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Psychosocial Stressors and Job Performance among Bank Employees: An Integrated Model

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ABSTRACT

Bank employees, due to the nature of their work experience have high levels of job stress. One of the outcomes of stress is its impact on job performance. This study was conducted to investigate the relationship between the psychosocial stressors and job performance among bank employees in one of the banking centers of the state. This cross-sectional study was conducted among bank employees of west Azerbaijan; 2014. All bank employees participated in this study. The general Nordic questionnaire (QPS Nordic) and human resource productivity questionnaire were used for data collection. The correlation coefficient and regression models were used to examine the relationship between job stress and their scales as an independent variable and performance as a dependent variable. In order to analyze further, structural equation models were used. The results suggested that prevalence of stress among bank employees was in average level (46.6%). There was negative and significant relationship between stress in "task", "social and organizational" levels and job performance. Among the scales of social and organizational levels, the two scales of organizational culture and leadership revealed negative and significant relationships with job performance ($P<0.01$). A socio-organizational domain can be considered as the main cause of loss of productivity. Hence, measures were suggested towards making further attempts to control the psychosocial factors in workplaces and avoid performance deterioration, particularly in organizational culture and leadership.

KEYWORDS: *Job stress, psychosocial stressors, Job performance, (QPS-Nordic), Bank employees*

INTRODUCTION

Todays, stress is the result of interaction between the individual and the situation; that person knows his/her abilities in responding to the demands and pressures are inadequate. Based on NIOSH, "occupational stress is the harmful effect of emotional and physical responses that happen when the requirements of the job do not match the needs of the worker, capabilities, or resources" [1].

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According to an investigation in 1999s, NIOSH reported that 40% and 25% of workers stated that their jobs were "very" or "extremely" stressful and were the first stressor in their lives, respectively. Compared with latest generations, three-fourths of workers had more on-the-job stress. Twenty-nine percent of workers felt a bit or extremely stressed at work. About 26% of workers said that they experienced job burnout or occupational stress [1]. Furthermore, the workers stated that occupational stress was in line with health problems more than with financial or family ones. However, some of the jobs (such as

ambulance workers, teachers, social service, customer service departments, prison officers and police) are among the most stressful jobs due to the nature of their work. According to NIOSH, bank employees such as managers, administrators, supervisors, and tellers are within the list of most stressful jobs [1]. Employees of financial institutions including banks are experiencing high job stress due to high sensitivity of work which is also due to dealings with public funds, limitation of motion, dealing with different people from different social classes having different ideas and expectations, leadership styles and lack useful and professional communication.

Among the different consequences of stress, deterioration of job performance is a subject that is of more consideration by ergonomists. When the stress exceeds the coping capacity, it can have a suppressive effect on individual and organizational of performances. The results of most studies showed negative relationship between job stress and performance [2-6].

Various theories and models have been proposed concerning the identification of factors that cause stress. However, each one has advantages and disadvantages. Researchers and theorists are trying to provide new models and theories to overcome deficiencies of the previous model. Based on different models, different tools were developed in the form of questionnaires or scales to evaluate psychosocial work conditions. In the present study, we have tried using General Nordic Questionnaire for measurement of psychological and social factors at work. According to research claims, the General Nordic Questionnaire (QPS Nordic) design was based on synthesis of the various theories and conceptual models and it is a general questionnaire for measuring psychological and social factors at work, including job and organization characteristics, as well as individual work-related attitudes and provides extensive and sufficient details from employees' work-related perceptions and interactions with the work and by this way, can overcome deficiencies of models and previous tools . QPS Nordic is used in researches related to psychological factors - social work, health and productivity and how the effects of stress on job performance can be evaluated through a one-way process and the results are obvious. QPS Nordic is of three levels including task, individual, social and organizational and it has been used in various studies to investigate the relationship between job stress and its different outcomes [7-10]. Some international studies, conducted on the

job stress in the banking sector, suggested that a high percentage of bank employees experience job stress but national studies in this field were very rare [11-12]. Therefore, study of job stress among bank employees in Iran and the relationship with performance is required prior to any intervention. The aim of this study was investigation of the relationship between the psychosocial stressors and job performance among bank employees in one of the banking centers of the state. The results of such studies could help in identifying stressors; increasing awareness and informing employees exposed to stress and interventional measures, play a major role in reducing the risk of psychological harm and increasing employee job performance.

MATERIALS AND METHODS

The study of conceptual model: In this study, we proposed a synthetic model to investigate the relationship between variables, (Fig. 1) that can evaluate the effect of stress on performance (as the main purpose of this study) and the effect of different levels of stress on the performance.
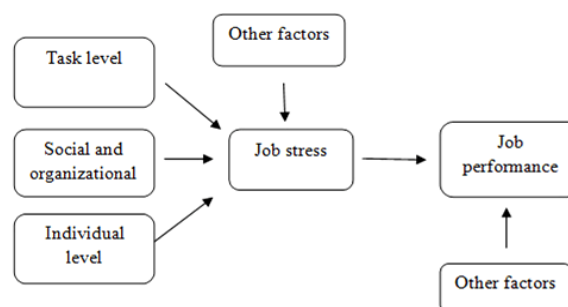
Fig.1. Integrated model of the relationship between job stress based on three levels and performance

This correlation study attempted to explore the relationship between job stress and performance and to determine the cause of relationships between the levels of job stress in the conceptual model (Fig. 1). In the analytical model of research, the different levels of stress as an independent variable and job performance as a dependent one were considered.

This study was conducted among bank employees of west Azerbaijan in 2014. Participants in the study comprised all the 215 male and female employees including Bosses and Managers of a state bank.

This study was approved by the Ethics committee of Urmia University of Medical Sciences.

Data were collected by two General Nordic Questionnaires and Human resource productivity Questionnaire.

Nordic questionnaire for psychological and social factor at work was designed by Lindstrom in 2000 and it measured psychosocial factors in the work environment at three levels of task: social, organizational and individual levels [7]. QPS Nordic contained two sections: The first section included questions about demographic information such as age, gender, work experience and level of education. The second part of the questionnaire included questions about psychological and social factors at work. The original version of questionnaire consisted 123 items; however, in the present study, a shortened and standardized version (+34 items) was used. In the generally shortened version, the task level was assessed by 14 questions (including the scales of job demand, control at work, role expectations and predictability at work).The social and organizational levels were assessed by 17 questions (including the scales of social interaction, leadership, communication, organizational culture, climate and work group) and individual levels by 1 question (included scale of mastery at work). For each participant, we then calculated the scores for overall stress based on the total questionnaire (simple sum of items) and the stress scores for each of the three levels based on the QPS Nordic +34 questionnaire and each of its three levels (simple sum of levels items). Based on the description provided in the questionnaire, instruction manual; an average score was calculated for each question. Thus based on the total mean, the participants could be grouped as low, middle, and high-stress groups. Before data collection, validity of the questionnaire was done in terms of clarity of items by experts and commentators. The Reliability of questionnaire and all subscales were assessed by the internal consistency method and Cronbach's alpha coefficient. The second questionnaire used in this study was Human resource productivity Questionnaire. The questionnaire consisted 26 items and it was designed based on the model achieve. Achieve model is a model that helps managers to identify employees' performance problems and it was designed by Hersey and Goldsmith, the questionnaire assessed seven dimensions of human resource productivity including the ability (3 items), perception and cognition (4 items), organizational support (4 items), motivation (4 items), feedback (4 items), credit (4 items) and adaptability to the environment (3 items).

Evaluation of the validity and reliability of human resource productivity questionnaire was already conducted and approved by Iranian researchers and its reliability indices were reported as 0.89, 0.88 and 0.9 [13-15]. Both questionnaires used in this study were scored on a 5-point Likert scale ("totally agree" to "completely disagree" or "often" to "never"). Before completing the questionnaire, the purpose of the study was presented to participants. In addition, in order to ensure the confidentiality of their data, an anonymous questionnaire was available to people.

Participants were grouped using an average score of less than 2.5 as a low stress, between 2.5 and 3.5 as the average stress and more than 3.5 as high stress [7, 8]. Data analysis was performed using SPSS software ver.16 (Chicago, IL, USA). To examine the relationship between study variables, t-test, Pearson correlation and regression models were used. The alpha level was set at 0.05 for statistical significance.

RESULTS

Among 215 bank employees, 150 people completed the questionnaire (response rate of 70%). The ages of the participants ranged from 23 to 57, with a mean and standard deviation age of 41.17 ± 7.32. There were 89.8% male and 10.2% female participants. In addition, 13.1% of participants in this study were supervisors and 86.9% employees. About 62% had university educationand38% had diploma degrees. Most employees had work experience of more than20 yr (43.1%). Table 1 shows mean and standard deviation scores of participants in each of the variables studied. The mean and standard deviation scores of job stress among employees were 2.75 ± 0.44, showing the moderate stress level among bank employees.Job performance score was 2.63 ± 0.5 (Table 2).

Table 1. The mean and standard deviations of study variables

Index	Total stress	Task level	Social and organizational	Individual level	Job performance
Mean	2.75	2.81	2.92	2.33	2.63
Standard deviation	0.44	0.44	0.61	1.03	0.50
Range of scores	1-5	1-5	1-5	1-5	1-5

Table 2. The level of total stress based on job performance (number)

Features of studies		Job performance		
		low	average	high
	High	4.37	0.73	0.00
Job stress	Average	33.57	21.19	1.45
	Low	3.84	21.16	3.65

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A positive and non-significant correlation Was found between age and job stress scores (r=0.61, p=0.475) and performance scores (r= 0.01, P=0.829). Comparison of the mean the score of stress and performance revealed no significant relationship between men and women (r=0.555, P=0.372) and manager and supervisor (r=0.145, P=0.257). The relationship between job stress and performance with regards to the level of education was not significant (r=0.075, P=0.498) and work

experience (r=0.149, P=0.038).

Pearson correlation coefficients presented between the research variables are in Table 3. The correlation coefficient was significant between all variables except individual level. A negative and significant correlation found between job stress in social and organizational levels with job performance (r=-0.56, P=0.001). In addition, relationship between job stress in task level and job performance was significant (r=-0.32, P=0.001).

Table 3. Believe of physical and psychological violence victims about managerial support

Structures	Total stress	Stress in task level	Stress in social and organizational levels	Stress in individual level	Job performance
Total stress	1.00	00.8*	0.92*	0.23	-0.53*
Stress in task level		1.00	0.22	0.11	-0.32*
Stress in social and organizational levels			1.00	0.22	-0.56*
Stress in individual level				1.00	-0.12
Job performance					1.00

*P< 0.01

The results of the analysis of the correlation between the scales of job stress and job performance showed that among subscales in social and organizational levels, two subscales of organizational culture and leadership suggested a

highly significant and negative relationship with the score of job performance (r= -0.5, r= -0.46, P=0.001).Table 4 shows correlation coefficient between the subscales of stress in social and organizational levels and performance.

Table 4. Correlation coefficient between subscales of job stress in social and organizational levels and job performance

Variable	Job demand	Role expectations	Control at work	Predictability at work	Social interaction	Leadership	Organizational culture and climate	Workgroup
Job performance	-0.02	-0.37*	0.31*	-0.16	-0.42*	-0.46*	-0.50*	-0.42*
Job stress	-0.34	0.61*	-0.59*	-0.48*	-0.76*	-0.77*	-0.80*	-0.71*

* P<0.01

In order to explore important levels that cause stress and their effects on performance, path analysis using structural equations was performed. For this purpose, linear regression analysis forward method was used. All three levels of job stress as independent variables, starting from the highest correlation coefficient and job performance variables as dependent variables entered the model.

Pathway model showed a good fit that included both variables of job stress at the task level and the social and organizational level (R^2=0.99, P<0.001) (Fig. 2).
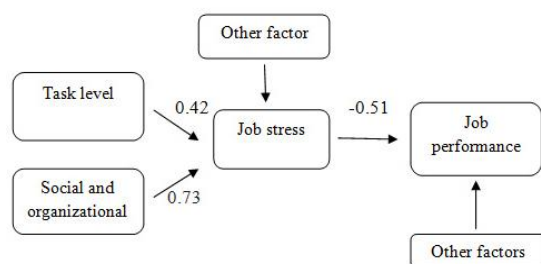

***Fig*. 2.** Pathway model showing the relationship between levels of job stress and job performance

A standardized coefficient between total stress and performance,-0.51 was estimated. According to path model, the relationship between different levels of job stress and performance, standardized coefficients between social and organizational levels and total stress was equal to 0.73 and standardized coefficients between task level and total stress (0.42) were estimated. According to this pattern, the direct effect of total stress on job performance was equal to -0.51 and indirect effect of stress in social, organizational and task level on performance were calculated to be -0.37 and -0.21, respectively (Table 2).

Moreover, in order to explore the relationship between different subscales of social and organizational levels, performance correlation analysis was used. Linear regression analysis and forward method were used to determine important subscales of social and organizational levels that caused stress. The path model as depicted in Fig. 3 shows the relationship between scales social and organizational levels and job performance, sequence of independent and dependent variables.

This model, which included both scales of organizational culture and leadership showed a good fit (R^2=0.97, *P*<0.001).
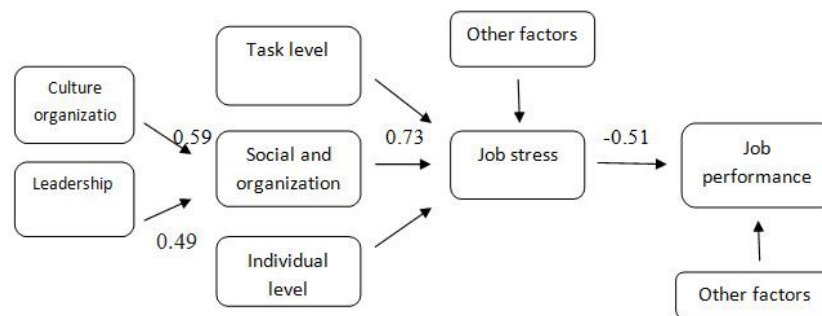
Fig. 3. Path model relationship between the scales of stress within social and organizational levels with performance based on the accepted model

Standardized coefficients were estimated between subscales of culture, organizational, social and organizational levels as 0.59 and between leadership with social and organizational levels were equal to 0.49. In the accepted model of relationship, stress in social and organizational level with job performance, indirect effect of stress in social and organizational level on performance was obtained to be -0.37. Thus, the indirect effects of organizational culture and leadership subscales on job performance were calculated to be -0.22 and -0.18, respectively.

The content validity index of questionnaire was 0.82. The following scales with reliability coefficients have been identified: Leadership (2 items, alpha=0.86), role clarity (2 items, alpha=071), control at work (4 items, alpha=0.74), supervisor support (2 items, alpha=0.83) and organizational climate (6 items, alpha=0.71).

DISCUSSION

The purpose of this study was to investigate the relationship between job stress and performance within bank employees in Iran. Psychosocial stressor was assessed by QPSNordic. According to the results of this study, the moderate level of performance can be observed in moderate levels of stress. These results were consistent with a study that showed high relationship between average involvement and moderate level of occupational stress among managers [14]. Occupational stress and performance were related with a curvilinear (U-shaped) correlation. Nursing personnel who had moderate occupational stress insisted that they operated their jobs worse than the nurses who work in low or high levels of occupational stress which is also in line with our findings [2].

A strong correlation was showed between the levels of job stress and organizational performance and this result is not in line with our findings [5]. Among the three levels of job stress,

individual level did not show significant association with job stress. The individual level subset had just one question in the short version of the QPSNordic Questionnaire; this can be problematic in achieving more results that are accurate.

Stress in social and organizational level as compared to the task level indicated the highest significant negative correlation with the total stress score. This study also found that among the subscales of social and organizational level, organizational culture and leadership subscales have a negative and significant relationship with job performance. This finding was in line with findings of study that showed culture and climate could be having direct or indirect impacts on productivity through effects on the workforce health [5]. These findings are consistent with previous Studies. Organizational culture was very important in job performance [16-18]. Management, peer support, and behavior were the factors, which caused stress, and they negatively affected the performance of bank employees [19]. Poor communication between managers in the private bank sector was more associated with job stress [11].

With respect to identified factors causing stress in this study, some form of intervention could be implemented to promote psychosocial working conditions. These interventions consists of empowering the right people in authority to conduct proper communication with people at the right time, organize educational programs in the field of communication, effect organizational and administrative changes in culture, make intervention-related activities such as identifying job duties, responsibilities and authority, utilizing the principles of ergonomic knowledge and assigning tasks to people and stress managing programs.

The limitations of this study was a small sample size, lack of participation of all supervisors and staff, which is why this study was conducted in

only one of the state banks that probably could have reduced generalize ability of the results; therefore, it is recommended that research be conducted with a larger sample size and a wider geographic range.

CONCLUSION

According to result of this study, the socio-organizational domain is probably main cause of loss of productivity. Hence, further attempts to control the psychosocial factors in workplaces and avoidance from performance deterioration particularly in organizational culture and leadership suggested.

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