



The Study of the Relationship between Job Stressors and Job Burnout among Shiraz University of Medical Sciences Employees

Yamin Haghani^{1*}, Mahmood Haghani², Parichehr Ashraf³ and Behnam JamshidiSoloklo³

¹ Professional Dental Ph.D. Student in IU Shiraz University, Shiraz, Iran

² Dental Professional Doctorate, Faculty Member of Dentistry, Shiraz University, Shiraz, Iran

³ Ph.D. Student in Educational Psychology, IU Shiraz University, Shiraz, Iran

³ Faculty Member of Iranian Center for Education, Culture and Research Fars Branch, Shiraz, Iran

*Corresponding author's e-mail: haghanim@sums.ac.ir

ABSTRACT: Job burnout is a serious problem of organizations that endangers employees' health. So determining various antecedents of burnout has been an active area of research. The aim of this study was examining the relationship between job stressors and job burnout among Shiraz University of medical sciences employees. In this correlational research, 339 employees (237 female and 162 male) were selected via stratified random sampling. Job stress and job burnout questionnaire were administrated to sample. Data were analysed via statistical techniques such as descriptive statistics, Pearson correlation, multiple regressions and one sample T test. Both dimensions of job stress were related positively with burnout. Furthermore demographical variables such as gender, marital status, age, and work experience were related with some dimensions of burnout. Job pressure and lack of organizational support bring about job burnout. So administrators should reduce job pressure and support employees in their organizational duties.

Keywords: Job Stress, Job Burnout, University of Medical Sciences Employees.

Received 10 Jan. 2014
Accepted 10 Mar. 2014

ORIGINAL ARTICLE

INTRODUCTION

Nowadays, organizations noticeably pay attention to the matter of job stress in the workplace because this issue fundamentally affects the success of their business. The managers of most organizations are willing to identify the factors that create a stressful atmosphere in the work place; moreover, they diligently try to reduce the negative effects of these factors because they know that they may negatively affect employees' mental health and their job performance. Since job stress factors indirectly and negatively affect the success of managers' business, the managers diligently try to provide better working conditions for their employees. According to the literature in this area of study, stress on the one hand can endanger an individual's health status and as a results may cause various diseases (or may increase the risk of various diseases) including cardiovascular diseases and mental disorders [1, 2, 3, 4, 5]. On the other hand, it can reduce employees' quality of work; furthermore, it can decrease the employees' level of commitment to organizational goals of the business. Stress considerably affects the employees' motivation in the working place, so that they may work less enthusiastically for the organization. This effect is noticeably distinguishable when it is accompanied by lack of support from external or internal resources (the impact of stress on the employees' motivation particularly increases when these employees are not mentally supported by external or internal resources). This issue ultimately leads to the job withdrawal behaviors as well as job burnout depression among the employees [1, 6, 7, 8, 9,10].

The term job burnout was first introduced by Freudenberger. He was the first researcher who used this term in order to describe a mental syndrome which is associated with the employees who work in a stressful atmosphere. This syndrome was withdrawal and fatigue which causes numerous symptoms. These symptoms are categorized as physical, psychological and emotional symptoms. The physical symptoms include loss of energy, chronic fatigue, weakness, chronic headaches, muscle tension, back pain, sleep disorders, multiple somatic complaints and increased susceptibility to multiple diseases. The emotional symptoms include helplessness, hopelessness, increased tension and conflict in the employee's household environment, increased signs of negative nervous attitudes such as agitation, anger, irritability and decreased signs of positive emotional attitudes such as sincerity, humility and politeness. The psychological symptoms include [job] dissatisfaction and the employee's negative attitudes toward himself, his job, his life and ultimately job withdrawal behaviors (absenteeism at work and escaping the office) [11].

According to Maslach et al. [12], job burnout has three basic dimensions including: emotional exhaustion, depersonalization, reduced sense of personal accomplishment. The emotional exhaustion dimension is considered as one burnout dimension which is closely related to the stress as well. This dimension is characterized as lack of energy in the muscle. In this mental state, the individual experiences emotional depletion

which results from excessive working. It is described as a feeling of being emotionally overextended and exhausted by working, a sense of feeling psychologically and emotionally "drained" in which an individual feels he is overwhelmed by the demands of others [13]. The depersonalization dimension results from using ineffective coping strategies in order to deal with fatigue. It is characterized by certain attitudes including a sense of alienation in the organization as well as isolation and dehumanization. The reduced sense of personal accomplishment is associated with certain mental attitudes including: a sense of inadequacy, personal failure and poor professional self-esteem [14].

According to demand - job resources model, job burnout is the outcome of two various types of working conditions (job burnout occurs in case of two working conditions): the first one is the kind of job demands in which extensive work is needed. As a result, this kind of working conditions carries several psychological costs including job burnout. The job sources are defined as the working conditions that may facilitate the achievement of business objectives. It is also defined as the conditions that may reduce job demands or as the conditions that may lead to personal growth [15].

Job resources are valuable kinds of resources for an individual since they meet job demands. Lee et al [16] found out that major job stressors in the work place include role ambiguity, role conflict, stressful events and extensive work pressures. On the other hand, the major job resources include social support received from various sources, job promotion opportunities, job control and participation of the employees in the decision making process. An individual should also get positive feedbacks from external resources. The rate of these feedbacks is based on that employee's efforts and accomplishment in the job. The feedbacks should also be specific to that individual. In other words, the certain feedbacks given to one individual should not be given to another individual as well.

Maslach stated that six organizational factors may affect the incidence of job burnout in an employees including: high workload, low levels of job control, poor remuneration, lack of social communication, discrimination in the workplace and value conflict between individual values and workplace values [17]. Lee et al. [18] identified work and time pressures as job burnout predictors. Lewandowski conducted a study on underlying organizational factors that may cause job burnout. The results of this research suggested that organizational factors affect (result in) the employees' anger and frustration. These factors are also considered as the underlying factors which result in job burnout behaviors in the employees. These underlying factors include the employees' age and gender as well as wage and labor laws. These factors have a direct impact on job dissatisfaction and burnout [19]. This study, by relying on empirical and theoretical evidence whose brief description was provided in the above, aimed to test following hypotheses :

1. The work pressure and lack of organizational support factors, as job stressors, have a significant relationship with job burnout .
2. Underlying factors including gender, age, work experience, marital status, etc. have a significant relationship with job burnout.

MATERIALS AND METHODS

This research is a correlation type of research. In this study, all employees who work in medical, dentistry and nursing schools of Shiraz Medical University were selected as the statistical population. Based on Lin Table [10] research, the sample size required for this research was considered as 322 individuals by considering 5% sampling error. In order to ensure adequacy of the sample, 392 individuals were selected from the employees using stratified random sampling method .

The research tools include Vagus and Spielberger job stress scale [11] and Maslach job burnout scale [12, 13]. The Vagus and Spielberger job stress scale include 30 items. Each item in this scale defines a general stressor event in the workplace. Based on factorial analysis of the data collected from 1791 individuals who worked in various companies and the university, Vagg and Spielberger concluded that there are two main factors in this Scale. They called these two factors lack of organizational support and work pressure based on what was extracted from analysis of items' contents [14]. In this research, the Farsi translation version of the questionnaires was used. The structural validity of the questionnaire was studied with help of exploratory factor analysis method. The factor structure (structural content) of the job stress questionnaire was examined by main factor analysis method with help of varimax rotation. The results of this analysis indicated that this questionnaire consists of two factors including work pressure and lack of organizational support. In total, these factors explained 37.81% of the overall variance. In addition, KMO value for the sample adequacy was equal to 0.9. The result of Bartlett's test of sphericity was significant in 0.01% level of significance (0.0001). The questionnaire reliability was studied using alpha correlation coefficients. The results are reported in Table 1. The results of Table 1 show that the reliability of the questionnaire is within acceptable range.

Table 1. Cronbach's alpha coefficients for the job stress questionnaire dimensions.

Dimensions of job stress	Number of questions	Cronbach's alpha coefficients	Number of subjects
Lack of organizational support	15	0.88	353
Working pressure	15	0.87	351
The total stress	30	0.92	337

The Maslach questionnaire is a common tool for measuring job burnout. It includes 22 items. This scale measures three dimensions of emotional exhaustion, depersonalization and feelings of personal accomplishment. This was translated by Philian [15] in Iran. The content validity and reliability of this questionnaire was examined by Cronbach's alpha coefficient .

In this study, the exploratory factor analysis using main factor analysis and direct oblimin rotation were used in order to measure the structural validity of the questionnaire. The results of this analysis indicated that this questionnaire consists of three factors: emotional exhaustion, depersonalization and reduced sense of personal accomplishment. In total, these factors explained 51.82% of overall variance of the questionnaire. It should be noted that KMO value was equal to 0.88 for the sample adequacy in this analysis. The result of Bartlett's test of sphericity was significant 0.01% in level of significance (0.0001). In order to investigate reliability of the job burnout questionnaire, Cronbach's alpha coefficient was calculated for overall score of the questionnaire's dimensions. The results of this analysis are provided in Table 2 which shows acceptable reliability of the questionnaire .

Table 2. Cronbach's alpha coefficients for job burnout questionnaire

Dimensions of burnout	Number of questions	Cronbach's alpha coefficients	Number of subjects
Emotional exhaustion	9	0.86	380
Professional decrement	8	0.8	371
Alienation	5	0.77	389
Total	22	0.89	363

Collected data of the research were analyzed using descriptive statistics, correlation matrix, multiple regression model and independent t-test.

RESULTS

Table 3 shows the means and standard deviations for continuous variables of the research separately for each sex. Some of the findings shown in the table are as follows :

The mean age of female individuals is 33.19 years old while the one for male individuals is 36.30 years old. Average job experience for male individuals is 11.23 years while the one for female individuals is 9.23 years. The average monthly salary of male individuals is 530,000 toman while the one for female individuals is 470,000 toman. Moreover, the female individuals had the highest scores in both work pressure and lack of organizational support factors compared to male individuals. Table 4 shows the correlation matrix of continuous variables of the research. The results of the table indicated that:

a. Age and work experience of the respondents had a significant negative relationship with the job burnout and its dimensions. In other words, increased age and work experience was associated with a reduction in the job burnout and its dimensions.

b. Level of education and monthly salaries had no significant relationship with the job burnout dimensions .

c. Work pressure and lack of organizational support had a significant positive relationship with all three dimensions of the job burnout. In addition, this positive relationship was stronger in emotional exhaustion dimension compared to other two dimensions of the job burnout.

In order to evaluate effect of the job stress dimension on incidence of job burnout in the employees, multiple regression model was used where all of the predictors were entered simultaneously into the model. The results of this analysis (Table 5) indicated that both work pressure and lack of organizational support were positive and significant predictors for the job burnout. In total, these predictors explained 17% of the variance in the job burnout. Lack of organizational support was a stronger predictor for job burnout compared to work pressure.

In order to compare the incidence of job burnout between male and female employees, t-test for independent samples was used. The results of this analysis indicated that there was a significant difference between male and female respondents regarding reduced sense of personal accomplishment dimension (presented in Table 6). Moreover, the female individuals had a higher score in this dimension compared to male individuals.

Then, t-test for independent samples was used in order to compare the incidence of job burnout between married and single employees. The results of this analysis indicated that there was a significant difference between incidence of job burnout in single and married employees regarding their scores in three dimensions of emotional exhaustion, depersonalization and job burnout (presented in Table 7). Moreover, single employees had higher scores in these three dimensions.

Table 3. Means and standard deviations of the research variables in male and female employees .

Variable name	total			female			male		
	N	SD	\bar{X}	N	SD	\bar{X}	N	SD	\bar{X}
age	393	7.52	34.45	234	7.43	33.19	159	7.30	36.30
Experience	385	7.18	10.44	229	6.77	9.23	156	7.62	11.23
Monthly salary	332	239136	476934	197	237029	473563	135	239038	530548

Working pressure	370	10.44	43.81	222	10.32	44.51	148	10.56	42.77
The Lack of organizational support	352	11.25	44.93	207	11.23	45.63	145	11.23	43.94
The overall job stress	398	20.49	78.59	237	20.67	88.72	161	20.17	85.93
Emotional exhaustion	379	10.02	19.29	223	9.23	20.01	156	11.00	18.27
Reduced professional efficacy	370	7.72	18.60	221	7.36	19.37	149	8.12	17.46
alienation	354	5	5.03	213	5	4.82	141	5	5.34
General exhaustion	398	17.95	42.38	237	16.06	43.40	161	20.39	40.89

Table 4. The correlation matrix of continuous variables of the research

Variable	1	2	3	4	5	6	7	8	9	10	11
Age	1										
Experience	0.83**	1									
Education	-0.02	0.17**	1								
Monthly salary	0.37**	0.29**	0.40**	1							
Working pressure	-0.04	-0.02	0.19**	0.19**	1						
Lack of organizational support	0.01	0.01	0.06	0.07	0.70**	1					
The total stress	0.000	0.01	0.07	0.09	0.85**	0.94**	1				
Emotional exhaustion	-0.15**	-0.11*	0.08	-0.02	0.44**	0.48**	0.49**	1			
Lack of adequate	0.21*-	-0.16**	-0.05	-0.08	0.15**	0.18**	0.20**	0.21**	1		
Alienation	-0.24**	-0.21**	0.02	-0.09	-0.20**	0.18**	0.21**	0.51**	0.040**	1	
total burnout	-0.21**	0.21**	-0.16**	0.02**	-0.06**	0.36**	0.39**	0.41**	0.78**	0.78**	1

**P < 0.01 * P < 0.05

Table 5. Multiple regression analysis in order to investigate the effect of job stress dimensions on employees' job burnout prediction.

Predictors	B	β	R	R ²	T	P
intercept	8.91				2.11	0.04
Working pressure	0.34	0.19	0.41	0.17	2.86	0.01
Lack of organizational support	0.42	0.26			3.69	0.0001

Table 6. The results of independent t-test conducted in order to compare the incidence of job burnout between female and male employees

Dimensions of burnout	gender	N	SD	\bar{X}	T	DF	P
Emotional exhaustion	male	156	11.00	18.27	-1.62	295	0.11
	female	223	9.23	20.01			
Professional decrement	male	149	8.12	17.46	-2.34	368	0.02
	female	221	7.36	19.37			
Alienation	male	159	5.12	5.55	1.5	317	0.13
	female	229	4.61	4.79			
total burnout	male	161	20.39	40.89	-1.31	289	0.19
	female	237	16.06	43.40			

Table 7. The results of independent t-test conducted in order to compare the incidence of job burnout between single and married employees

Dimensions of burnout	Marital status	N	\bar{X}	SD	T	DF	P
Emotional exhaustion	single	108	21.08	10.79	2.22	377	0.03
	married	271	18.65	9.62			
Professional decrement	single	105	19.63	8.01	1.56	368	0.12
	married	265	18.24	7.59			
Alienation	single	111	5.95	5.22	2.16	386	0.03
	married	277	4.79	4.65			
total burnout	single	116	45.39	19.75	2.12	396	0.03
	married	282	41.21	17.06			

DISCUSSION

As it was noted in the previous section, work pressure and lack of organizational support had a significant positive relationship with job stressors and job burnout. There are several empirical evidences on the relationship between job stress and job burnout in a variety of studies, both in abroad or in Iran [16, 17, and 18]. In particular, some studies indicated that there is a significant relationship between work pressure and job burnout. The results of these studies are in line with the results of this research. In Iran, Aziz Nejad et al. [19] found a significant relationship between excessive work hours and job burnout. The existence of a relationship between support resources and job burnout was confirmed in several studies as well [12, 13].

The existence of a relationship between job stressors and job burnout can be proved theoretically as well. In other words, based on theoretical approach, it is evident that there is a relationship between job stressors and job burnout. The resource conservation model is one theoretical model which was used in order to prove the existence of this relationship. This model suggested that job burnout may occur when the individuals feel threatened by external resources. In other words, this may happen when the individuals feel that their internal values are threatened by external resources. This issue may appear in following conditions: a) when job demands are higher than the possible ones that an individuals can manage to overcome, b) when an individual loses job resources (such as unemployment), c) when return on capital is insufficient (For example, an employee is helpful to others; however, the other side doesn't help him when he needed it in return) [2]. In this model, it is assumed that the factors that threaten the individual's sources are job stressor. Furthermore, the constant threat of an individual's resources may lead to the incidence of job burnout [18]. Thus, this model predicts that chronic stress can lead to job burnout.

Based on additional findings of this research, the age and work experience factors had a significant negative relationship with the job burnout dimensions. According to Maslach [12, 13], the age factor had the most stable (strong) relationship with job burnout compared to other demographic characteristics. Thus, younger individuals may experience job burnout behaviors sooner than old individuals. Brewer et al. [20] examined the relationship between age and work experience factors and the incidence of job burnout in the employees using meta-analysis. Their results indicated that there is a weak and negative relationship between age and work experience factors and emotional exhaustion. The findings of this research on the existence of a relationship between age and work experience factors and job burnout are in line with most of the results obtained in previous studies. The possible reason behind this issue relies in the fact that older employees are more experienced than younger individuals. The employees experience various situation in the workplace over time and gradually they may learn how to handle difficult situations. When individuals become older as they work in an organization, they learn how to successfully deal with job stress using masterful strategies. They may also learn how to handle the unpleasant events which may happen in the work place in various situations. On the other hand, these experienced individuals may have more realistic perception of career goals compared to younger employees. Therefore, they may be less frustrated when they face stressful situations or when their occupational aspirations are not met. Thus, it is expected that these individuals may less experience job burnout.

The results of examining job burnout in different genders also showed that there is a significant difference in the reduced sense of personal accomplishment dimension between female and male employees. Moreover, female individuals had higher scores in this dimension compared to male individuals. Examining other dimensions showed no significant difference between female and male individuals. In contrast, most of other studies indicated that male individuals had higher scores in the job burnout dimensions compared to female individuals [1, 14, and 17]. Examining the items relevant to the reduced sense of personal accomplishment showed that most of the items in this questionnaire are related to successful management of social and emotional relationships in the work place (how to deal with clients, how to create a comfortable environment for the clients, etc.). The female individuals possibly expect more flexibility from themselves than male individuals in the areas of establishing emotional and interpersonal relationships with the clients (These expectations are the outcome gender roles' socialization and society's expectations from the female individuals. In other words, society defines some certain roles for female and male individuals which are specific to them. For example, male individuals are expected to be strong. On the other hand, female individuals are expected to be emotional. Thus, it is clear that female individuals are expected to act more successful than male individuals regarding establishing emotional and social relationships with the clients in the work place.). Therefore, the female individuals may give themselves lower scores when they evaluate their performance in these areas.

Additional findings of this research showed that single employees had higher overall scores than married employees in the dimensions of emotional exhaustion, depersonalization and job burnout. It was confirmed in several numbers of studies that the incidence of job burnout is higher in single employees than married individuals [13]. In some other studies, no significant relationship was found between marital status and the incidence of job burnout in the employees [4]. Probably the increased incidences of job burnout in single employees may be due to their lower ages as well as their lower levels of work experience. As it was mentioned earlier, as a result, these individuals may represent higher incidences of job burnout.

Given the undeniable importance of human resources in achieving organizational objectives, it is recommended to examine other possible job burnout predictors, particularly those job stressors that were not examined in this study. In addition, the effects of job stressors on organizational outcomes such as organizational commitment and job satisfaction should be further examined in future researchers. On the other hand, according to the existence of a relationship between job stress (work pressure) and lack of organizational support and job burnout, it is recommended that the organizations' managers tentatively try to make proper decisions in order to reduce work pressure in the workplace for the employees. These managers should also provide the support needed to assist the employees, so that the workers can better carry out their organizational responsibilities. Moreover, it is essential to offer effective strategies to the employees in the area of coping with job stress and educate them in this context. This measure can effectively improve the employees' mental health. It may also prevent the incidence of job burnout in them.

Acknowledgements: Hereby we greatly appreciate all the help and guidance of Research Assistant of Medical University of Shiraz, Dr. Dabaghmanesh, for financing part of the research expenses. We also appreciate all the help and guidance of Iranian center for education, culture and research Fars branch, due to their sincere assistance in implantation of the research. We also appreciate sincere help of Dr. Sahraian who provided the research executives with the job burnout scale. We also greatly appreciate all the help and guidance of the respectable supervisors of the research, Mrs. Parichehr Ashraf, Maryam Hosseini, Maryam Soroush and Mr. Mohammad Reza Zahedi who helped us in all phases of the project by offering constructive suggestions from their point of views.

REFERENCES

1. Zaf Geber, S. 2001. Successful Coping with stress. Translated by Masoud Kasai, Tehran: Hamshahri Publication.
2. Curbow, B., Spratt, K., Ungaretti, A., McDonnell, K. & Breckler, S. 2000. Development of the child care worker job stress inventory. *Early Childhood Research Quarterly*, 15(4): 515-536.
3. Nakata, A., Haratani, T., Takahashi, M., Kawakami, N., Arito, H., Kobayashi, F. & Araki, S. 2004. Job stress, social support, and prevalence of insomnia in a population of Japanese daytime workers. *Social Science & Medicine*, 59 (8): 1719-1730.
4. Dzietham, D., Nembhard, W., Collins, R. & Davis, K. (2004). Perceived stress following race-based discrimination at work is associated with hypertension in African-Americans. The metro Atlanta heart disease study (1999-2001), *Social Science & Medicine*, 58 (3), 449-461.
5. Kunz, R., Kirschbaum, C. & Steptoe, A. 2004. Work stress, socioeconomic status and neuroendocrine activation over the working day. *Social Science & Medicine*, 58 (8):1523-1530.
6. Auerbach, S.M., Quick, B.G. & Pegg, P.O. 2003. General Job stress and job-specific stress in juvenile correctional officers. *Journal of Criminal Justice*, 31 (1):25-36.
7. Bhuian, S.N., Menguc, B. & Borsboom, R. 2005. Stressors and job outcomes in sales: a triphasic model versus linear-quadratic-interactive model. *Journal of Business Research*, 58(2): 141-150.
8. Piko, F.B. 2005. Burnout, role conflict, job satisfaction and psychosocial health among Hungarian health care staff: A questionnaire survey. *International Journal of Nursing Studies*, 43 (3):311-318.
9. Viator, R.E. 2001. The association of formal and informal public accounting mentoring with role stress and related job outcomes. *Accounting, Organizations and Society*, 26(1): 73-93.
10. Roth, S.F., Heo, G., Varnhagen, C. & Major, P.W. 2004. The relationship between occupational stress and job satisfaction in orthodontics. *American Journal of Orthodontics and Dent facial Orthopedics*, 126(1):106-109.
11. Najafi, M., Solati Dehkordi, S.K. & Forouzan Bakhsh, F. 2000. The relationship between job burnout and mental health among the employees of Esfahan Nuclear Fuel Research and Production Center. *Journal of Shahrekord University of Medical Sciences*, 2(2):34-41.
12. Maslach, C. 2001. What have we learned about burnout and health? *Psychology and Health*, 16 (5): 607-611.
13. Maslach, C. & Jackson, S.E. 1993. *Manual of the Maslach Burnout inventory*, 2nd edition. Consulting Psychologists press: Palo Alto Calif.
14. Cordes, C.L. & Dougherty, T.W. 1993. A review and an integration of research in job burnout. *Academy of Management Review*, 18: 621-656.
15. Philian, E. 1992. Examining the relationship between job burnout incidences and stress coping strategies used by nurses working in teaching hospitals in Tehran. MSc Thesis, Tarbiat Modarres University, Tehran.
16. Akroyd, R.T., Caison, M.S., Robert, D. & Adams, R.T. 2002. Burnout in radiation therapists: the predictive value of selected stressors. *International Journal of Radiation oncology, Biology and Physics*. Vol. 25, Issue. 3: 816-821.
17. Demerouti, E., Bakker, A.B., Nachreiner, F. & Schaufeli, W.B. 2001. The job demands-resources model of burnout. *Journal of Applied Psychology*, 86: 499-512.
18. Lee, J.S.Y. & Akhtar, S. 2007. Job burnout among nurses in Hong Kong: Implications for human resource practices and interventions. *Asia Pacific Journal of Human Resources*, 45:63-84.
19. Aziz Nejad, P. & Hosseini, S.J. 2004. Job burnout and its causes in clinical nurses working in hospitals of Babol University of Medical Sciences (2004). *Journal of Babol University of Medical Sciences*, 8, Number 2, 63-69.
20. Brewer, E.W. & Shapard, L. 2004. Employee Burnout: A Meta-Analysis of the Relationship between Age and Years of Experience. *Human Resource Development Review*, 3:102 -123.