

## Relationship Between Job Stress and Anxiety, Depression and Job Satisfaction in Nurses in Iran

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**Abstract:** Nurses constitute the largest professional group in the health care sector and they are subjected to high level of occupational stress. Work-related stress is likely have a profound effect on depression, anxiety and job satisfaction among nurses. By measuring the job stress among nurses and its adverse effects this research aims at providing an appropriate managerial solution to reduce this problem. This study is descriptive and analytical; it was temporarily performed in Iran. The participants were 250 persons whom were selected and investigated among nurses. This research was tested by four questionnaires. OSIPOW for stress, Ruth and Berry field's for job satisfaction, Beck Anxiety (BAI) and Depression Inventory (BDI) and was analyzed by SPSS 22 Statistical Software. The results showed that a significant proportion of nurses suffered from stress. The 68% of these nurses reported medium-to-high degrees of stress. As well as, 35.6% of nurses have stated their satisfaction with job as very low and only 7.2% of them have been completely satisfied with their job. The 18.8% of nurses were fairly depressed and 31.2% of them stated that medium to sever anxiety. The results indicate that work-related stress was negatively associated with depression, job satisfaction and anxiety. These findings suggest that there is a need to focus on knowledge and development of preventive strategies against stress as well as rehabilitation for nurses with psychological distress in the work place.

**Key words:** Job stress, nurses, job satisfaction, job satisfaction, distress

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### INTRODUCTION

Nurses constitute the largest professional group in the health care sector and they play a substantial role in the quality of care and satisfaction of health care services in any country's system (Karchani *et al.*, 2012). Nurses are subjected to high levels of occupational stress (Rahmani, 2013; Aiken *et al.*, 2002). According to Cox, stress is the complex psychological conditions derived from cognitive power of the person in accordance with the requirements of the job environment (Alexander *et al.*, 1985; Rafiee *et al.*, 2014).

According to the study performed by Sharit and Salvendy, stress can be categorized into physiological,

psychological and social kinds (Aminian *et al.*, 2011). In this classification, both demands higher than the person's ability and demands lower than the person's ability can cause stress (Archibald, 2006; Barlings and Burns, 2009). Disorders of heart's coronary blood vessels, stomach and duodenal ulcers, misuse of drugs and anxiety, may be due to the physical and psychological effects of stress which can be possible causes of disturbance in life quality of these persons and their families (Begley and Czajka, 1993).

Source of stress are more prevalent in this occupation and nurse's life is affected continually by this stress. The prevalence of important psychological distress is especially high among hospital nurses because of severe

stress produced by busy working schedules, the magnitude of their responsibilities and interpersonal conflicts (Birch, 2001; Cannon, 1939). High levels of stress can decrease quality of care and patient safety (Aiken *et al.*, 2002; Khandan *et al.*, 2012, 2013), potentially this stress leading to medical errors and difficulties with patients. Therefore, reducing work-related stress and maintaining good psychological stress among nurses are essential to the prevention of medical errors and improving the quality of nursing care (Caplan *et al.*, 1989). The interaction between working ability and job requirements is one of the factors affecting job stress and poor working abilities that raises job stress and consequently decreases the nurses' general health (Aiken *et al.*, 2002). Work-related stress has a relation with burn-outs in addition to physical and mental health consequences (Deary *et al.*, 1996; Simon and Corbett, 1996).

Similarly, work-related stress has been found to have had a co-relationship with job satisfaction (Firth-Cozens, 1987). Stressors such as high workload, job demands, poor supervision and lack of support are all related with poor physical and mental health consequences (Firth-Cozens, 1987). Burnout which is one of the consequences of job stress can directly affect general health by there duction of resources necessary for coping, thus leading to negative states of being characterized by exhaustion, fatigue, somatization and social withdrawal (Gorgievski and Hobfoll, 2008. Mokhtarinia *et al.*, 2012; Barkhordari *et al.*, 2011). As well as job satisfaction that comes from work-related stress directly impact on individual's health and wellbeing indicators such as physical symptoms, emotional states of anxiety and depression (Graham *et al.*, 2011; Hsu and Marshall, 1987; Jex and Gudanowski, 2010). Physical and mental effects of stress not only make the people vulnerable but also are accompanied by significant costs for their employing organizations. So far, organizations have rarely noted these costs in economic terms, although they have always been concerned with them through workers' performance outputs. According to their views, job stress does not seem to have major importance as is the case for other problems (Kalliath and Morris, 2002). Fletcher revealed that 60% of absence from work was caused by stress-related disorders and only in England, 100 million work-days were lost through this absence (Kasl, 1978). Negative and unfavorable effect of job stress can cause accidents. Stress causes nurses not to observe the rules and consequently do not pay attention to alarming signs (Khamisa *et al.*, 2015). Thus, recognizing the impact of work-related stress and job satisfaction on general health and the effects of nurses' general health on

the poor patient outcomes, high turnover, low retention, poor job performance, absenteeism and increased healthcare costs is important. By measuring the job stress among nurses and its adverse effects, this research aims at providing an appropriate managerial solution to minimize these problems. Finally, this study aimed to determine the effect of job stress and its outcomes on the mental health of nurses in Iran.

## MATERIALS AND METHODS

This study is descriptive and analytical; it was temporarily performed in Iran. The sample volume was 250 persons who were selected and investigated among nurses from different cities. Then, generally four questionnaires were filled out. Finally, data was extracted and entered to and analyzed by SPSS 22 Statistical Software and the results were reported.

**OSIPOW:** OSIPOW work stress questionnaire (revised in 1998) was used (Ganster *et al.*, 1986). The questionnaire contains 60 questions in six groups (ten questions in each group). The answers were ranked based on five points Likert's scale (1-5) (Yin and Yang, 2002). Total score of all questions was calculated and interpreted based on the manual of the questionnaire; scores ranging from 60-119 were regarded as mild stress, 120-179 as average stress, 180-239 as average to acute stress and 240-300 as acute stress. Based on scores of OSIPOW questionnaire, subjects were divided into two groups: group one (mild and mild-average stress) and group two (average-acute and acute stress). Validity and reliability of the questionnaire has been confirmed in other studies.

**Beck Anxiety Inventory (BAI):** This self-report questionnaire has been prepared for measuring the severity of anxiety in adolescents and adults. This instrument is a 21-point scale which participants select each question using a 4-point Likert scale (0-3) which indicates the severity of anxiety. Since, evaluating anxiety symptoms is very important in recognizing and curing mental problems, until now a lot of scales have been designed for it based on different perspectives, Forexample (Costello, Endler, Zhong). Examining these scales indicates that there are probably problems in theoretical conceptualization and methodological features of them. Beck anxiety inventory was presented by Beck. BAI measures the severity of clinical anxiety of people specifically. The reliability and validity of the questionnaire was examined and confirmed. In this regard, Cronbach's alpha was 0.92, test-retest reliability within a week was 0.75 and its internal consistency varied from 0.30-0.76.

Five types of validity test included: content, construct, simultaneity, diagnostics and operating validity was measured to the test. The results of all validity tests showed that BAI had a high performance for measuring anxiety.

Each subscale describes prevalent symptoms of anxiety including mental, physical and fear symptoms. The total score of BAI is calculated by summing up the scores of all items which ranged from 0-63 points.

The final BAI score was categorized into the following levels: No or minimal (0-7), slightly (8-15), medium (16-25) and severe (26-63).

**Beck Depression Inventory (BDI):** The Beck Depression Inventory, developed by Beck was used to assess the severity of depression, determination of mental illness and diagnosis of patients in normal individuals. BDI diagnose depression was based on its symptoms. BDI is a self-report test that can be completed in a short time between 5-10 min. The scale consisted of 21 questions with 4-point Likert scale (0-3) to determine the severity of depression. The questionnaire covered issues such as sadness, pessimism, feeling of disability, failure and guilt, sleep disturbances, loss of appetite, self-loathing so that 2, 11, 2, 5 and 1 questions were dedicated to emotions, cognitive issues, overt behavior, somatic symptoms and interpersonal symptomatology, respectively. Each sub-scale of test focused on a type of personal emotion. Scores obtained can be used to find people with different ranges of depression, especially in the workplace. Respondents should be educated, at least the 5th or 6th grade levels. The total score of BDI was calculated by summing up the scores of all items ranging from 0-63 points. The final BAI score was categorized into the following levels: no or minimal depression (0-13), mildly depressed (14-19), medium (20-28) and severely depressed (29-63).

It is worth noting that scores less than four show that the person denied his depression and pretended to be healthy. High scores even among severely depressed individuals were indicating possible over statement of depression or possibility of having histrionic personality disorder. Some researchers have opined that 18 points be considered as a cut-off point. It is said that this rating accurately identifies and classifies nearly 92% of patients with major depressive disorder.

Another way of interpreting the test is the "relative interpretation" that pays attention to irrational beliefs and also recognizes the signs and symptoms of depression. Diagnosis of these symptoms and beliefs can be helpful in identifying depressed patients and use of treatment

methods. In some cases, where individuals gain 3 points it can be considered as an indication of possible problems. These cases are presented as:

- C Sadness
- C Pessimism
- C Previous failure
- C Loss of pleasure
- C Feeling guilty
- C Feeling punishment
- C Hatingoneself
- C Self-criticism
- C Suicidal thoughts
- C Crying
- C Anxiety
- C Loss of interest
- C Uncertainty or indecision
- C Feeling of emptiness and worthlessness
- C Loss of energy
- C Changes in sleep patterns
- C Irritability
- C Change in appetite
- C Impaired concentration
- C Feeling tired
- C Loss of sexual desire

**Ruth and Berry field's job satisfaction:** Job satisfaction is a level of positive feelings and attitudes that people have concerning their jobs. When a person is very satisfied with their job it means that he really loves his/her job and he has positive feeling about his/her work. Her job is rewarding for him. People with higher job satisfaction enjoy a good condition of mental and physical strength. An important factor in the efficiency and effectiveness of an organization is employees' job satisfaction. Paying attention to the job requirements of human resources in an organization is very important and it can directly affect the performance of people, quality of products and services. In fact, the level of job satisfaction can affect the amount of accidents, absence of research, negligence, delay in work and organizational commitment. Effects of job satisfaction on the motivation of employees are most important to the improvement of systems and organizations. If job satisfaction is low, many research disorders and disagreements will occur and it will be harder to teach people new skills. People who research with more motivation and satisfaction have an important role in the promotion of organizations. Ruth and Berry field's job satisfaction questionnaire, developed by Barry Field and Ruth was designed to assess Job satisfaction. The questionnaire consisted of 21 questions with 7-point

likert scale (0-6). In the questionnaire, respondents should express their feeling and attitude about their jobs on a five degrees scale. In the questionnaire, the first 9 questions are related to emotional exhaustion, second 5 questions are used to assess depersonalization and the next 8 questions are related to the sense of personal accomplishment.

According to the scores obtained, individuals were classified in three categories including mild, moderate and severe as mentioned as:

- C Classification of emotional exhaustion: 0-9 (mild), 10-36 (average), 37-54 (Severe)
- C Classification of depersonalization: 0-10 (mild), 11-20 (average), 37-54 (sever)
- C Classification of sense of personal accomplishment: 0-16 (mild), 17-32 (average), 21-30 (sever)
- C Classification of burnout: 0-44 (mild), 45-88 (average), 89-132 (sever)

The reliability and validity of the questionnaire was examined and confirmed by Jackson. In this regard, Cronbach's alpha was 0.71-0.90 and test-retest reliability was from 0.6-0.8.

### RESULTS AND DISCUSSION

Average age of the nurses participating in this study was 36.4±7.69 years with ages ranging from 24-61 years. The average working hours of nurses was 12.73±2.56 h. The nurses' job stress is given in Table 1.

According to the Table 1, most of the nurses have had medium to high degrees of stress. As observed in the Table 2, most nurses have been unsatisfied with their jobs.

This study measured 3 parameters namely: stress, anxiety, job satisfaction and depression and their influence on nurses' mental health in Iran. The study showed that a significant number of nurses had stress and anxiety. According to the Table 1, 68% of these nurses reported medium-to-high degrees of stress which is possibly caused by difficulties and problems with their job. The most important probable stress-causing

factors which has caused medium-to-high and/or high degree of stress include work-load, ambiguity of duty, responsibility, social level, level of managers and the physical environment. Hence, we can consider these factors as important and effective in inducing job stress among the nurses. Results similar to this study have been reported in a study performed by Yao SQ and colleagues (Kristensen, 1991).

Work-related stress is high among nurses due to their working arrangements and high workloads, meaning they are at high risk of psychological distress problems, job dissatisfaction and low mental health. Stress among nurses specifically has been stated to be higher than other health professionals due to the nature of their work (Lambert *et al.*, 2007). Nursing needs the delivery of humane, empathetic, culturally sensitive, proficient and moral care in working environments with incomplete resources and increasing responsibilities. The stated conditions can justify high stress in this job. Other health care occupations also have similar environments which lead to stress in the individuals. For example, it has been stated that doctors suffer high levels of stress. These conditions may cause job dissatisfaction, lower morale, and poorer work performance (Letvak *et al.*, 2012; Liem and Liem, 1988). Moreover, personality factors are among other factors that can attribute to stress, anxiety and job satisfaction in different occupations and certain people could probably experience high levels of stress in their jobs than others (Malek *et al.*, 2011; Nicklin, 2000; Piko, 2006). These stresses can be attributed to a mismatch between job expectations and actual working environments which contribute to higher levels of work-related stress and lower levels of job satisfaction (Pillay, 2009). Moreover, lack of resources invokes feelings of insecurity about obtaining and maintaining resources necessary for meeting job demands, there by triggering stress (Spector, 1997). Also, stress-related patient care is critically important. Personal stressors including financial matters, difficult relationships and family struggles can provoke work-related stress. Results of this study showed that a high percentage of nurses are not satisfied with their jobs (Table 2).

According to the table, 35.6% of nurses have described their job satisfaction as low and only 7.2% of

Table 1: Distribution of the degree of job stress among nurses

Degree of job stress	Frequency	Percentage
Very low	89	35.6
Low	32	12.8
Medium	72	28.8
High	47	18.8
Very high	10	4.0

Table 2: Distribution of satisfaction with job among nurses

Degree of satisfaction with job	Frequency	Percentage
Very low	89	35.6
Low	48	19.2
Medium	76	30.4
High	19	7.6
Very high	18	7.2
Total	250	100.0

Table 3: Distribution of degree of depression among nurses

Degree of depression	Distribution	Percentage
Normal	99	39.6
Slightly depressed	55	22.0
In need of psychological consultations	35	14.0
Fairly depressed	47	18.8
Severely depressed	13	5.2
Ultra depressed	1	0.4

Table 4: Distribution of severity of anxiety among nurses

Severity of anxiety	Frequency	Percentage
Unstressed	56	22.4
Low	116	46.4
Medium	59	23.6
Sever	19	7.6
Total	250	100.0

Table 5: Distribution of job stress based on the degree of depression among nurses

Degree of depression	Low-medium (%)	Medium-high (%)
Degree of job stress		
Normal	38 (69.1)	53 (31.3)
Slightly depressed	7 (12.7)	41 (24.7)
In need of psychological consultations	5 (9.1)	23 (13.9)
Fairly depressed	5 (9.1)	37 (22.3)
Severely depressed	0	12 (7.2)
Ultra depressed	0	1 (0.6)

Table 6: Distribution of satisfaction based on the degree of job stress among nurses

Degree of stress	Very low (%)	Low (%)	Medium (%)	High (%)	Very high (%)
<b>Satisfaction with job</b>					
Low-medium	10 (17.5)	9 (15.8)	23 (40.4)	7 (12.3)	8 (14)
Medium-high	73 (43.7)	36 (21.6)	49 (29.3)	7 (4.20)	2 (1.2)

Table 7: Distribution of Anxiety based on the degree of job stress among nurses

Severity of anxiety	Low-medium (%)	Medium-high (%)
<b>Degree of stress</b>		
Normal	23 (41.8)	18 (11.2)
Low	27 (49.1)	76 (47.2)
Medium	5 (9.1)	50 (31.5)
High		17 (10.6)

nurses have been completely satisfied with their job. Therefore, it can be concluded that satisfaction with job is very low in this group of nurses and this is caused by the job problems in their occupation. According to the Table 3, 18.8% of nurses were fairly depressed. This percentage of depressed people in the nurse's profession is really critical due to their important roles in the health care system. The frequency and relative frequency of anxiety in nurses are presented in Table 4. Based on the results of the table, totally, 31.2% of nurses stated that they belonged to medium and severe anxieties (Table 5-7).

The results of this study showed that work-related stress is associated with job satisfaction, depression and anxiety (Table 8). Anxiety, job satisfaction and depression scores have a negative correlation with stress scores.

Table 8: The relationship between anxiety, job satisfaction and depression with stress

Variables	Low-medium stress (%)	Medium-high stress (%)	p-values
Job satisfaction	20(17.7)	93(89.3)	0.023
Depression	13(26)	37(74)	0.006
Anxiety	24(39.3)	37(60.7)	0.004

This relationship was reported in some related studies (Deary *et al.*, 1996; Simon and Corb, 1996). In order to explain these correlations, it can be said that security risks in the workplaces lead to stress and subsequently affect job satisfaction and health of nurses (St-Pierre and Holmes, 2010). In addition to some stressors such as higher workloads and staff issues has been found to be associated with poor job satisfaction (Firth-Cozens, 1987; Sutherland and Cooper, 1993). In the study by Khamisa *et al.* (2005) it has been shown that stress and job satisfaction were associated (St-Pierre and Holmes, 2010). Although, Khamisa *et al.* (2015) have shown that staff issues are related with job satisfaction but security risks in the workplace also affect job satisfaction among nurses. Lack of important resources such as treatment tools, drug and diagnosis facilities, compromises patient care and negatively affects job satisfaction.

Cannon's stress theory showed that exposure to stressor can cause a disorder in homeostasis which leads to breakdown of the biological system (Sveinsdottir *et al.*, 2006). This breakdown prevents compensatory and anticipatory changes that aid coping, thus causing depression (Tummers *et al.*, 2001).

Effects of stress on the health and well-being of nurses are shown in literature. There seems to be a consensus that the experience of work-related stress usually reduces the work-related quality of lives of nurses, increases minor psychiatric morbidity and may contribute to some forms of physical illness, anxiety and depression (VanYperen *et al.*, 2000).

It is obvious that stress at work plays an important role in high blood pressure and high levels of cholesterol, cardiovascular diseases, anxiety and depression. There is a complex relationship between self-reported anxiety, dissatisfaction, depression and risk of serious ill-health; the links between stress and job dissatisfaction are not very clear among professionals in occupations of high status.

## CONCLUSION

In conclusion, research-related stress plays a vital role in determining depression, anxiety and job satisfaction among health care nurses. Stress has an impact on the mental health and wellbeing of nurses and

this could most probably assume the form of sacrificing efficiency, productivity and the quality of health care. The findings suggest that there is need to pay attention to knowledge about the development of preventive strategies against stress as well as conducting rehabilitation exercises for nurses with psychological distress in the work place, thereby decreasing work-related stress and subsequently develop nurses' mental health which should be used as part of the the management strategies of organizations. Further researches that have the tendency to explore specific strategies for stress management may reduce the impact of stress on mental health of nurses and subsequently lessen absenteeism and turnover. The achievement of these evidence-based strategies that are intended to make better work environments where the security of nurses is guaranteed and they have enough resources to successfully complete their jobs will help improve their health outcomes.

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#### REFERENCES

- Aiken, L.H., S.P. Clarke, D.M. Sloane, J. Sochalski and J.H. Silber, 2002. Hospital nurse staffing and patient mortality nurse burnout and job dissatisfaction. *Jama*, 288: 1987-1993.
- Alexander, D., J.S. Monk and A.P. Jonas, 1985. Occupational stress personal strain and coping among residents and faculty members. *Acad. Med.*, 60: 830-839.
- Aminian, O., A. Farjami, G. Poryaghoob and K. Sadeghniaat, 2011. The evaluation of effect of job stress on the risk factors of the cardiovascular diseases among the drivers in Tehran in 86. *Tehran J.*, 2: 26-33.
- Archibald, C., 2006. Job satisfaction among neonatal nurses. *Pediatr. Nurs.*, 32: 176-179.
- Barkhordari, A., S. Poorabdian, J. Khoobi and M. Karchan, 2011. The study of changes in the serial peak flowmetry test in the workers of car painting workshops in Isfahan. *Sci. J. Kurdistan Uni. Med. Sci.*, 15: Pe73-Pe80.
- Barlings, T. and U. Burns, 2009. Factors affecting retention and turn over among Nurses in America. *Am. J. Nurs.*, 43: 345-354.
- Begley, P. and M. Czajka, 1993. Relationship between Job satisfaction and Organizational Commitment. *J. Am. Sci.*, 3: 45-60.
- Birch, L., 2001. Stress in midwifery practice: An empirical study. *Br. J. Midwifery*, 9: 730-734.
- Cannon, W.B., 1939. A law of denervation. *Am. J. Med. Sci.*, 198: 737-749.
- Caplan, R.D., A.D. Vinokur, R.H. Price and M. Van Ryn, 1989. Job seeking reemployment and mental health: A randomized field experiment in coping with job loss. *J. Appl. Psychol.*, 74: 759-769.
- Deary, I.J., H. Blenkin, R.M. Agius, N.S. Endler and H. Zealley *et al.*, 1996. Models of job-related stress and personal achievement among consultant doctors. *Br. J. Psychol.*, 87: 3-29.
- Firth-Cozens, J., 1987. Emotional distress in junior house officers. *Br. Med. J. (Clin. Res. Ed.)*, 295: 533-536.
- Ganster, D.C., M.R. Fusilier and B.T. Mayes, 1986. Role of social support in the experience of stress at work. *J. Appl. Psychol.*, 71: 102-110.
- Gorgievski, M.J. and S.E. Hobfoll, 2008. Work can Burn us out or Fire us up: Conservation of Resources in Burnout and Engagement. In: *Handbook of Stress and Burnout in Health Care*. Jonathon, R. and B. Halbesleben (Eds.). Nova Science Publishers, New York, USA., ISBN: 978-1-60456-500-3, pp: 7-22.
- Graham, K.R., B.L. Davies, A.K. Woodend, J. Simpson and S.L. Mantha, 2011. Impacting canadian public health nurses job satisfaction. *Can. J. Public Health-Rev. Can. de Santee Publique*, 102: 427-431.
- Hsu, K. and V. Marshall, 1987. Prevalence of depression and distress in a large sample of Canadian residents, interns and fellows. *Am. J. Psychiatry*, 144: 1561-1566.
- Jex, R. and T. Gudanowski, 2010. Job satisfaction among Nurses in general practice. *Br. Nurs. J.*, 23: 567-575.
- Kalliath, T. and R. Morris, 2002. Job satisfaction among nurses: A predictor of burnout levels. *J. Nurs. Administration*, 32: 648-654.
- Karchani, M., A. Barkhordari, A. Poornajaf, M. Raei and Z. Asaadi *et al.*, 2012. Job stress and related factors in nurses in Ilam. *Iran. Electron Physician*, 4: 465-469.
- Khamisa, N., B. Oldenburg, K. Peltzer and D. Ilic, 2015. Work related stress burnout job satisfaction and general health of nurses. *Int. J. environ. Res. Publ. Health*, 12: 652-666.
- Khandan, M., M. Maghsoudipour, S. Vosoughi and A. Kavousi, 2013. Safety climate and prediction of ergonomic behavior. *Intl. J. Occup. Safety Ergon.*, 19: 523-530.
- Khandan, M., S. Vosoughi and M. Maghsoudipour, 2012. Evaluation of safety climate factors-a macroergonomics approach: A case study in Iran. *Iran. Rehabil. J.*, 10: 43-46.
- Kristensen, O.S., 1991. The unemployed and adult education: A longitudinal study of unemployed persons in adult basic education. *Scand. J. Educ. Res.*, 35: 145-159.

- Lambert, V.A., C.E. Lambert, M. Petrini, X.M. Li and Y.J. Zhang, 2007. Predictors of physical and mental health in hospital nurses within the peoples republic of china. *Int. Nurs. Rev.*, 54: 85-91.
- Letvak, S., C.J. Ruhm and T. McCoy, 2012. Depression in hospital-employed nurses. *Clin. Nurse Specialist*, 26: 177-182.
- Liem, R. and J.H. Liem, 1988. Psychological effects of unemployment on workers and their families. *J. Social Issues*, 44: 87-105.
- Malek, M., S. Mohammadi and M. Attarchi, 2011. Occupational stress and influencing factors in medical residents of one of the educational hospitals of Tehran University of medical sciences. *Razi J. Med. Sci.*, 18: 24-35.
- Mokhtarinia, H., M. Sanjari and M. Parnianpour, 2012. The effect of fatigue on postural stability during repetitive trunk bending motion in healthy and chronic non-specific low back pain subjects. *J. Res. Rehabil. Sci*, 1: 719-727.
- Nicklin, W., 2000. Thank you isn't enough. *Health Care Manag. Forum*, 13: 6-14.
- Piko, B.F., 2006. Burnout role conflict job satisfaction and psychosocial health among hungarian health care staff: A questionnaire survey. *Int. J. Nurs. Stud.*, 43: 311-318.
- Pillay, R., 2009. Work satisfaction of professional nurses in South Africa: A comparative analysis of the public and private sectors. *Hum. Resour. Health*, Vol. 7. 10.1186/1478-4491-7-15
- Rafiee, M., H.R. Mokhtarinia, O. Hadad and P.R. Soltani, 2014. Pain and discomfort in laptop users: Prevalence and its relation to adopted posture. *Razi J. Med. Sci.*, 21: 37-45.
- Rahmani, A., 2013. Determination of job stresses and their consequences in drivers in Ilam. *Electron. physician*, 5: 594-598.
- Simon, F. and C. Corbett, 1996. Road traffic offending stress age and accident history among male and female drivers. *Ergon.*, 39: 757-780.
- Spector, P.E., 1997. *Job Satisfaction: Application Assessment Causes and Consequences*. Vol. 3, Sage Publications, Thousand Oaks, California, ISBN: 9780761989233, Pages: 96.
- St-Pierre, I. and D. Holmes, 2010. The relationship between organizational justice and workplace aggression. *J. Adv. Nurs.*, 66: 1169-1182.
- Sutherland, V.J. and C.L. Cooper, 1993. Identifying distress among general practitioners: Predictors of psychological ill-health and job dissatisfaction. *Social Sci. Med.*, 37: 575-581.
- Sveinsdottir, H., P. Biering and A. Ramel, 2006. Occupational stress job satisfaction and working environment among icelandic nurses: A cross-sectional questionnaire survey. *Int. J. Nurs. Stud.*, 43: 875-889.
- Tummers, G.E., P.P. Janssen, A.B. Landeweerd and I. Houkes, 2001. A comparative study of work characteristics and reactions between general and mental health nurses: A multi-sample analysis. *J. Adv. Nurs.*, 36: 151-162.
- VanYperen, N.W., M. Hagedoorn, M. Zweers and S. Postma, 2000. Injustice and employees destructive responses: The mediating role of state negative affect. *Social Justice Res.*, 13: 291-312.
- Yin, J.C.T. and K.P.A. Yang, 2002. Nursing turnover in Taiwan: A meta-analysis of related factors. *Int. J. Nurs. Stud.*, 39: 573-581.