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**RECOGNITION AND INVESTIGATION OF FACTORS CONTRIBUTING TO JOB  
STRESS IN PERSONNEL OF KHARG AIRPORT**

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**ABSTRACT**

Work is an aspect of life. Regardless of financial resources, some of essential needs of human including physical movement, social needs and sense of being valuable are met by work. However, work can be a source of psychological tension. In recent decades, issue of stress and its effects in organizations has attracted attentions. Although there are positive effects for stress and it may not be regarded as a negative phenomenon, when we talk about stress, its negative consequences and aspects are mainly taken into account. Anyway, stress has various contributions to performance and activity of organization members. Managers, personnel and clients experience specific psychological situations under nervous pressures and act in a way that it is reflected in organizations' activities and efficiency. In addition to psychological consequences, nervous strain has physical ones as well. Serious stress results in deviating from goals and ways to achieve them.

This research has been carried out with a sectional – descriptive method. Tools used in this work is HSE job stress questionnaire. This tool has a suitable final validity with respect to psychometrics. Data were collected using inferential statistics and partial and Pearson correlation factor. In all of the studies samples, it predicts a significant and positive job stress. In fact, results reveal that there is a positive and significant relationship between environmental factors and level of job stress in personnel of Kharg airport.

**Keywords: job stress, psychological health, productivity level, organizational factors**

## **INTRODUCTION**

Today, human is transiting from industrial era into postindustrial one. Like industrial and agricultural era, this has of course its own characteristics. During thousands of years, human was adapted to his normal and uniform life. However, as time passed and new world formed, many aspect of human life changes. Today, by progressing in every area, new problems challenge the human. It seems that progress is itself the designer of new challenges (Nikkhah, 2010). In recent century, nature of working experienced extensive changes and these changes are already developing rapidly. Consequently, rate of diseases increased rapidly and every day, moral and humanistic aspects of human life are being less highlighted. Every day, new challenges appear so that in organizational life, we see a new phenomenon called job stress which is considered as the disease of century (Asadollah, 2012). Job stress arises from incompatibility of job demands and personal capabilities, abilities and requirements. Physiological, psychological and behavioral consequences of job stress, in addition to damaging someone, imposes considerable expenditures to organizations (Kaplan and Saduk, 2007). Therefore, recognition of factors contributing to formation of job stress

or in other words its origins, can be useful for organizations and prevent its unwanted consequences. Nowadays, people spent half of their awake times in work spaces and hence, they are affected by various factors present in their working environment (Younesian, 2011).

In all working environments, five main dangers threaten people's health including: physical, chemical, ergonomic, biologic and psychological factors. In fact, these factors endanger people's health in working environment and may lead to their illness and inability (Rauofi, 2007). It is important that psychological dangers of working environment especially job stress are present everywhere and are not specific to a certain job. But other dangers may be absent in other environments according to someone's work. For instance, a welder is not exposed to certain biological dangers or a nurse is not prone to serious physical threats (Ashtiani, 2006).

In this paper, we intend to understand and investigate the factors contributing to job stress in personnel of Kharg airport. As you know, job stress is one of the factors affecting productivity of an organization.

## **LITERATURE REVIEW**

Shojaei and Sharafalddin (2010) in their research about job stress and its management, state that stress is an undoubted reality of current life and is inevitable. Although the issue of nervous strain and its origins and consequences are being investigated in medical sciences from long before, this issue is recently opened in organizational behavior. Nervous strain has deep effects on activity and performance of the organization members. Managers, personnel and clients experience specific psychological situations under nervous pressures and act in a way that it is reflected in organizations' activities and efficiency. People experiencing stress, lose competition power and are damaged physically, psychologically and behaviorally. In this way, stress weakens forces as a plague and disables activities and attempts.

According to Jahanbakhsh and Samani (2012), it was found out that work overload as well as under load may lead to stress. Both of these situations can be classified into qualitative and quantitative groups.

Working overload means that someone must complete a lot of works in a certain time limit. It means that someone is asked to perform jobs in a certain time which is out of his/her capabilities. Qualitative increasing work load occurs when someone feels that s/he doesn't have enough potential for

performing a job and this will lead to reduction of his/her efficiency. Reduction of work load means that we ask someone to perform routine and boring duties having no mental stimulation.

Rizzo et.al (1970) classified role contradiction into four groups:

First, personal contradiction between a certain role and personal evaluation system. Second, contradiction of sender's role. Indeed, sender is someone who assigns duties. This situation occurs when assigner assigns more duties to someone. Third, excessive duties which occurs when a lot of duties are assigned by considering capabilities, time and allowable resources to someone. Fourth, contradiction of duties of assigners and occurs when there are mutual expectations from role, conflicting policies, others' needs and inappropriate criteria.

### **Hypotheses**

- There is a relationship between environmental factors and job stress in personnel of Kharg airport.
- There is a relationship between organizational factors and job stress in personnel of Kharg airport.
- There is a relationship between personal factors and job stress in personnel of Kharg airport.

- There is a relationship between job stress and productivity level of personnel of Kharg airport.
- There is a relationship between job stress and psychological health of personnel of Kharg airport.

### **RESEARCH METHODOLOGY**

This research is fundamental with respect to goal and descriptive – correlative with regard to method. Descriptive research includes all methods whose purpose is to describe studied situations and phenomena. This can be solely for better understanding current situations or helping decision process (Sarmad et.al, 2009). It is correlative since it looks for investigation of the relationship between research variables. Hence, in this work, contribution of personal, organizational and behavioral factors on job stress of Kharg airport personnel are evaluated. Consequently, independent variables of research are personal, organizational and behavioral factors and dependent one is job stress. On the other hand, in investigation of 4<sup>th</sup> and 5<sup>th</sup> hypotheses, according to the type of hypotheses, job stress is independent variable and productivity and psychological health are dependent ones, respectively. Therefore, conceptual model of research according to triple variables of Likert is summarized as follows:

Statistical population of research includes all personnel of Kharg airport. Sampling method of research is clustered multistage sampling and according to Cline's formula (2005), 120 persons were selected randomly.

### **DATA ANALYSIS**

After determining type of research and collecting required data by means of appropriate tools to test hypotheses, next step is to utilize appropriate statistical techniques compatible with research method and type of variables and classify and analyze collected data. To be able to analyze research data, researcher must use statistical methods. In this work, for analyzing data, SPSS 16 was used. According to type and nature of current research, to analyze data, inferential statistical methods such as redundancy distribution, mean and standard deviation tables and perceptive statical methods such as Pearson correlation factor and step-by-step regression are used as well.

### **Test of hypotheses**

#### **1<sup>st</sup> hypothesis**

There is a significant relationship between environmental factors and job stress of Kharg airport personnel.

**H<sub>0</sub>:** environmental factors have no significant effect on job stress of Kharg airport personnel.

**H<sub>1</sub>**: environmental factors have a significant effect on job stress of Kharg airport personnel.

In table 1, results of test of first hypothesis are presented. As can be seen, decision criterion (p-value) is very less than 5%. Therefore, null hypothesis is rejected.

To investigate the effect of each of the environmental factors on job stress of personnel, variance analysis is performed as well. In this analysis, changeability and dispersion are divided into two groups: 1. Intragroup: in which changeability of group means are about overall mean. 2. Intergroup:

which illustrates the changeability of scores about group means. In table of variance analysis, since for both studied sets, since variance of intragroup is much higher than that of intergroup, F ratio is high and level of significance of F-test is low. Therefore, it can be concluded that results is probably not random. Results of this test are summarized in table 1. According to table, level of significance is less than 0.05 which means rejection of null hypothesis. Value of F-test is 3.8 and significant ( $p < 0.05$ ). As a result, at least one of the components is different from other with regard to environmental factors.

**Table 1: test of mean of 1<sup>st</sup> hypothesis**

Variable	t	DOF	Significance	Mean difference	Significance distance %95	
					Lower limit	Higher limit
Environmental factors	73/1	1189	0/00	2/4	2/3	2/4

**Table 2: test of 1<sup>st</sup> hypothesis using variance analysis**

Variable	DOF	Sum of squares	Mean of squares	Fratio	Significance(p-value)
Among components	4	24/4	3/3	3/6	0/001
Within components	1161	1366/6	2/2		
Sum	1165	1384/4			

## 2<sup>nd</sup> hypothesis

There is a significant relationship between organizational factors and job stress of Kharg airport personnel.

**H<sub>0</sub>**:organizational factors have no significant effect on job stress of Kharg airport personnel.

**H<sub>1</sub>**:organizational factors have a significant effect on job stress of Kharg airport personnel.

In table 3, results of test of second hypothesis are presented. As can be seen, decision

criterion (p-value) is very less than 5%. Therefore, null hypothesis is rejected.

To investigate the effect of each of the environmental factors on job stress of personnel, variance analysis is performed as well. Results of this test are summarized in table 3. Value of F-test is 1.2 and insignificant ( $p < 0.05$ ). As a result, there is no difference between components of organizational factors.

Table 3: test of mean of 1<sup>st</sup> hypothesis

Variable	t	DOF	Significance	Mean difference	Significance distance %95	
					Lower limit	Higher limit
Environmental factors	46/6	722	0/00	2	1/6	2/4

Table 4: test of 1<sup>st</sup> hypothesis using variance analysis

Variable	DOF	Sum of squares	Mean of squares	Fratio	Significance(p-value)
Among components	2	2/6	1	1/6	0/4
Within components	722	612/3	0/9		
Sum	744	614/9			

**3<sup>rd</sup> hypothesis**

There is a significant relationship between personal factors and job stress of Kharg airport personnel.

**H<sub>0</sub>**: personal factors have no significant effect on job stress of Kharg airport personnel.

**H<sub>1</sub>**: personal factors have a significant effect on job stress of Kharg airport personnel.

In table 5, results of test of third hypothesis are presented. As can be seen, decision

criterion (p-value) is very less than 5%.

Therefore, null hypothesis is rejected.

To investigate the effect of each of the environmental factors on job stress of personnel, variance analysis is performed as well. Results of this test are summarized in table 6. Value of F-test is 28.8 and insignificant ( $p < 0.05$ ). As a result, at least one of the components is different from other factors of personal factors.

Table 5: test of mean of 3<sup>rd</sup> hypothesis

Variable	t	DOF	Significance	Mean difference	Significance distance %95	
					Lower limit	Higher limit
Environmental factors	64/1	689	0/00	2/9	2/3	2/9

Table 6: test of 3<sup>rd</sup> hypothesis using variance analysis

Variable	DOF	Sum of squares	Mean of squares	Fratio	Significance(p-value)
Among components	3	132/2	43/1	24/4	0/00
Within components	689	833/7	2/2		
Sum	672	965/9			

**4<sup>th</sup> hypothesis**

There is a significant relationship between job stress and productivity of Kharg airport personnel.

**H<sub>0</sub>**: job stress have no significant effect on productivity of Kharg airport personnel.

**H<sub>1</sub>**: job stress have a significant effect on productivity of Kharg airport personnel.

In table 7, results of test of fourth hypothesis are presented. As can be seen, decision

criterion (p-value) is very less than 5%.

Therefore, null hypothesis is rejected.

To investigate the effect of each of job stress on productivity of personnel, variance analysis is performed as well. Results of this test are summarized in table 8. Value of F-test is 13.3 and insignificant ( $p < 0.05$ ). As a result, at least one of the components is different from other factors of job stress.

Table 7: test of mean of 4<sup>th</sup> hypothesis

Variable	t	DOF	Significance	Mean difference	Significance distance %95	
					Lower limit	Higher limit
Environmental factors	56/9	663	0/00	2/2	2	2/2

Table 8: test of 4<sup>th</sup> hypothesis using variance analysis

Variable	DOF	Sum of squares	Mean of squares	Fratio	Significance(p-value)
Among components	3	132/2	43/1	24/4	0/00
Within components	689	833/7	2/2		
Sum	672	965/9			

**5<sup>th</sup> hypothesis**

There is a significant relationship between job stress and psychological health of Kharg airport personnel.

**H<sub>0</sub>:** job stress have no significant effect on psychological health of Kharg airport personnel.

**H<sub>1</sub>:** job stress have a significant effect on psychological health of Kharg airport personnel.

In table 9, results of test of fifth hypothesis are presented. As can be seen, decision

criterion (p-value) is very less than 5%.

Therefore, null hypothesis is rejected.

To investigate the effect of each of job stress on psychological health of personnel, variance analysis is performed as well. Results of this test are summarized in table 10. Value of F-test is 3.6 and insignificant (p<0.05). As a result, at least one of the components is different from other factors of job stress.

Table 9: test of mean of 5<sup>th</sup> hypothesis

Variable	t	DOF	Significance	Mean difference	Significance distance %95	
					Lower limit	Higher limit
Environmental factors	57/3	664	0/00	2/2	2/1	2/3

Table 10: test of 5<sup>th</sup> hypothesis using variance analysis

Variable	DOF	Sum of squares	Mean of squares	Fratio	Significance(p-value)
Among components	2	13/7	4/1	4/3	0/005
Within components	677	653/9	0/8		
Sum	679	666/6			

**CONCLUSION**

In present paper, effect of various organizational and non-organizational factors on job stress of Kharg airport personnel are analyzed and in this way, different

viewpoints, theories and factors are recognized and investigated.

Now, to achieve better results, initially, results are studied and then, research hypotheses are discussed and finally, some

recommendations are presented to eliminate research shortcomings.

Here, we provide results of research hypotheses and then, studies relevant to these hypotheses are investigated.

In 1<sup>st</sup> hypothesis, it seems that there is a relationship between environmental factors and job stress of Kharg airport personnel.

Research has shown that environmental factors, increase job stress in personnel. Hansen et.al, studied job stress and corresponding components. Their results reveal that physiological components of environmental factors play a pivotal role in job stress of personnel in organizations. They studied environmental factors and job stress of personnel in organizations, changed management tea and assigned challenging duties to academic personnel to achieve and maintain organizational strategies and goals. Majority of them perceived that job stress in their work is high. In this regard, high level of physiologic stress can lead to lower job satisfaction in workplace. By changing other environmental factors, it was revealed that environmental factors have positive relationship with job stress of Kharg airport personnel (Hansen, 2009).

For 2<sup>nd</sup> hypothesis wihhc states that there is a relationship between organizational factors and job stress of Kharg airport personnel,

results revealed that organizational factors lead to an increase in personnel's job stress. Today, people spent half of their awake times in work spaces and hence, they are affected by various factors present in their working environment.

In all working environments, five main dangers threaten people's health including: physical, chemical, ergonomic, biologic and psychological factors. In fact, these factors endanger people's health in working environment and may lead to their illness and inability (Rauofi, 2007). It is important that psychological dangers of working environment especially job stress are present everywhere and are not specific to a certain job. But other dangers may be absent in other environments according to someone's work. For instance, a welder is not exposed to certain biological dangers or a nurse is not prone to serious physical threats.

3<sup>rd</sup> hypothesis states that there is a relationship between personal factors and job stress of personnel, research has shown that personal factors lead to job stress. These includes issues apart from job of people such as family and personal issues. The important issue here is that separating these stressors from general ones is not easy since they are interrelated and affect each other. That is, when someone has problems in workplace,

s/he will have problems in life and this leads to an increase in job stress and working quality declines. This will result in an increase in job stress and we'll have a closed cycle.

4<sup>th</sup> hypothesis claims that there is a significant relationship between job stresses and productivity of Kharg airport personnel, results illustrated that when job stress enters an organization, productivity of personnel will be lower. A public and extensive belief about nursery is that it is inherently one of the most stressing jobs (Race, Copper, 1992). However, experimental evidences for justifying such claim are based on stories and non-scientific evidences.

Regarding 5<sup>th</sup> hypothesis, it can be said that there is a significant relationship between job stress and psychological health of personnel. Psychological health is defined based on general and extensive definition of health. During centuries, our understanding of health has evolved considerably. Living longer than average as a result of discovery of antibiotics and scientific and technical advances in cognition and treatment, yielded current definition of health which is not only the result of lack of illness, but also means achieving higher level of health. Such concept requires balance among all aspects of life including physical, mental, social,

professional and spiritual. These aspects are in mutual relationship with each other; that is, each person is affected by others and environment and in turn, affects them. Therefore, psychological health is not only lack of psychological illness, but also implies to a level of performance in which someone has a comfortable life without any problem.

### **RECOMMENDATIONS**

Researcher intends to inform personnel and managers that by their efforts and using appropriate organizational and administrative methods, psychological health and being away from job stress is achievable. In this way, organizational and non-organizational factors corresponding to job stress and steps can be taken to eliminate the problems.

Results of this research can be utilized by Kharg airport and relevant organizations.

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