

## Studying the effectiveness of time management in reducing occupational stresses of school managers in Alborz province

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### ABSTRACT

The aim of this study was to evaluate the effectiveness of time management to reduce job stresses in school managers in Alborz Province, Iran. The research method according to the type of target was applied and in case of data collection was a quasi-experimental study. The sample size of the study consisted of 396 school managers working in the academic year of 2014-2015 in Alborz province. Number of 123 managers including 85 males and 38 females were selected using multi-stage cluster sampling of schools managers of Alborz Province. 123 school managers (62 in experimental group and 61 in control group) were selected with pretest of occupational stress. Then the experiment group spent 20 hours of time management training and then the two groups were asked to complete the questionnaire again and significant difference was observed between the two groups. Also, the pre-test and post-test conditions of respondents were studied. To analyze the data, the descriptive and inferential statistical methods (analysis of covariance) were used. In the pre-test, the persons' occupational stresses and in post-test the effects of time management training on it was evaluated. By analyzing the data and the result, the validity of the questionnaire was confirmed by experts and advisors. Results showed significant effect between the time management training and reduction of occupational stress in school managers.

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### 1. Introduction

Job stresses are experienced in physical, mental and emotional reactions that are resulted because of changes and needs in employment conditions. Changes can be large or small. Everyone responds differently to stressful situations. In fact, stress is an emotional sense that occurs when a person encounter with a pressure more than what one used to it. With this estimate, in the educational spaces of schools, occupational stress can have different dimensions. Including at the level of internal refers to mental problems and stresses of work and educational activities. In addition, job stress dimensions of school managers are considered in different aspects including high volume of work, lack of career development, lack of social status; cold relationships with colleagues, issues of students, lack of planning, lack of discipline in the use of working hours and lack of attention to the working hours. With regard to the sensitive mission of training and schools management, presence of thought and mental health for training staff are important that

should be pathologized and to remove the job stress and find a solution principals. Given that the effective and efficient use of time is unavoidable necessity for success in work and life. Time management training includes a set of skills to control and make better use of time. This tutorial explains the concepts and principles of time management and provides time management techniques and tools to live and work in the environment. Time is invisible capital. To plan in time with respect to the concept of value and the so-called "ultra-golden" time, it is necessary to consider essential points such as the elimination of destructive elements of time, time division and separation, targeting and prioritization of life, organization of activities and programs and determination to implement programs (Ross, 2007). Effective use of time management training can be listed by setting goals, planning and prioritizing of tasks and activities. With planning and time allocation, it may be increased understanding of available time to use of their time targeted and structured, and by prioritizing the issues based on the allocated time for each activity do multiple tasks in a timely manner. The study of Makan et al (2008) showed that the time control, improved performance

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management and have led to more satisfaction from life and work (Ross, 2007). Also, given that efficient and motivated workforce, including school principals, are of the largest and most dynamic part of the organization and key figure in line with the goals of each organization and especially in the field of stress and the pressure of time and place and working, the research is limit. Mission and the role of education, especially school principals are so high that today is the era of leadership and management and the success of institutions and organizations depend largely on the efficiency and effectiveness of management. Construction of the educational system of each country includes a set of requirements of its formal organization and management of the education system that educational managers are responsible to manage them, and not only in terms of social and economic progress is important, but also in terms of its contribution to job mobility and the expectations, are of crucial importance (Hashemi et al., 2013). Since applied research and in-depth relationship with occupational stress among school principals Alborz has not performed, so important and need to study the impact of education time management on reducing job stress in school managers of Alborz province can be seen. The present study aimed to evaluate the effectiveness of training in terms of time management, in time management and prioritizing goals dimensions, time management effectiveness in time mechanic dimension, study of effectiveness of time management training in control of time management training dimension and organizing education of time management in reducing occupational stress of school managers of Alborz province.

## 2. Method and material

According to the researchers in this study sought to determine the effect of time management training on the reduction of occupational stress of schools management, so the quasi-experimental research methods were used. Also, according to the data collection, the research was quasi-experimental study with post and pre-tests, the experimental and control groups. The sample size of the research consisted of all 396 managers of Alborz Province in the spring and summer of 2014-2015 that 123 persons were selected as the sample size and this includes managers at all levels of education and were in the city of Karaj in Alborz province. The study was performed by a multi-stage cluster sampling. Selection was based on sample characteristics and job stress among school managers. The main tool for data collection in this research included studies library, the standard job stress questionnaire (HSE) that consisted of 35 questions which its validity and reliability was determined by 30 pre-tested questionnaires and the reliability of reliability coefficient determined. To determine the reliability of the questionnaire the Cronbach's alpha coefficient was used (Avazzadeh, 2015). The obtained results were analyzed by the two methods of descriptive

and inferential statistics. Also, the demographic characteristics of the respondents and the questionnaire were evaluated and descriptive statistics including frequency, mean, standard deviation and inferential statistics were obtained using SPSS software.

## 3. Results

### 3.1. Components of goals and priorities

The mean components of components and priorities for the experimental group in pre and post tests were 2.32 and 4.21, respectively. But the mean in pre-test and post-test of control groups did not differ much and has reached from 2.47 to 2.91. Therefore, it is clear that time management training could had effect on the objectives components and priorities and there was a significant relationship between training of time management in goals and time priorities dimension and reducing job stress (Table 1 and Fig. 1).

### 3.2. Time control components

The mean of control components for the experimental group in pre-test and post-test were 2.70 and 3.95, respectively. But the mean in post and pre-tests of control group had not significant differences and has reached from 2.3 to 2.95. So, it is evident that time management training could affect in time control component of programs and there was a significant correlation between time management training in time control dimension in reducing occupational stress in Alborz province school managers (Table 2 and Fig. 2).

### 3.3. Organizing component

According to the above table, the mean for organizational components for the experimental group in pretest and posttest were 2.57 and 4.14, respectively. But the mean in pre-test and post-test and control groups were not significantly different and has reached from 2.26 to 2.66. It is clear that time management training could be effective in organizing component and had effect between time management training in case of time organizing dimension in reducing job stress of school managers of Alborz Province (Table 3 and Fig. 3).

### 3.4. Mechanic components

Based on the above table the mean of mechanical components for the experimental group in pretest and posttest were 2.69 and 4.08, respectively. But the mean in pre and post-tests of control group had no significant differences and reached from 2.62 to 2.84. It was concluded that educating time management could have effect on mechanical component and there was a positive and significant correlation between educating time management in

mechanic dimension of time in reduction and job stress of school managers of Alborz Province (Table 4 and Fig. 4).

**Table 1:** Comparison of the mean and standard deviation of the objectives and time priorities in the post-test and control group

follow-up		post-test		Pre-test		groups	Components
standard deviation	mean	standard deviation	mean	standard deviation	mean		
0.642	3.96	0.514	4.21	0.827	2.32	Experimental group	Objectives and prioritize
1.01	2.89	0.939	2.91	2.47	2.47	Control group	

**Table 2:** Comparison of the mean and standard deviation of the time control in the post-test, experiment and control groups

follow-up		post-test		Pre-test		groups	Components
standard deviation	mean	standard deviation	mean	standard deviation	mean		
1.04	3.41	0.683	3.95	0.296	2.70	Experiment group	control
0.939	2.98	0.858	2.95	0.416	2.30	Control group	

**Table 3:** Comparison of the mean and standard deviation of the organization of time criteria in the posttest, control and experimental groups

follow-up		post-test		Pre-test		groups	component
standard deviation	mean	Standard deviation	mean	Standard deviation	mean		
0.743	4.08	0.696	4.14	0.802	2.57	Experiment group	organizing
1.02	2.66	1.04	2.58	0.699	2.26	Control group	

**4. Inferential statistics and analysis of research questions**

When the regression toward the mean affects significantly the measuring of posttest and when wants to compare the groups, during implementation of the pre-test and post-test the covariance analysis is used.

**Assumption of normal data**

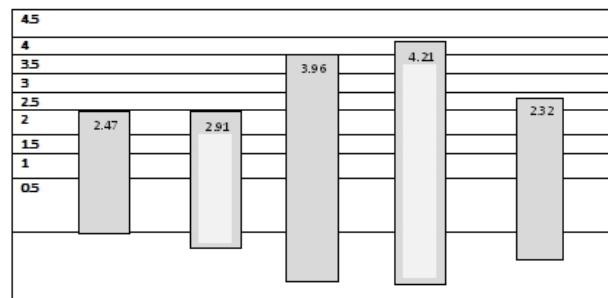
Before using analysis of covariance, to be the normal distribution assumption of data must be verified. Based on the Kolmogorov test, if the null hypothesis of the data based on the normality confirms, we can use covariance analysis for further analysis. Otherwise, this test should not be used (Table 5).

**Homogeneity of variance groups**

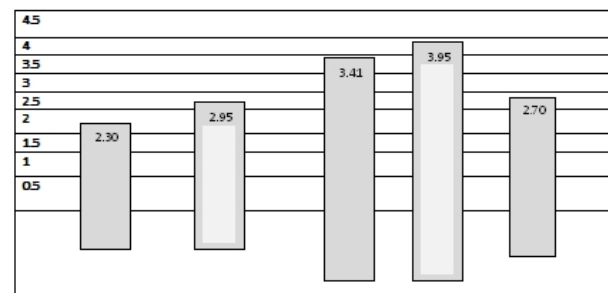
In the homogeneity of variances by using the Levene's test, homogeneity of variance was evaluated in groups. If significant level in Levine's test be more than 0.05, the groups' variance had homogeneous. In this test the null hypothesis was that the variance of two groups was homogeneous and according to the following table that is more than 0.05, the alternative hypothesis was rejected and the null hypothesis was confirmed and the homogeneity of variances were observed (Table 6).

**Impact of time management on reducing job stress of schools managers of Alborz Province**

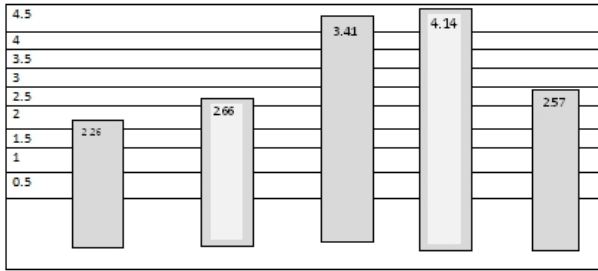
In this study, the following table indicates that the mean for solving problem for time management training at post-test and follow-up have increased and the mean was 23.771 and effective coefficient in post-test and follow up were 0.58, and 0.44, respectively (Table 7).



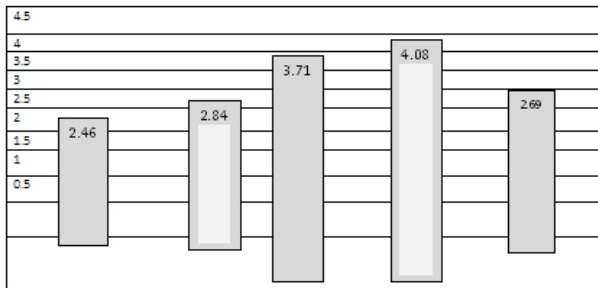
**Fig. 1:** Comparison of the mean and standard deviation of the objectives and time priorities of the pre-test, post-test and follow-up and control groups



**Fig. 2:** Comparison of the mean and standard deviation of time control in the pre-test, post-test, follow-up, control and experiment groups



**Fig. 3:** Comparison of the mean and standard deviation of time organizing in the pre-test, post-test and follow-up of control and experiment groups



**Fig. 4:** Comparison of mean and time mechanic standard deviation in the pre-test, post-test and follow-up, control and experiment groups

**Table 4:** Comparison of mean and standard deviation of time mechanic in posttest, control and experimental groups

follow-up		Post test		Pretest		Group	component
Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean		
0.830	3.71	0.660	4.08	0.593	2.69	experimental group	Mechanic
0.889	2.86	0.758	2.84	0.430	2.46		

**Table 5:** The results of Kolmogorov test

pre-test	post-test	follow-up	No. Kolmogorov test; Smirnov
123	123	123	
1.088	1.082	1.047	

**Table 6:** Homogeneity of groups' variance

Sig	Df2	df1	Levene's test	Pretest Posttest Follow up
0.499	58	1	0.463	
0.287	58	1	0.834	
0.397	58	1	0.729	

**Table 7:** Analysis of covariance for for time management training between groups

effective coefficient	Sig	F	Mean square	df	square	test	Time mechanic
0.58	0.000	69.750	23.771	1	23.771	Posttest	
0.44	0.000	22.005	9.679	1	9.679	Follow up	

**Table 8:** Analysis of covariance test for objectives and priorities

effective coefficient	Sig	F	Mean square	df	square	test	Prioritization and objectives pretest
0.48	0.000	56.330	21.204	1	21.204	Posttest	
0.10	0.072	3.369	3.379	1	3.379	Follow up	

**Table 9:** Covariance analysis of time mechanic

effective coefficient	Sig	F	Mean square	df	square	test	Time mechanic pretest
0.57	0.000	63.147	23.525	1	27.525	posttest	
0.47	0.072	40.415	23.039	1	23.039	Follow up	

**The impact of time management training, in time control dimension in reducing occupational stress in schools managers**

**The impact of training of time management from the dimension of objectives and priorities, on reduction of occupational stress of Alborz school administrators**

According to the table of the effect of time training on reducing job stress of school managers of Alborz province was evident. Therefore, time management training in the time objectives and priorities dimension in reducing job stress of school managers of Alborz Province was confirmed. Using analysis of covariance revealed a significant difference between pre-test and post-test scores (Table 8).

**Time management training from the dimension of mechanics of training of time on reducing occupational stress of school managers**

Regarding the results of the pre-test that was more than post-test, it is concluded that time management training had significant effect on reducing job stress management, in schools managers of Alborz province. Also, the results also showed that time management training from mechanics of time training had effect on reducing job stress. In Table 8, covariance analysis showed a significant difference between pre-test and post-test scores (Table 9).

The results confirmed the effect of time management in time control dimension in decreasing occupational stress in school

administrators. In Table 10, the analysis of covariance was used, and the results showed significant differences between pre-test and post-test (Table 10).

#### **Time management training from time organizing dimension on reducing occupational stress of school managers**

**Table 10:** Time control covariance analysis

effective coefficient	Sig	F	Mean square	df	square	test	Time control
0.36	0.000	13.702	7.025	1	7.025	posttest	pretest
0.074	0.459	0.556	0.540	1	0.540	Follow up	

**Table 11:** Analysis of covariance of time organizing

effective coefficient	Sig	F	Mean square	df	square	test	Time organizing
0.49	0.000	41.111	30.030	1	30.030	posttest	pretest
0.41	0.000	33.672	26.302	1	26.302	Follow up	

As the results of posttest were more than the pre-test, so it was indicated that time management training had effect on the reduction of occupational stress in schools managers in Alborz province.

#### **5. Discussion and conclusions**

The mean for time objectives and priorities of the experiment and the control groups were 4.21, and 3.41 in pretest, respectively. At a different time another test was held for the managers that showed the mean less than previous. The mean for time control in experiment and control groups were 4.09, and 3.78, respectively that has been increased in the experimental group. The mean for time mechanics in pretest in the experimental and control groups were 4.08, and 3.71, respectively which have increased in the experimental group. On another occasion a test was held that showed that mean of groups have been decreased. To evaluate the effect of time management training in reducing stress in schools managers of Alborz Province, covariance analysis was used. The results showed a significant difference between the mean scores at post-test and follow-up groups. So, the null hypothesis was rejected and the scores in the experimental group increased. In this regard, the results of research were in consistent with the findings of McCain and Msyra in case of anxiety and occupational stress. In the mentioned researches showed that the relationship between time management and lack of job anxiety was seen (Ross, 2007; Hargryor, 2007). In this regard, it was found that time management training can affect in reducing job stress in Alborz school managers and would able them to overcome and reduce the stress after the training course. In order to examine the effect of time management training on reducing the job stress of schools managers of Alborz Province the covariance test was used that the results showed a significant difference between the mean scores of objectives and prioritizing the time in two groups of pre and post tests and follow-up groups. So, the null hypothesis was rejected and the mean of the

Regarding to the results of post-test be more than the pre-test, the effect of time management training from time organizing dimension on reducing the occupational stress in Alborz Province schools managers was approved. In Table 11, the analysis of covariance was used to test that the results between pre-test and post-test showed significant differences.

experimental group increased from 3.41 to 4.21, respectively. But in the control group had no increase and suggests that the experimental group was better than the control group. After two months, another test was conducted and showed that the mean of groups had changed after 2 months. The results of this study were in consistent with the findings of other studies on job stress and its removal solution (Alagheband, 1995; Analooyi, 2008; Jahanian, 2008). In this research it has shown that time management had a major role in reducing job stress. To examine the effect of time management training on reducing job stress of schools managers in Alborz province the covariance test was used and the results showed a significant difference between mean scores of time control of pre-test and post-test and follow-up groups. So, the null hypothesis was rejected. The mean of the experimental group increased from 3.78 to 4.09, respectively. But had not any increase in the control group and showed that the experimental group performance was better than the control group. After two months, another test was conducted and showed that the mean of groups had changed after two months. The results of this study were in consistent with the findings of other researchers in case of effect of time management efficiency on stress. In this study has shown that time management had a major role in reducing job stress (Robbins, 1995; Zali, 1996, Ferner, 2000; Qarayi Moghaddam, 1996). Impact of time management training on reducing job stress in schools managers in Alborz province, the covariance analysis was used and the results showed a significant difference between mean scores of organization of time in pre-test and post-test and follow-up. So, the null hypothesis was rejected. The mean of the experimental group increased from 3.41 to 4.21, respectively. But had not increase in the control group and showed that the experimental group performance was better than the control group. After two months, another test was conducted and showed that the mean of groups had changed after two months. The results of this study were

matched with the findings of other studies based on job stress (Shafiabadi and Naseri, 2007; Shirazi, 1994). The study has shown that time management had a major role in reducing job stress. In order to examine the effects of time management training on reducing job stress in schools managers of Alborz Province, the covariance test was used and the results showed a significant difference between mean scores of time mechanic in pre and post tests and follow-up groups. So, the null hypothesis was rejected. The mean of the experimental group increased from 3.41 to 4.21, respectively. But had not increase in the control group and showed that the experimental group performance was better than the control group. After two months, another test was conducted and showed that the group had changed after two months. The results of this study were in consistence with the findings of other studies about the relationship between time management and stress management (Hashemi et al., 2013). The study has shown that time management had a major role in reducing job stress. The results showed that all aspects of time management training affected on reducing job stress of school managers in Alborz Province. For this reason, it is recommended that if job stress exists, school managers use time management training method as an effective tool. It is suggested that in future studies to investigate the reduction of job stress by time management training in school managers in neighboring cities. In addition, other factors also should be considered to reduce job stress. The main problem in the study were lack of access to resources and needed statistical information.

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