Design and Validation of Stress Management Training Program for First-Grade Female High School Teachers in Shahriar City

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Abstract
Introduction: The purpose of this study was to design a stress management training program and determine its effectiveness on the quality of work life, career engagement and professional ethics for high school teachers. **Methodology:** The research was done in a mixed method in two stages. The first stage was qualitative that training package was created and the second stage was quantitative, implemented in the form of factor analysis. The statistical population in the qualitative section included scholars and academic experts (psychologists and educational management) as well as those who had specialized research studies in this field. Purposeful sampling method was used to determine the samples. The sample size in this section was 12 ones based on the saturation principal. The statistical population of the quantitative section included all first-grade female high school teachers in Shahriar City in 2018. 474 ones were randomly selected and filled out the questionnaires. After designing the program, it was validated based on theoretical foundations and semi-structured interviews with teachers and experts in the field of psychology. According to the literature review, seven factors were identified using the exploratory factor analysis. **Findings:** Based on the study on this field, the first factor was the recognition of tensions, the second one was expression, the third one was the anger management skill, the fourth one was replacing rational thoughts, the fifth one was the rational behavior skill, the sixth one was the time management, and the seventh one was called self-relaxation. **Conclusion:** Stress management techniques are used successfully in many emotional and physical problems such as anxiety, depression, insomnia, and career problems, and are effective.

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1. Introduction

An overwhelming life of the twenty-first century has transformed the stress into an important issue in issues on organizational behavior. Due to increasing the competition, the employees are asked to work better in shorter time and with less resources; since the human resources development process due to its multidimensional and complex nature and the close relationship with organizational changes, needs a suitable platform to remain stable and to create new capabilities in the process of realization, it requires the fulfillment of certain conditions. Therefore, this question rises a question whether any organization can, in any given cultural and structural context, enhance its human resources development. (Pardakhtchi, 2013).One of the factors affecting manpower management is workplace stress. This issue is considered as one of the most important occupational damages in the modern age and can reduce the production, absence from work, work force displacement, work conflicts, and highest health care costs for employees (Alberksten & Natvig, 2018).

In a study done by the American Psychological Association entitled "Stress Transformation through Awareness, Education and Collaboration" in 2017, 73% of people regularly have stress symptoms, and 76% consider the money and work as main factors of stress, as well as three-quarters of the employees, believed they have more job stress than the previous generations. The cause of stress can be either in the workplace or outside it or both (Karimi, 2012). The findings of research done by Gonrugil's (2010) suggests that these work pressures affect the personal lives of employees and their quality of work (Menge & Etal, 2017).

In the new era, the lives of individuals and organizations have been considered in different ways. One of the factors affecting the lives of individuals and their physical and mental health is stress. Stress is important in the management of organizational behavior, and since working conditions are constantly changing, this discussion has always been associated with some work-related issues in organizations, and in the last few decades, the movement of life has accelerated and the developments in the world of work have become more serious. Some scholars do not consider the stress as a necessarily destructive thing, although most researchers believe that it is a mental health problem, and in the current situation, it is one of the problems of managers that greatly reduces productivity, and causes the behavioral problems (Magtibay, 2017). Occupational environment, type of work, extremes in the workplace, physical hazards, how a person adapts to the work environment and confronting the family-work are considered as sources of stress or professional tension (Dadsetan, 2008).

The occupational stress occurs when the work and tasks of the people are overwhelmed. This also affects the health of people (physical and mental), and this affects the type of employee relationships with their jobs and organizations; it will also affect their life outside of their work environment (Jacobs, 2017). According to Cooper (1978), with some personality traits, one can predict different responses to occupational stress, such as professional dissatisfaction and mental disorders (Dadsetan, 2008).

2. Literature Review

Evidence suggests that stressful jobs do not always have a negative impact on employees, they even motivate them to work; but when employees lose their control and the conditions get unpredictable for them, stress overcomes them (Magtibay, 2017). Therefore, people need to actively adapt themselves to stressful situations using their various techniques and learn how to deal with problems step by step (Maikenbam, 2016).

Those who are trained to cope with stress and have more information about coping with stress, are more likely to overcome stress (Magtibay, 2017) In recent years, organizations are increasingly in the process of preparing management plans for stress. Despite the proliferation of such programs, the issue is still being debated among some scholars that such programs in all organizations can be effective in helping employees

with stress and improving their efficiency for the organization. Researches have indicated that interventions to prevent stress are a preventive approach because stress is not a disease that requires treatment after its signs are revealed, but rather that it should be prevented before overcoming (Ross and Altmayer, 2017). Granath, Igvarsson & Lundberg (2006), in a meta-analytic study on stress management interventions, have reported the effect of cognitive-behavioral methods on psychological outcomes such as motivation, passion and eagerness, and also the major impact of relaxation on physiological outcomes related to employee health.

According to Hirokowa et al. (2012), took two important points in designing and implementing stress management interventions for employees. One is the ability to run and the other one is the effectiveness of the program. The ability to run is that the designed program is accordance with the characteristics and conditions of the audience both in terms of content and its implementation. Therefore, the training of stress management skills to solve problems of individuals should be organized on the basis of each individual. The design of the programs requires an accurate assessment of the attitudes, perspectives and activities of the employees and the opportunities of managers and organizations (Mac Gregor & Lanborm, 2014; Roland et al., 2016).

One of the main concerns of efficient managers at different levels is how to create a suitable platform for human forces working in all professions to work with the sense of responsibility and commitment to issues in society and profession and to observe the ethical principles governing their profession. (Qaramlaki, 2014). Since the success of any educational system depends on the knowledge and skills of its teachers, Gage (2014) believes that no other one than a teacher can have more influence on what is being offered in schools (Roland et al., 2016). Therefore, it can be said that the teacher is the most important element of the educational system in the process of teaching-learning and the main architect of the education system. According to the researches done in Iran, the most teachers are severely stressed and a large part of this stress is due to their profession; in terms of job stress, 30.5% of teachers are in the high risk zone and 3.2% of them are in the very high risk zone. However, the stress is associated with a variety of factors such as the intention to relocate a job status, job engagement, teaching efficiency and management of class and human relationships, and the lack of control, have many complications for teachers and students (Taheri, Mohebzadegan and Zamanpour, 2013).

Regarding the type of teacher's work, stress in this occupation and, more likely, in female teachers will be higher, while the stress associated with the work of female teachers cannot be distinguished from their daily lives and experiences (El Dorap et al. 2017). Anthony et al. (2006) believe that in determining the mechanisms for designing stress management training programs, cultural differences and values in organizations are considered. Therefore, we should look for a well-considered and significant teacher program that includes management strategies and practices, among which teachers will be able to choose the best and most effective way, and according to their personal experiences and needs, take the most desirable way to deal individually in the stressful work conditions. Achieving this goal is not possible as other goals without precise program. Therefore, the purpose of this study was to design and validate the stress management training program of the female first-grade high school teachers in Shahriar City.

3. Methodology

The present research was done in a mixed method in two stages. In the first stage which was qualitative, the training package was made; the second stage was quantitative. In this research, stress management training was considered as the independent variable and improving the quality of work life, job engagement and professional ethics in teachers were considered as the dependent variable. At first, the pre-test was performed for the control and experiment groups, and after implementation of the independent variable for the experiment and control groups, post-test was implemented.

Qualitative section: The statistical society in the qualitative section includes scholars and academic experts (psychologists and educational management), as well as those who have specialized and research studies in this field. Goal-oriented sampling method was used to determine the samples and to determine the group. According to the available time and resources, it is possible to use a sample of 10 to 25 interviews to do the research (Abbasi et al., 2009); twelve subjects were considered as interviewees. Of course, it should be noted that the researcher reached saturation after 12 interviews.

Semi-structured interviews were used to collect qualitative data. In individual interviews with interviewees, five interview questions were used for preliminary examination. In addition, additional sub-questions were raised along with each question to understand participants' experiences during the interview. The researcher analyzed the data in the process of sampling so that incomplete cases can be completed by obtaining new information from the new participant. After conducting 12 interviews, the main and secondary factors were repeated in previous interviews and the researcher reached saturation. In essence, the researcher's saturation observes similar data over and over again and, empirically, assures that a category is well-suited, in other words saturated (Danaeefard and Emami, 2007).

During the interview, it was gathered the opinions about the appropriate indices for determining the components and indices of teachers' stress management. The main and sub factors were considered and finalized. The duration of the interview was between 30 and 60 minutes. In table 1, the interview process questions are presented.

Table 1. Questions of the interview process

row	question
١	In your opinion, what factors and how can they influence the teachers' stress?
٢	What is your definition of stress management for teachers?
٣	What are the characteristics of a teacher who has an appropriate stress management?
۴	What are the inhibitors and facilitators of stress management for teachers?
۵	What are your suggested ways to improve the stress management of teachers?

4. Findings

The statistical population of the quantitative section included all female first-grade high school teachers in Shahriar City in 2018. In the quantitative section, factor analysis method was used. Boomsma (1983) estimates a size about 200 people adequate for the model fitting (quoted from Tabachnick and Fidel, 2001). Based on the expected effect size and the distribution of measured variables as well as the power of the test, at least 10 subjects may suffice for each estimated parameter, provided that the size of the effect estimation is large and the measured variables have a normal distribution (Tabachnick & Fidel, 2001). In the present study, based on the instrument used, there were 48 questions in the model, and therefore, at least 480 samples were needed. Accordingly, 500 people in this section were selected as sample size and 474 questionnaires entered the final analysis after the fall.

Table 2. Identified stress management components

component	skills
Identification of tensions	1. Identify good and bad job stress 2.Attention and focus on the positive and negative aspects of work 3.Controlling irrational thoughts and replacing it with rational thoughts 4. Familiarity with work situations 5.Familiarity with family and social factors and situations
	1.Identify individual styles 2.Identify the position

Expressing	3.Planning activities 4.Empathy and helping the others 5.Before the reaction, examination of the issues 6.Learn to listen 7.Accept the sympathy of others 8.The ability to verbal and non-verbal self-express
Anger Management Skill	1.Template from the person who is acclaimed 2.Familiarity with response patterns and power dynamics 3.Find the right pattern 4.Awareness of external and internal factors 5.Pleasant mental images 6.Permanent review of incentives 7.Overcome the anger
Replacing rational thoughts	Identify the difference between anxiety, fear and tension Anxiety control Relationship between thought, feeling and behavior Familiarity with Coping Strategies Attention to uncontrollable affairs Wide view and selection awareness Self-review Relax the own mind Trying to forget things Refuse to a bad happening Engaging the mind to other activities
The skill of courageous behavior	1.Motivating self 2.Change the way to deal with annoying situations 3.Dare-learning 4.The ability to say no 5.Expressing healthy and unhealthy communication styles 6.Apology for work done 7.Negotiating and interviewing in positions to achieve a positive outcome
Time management	1.Select the closest goal to the main goal 2.Pay attention to the next steps 3.Awareness about time 4.Transferring the responsibilities to others 5.Prioritize time and schedule time
Self-relaxation	1.Pay attention to the five senses 2.Deep and progressive muscle relaxation 3.Sport and exercise 4.Diaphragmatic breathing 5.Self-training

In table 3, the results of KMO index and Bartlett test on the existing and identified indices for the variables of the research model, can be found.

Table 3. KMO and Bartlett test results

factors	test		results
Components of Stress Management	KMO sampling adequacy factor		0.63
	Bartlett Test of Sphericity	Chi-square	12717.82
		Freedom degree	1128
		Significance level	0.000

According to the results, KMO index is greater than 0.6 and represents the values almost close to one, indicating the adequacy of the sample size based on the identified indices for factor analysis. The significance level of 0.000 for Bartlett test also indicates the suitability of the research variable for factor analysis because the hypothesis one of the correlation matrix is rejected.

In table 4, the explanation of the total variance is presented. This table consists of three parts. The first section contains initial eigenvalues and determines the factors that remain in the analysis. In factors that have a specific value less than one, they are excluded from the analysis. Factors left out of explanation are factors whose presence does not explain more variance. The second part consists of the sum of the square of the extracted loads related to the eigenvalues of extraction factors without rotation, and the third part relates to the sum of the square of the rotated loads.

Table 4. Explanation of variance of components

factors	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotated Sums of Squared Loadings		
	total	variance	The cumulative percentage	total	variance	The cumulative percentage	total	variance	The cumulative percentage
1	6.461	13.460	13.460	6.461	13.460	13.460	4.298	8.955	8.955
2	4.199	8.748	22.207	4.199	8.748	22.207	4.180	8.709	17.663
3	4.002	8.338	30.545	4.002	8.338	30.545	3.744	7.800	25.463
4	3.395	7.073	37.618	3.395	7.073	37.618	3.476	7.243	32.706
5	2.868	5.974	43.592	2.868	5.974	43.592	3.232	6.733	39.438
6	2.311	4.815	48.407	2.311	4.815	48.407	3.084	6.426	45.864
7	2.098	4.371	52.778	2.098	4.371	52.778	2.691	5.606	51.469
8	0.919	3.773	54.713						
9	0.869	2.220	56.933						
10	0.757	0.241	57.737						

According to table 4, the first seven factors have initial eigenvalues greater than two and remain in the analysis. These factors account for approximately 52% of the variance of the stress management components. In order to investigate the nature of the relationships between variables and also to achieve the definitions and naming of factors, coefficients above 0.4 in the definition of factors are important and significant and coefficients less than these limits are considered as random factor. To interpret the factors, Reynolds et al. (1988) applied the lowest value of this coefficient to 0.40.

The more factor loading of one question, the influence of that question in explaining the nature of the factor is greater. In this research, considering that the research instrument is implemented for the first time, the minimum criterion of 0.4 is used for analysis of questions, and in particular the removal or retention of factors in the final stage. Table 5, presents the matrix of identified indices influencing stress management by rotation. Since the interpretation of factor loads without rotation is not simple, therefore, the factors are rotated so that their interpretation ability can be increased.

Table 5. Matrix of Rotational Factors

	component						
	1	2	3	4	5	6	7
item 1	.716						
item 2	.706						
item 3	.579						
item 4	.563						
item 5	.517						
item 6		.680					
item 7		.634					
item 8		.592					
item 9		.587					
item 10		.541					
item 11		.482					
item 12		.476					
item 13		.471					
item 14			.603				
item 15			.571				
item 16			.521				
item 17			.513				
item 18			.476				
item 19			.470				
item 20			.388				
item 21				.566			
item 22				.565			
item 23				.525			
item 24				.454			
item 25				.438			
item 26				.377			
item 27				.365			
item 28				.355			
item 29				.339			
item 30				.316			
item 31				.307			
item 32					.461		
item 33					.431		
item 34					.397		
item 35					.367		
item 36					.355		
item 37					.325		
item 38					.317		
item 39						.471	
item 40						.433	
item 41						.379	
item 42						.318	
item 43						.309	
item 44							.476
item 45							.410
item 46							.388
item 47							-.315
item 48							.302

The results of factor analysis show that out of the 48 existing indices, seven major components are identifiable. The components identified in the table above can be seen and are named based on literature review and existing theories of these components in table 4-17. Therefore, using exploratory factor analysis after rotation, 7 factors and 48 indices were identified. According to the literature on this field, the first factor was the recognition of tensions, the second one was expression, the third one was the anger management skill, the fourth one was replacing rational thoughts, the fifth one was the rational behavior skill, the sixth one was the time management, and the seventh one was called self-relaxation.

5.   Discussion

According to the literature review, using the exploratory factor analysis after the rotation, seven factors were identified. Based on the literature on this field, the first factor was the recognition of tensions, the second factor was the expressing, the third factor was the anger management skill, the fourth factor was the replacing rational thoughts, the fifth factor was the courageous behavior, the sixth factor was time management and the seventh factor was self-relaxation.

One of the stress management exercises is gradual muscular resilience, which helps people how to resilience their muscles at any time they want. This exercise helps them to release stress from the body and can experience a better feel. The strain training is how to shrink and then release various muscle groups throughout the body to reduce physical stress. Studies on the stress management training, have indicated that combining programs which combine various types of resilience, illustration and the other anxiety reduction techniques with conventional cognitive behavioral approaches such as cognitive reconstruction, coping effectiveness training, express training, and anger management, has been successful to a great extent. Stress management techniques have been used successfully for many emotional and physical problems such as anxiety, depression, insomnia, and job problems (Anthony et al., 2007).

Stress management and resilience techniques can reduce stress levels, which in turn can lead to maintaining health and improving the safety and social performance. In this regard, results of the research done by Alawi Armandand N. Kashania Z. A. Hosseini M.A. and Reza Soltani P. (2012), showed that training stress management skills reduces the average stress of nurses, and the intervention factor reduces the job stress and increases the work encouragement, establishes an exchange between work and also plays an important role in increasing the ethical communication among nurses.

Research done by Fathi Ashtiani A. Pirzadi H. Shokouhi Yekta M. and Tullaie A. (2014), showed that stress management training program and communication skills based on cognitive-behavioral theory lead to reduction of stress symptoms in employees and increases the adaptive coping strategies in trained people. Cog, Bond, and Flexman (2017), concluded that methods in which mental processes contribute to cope with stress in people, such as controlling irrational thoughts, reducing excitation, and reducing internal alert with exercise and problem solving skills, can increase self-esteem and self-efficacy in people.

However, with regard to the above mentioned materials, which typically indicate the status of stress management training in different dimensions and levels, this study attempted to examine the status and position of stress management training and its related skills among teachers in order to provide a clear picture from the current status of this area; it would provide a platform for more careful attention from policymakers and educational planners to this important field.

Regarding the various explanations presented on the stress management training, it can be concluded that the stress management framework in this study focuses on the reduction of hyperactivity of controlling schemas and supporting the adaptive functions. Individuals are encouraged to examine those internal factors (thoughts, feelings, etc.) that are involved in stress. In this approach, in order to clarify the problem, it is used the cognitive techniques such as identifying automated thoughts, identifying and correcting cognitive distortions, and identifying beliefs. Throughout a collaborative empiricist process, the educator posits

individual perceptions as hypotheses that can be considered with increasing objectivity and in varying dimensions. Logically, evaluating irrational thoughts with the ultimate goal of making structural change leads to a change in thinking. This structural change expands to the organization of rules, formulas, assumptions, and commands that incorrectly categorized the events threatening. One of the limitations of this research is the lack of consideration of some intervention variables, including the cultural and economic status of teachers, which is recommended to be considered in future studies.

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