

INVESTIGATING THE PSYCHOMETRIC PROPERTIES OF PHILIP L. RICE OCCUPATIONAL STRESS QUESTIONNAIRE

Keivan HASANI¹, Keivan KAKABARAE^{2*}

¹ Ph.D. student, Department of Psychology, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran,

² Department of Psychology, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran.

*** Corresponding Author**

Email: kakabraee@gmail.com

ABSTRACT

Job stress is one of the most important factors affecting employees' job continuity and tranquility. The purpose of this current research is to investigate the validity and reliability of Philip L. Rice's occupational stress questionnaire among Kermanshah Melli Bank employees. To examine the psychometric properties of the questionnaire, a sample of 200 employees of the Melli Bank of Kermanshah (188 males and 12 females) were selected randomly. Philip L. Rice questionnaire was used for collecting data. Data analysis was performed using spss23 and Amos23 software. To verify the construct validity of this questionnaire, confirmatory factor analysis was used. The results showed that The Philip L. Rice's Stress Questionnaire had an appropriate construct validity and its reliability was 0.91 based on Cronbach's alpha coefficient, which is appropriate.

Keywords: The Questionnaire of Job Stress, Job Stress, Bank Employees.

INTRODUCTION

Stress or tension is an integral part of life, which can lead to illness or reduced function due to mental stress and quality of individual compliance with it. Although some stresses are natural and necessary, but if stress is intense, persistent or repetitive, the person is unable to cope effectively with it, or if there are few supportive sources, stress is considered as a negative phenomenon that can lead to physical illness and mental disorders (Mozaffari and Moghaddam, 2016; Gamage et al., 2015). Stress can lead to emotional and psychological imbalances and can have multiple outcomes such as job dissatisfaction and turnover (Ouellette et al., 2017; Lambert et al., 2017). Occupational stress has consequences for mental and physical health. Among the psychological symptoms of occupational stress, one can mention job dissatisfaction (Guo et al., 2016).

Stress is one of the serious problems of today's organizations and can create heavy costs for the organization (Chetty et al., 2015; Law and Guo, 2015; Lambert et al., 2017). Occupational changes such as organizational changes, salary changes, job promotion, decreasing or increasing human resources, and social changes are issues that somehow exert pressure upon one and he becomes disturbed, worried, anxious (Shahid et al., 2011; Hububi et al., 2017; Monson and Boss, 2017; Rudaleva and Mostafin, 2017). Unlike other harmful factors in the workplace, the psychological factors in the workplace are not specific to a particular occupation, and they exist in all occupations in various forms and in varying degrees. Stress

can reduce person's performance through memory disorders, anger, low self-esteem, hopelessness, increasing isolation, psychological outcomes and physical problems such as appetite changes, digestive problems, etc. (Yaslioglu et al. 2013; Park and Kim, 2013; Elshaer et al., 2017; Hossein Shahi Barawati, 2013; Sule et al., 2017). One of the psychological consequences of occupational stress is the reduction in job satisfaction, which can even lead to the abandonment of the job and reduce individual commitment to the organization. The impact of occupational stress on work and employee has been considered in recent decades because the most important source of each organization is its manpower, and organizations must provide the psychological, mental and material well-being of the staff so that they can work with the highest efficiency and the organization achieves maximum efficiency (Hongxia et al., 2014; Hirokawa et al.; Quick et al., 2017; Simon et al., 2017; Khamisa et al., 2017).

In numerous studies on the effect of occupational stress on mental health and job satisfaction, job stress has been introduced as one of the most important causes of mental disorder and decreased job satisfaction that in most of these studies, stress is considered as a response that is directly experienced by stress resources. Research on occupational stress and job satisfaction confirms the relationship between these two, and they consider job stress as affecting factor on job satisfaction and the direction between these two is reverse. Studies by Buker, and Wiecko (2007), Hui et al. (2009), Kumar (2011), Glushiri et al (2012), Trivellas et al. (2013), Azizi Nejad and Mousavi Nejad (2016) prove this fact. But it is important to focus on this fact that stress is not always directly related to stressors, but the way an individual perceives stress in his experience is crucial because, according to studies, it has been found that similar stressful events have different effects on different people; therefore, this belief has been strengthened that there are variables that modify the relationship between stress and illness and job satisfaction (Wang et al., 2014; Boudreaux et al., 2012). Research has shown that occupational stress is associated with many diseases and occupational issues (Stac, and Troccoli, 2004, quoted by Azad Marzabadi et al., 2007). This relationship has been confirmed for cardiovascular diseases (French, and Caplan, 1982), musculoskeletal disorders (Manjunata and Rinakamurti, 2017), hypertension and other diseases (Mozafari, 2016). Investigations have shown that there is tension in almost all occupations (Saatchi, 2006; Enayati et al., 2012; Azad Abadi et al., 2007; Ashrafi Rizi and Kazempour; 2011; Razmi and Nemati, 2011; Khanehsheenas et al., 2013; Tarshizi and Ahmadi, 2011), but its magnitude and factors are different in terms of the type and nature of stress and occupational and personal characteristics of individuals. In addition to organizational factors, individual factors such as age, service record, gender, marital status and educational level also play a role in stress (Ahmad and Ramazan, 2013; Arrawatia, 2017).

Essentially, society's progress and survival are subject to the effective functioning of organizations. Therefore, we can call today's society the organizational community. The most important means of achieving progress are organizations that can effectively fulfill their duties. Any organization is looking for ways to achieve a desirable job performance and effective productivity to provide the environment for employees to achieve a degree of ability to have a greater impact on their work (Hassani et al., 2017). Studies have shown that job stress has a direct relationship with job satisfaction and person's performance, in other words, it predicts the job satisfaction of an organization's employees (Suri et al., 2006; Ghafourian et al., 2011; Peil, 2010; Simone et al., 2018). The impact of occupational stress on work and employee has



been considered in recent decades because the most important source of each organization is its human resources and organizations must provide the psychological and material comfort for their employees so that they can work with the highest efficiency and the organization also achieves maximum productivity (Li et al., 2017; Abu Alrub, 2004; Doshi, 2009; Shahid et al., 2011; Enayati et al., 2011; Cooper et al., 2013; Yozgat et al., 2013). In the meantime, banks are of particular importance because of the economic backing of each country; therefore, as employees of these organizations have higher levels of mental health and higher job satisfaction, banks also benefit from higher productivity. Arrawatia (2017), Manjunatha and Renukamurthy (2017), Shajeen alam and Dilruba (2016), Ahmad and Ramazan (2013), and Razmi and Nemati (2011), in their studies, approved the effect of job stress on the job satisfaction of Bank staff. Unfortunately, domestic studies are limited. The results of these limited studies indicate that a high percentage of bank employees experience a high and severe occupational stress (Jahanbakhsh Ganjeh and Arizi Samani, 2012; (Hassani et al., 2017). According to what was said, the importance of optimizing the working conditions of the institutions, and in particular banks, is highlighted in this study. Since the role of occupational stress in everyday life is a strong reason to achieve the appropriate tool for measuring and evaluating this issue. Considering the various factors that cause job stress in the workplace, interventions can be done to prevent or reduce job stress and investigate the validity and reliability of existing questionnaires is a way to standardize the research in this regard. Therefore, in this research, job stress factors of Philip L. Rice questionnaire have been investigated.



METHOD

This study is a descriptive research and in terms of aim, nature, and subject of research, it is relational. The statistical population of this research includes all employees of Kermanshah National Bank in 2015. The sample size was determined by Krejcie-Morgan formula as 500 participants and it was selected by stratified sampling method based on gender. The questionnaire used in this research was the Philip L. Rice Occupational Stress questionnaire (1992). This questionnaire contains 57 items that provide information on occupational stress. This questionnaire consists of three subscales of interpersonal relationships, physical health, and career interests. Initial questions have been developed to measure the problems of interpersonal relationships and or job satisfaction dissatisfaction. After that, the physical health that causes individual daily fatigue is addressed, and the third part of the questionnaire is also dedicated to career interests. This test does not have time limits. Scoring procedure of this test is done on a 5-options Likert scale (1 = never, 2 = rarely, 3 = sometimes, 4 = often, 5 = more often). The scoring the 6, 8, 9, 11, 12, 15, 18, 20, 49, 50, 51, 53, 55, and 57 items was done directly and the other items were reverse coded. Hatami (1999) tested this questionnaire for a sample of 275 school teachers. The calculated reliability level was 0.89, and the validity of the whole questionnaire was reported as 0.921 for the three subscales of interpersonal relationships, social status, and career interests were reported as 0.89, 0.88 and 0.88, respectively. Data analysis was also done by SPSS23 and Amos23.

FINDINGS

In this section, firstly, the demographic features are examined, and then descriptive and inferential descriptions are presented.

Demographic characteristics

Gender: According to Table 1. 94% of respondents were male and 6% were female.

Table 1: Gender Frequency

Gender	Frequency	Percent
Male	188	94.00%
Female	21	6.00%
Total	200	100%

Marital status: According to Table 2, it can be seen that 93.3% of respondents are married and 6.50% are single.

Table 2: Marital status Frequency

Marital status	Frequency	Percent
Married	187	93.50%
Single	13	6.50%
Total	200	100%

Construct Validity of the Philip L. Rice Occupational Stress Questionnaire

Confirmatory factor analysis was used to assess the construct validity. First, a confirmatory factor analysis chart was designed based on the presence of questionnaire items. The calculations showed that the factor coefficients of questions 17, 20, 21, and 49 were not significant, and according to Meyers, Gumest and Guarino's (2012) idea, they were excluded from the analysis process. The fitness of the confirmatory factor analysis model was re-launched. The results showed that the fit indices of the model are not desirable and based on the correction indices reported by Amos software, some of the factors of the measurement error of the interpersonal relationships and the related physical health were related to each other. Bentler and Chou (1987) and Bentler (1988) have pointed out that the characteristics of being unbounded of all errors in a model rarely fit into real data. Therefore, the incorporation of such errors in the confirmatory factor analysis models will not only damage the validity of the questionnaire, also will provide a more realistic representation of the observed data (Badri, Mesrabadi, Palangi, and Fathi, 2012). The results indicated a good fitness of the modified model with the data.

Figure 1 shows the confirmatory factor analysis graph of the occupational stress questionnaire, along with standard estimates.



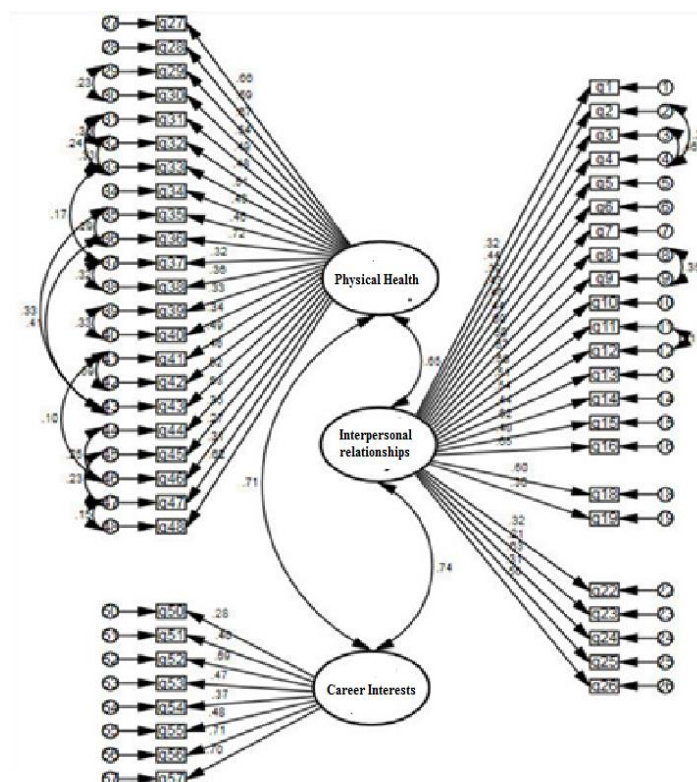


Figure 1: the confirmatory factor analysis graph of the occupational stress questionnaire

Table 3: Confirmatory factor analysis model fit indexes for occupational stress questionnaire

Type of index	Symbol	Equivalent	Good fitness criteria (Harrington, 2012)	Size	Sig. level
Absolute	CMIN	Chi-square	Small and insignificant	2538.84	0.001
Comparative	CFI	Comparative fit index	Values close to 0.95 or greater	0.96	—
	IFI	Tucker-Lewis Index	Values close to 0.95 or greater	0.95	—
Parsimonious	RMSEA	Root Mean Square Error of Approximation	Values close to 0.06 or less	0.061	—
	CMIN/DF	Normed Chi-Square	Values between 1 and 2	1.95	—

Table 3 shows the fit indices of the confirmatory factor analysis model after applying the correction. As can be seen, the absolute index of Chi-Square (CMIN) index is 2538.84 and is significant ($P < 0.05$). Accordingly, the fitness of the model is not perfect, but according to Harrington (2012), the Chi-square (CMIN) statistic is heavily influenced by the sample size and is almost always meaningful in large specimens. Relying on it, the fitting of the model with the data cannot be investigated, so we should consider the comparative and parsimonious indices. The value of the comparative fit indices for CFI is equal to 0.96 and for the IFI index is 0.95. Also, the value of parsimonious fit indices for RMSEA was 0.061 and for the CMIN / DF index, it was 1.95. Therefore, based on the comparative and parsimonious indices, the confirmatory factor analysis model shows the optimal fit with empirical data.



Table 4: Factor loads of questions on the components of the questionnaire

Path					Path					Path				
Path			Standard Estimates	Sig. level	Path			Standard Estimates	Sig. level	Path			Standard Estimates	Sig. level
Interpersonal relationships	←... Question 1		0.32	0.001	Physical Health	←... Question 27		0.66	0.001	Career Interests	←... Question 52		0.28	0.001
	←... Question 2		0.44	0.001		←... Question 28		0.69	0.001		←... Question 51		0.40	0.001
	←... Question 3		0.39	0.001		←... Question 29		0.67	0.001		←... Question 52		0.69	0.001
	←... Question 4		0.43	0.001		←... Question 30		0.54	0.001		←... Question 53		0.47	0.001
	←... Question 5		0.40	0.001		←... Question 31		0.49	0.001		←... Question 54		0.37	0.001
	←... Question 6		0.44	0.001		←... Question 32		0.48	0.001		←... Question 55		0.48	0.001
	←... Question 7		0.69	0.001		←... Question 33		0.54	0.001		←... Question 56		0.71	0.001
	←... Question 8		0.58	0.001		←... Question 34		0.48	0.001		←... Question 57		70	0.001
	←... Question 9		0.67	0.001		←... Question 35		0.46	0.001					
	←... Question 10		0.58	0.001		←... Question 36		0.72	0.001					
	←... Question 11		0.51	0.001		Question 37		0.32	0.001					
	Question 12		0.54	0.001		Question 38		0.36	0.001					
	Question 13		0.44	0.001		Question 39		0.33	0.001					
	Question 14		0.62	0.001		Question 40		0.34	0.001					
	Question 15		0.40	0.001		Question 41		0.49	0.001					
	Question 16		0.65	0.001		Question 42		0.46	0.001					
	Question 18		0.60	0.001		Question 43		0.52	0.001					
	Question 19		0.30	0.001		Question 44		0.53	0.001					
	Question 22		0.32	0.001		Question 45		0.36	0.001					
	Question 23		0.21	0.009		Question 46		0.27	0.001					
	Question 24		0.63	0.001		Question 47		0.31	0.001					
	Question 25		0.31	0.002		Question 48		0.62	0.001					
	Question 26		0.56	0.001										

Table 4 shows the factor load coefficients of the questions on the components of the occupational stress questionnaire. As can be seen, all factor loads are statistically significant ($p < 0.01$). Therefore, it can be concluded that the mentioned questionnaire has construct validity.

Internal Reliability of Phillip Job Occupational Questionnaire: Cronbach's alpha coefficient was used for reliability analysis.

Table 5: Cronbach's alpha coefficients for checking the reliability of the questionnaire

Questionnaire		Cronbach's alpha coefficient
Components	Interpersonal relationships	0.89
	Physical health	0.87
	Career interests	0.86
The whole questionnaire		0.91

Table 5 shows the Cronbach's alpha coefficients for checking the reliability of Philipp's occupational stress questionnaire. As can be seen, the Cronbach's alpha coefficient for the entire questionnaire and its components are at a very good level.

DISCUSSION AND CONCLUSION

Job stress (tension) can be seen as the aggravation of stressors and related occupational conditions, which most people agree on about their stress-inducing nature. The study of occupational stress takes place in the context of individual-environment relationships and three factors are the focus of attention; the personal characteristics of the employee, the working conditions and the outcome of their interaction, which has a determinant role in the occurrence of occupational stress. World Health Organization indicates that job stress imposes a lot of costs on governments and absence from work, repeated demands of workers to change jobs and reduce production and play a role in the production are the manifestation of this phenomenon. Therefore, the existence of a standard tool for studying occupational stress, which has the ability to cover different occupations, is felt more than ever before. Therefore, with the conducted studies, this occupational stress questionnaire was chosen to cover the issues and needs for the study of occupational stress and it was standardized in order to implement the research. To verify this research, a confirmatory factor analysis was used. The results of the confirmatory factor analysis indicated that the occupational stress questionnaire has construct validity. The findings of this research are consistent with the results of Hatami's research (1999) in which the occupational stress questionnaire has acceptable validity and reliability. In addition, Kazerounian et al. (2013), Donyavi et al. (2012) and Marzabadi and Fesharaki (2010), validated and approved other questionnaires on the measurement of occupational stress. In fact, it can be said that in designing the current questionnaire, various aspects of job stress have been considered and the main items in it simply describe the various situations of occupational stress in various occupations. Accordingly, in the research community of the present study, a highly favorable fitness was obtained between the confirmatory factor analysis model and the experimental data which indicates the existence of construct validity in the occupational stress questionnaire.

References

Abu AlRub, RF. (2004). Job Stress, Job Performance, and Social Support Among Hospital Nurses. *Journal of Nursing Scholarship*. 36:73-78.



- Ahmed, A., Ramzan, M (2013). Effects of Job Stress on Employees Job Performance A Study on Banking Sector of Pakistan. *Journal of Business and Management*. 11(6). 61-66.
- Arrawatia, M.A (2017). Job Stress and its Impact on Employees Job Satisfaction: A Study with Reference to Private Bank Employees. *Accent Journal of Economics Ecology & Engineering*. 2(10).
- Ashrafi Rizi, Hassan; Kazempour, Zahra. (2011). Study of job stressors in librarians working in libraries of Isfahan University of Medical Sciences. *Health Information Management*, 8 (1), 41-49.
- Azad Marzabadi, Esfandiar; Tarkhorani, Hamid; Emami Khansari, Nasrin al-Sadat. (2007). A survey of job stress among a group of IRGC staff. *Military Medicine*, 9 (1)
- Badri Gargari, Rahim; Mesrabadi, Jawad, Palangi, Maryam and Fathi, Rahimeh. (2012). Factor structure of academic burnout questionnaire by using confirmatory factor analysis in high school students. *Educational Measurement*, 7, 182-165.
- Boudreaux, E., Mandry, C., Brantley, Ph. J (2012). Stress, Job Satisfaction, Coping, and Psychological Distress Among Emergency Medical Technicians. *Prehospital and Disaster Medicine*. 12(4). pp: 9-16
- Buker, H., & Wiecko, F. (2007). Are causes of police stress global. *Policing: An Journal of Police Strategies & Management*, 30(2), pp. 291-309
- Chetty, P.JJ., Coetzee, M., Ferreira, N. (2015). Sources of job stress and cognitive receptivity to change: the moderating role of job embeddedness. *South African Journal of Psychology*. 46(1) pp: 101-113.
- Cooper, C.L., Rout, U., Faragher, B (2013). Mental Health, Job Satisfaction, and Job Stress among General Practitioners. *From Stress to Wellbeing Vol1* pp 349-361. https://doi.org/10.1057/9781137310651_17
- Donyavi, Vahid; Kouhian, Keyvan; Maghoni; Saeed; Akbari, Morteza (2012). Investigating the Scope of Occupational Stress Range in Nurses at a Tehran Military Hospital in 1991. *Nurse and Physician Within War*.
- Doshi, A. (2009). Reducing library-related stress holistically [Online]. Available from: URL: http://www.liscareer.com/doshi_stress.htm.
- Elshaer, N.S., Moustafa, M.S., Aiad, M.W., Ramadan, M.I (2017). Job Stress and Burnout Syndrome among Critical Care Healthcare Workers *Alexandria Journal of Medicine*. <https://doi.org/10.1016/j.ajme.2017.06.004>.
- Enayati, Taraneh; Zameni, Farshideh; Ghazanfari, Hamid Reza; Mohammadi, Hamed. (2012). The Relationship between Organizational Stressful Resources and Job Stress among Employees of Mazandaran Gas Company. *Quarterly Journal of Educational Psychology*, Islamic Azad University, Tonekabon Branch. 3 (1).



- French, J.R., Caplan, R.D., Harrison, R.V. (1982). The mechanisms of job stress and strain. New York: J. Wiley.
- Gamage, A.U., Seneviratne, R.A (2015). Perceived Job Stress and Presence of Hypertension Among Administrative Officers in Sri Lanka. *Asia-Pacific Journal of Public Health* Vol. 28(1S) 41S–52S
- Ghafourian, Homa; Ghasemi, Iraj; Ebrahimi, Mohammad. (2011). The effect of job stress on job satisfaction of school administrators. *Quarterly Journal of New Thoughts in Educational Sciences*. 6 (4), Autumn 2011.
- Golshiri, Parastoo, Pourabdian, Siamak, Najimi, Arash; Musazadeh, Hamideh, Hasheminia, Jawad. (2012). Factors Affecting Job Stress of Nurses Working in Emergencies. *Health Research Journal*. 9 (1). P. 52
- Guo, J., Chen, J., Fu, J., Ge, X., Chen, m., Liu, Y. (2016). Structural empowerment, job stress and burnout of nurses in China. *Applied Nursing Research*. 13. 41-45. <https://doi.org/10.1016/j.apnr.2015.12.007>.
- Harrington, Donna. (2012). Confirmatory Factor Analysis (Translated by Shahr Ma Vahidi, Mohammad Moghaddam, and Pirouz Ghaderi Pakdel). Tabriz University of Tabriz Publications (date of publication not mentioned in the original language).
- Hassani, Mohammad, Sedaghat, Roghiyeh, Kazem Zadeh Beitali, Mehdi. (2017). Relationship between ethical atmosphere, job stress and job satisfaction of nurses. *Medical Ethics*, 11 (40), 64-71.
- Hirokawa, K., Ohira, T., Nagayoshi, M., Kajiura, M., Imano, H., Kitamura, A., Kiyama, M., Okada, T., Isob, H (2016). Occupational status and job stress in relation to cardiovascular stress reactivity in Japanese workers. *Preventive Medicine Reports*. 4. pp: 61–67. doi: 10.1016/j.pmedr.2016.05.010.
- Hoboubi, N., Choobine, A., Ghanavati, F., Keshavarzi, S (2017). The Impact of Job Stress and Job Satisfaction on Workforce Productivity in an Iranian Petrochemical Industry. *Safety and Health at Work*. 8. pp: 67-71. <https://doi.org/10.1016/j.shaw.2016.07.002>.
- Hongxia, L., Yongbin, F., Shuicheng, T., Fen, L., Huan, L (2014). Study on the job stress of miners. *Procedia Engineering*. 84. pp: 239 – 246. <https://doi.org/10.1016/j.proeng.2014.10.431>.
- Hossein Shahi Barawati, Hamid Reza. (2013). *Mental Health*. Tehran; Ravan Publications.
- Hui Wu. Yang ZhaoJia-Na Wang. Lie Wang. Factors associated with occupational stress among Chinese doctors. *Springer-Verlag*. 2009; 83:155-64
- Jahanbakhsh Ganjeh, Sahar; Arizi Samani, Hamid Reza. (2012). Relationship between job demands, job control with job stress, positive affection and negative affection of employees. *Cognitive Behavioral Sciences*, 2 (2). 75-90.



- Kazerounian, Sajjad; Zakerian, Abolfazl; Seraji, Jabraeil; Hosseini, Mostafa. (2013). Investigating Validity and Reliability of NIOSH Generic Job Stress Questionnaire in A Study on Firefighters in Tehran. Quarterly Journal of Occupational Health and Safety. 3 (3)
- Khamisa, N., Peltzer, K., Ilic, D., Oldenburg, B. (2017). Effect of personal and work stress on burnout, job satisfaction and general health of hospital nurses in South Africa. pp: 252-258. <http://dx.doi.org/10.1016/j.hsag.2016.10.001>
- Khaneshenas, Farin; Alhayari, Timur; Khalkhali, Hamid Reza. (2013). Investigating the relationship between psychosocial stressors and job performance among bank employees. Iranian Ergonomics and Human Factors Engineering. 1(3).
- Kumar, C.S (2011). Job Stress and Job Satisfaction of IT Companies' Employees. Management and Labour Studies. 36(1). pp: 61-72. <https://doi.org/10.1177/0258042X1103600104>.
- Lambert, E.G., Qureshi, H., Frank, J., Klahm, ch., Smith, B (2017). Job Stress, Job Involvement, Job Satisfaction, and Organizational Commitment and Their Associations with Job Burnout Among Indian Police Officers: a Research Note. Journal of Police and Criminal Psychology. pp: 1-15. <https://doi.org/10.1007/s11896-017-9236-y>.
- Law, F.M., Guo, G.J (2015). Correlation of Hope and Self-Efficacy with Job Satisfaction, Job Stress, and Organizational Commitment for Correctional Officers in the Taiwan Prison System. International Journal of Offender Therapy and Comparative Criminology. <https://doi.org/10.1177/0306624X15574997>
- Li, P., Liu, Y., Yuan, P., Ju, F (2017). The Study on the Relationship between University Faculties' Job Stress and Organizational Commitment in China. Computer Science. 122. pp: 642-648. <https://doi.org/10.1016/j.procs.2017.11.418>.
- Manjunatha, M.T., Renukamurthy, T.P. (2017). Stress Among Banking Employee – Literature Review. International Journal of Research Granthaalayah. 5(1). DOI: <https://doi.org/10.5281/zenodo.263976>
- Mears, Lawrence S. Gamest, Glenn and Garino, J. (2012). Applied Multivariate Research (Design and Interpretation) (translated by Hasan-papha Sharifi, Vali-Allah Farzad, Simin-Badak Reza Khani, Hamid Reza Hassan-Abadi, Bilal Isanlou and Mojtaba Habibi). Tehran: Roshd.
- Monsen, E., Boss, R.W (2017). The Impact of Strategic Entrepreneurship inside the Organization: Examining Job Stress and Employee Retention. 33(1). pp: 71-104. <https://doi.org/10.1111/j.1540-6520.2008.00281.x>
- Mozafari, Mohammad Mahdi, Moghaddam, Nahid (2016) The Impact of Job Stress on Job Satisfaction, International Conference on Change Management, Imam Khomeini International University.



- Ouellette, R.R., Frazier, S.L., Shemoff, E.S., Cappella, E., Mehta, T.G., Marinez, A., Cua, G., Atkins, M.S (2017). Teacher Job Stress and Satisfaction in Urban Schools: Disentangling Individual-, Classroom-, and Organizational-Level Influences. <https://doi.org/10.1016/j.beth.2017.11.011>.
- Park, Y.M., Kim, S.Y (2013). Impacts of Job Stress and Cognitive Failure on Patient Safety Incidents among Hospital Nurses. *Safety and Health at Work* .4. pp: 210- 215. doi: 10.1016/j.shaw.2013.10.003.
- Peil, M. (2010). Job satisfaction. In *The Ghanaian Factory Worker: Industrial Man in Africa* (African Studies, pp. 81-125). Cambridge: Cambridge University Press. doi:10.1017/CBO9780511759604.005
- Razmi, Shahriar; Nemati Sogli Tappeh, Fatemeh. (2010). The role of self-efficacy moderator in the relationship between job stress and mental health and job satisfaction among employees of Saderat Bank in Tabriz. *Quarterly Journal of Occupational Health*, 8 (2).
- Rudaleva, I., & Mustafin, A. (2017). The Impact of Stress Stability on Job Satisfaction and the Quality of Human Capital. *Journal of History Culture and Art Research*, 6(5), 333-341. doi:http://dx.doi.org/10.7596/taksad.v6i5.1252
- Saatchi, Mahmood (2006. *Psychology of Work* (11th Edition). Tehran: Virayesh.
- Shahid, MN, Latif, K, Sohail, S. (2011). Work stress and employee performance in banking sector evidence from district Faisalabad, Pakistan. *Asian Journal of Business and Management Sciences*.1:38-47.
- Shajeen Alam, S., Delruba (2016). Job Satisfaction and Job Stress among Bank Employees in Rajshahi City: A Field Study. *The International Journal of Indian Psychology*. 3(2).
- Simone, S., Planta., A., Cicotto, G. (2017). The role of job satisfaction, work engagement, self-efficacy and agentic capacities on nurses' turnover intention and patient satisfaction. *Applied Nursing Research*. Volume 39, Pages 130-140
- Sule, R., Thadasare, H., Sonavane, S., Shah, N., De Sousa, A (2017). A Study of Job Satisfaction, Job Stress and Quality of Life in Auxiliary Health Care Workers of a Public Tertiary General Hospital. *Journal of Psychosocial Rehabilitation and Mental Health*. 4(3). 23-27. <https://doi.org/10.1007/s40737-017-0078-9>
- Suri, H, Rahimi, M., Mohseni, H. (2006). A Survey of Occupational Stress Prevalence Model in Managers of Automotive Industrial Group in Iran. *Iranian Journal of Prophylaxis*. 1(4), 41-50.
- Tarshizi, Leila; Ahmadi, Fazlollah. (2011). The study of occupational stressors from the perspective of clinical nurses. *Nursing Care Research Center of Tehran University of Medical Sciences (Iranian Journal of Nursing)*. 24 (70).
- Trivellas, P., Reklitis, P., Platis, Ch (2013). The effect of job-related stress on employees' satisfaction: A survey in Health Care. *Social and Behavioral Sciences* 73. 718 – 726. <https://doi.org/10.1016/j.sbspro.2013.02.110>



Wang, Y., Zheng, Lu., Hu, T., Zheng, Q (2015). Stress, Burnout, and Job Satisfaction: Case of Police Force in China. *Public Personnel Management*.
<https://doi.org/10.1177/0091026014535179>.

Yaslioglu, M., Karagulle, A.O., Baran, M (2013). An Empirical Research on the Relationship between Job Insecurity, Job-Related Stress and Job Satisfaction in Logistics Industry. *Social and Behavioral Sciences*. 99 .332 – 338.
<https://doi.org/10.1016/j.sbspro.2013.10.501>.

Yozgat, U., Yurtkoru, S., Bilginoglu, E. (2013). Job stress and job performance among employees in public sector in Istanbul: examining the moderating role of emotional intelligence. *Social and Behavioral Sciences*. 75. 518 – 524.
<https://doi.org/10.1016/j.sbspro.2013.04.056>.

