The study of the effect of stress management program on transactional model constructs in Yazd teachers of primary schools

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ABSTRACT

The most important factors influencing teachers' efficiency are stress and gradual exhausting which affect on student˒ s teaching and training. Since Transactional Model has been considered as one of the most complete one concerning stress, the researchers decided to perform this survey to determine the effect of stress management program on Transactional Model constructs in Yazd teachers of Primary school. The Study was interference, quasi-experimental one. The sample population concluded 100 people of Yazd teachers of primary schools. Simple random categorized approach was applied for sampling. PSS, and the questionnaire planned based on Transactional Model were applied for data collection. Validity and reliability of these two had been confirmed before. Interference process was done in eight sessions. Appraisal was performed in three periods: before, immediately after the period ended, and one month later the teaching process ended. SPSS version 15, were applied for data analyzing. A population of 57 female and 43 male (average age of 42.85±5.39) participated in the study. According   to the results obtained, the stress value in boy schools (38.15±7.70) was higher than girl schools (39.26±5.11). Variance analysis results showed a significant difference between pre- test, post- test and follow up scores mean in general. Pierson correlation results, also represented a direct and opposite relationship between the model constructs and perceived stress value. Regression analysis results indicated that 71% of perceived stress variance is rationalized by Transactional Model constructs. Totally, the results of the study showed that stress management program decreased stress so; it can be used for stress management interferences.

Keywords: Transactional Model, Stress management, teacher- primary school
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INTRODUCTION

Nowadays some problems; such as environmental pollution, traffic, family problems and some other social disorders have a great effect on declining of the spirituality, humanity and emotional feeling and finally made the man to be prone to mental problem[1] Stress is considered as one of the major causes of diseases and threats to

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physical and mental health among all people in all ages which try to cope with [2-4]. Today, job stress has dramatically been prevailed in work environments and almost all the people experienced it [5]. Job stress is one which a person experienced in a certain job resulting from person status and work situations which affected each other [6].

Most cure professions including nursing, medicine and other human services ones are considered stressful [7]. Teaching is also particular in view of the responsibility to health, bliss and activities of the students. Teachers are responsible for promotion of knowledge, pedagogy of students and creating discipline so, teachers, stress is of different type [8].

Although many teachers are fond of their job and experience little strain, several surveys have documented that up to a third of the teachers consider teaching as highly stressful [9]. According to the results, teachers are affected by stress: 30.5% and 3.2% of them are subject to high and very high risk range respectively [10]. Since To achieve the quality of work life, regular effort are required by the organizations which offer the employees more opportunities for their job and improvement in the quantity and quality of education in any country depends on the educational system [11-12] and In spite of researches indicating high stress value among Iranian teachers and their reasons, less applicable enterprise has done so; the researchers have done the present study to determine the effect of stress management program on Yazd teachers of primary schools.

MATERIALS AND METHODS

The study was interference, quasi-experimental one. The sample population concluded 100 people of Yazd teachers of primary schools in 2013. Simple random categorized approach was applied for sampling. First, the teachers were divided into two male and female categorizes, so of each selected random. Questionnaires consisting of questions concerning demographic features, PSS questionnaire and Lazarus and Folkman Transaction Model- based questionnaire were used for data collection. PSS questionnaire 14-questions version was also used [13]. According to Likert Scale, five choices were planned. Each choice was taken 1 to 5 score. Scores range was between 14 (maximum stress) and 70 (minimum stress). A Transactional Model-based questionnaire was applied to evaluate Transactional Model constructs (primary appraisal, secondary appraisal, problem management, emotional regulation, meaning- based coping, adaptation, moderators) which its validity and reliability were fully measured by researchers. Content validity approaches and determining CVR, CVI, confirmatory factor analysis methods were applied to study validity and internal adaptation respectively. The results represented goodness of fit of the model. Criterion- related validity using Pierson correlation showed a significant estimation power (r=0.75), (p<0.001). Cronbach's alpha coefficient (σ=0.87) represented good reliability of the instrument. According to Likert Scale, each question was taken 5 choices and assigned 1 to 5 score. After the questionnaire was planned and confirmed by experts, sample group was selected. Then, the explanatory plan, plan goal and a university letter of introduction were submitted department of education. A license for on the job training program was issued by the department officials. The participants entered the course consisting of eight 60-90 min sessions based on syllabuses and contents determined. The framework was lecturing, panel discussion and team work [table-1]. Appraisal was done in three phases: before the course began, immediately after, and one month later the course ended. The questionnaires were answered by participants. In addition to, another questionnaire was given them to answer in home before final test held. This questionnaire contained theses questions: the stress which has been experienced, its features, family type, organizational or beyond organizational one, being successful or not the approach applied. Evaluation was done before interference, immediately after it and one month later. SPSS version 15, Repeated Measures analysis test and Multi-variable regression using step by step method were applied to analyze the data and their statistic deduction respectively [14].

RESULTS

A population of 57 male (57%) and 43 male (43%) of Yazd teachers of primary schools (their average age was 42.85± 5.39) participated in the study. 85 people of them had a BA degree and the major of 73 people was primary education. 49 people of them have being taught more than 20 year.

According the results, the stress value among females (39.33±5.22), singles (41.50±5.26), boy schools (38.15±7.70) was more than males (38.88±7.43), married (43.31±6.69) and girl schools (39.26±5.11) respectively, but the differences were not significant statistically. In view of coping approaches, females applied emotional adjustment

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and meaning- based coping more than males. Table-1 shows the effect of education on Transactional Model constructs.

To determine whether there is a difference between model constructs scores mean in pre-test, post-test and follow up or not, the means were compared using repeated measures variance analysis method. The variance analysis results indicated that the difference between pre-test, post-test and follow up scores mean is significant generally [table-1]. Mauchly,s Test results, of course, confirmed "equality in covariance between dependant variables" presupposition and the figures validity.

Table-1. Results of repeated measures variance analysis on Transactional Model constructs of pre-test, post test and follow up

Construct	Interference Time	Mean	SD	F	P-Value
Primary appraisal	Pre-test	19.67	3.05	6.11	0.015
	Post-test	20.67	5.91		
	Follow up	21.50	4.44		
Secondary Appraisal	Pre-test	17.77	5.40	1.83	0.16
	Post-test	18.42	4.43		
	Follow up	17.14	4.68		
Problem Management	Pre-test	35.61	4.03	25.44	0.000
	Post-test	40.82	4.03		
	Follow up	41.44	6.01		
Emotional Regulation	Pre-test	18.23	3.00	4.31	0.015
	Post-test	17.97	3.71		
	Follow up	19.28	3.15		
meaning-based coping	Pre-test	18.71	3.43	6.27	0.12
	Post-test	20.34	8.00		
	Follow up	21.36	3.62		
Adaptation	Pre-test	27.91	4.51	5.59	0.004
	Post-test	25.86	4.86		
	Follow up	26.93	4.06		
Moderators	Pre-test	11.25	3.03	1.22	0.29
	Post-test	12.04	5.17		
	Follow up	12	3.39		
Perceived Stress	Pre-test	40.00	6.28	21.58	0.01
	Post-test	43.24	6.62		
	Follow up	45.49	5.15		
Total	Pre-test	149.15	16.33	6.53	0.042
	Post-test	156.12	32.12		
	Follow up	159.65	17.80		

Additionally, results of pair comparisons showed the differences of pre-test, post-test and follow up [Table-2]. According to the results, the educational program has generally decreased stress. Differences between the means in the three phases have shown to determine to which phase it related.
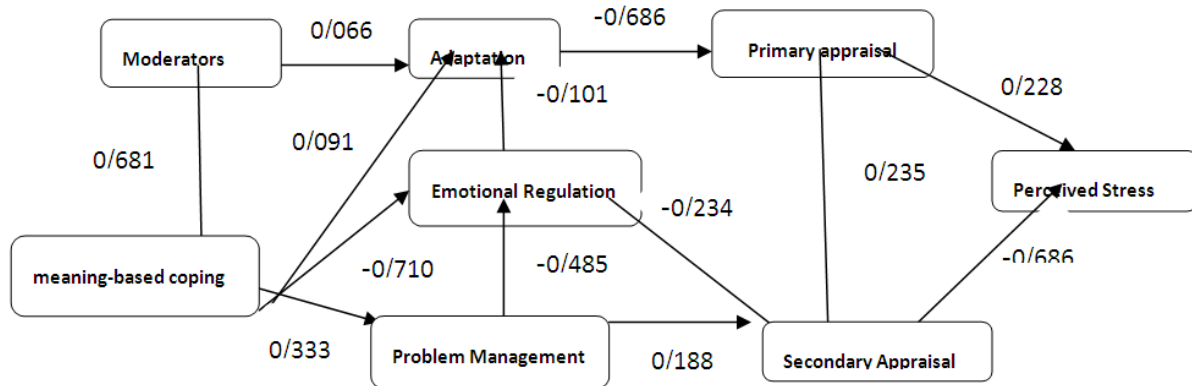
Following the basic analyses done, Pierson correlation coefficient was measured and signified to study the relationship between affecting constructs. Results represented a direct and opposite relationship between these constructs and perceived stress value(except for primary appraisal), i.e., the more the meaning- based coping, emotional regulation, problem management, adaptation and moderators, the less conceived stress value.

As shown in diagram-1, primary appraisal variables and secondary ones directly affect behavior, and of the second one is more. Also, moderators and primary appraisal variables both directly and indirectly affect behavior. Emotional regulation, problem management, meaning- based coping, adaptation and moderators' constructs also affect behavior indirectly. Direct and indirect effects of the constructs have shown in Table-3.

Table-2. Results of pair comparison of pre-test, post- test and follow up

Construct	Mean Difference		Significant Level
Primary appraisal	Pre-test, Post-test	1	0.000
	Pre-test, Follow up	1.830	0.642
	Post-test , Follow up	0.83	0.642
Secondary Appraisal	Pre-test, Post-test	0.650	0.294
	Pre-test, Follow up	0.630	0.392
	Post-test , Follow up	1.280	0.052
Problem Management	Pre-test, Post-test	5.210	0.000
	Pre-test, Follow up	5.830	0.000
	Post-test , Follow up	0.620	0.547
Emotional Regulation	Pre-test, Post-test	0.260	0.60
	Pre-test, Follow up	1.050	0.020
	Post-test , Follow up	1.310	0.007
meaning-based coping	Pre-test, Post-test	1.630	0.069
	Pre-test, Follow up	1.650	0.054
	Post-test , Follow up	2.020	0.22
Adaptation	Pre-test, Post-test	2.050	0.002
	Pre-test, Follow up	0.980	0.101
	Post-test , Follow up	1.070	0.087
Moderators	Pre-test, Post-test	0.790	0.197
	Pre-test, Follow up	0750	0.097
	Post-test , Follow up	0.040	0.950
Perceived Stress	Pre-test, Post-test	3.240	0.14
	Pre-test, Follow up	5.490	0.025
	Post-test , Follow up	2.250	0.12
Total	Pre-test, Post-test	6.97	0.024
	Pre-test, Follow up	10.50	0.012
	Post-test , Follow up	3.53	0.032

Figure-1. Analysis pattern of the path based on Transactional Model construct

Multi- variable regression analysis using step by step method was applied to analyze data and determine how the coping approaches affect the stress. Perceived stress value and model components were entered regression equation as estimate variable and scale one respectively. Results showed that 71% of perceived stress value is rationalized by Transactional Model constructs so that 69.6 of which is just due to primary and secondary appraisal.

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Table-3. Total effect of constructs on estimation of adaptation against stress

Independent Variable	Direct effect	Indirect effect	Total effect	Dependent Variable
Primary appraisal	0.228	(0.335×-0.668)	0.384	
Secondary Appraisal	-0.668		-0.668	
Problem Management		(0.485×0.234×-0.668)+(0.188×-0.668)+(0.485×0.101×-0.686 × 0.228)	-0.211	
Emotional Regulation		(0.234×-0.668)+(0.101×-0.686×0.228)	0.172	Perceived Stress
meaning-based coping		(-0.686×0.228)	-0.156	
Moderators		(0.681×0.234×-0.686)+(0.681×0.101×-0.686×0.228)+(0.066×-0.686×0.228)+(0.681×0.091×0.686×0.228)+(0.681×0.101×-0.686×0.228)+(0.681×0.333×0.188×-0.668)+(0.681×0.710×0.224×-0.668)	-0.156	
Adaptation		(0.333×0.188×-0.668)+(0.710×0.234×-0.686)+(0.710×0.101×-0.686×0.228)+(0.091×0.101×-0.686×0.228)	-0.165	

DISCUSSION

As the results showed, primary and secondary appraisals rationalized a significant value of perceived stress value variance. According to Lazarus and Folkman[15], appraisals play an important role in determining person facing response. Whether the person uses a facing response and how much (s)he face it, seemingly depends on that has (s)he recognized the situation due and dangerous or not? These results confirm Lazarus and Folkman, and Chank studies [15-16].

The results also showed a significant and opposite relationship between problem management, emotional regulation and perceived stress value. Findings which conform other researchers results, are rationalized according to Lazarus and Folkman Model [17] which claims cognitive skills are used in coping process to solve the problem. The person applies a sufficient coping method of cognitive skills to solve the problem. Thus, coping approaches are directly studied to remove the problem and a psycho logic satisfaction is gained.

On the other hand, this approach causes mental solidarity and decreases emotional anxiety. In the light of the severity, stress source and its controllability are more recognized. Gaining these two, increases mental health. Self-confidence engendered, decreases anxiety and increases mental health too.

Of the results were also that females apply emotion-based approaches and meaning-based coping more than males, although the difference is not significant. Most researches show no gender effect in using coping methods, but Billy et al [18]. Research showed that females applied emotion-based approaches in stress perception and coping more than males. Day and Levingstone [19] found that females and males applied emotion-based and problem- oriented approaches respectively. The results, therefore, indicate that gender plays an important role in using emotion-based approaches i.e., females incline such approaches more than males.

Findings also represent an opposite and significant relationship between adaptation and stress; and secondary appraisal and perceived stress. According to Singer theory, being aware of stress and coping and adaptation approaches affect cognitive evaluation and stress decrease considerably.

In view of correlation, there is an opposite and significant relationship between Transactional Model constructs (except for primary appraisal) i.e., improvement of any model constructs will decrease perceived stress value. As represented, the high correlations relate to secondary appraisal construct (results control, emotions and self-sufficiency) and primary appraisal ones. Clark states that self-sufficiency estimates perceived stress and satisfaction levels significantly. Mausbach research shows a significant, negative and opposite relationship between self-sufficiency value and perceived stress [20-21]. When a situation is considered as threatening, primary appraisal will be an important estimation in view of psychological signs. The more evaluation of abilities in the face of stressful situation, the less psychological signs and stress.

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CONCLUSION

The results represent that stress management program decreases stress; therefore it can be used for stress management interferences. Since the most important determinant variables in this study were related to primary and secondary appraisals, the policies and plans which improves these factors is recommended.

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