	X	T2	T3
1RG	T1	—	T2	T3

Table 2: Distribution of the sample by gender

Groups	Male		Female		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Experimental group	21	70	9	30	30	100
Control group	21	70	9	30	30	100
Total	42	70	18	30	60	100

Table 3: Distribution of subjects according to the age range

Groups	25-35 years old		36-45 years old		46- 55 years old		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Experimental group	8	26.7	16	53.3	6	20	30	100
Control group	10	33.3	15	50	5	16.7	30	100
Total	18	30	31	51.7	11	18.3	60	100

Table 4: Distribution of the participants with regard to education

Groups	Associated degree		Bachelor		Master degree		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Experimental group	5	16.7	19	63.3	6	20	30	100
Control group	7	33.3	20	50	3	16.7	30	100
Total	12	20	39	65	9	15	60	100

Table 5: Distribution of the participants according to work experience

Groups	1-10 years old		11-20 years old		21-30 years old		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Experimental group	12	40	10	33.3	8	26.7	30	100
Control group	16	53.3	8	26.7	6	20	30	100
Total	28	46.7	18	30	14	23.3	60	100

As can be seen in the table 5, in the experimental group, 12 patients (40%) have a job experience of 1-10 years; 10 patients (33.3%) have 11 to 20 and 8 patients (26.7%) have 21- 30 years.

For the purposes of research questionnaire and information gathering, referring to Ahvaz oil companies, while the express purpose of research and necessary coordination with company officials (including training unit) attended among employees and express the talk early and gain the support and cooperation, 60 employees were randomly divided into two groups (30 patients are controls and 30 patients in the experimental group) then distributed the public health and job stress questionnaire among 60 patient with purposed to the pre-test and there were collected after responding of them. After a one week training course began by a two-man team (researcher with a qualified psychologist) only for the experimental group. However, the training did not include a control group. Training performed individually and collectively for four weeks, two sessions per week, each session lasting 30 minutes and finally were 8 sessions and was performed the necessary relaxation training to the personnel. This training

includes 16 muscle exercises in the halls of hospital and during shifts and office hours.

To assess the internal consistency of test, the Cronbach's alpha methods were used. Results have shown that the revised scale factor of nurses (0.96) is more than the main scale (0.89). The domain of subscale validity were from a=88 (conflict with supervisors) to a= 65 (discrimination), respectively. Factor analysis of the "discrimination" subscale showed that gender discrimination has more dispersion (variance) compared to the other cases of racial discrimination.

Relaxation Training

Relaxation techniques were trained to the experimental group to relax the different muscles in your body. This method established by Jacobson (1938), and later Wolpe (1958, 1990) applied it to eliminate its clients' fears. In general, relaxation therapist wants start contraction of a bunch of muscle from clients then wants to relax them until you feel loose and feel relaxation in the muscles. Then the client is asked to do contraction-relaxation exercises with all parts of his body (such as the muscles of the arm, neck, face, shoulders, legs, etc.). While this exercise may take several sessions, but eventually the clients will be able to take

complete relaxation mode in a couple of minutes.

After the client was trained the method of muscle relaxation in the presence of a therapist will be asked to practice at home as well. In fact, when the therapist during interview sessions with the clients concerned to collect the scenes of anxiety should ask him to practice the relaxation in the interview sessions so two important aspects of systematic desensitization that's mean teaching relaxation and preparation of unpleasant imaginary situations hierarchy are going to keep several sessions. Relaxation should continue so that when begins desensitization, after the client lay on the seat can easily reach a state of relaxation immediately. Table 3-4 shows the relaxation training.

RESULTS AND DISCUSSION

According to hypotheses, statistical methods conducted in descriptive and inferential statistics. In the descriptive statistics was used the mean and standard deviation and in inferential statistics was used the analysis of multivariate covariance and repeated measurements.

Descriptive findings

As can be seen in the table 6 the mean and standard deviation of job stress and general health provided in both experimental and control groups in the pre-test and post-test that improved job stress and public health according to the average of the post-test.

Table 6: mean and standard deviation (SD) of general health and job stress of control groups and experimental groups in the pre-test and post-test.

Variables	Groups	Pre-test		Post-test	
		Mean	SD	Mean	SD
Job stress	Experimental	58.648	14.571	50.205	9.575
	Control	57.71	11.97	56.61	15.15
Public health	Experimental	41.328	10.004	45.398	13.083
	Control	44.54	13.34	44.14	11.59

Table 7: the mean and standard deviation of job stress of control and experimental groups in the pre-test and post-test

Components	Groups	Pre-test		Post-test	
		Mean	SD	Mean	SD
Discrimination	Experimental	4.356	0.951	2.379	0.891
	Control	5.106	0.665	2.978	1.708
Workload	Experimental	8.361	1.752	7.113	1.215
	Control	8.160	1.550	7.854	1.904
The uncertainty of treatment	Experimental	11.18	2.940	10.058	1.571
	Control	11.035	2.507	10.747	2.041
Patients and their families	Experimental	7.631	1.805	7.437	1.401
	Control	8.049	1.414	8.904	2.074
Death	Experimental	7.940	1.612	7.153	1.123
	Control	8.064	1.404	7.727	1.781
Conflict	Experimental	5.045	1.108	4.058	0.906
	Control	6.043	0.763	4.842	1.341
Lack of emotional readiness	Experimental	3.368	0.876	2.207	0.421

	Control	4.011	0.671	2.905	1.172
Peer problems	Experimental	4.040	1.398	3.507	0.822
	Control	3.051	1.138	4.267	1.253
Supervisor problems	Experimental	6.825	2.165	6.293	1.225
	Control	4.191	1.858	7.187	1.876

Table 8: the mean and standard deviation of public health components in both experimental and control groups in the pre-test and post-test

Components	Groups	Pre-test		Post-test	
		Mean	SD	Mean	SD
Physical symptoms	Experimental	10.132	3.224	12.4	4.140
	Control	11.105	4.006	11.491	3.320
Anxiety symptoms	Experimental	12.791	3.842	13.166	4.363
	Control	12.987	5.215	13.078	4.550
Social functioning	Experimental	11.104	2.206	11.766	2.979
	Control	12.825	2.815	11.590	2.224
depression	Experimental	7.301	0.732	8.066	1.601
	Control	7.623	1.304	7.981	1.496

Analysis of multivariate covariance

As can be seen in Table 9 multivariate covariance analysis findings suggest that multivariate F value in P<0.0001 is meaningful statistically. Therefore, we can say that the nurses in the experimental and control group, at least one of the dependent variables (stress, public health) were significantly different. To understand this difference was used the analysis of univariate covariance.

Hypothesis 1: group relaxation training has an effect on reducing job stress.

As can be seen in the table 10 the results of the analysis of univariate covariance shows a significant difference between the experimental and control groups in job stress (F=13.25 و P<0.0001). In other words, teaching relaxation reduced job stress.

Hypothesis 2: group relaxation training affected in public health of nurses.

The results of univariate covariance analysis of table 11 shows that experimental and control groups have significant difference in terms of intrinsic motivation of public health (F=9/19 و P<0.0001). Tables indicate significant differences in both the pre and post-test that the public health of nurses increased significantly and decreased their job stress. Therefore, we can say that among the students there are significant differences between experimental and control groups.

Table 9: analysis of multivariate covariance for study the effects of relaxation training on the job stress and public health

Test name	Value	DF hypothesis	DF mistake	Level of F	significance
The effect of Pilavi test	0.592	8	144	7.57	0.0001
Wilks lambda test	0.464	8	142	8.13	0.0001
The effect of hoteling Test	1.035	8	140	9.06	0.0001
The biggest root test	0.901	4	72	16.23	0.0001

Table 10: analysis of the impact of group relaxation training on job stress

Source of changes	sum of squares	degrees of freedom	mean square	F	Significant level
Group	0.0001	13.25	1541	1	3082
Pre-test	0.662	0.19	22.5	1	22.5
Error			116.3	77	8953
Total				60	

Table 11: Analysis of an effect of relaxation group training covariance on enhancing public health

Source of changes	sum of squares	degrees of freedom	mean square	F	Significant level
Group	0.0001	9.19	1229	1	2458
Pre-test	0.607	0.27	35.8	1	35.8
Error			133.8	77	10301
Total				60	

CONCLUSION

This study showed that group relaxation training can be improved public health and decreased job stress for nurses. The results showed that the mean stress of the experimental group in this study decreased significantly after intervention. This shows the effect of relaxation to reduce stress on nurses. Also, the findings of this study can be show the positive effect of relaxation techniques on public health of nurses and their understanding of the physical health, social interactions, and environmental welfare.

The results of this study showed that relaxation techniques can reduce stress and significant difference of public health in the two experimental groups, suggesting that the relaxation could be an increase in public health. For this reason, we can recommend the use of relaxation techniques to increase the level of public health. The present study investigates the stress and public health of nurses in the Hospital of Ahvaz Oil Company and it has recommended studied on the nurses of public hospitals and compared with the results of the present study.

The results of statistical analysis showed a significant difference between pre-test and post-test scores and the degree of confidence of 99% we can say that relaxation effects on reducing job stress.

Learning relaxation skills and stress are necessary for nurses. Reducing anxiety and stress cause of increase the focus on memory, increase learning, facilitate the study and felt good physical and mental health in nurses.

According to the results of the study and research in this field can be concluded that relaxation is effective in reducing stress in the job stress. Therefore, training and implementation of this method is strongly recommended in difficult and stressful jobs to all target groups in order to reduce the effects of stress.

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