



Correlation between Occupational Stress and Burnout in Rehabilitation Center Employees of Kashan, Iran

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ABSTRACT

Aims Stress is considered as a psychological phenomenon that inflicts human beings in the modern societies. Burnout is a psychological or behavioral state which occurs as individual's performance quality deteriorates. This study aimed to investigate the level of burnout and occupational stress in Kashan rehabilitating centers staffs.

Materials & Methods This descriptive study was done on all 298 nurse assistants of Kashan rehabilitation centers in 2013. Data collected using "Health and Safety Executive Questionnaire (HSE)" and "Maslach burnout inventory (MBI)". Data were analyzed by the Excel and SPSS 16 software. Pearson correlation coefficient was used to assess relationship between stress dimension and occupation burnout factors.

Findings The average of occupational stress was 3.65 ± 0.51 and the average of burnout was 29.67 ± 4.38 . Occupational groups had no significant correlation with occupational stress ($p=0.86$) but had a significant correlation with burnout ($p=0.006$). There were significant positive correlations between occupational stress parameters and burnout parameters. Just the peer support of occupational stress had no correlations with success, emotional exhaustion and general burnout.

Conclusion Deterioration of stressful parameters in occupational environment can mitigate damaging effects of burnout syndromes.

Keywords Stress, Psychological; Burnout, Professional; Nursing Staff; Social Environment

CITATION LINKS

[1] Surveying the association between occupational stress and ... [2] Comparison of job stress in military and ... [3] Prevalence of Occupational Stress and ... [4] Job stress, job performance, and ... [5] The impact of perception of locus of ... [6] Emotional Intelligence and ... [7] Organizational stressors and related stress intensities in Tehran's Comprehensive Rehabilitation Centers: From the employees' point of ... [8] Reliability and validity assessment for ... [9] The influence of personal dispositional factors and ... [10] Burnout of nurses employed at Tehran psychiatric hospitals and its relation with social ... [11] Depressive symptoms and occupational stress among Chinese female nurses: the mediating effects of social support and rational ... [12] The role of stress and level of ... [13] The lived experience and meaning of stress in acute mental health ... [14] Study of association between job stress and cardiovascular disease risk factors among Urmia Petrochemical Company ... [15] Poor work environments and ... [16] Burnout and its related factors in staffs of university hospitals in Mashhad in ... [17] Effective factors on job stress in ... [18] Relation between job stress and ... [19] The relationship between burnout and ... [20] Evaluation of nursing staff stress and ... [21] Occupational stress and ... [22] Evaluation of the relationship between job ... [23] Relationship between Supervisor ... [24] Job burnout and some of ... [25] Occupational stress and state of health among clinical psychologists and ... [26] The evaluation of the degree of ... [27] Job stress in working in ... [28] Assessing of job stress factors and ... [29] Relationship between nursing burnout and ... [30] Occupational burnout and its ... [31] A survey on job stressors of ... [32] Achieving higher stability in watermarking ... [33] Burnout in nurses-the relationship ... [34] Stress and burnout in israeli border ...

Introduction

Stress is considered as a psychological issue that severely inflicts human beings in the modern societies [1]. According to the National Institute for Occupational Safety and Health (NIOSH), occupational stress occurs when there is no harmony between occupational requirements and employees' capabilities. In other words, occupational stress is regarded as detrimental physical and emotional responses which can develop due to disharmony between employees' requirements, equipment, expectations, and capabilities and circumstantial parameters [2]. Occupational stress leads to the number of severe physical disorders such as heart diseases, intestinal disorders, migraines, respiratory problems, insomnia, cancers, muscular pain, osteoarthritis and even death [3]. Organizational circumstances of occupational stress include repetitive occupational absences, delays, strikes, and deterioration of quantitative and qualitative parameters, motivation, occupational trust, and emergence of antagonism between employees, occupational anxiety, depression, sabotage and occupational cunctation [4]. In other words, occupational stress affects the employees' health status and their standard of living and also can increase the chances of occupational hazards prevalence [5]. In the United States of America, the financial loss resulting from occupational stress is reported as 300 billion dollars annually [6]. In the United Kingdom, 180 working days have been recorded to be loss due to the severe stressful factors [7]. Furthermore, stressful factors play key role to generate 30% of severe disease and occupational absences recorded in health care centers. These malfunctions impose 300-400 million dollars to the national infrastructure, annually.

Beside the physical dimension of stressful parameters prevalence, it affects the staffs, their families and sick people, severely [8]. Occupational stress has reported 23.4-50% according to the recent studies in Iran [9]. Occupational environment and occupational stress can cause physical and psychological disorders in the employees. Furthermore, they can work as catalyzers to facilitate potential mental disorders.

Burnout is a psychological or behavioral state which occurs as individual's performance

quality deteriorates and in halts them to perform in long-term, entirely [10]. Occupational stress can be one of the main underlying reasons behind the burnout.

Burnout occurs in those occupations where the employees contact with the clients for many hours a week, directly [11]. Burnout can impose the number of severe repercussions on employees, organizations and the integrity of societies [12]. People, suffering from burnout, are suffered by the number of physical and psychological disorders such as depression, family problems, interactive and digestive disorders [13]. In some severe and advanced cases, burnout can result in suicides and premature deaths [14]. It has been observed that burnout usually can occur in the social services organizations staffs, who spend a considerable time to interact the clients. Burnout not only endangers health status of millions of social services organizations staff but also may leads to anxiety and tension in clients [8]. Studying on 5956 nurses in 302 health centers in Japan, demonstrates that 56% of the subjects suffer from advanced levels of burnout [15]. It has been shown that nurses in health centers suffer from physical fatigue (20.74%), depersonalization (7.35%), and lack of individual adequacy (25.66%) [16]. Several rehabilitation centers represent different services to their clients and their families, unanimously. Even the rehabilitating centers employees can be affected by occupational stress and burnout since they are in constant involvement with their clients who are suffering from different kinds of physiological and physical disorders [3].

Due to the importance of occupational stress and burnout in the stressful environments, this study aimed to investigate the level of burnout and occupational stress in Kashan rehabilitating centers staffs.

Materials & Methods

This descriptive study was done on all 298 nurse assistants of Kashan Rehabilitation Centers in 2013. 202 questionnaires (68%) were filled out.

Demographic information of the participants was provided by questions regarding sex, age, marital status, career background, educational level and occupation (nurse, nurse assistant, mentor, and service staff).

In order to measure the level of occupational stress the “Health and Safety Executive Questionnaire (HSE)” was used. This questionnaire included 35 questions categorized in 7 groups including demands, control, managerial support, peer support, relationships, role, and change [8]. The questionnaire’s question were graded in a five-degree Likert Scale including “Never” (1 point), “Rarely” (2 points), “Occasionally” (3 points), “Frequently” (4 points) and “Always” (5 points). High grades indicate high levels of safety, health against stressful conditions and low grades depict the existence of stressful parameters of the subjects [17]. The grades less than 1.5 indicated high level stress status, between 1.5 and 2.5 indicates medium stress status, between 2.5 and 3.5 indicates low level stress status and the grades more than 3.5 depicts no stress status [17]. The reliability of the 7 categories and the total questionnaire was calculated from 0.7 to 0.85 by Cronbach’s alpha Coefficient.

In order to measure the burnout “Maslach Burnout Inventory (MBI)” was utilized. The questionnaire has 22 questions categorized in three groups including emotional exhaustion, depersonalization, and success. In emotional exhaustion, the grades less than 10 indicated low, between 11 and 20 indicated medium and between 21 and 30 indicated high level of burnout. In depersonalization, the grades less than 15 indicated low, between 16 and 30 indicated medium and between 31 and 45 showed high level of burnout and in success, the grades less than 13 indicated high, between 14 and 26 indicated medium and the

grades more than 27 considered low level of burnout [18]. The validity of the questionnaire has been already analyzed [19]. In order to determine the reliability of the questionnaire, internal consistency, Cronbach’s Alpha Coefficient was used from pilot sampling of the study (whose density is considered 20 staff members), which has been analyzed before ultimate evaluation [16].

Questionnaires were distributed to the participant and completing method was explained for them. After data gathering, data analysis was done by SPSS 16 software using independent T (for assessing the relationship between sex, marital status and occupational stress and burnout), one way ANOVA (for assessing the relationship between educational level and occupation and occupational stress and burnout) and Pearson Correlation Coefficient (for assessing the relationship between age, occupational stress and burnout) tests.

Findings

78 persons (38.6%) were male and 166 persons (82.2%) were married. The age ranged from 23 to 65 years and the most frequent age range was 26-35 years old. 30 persons (14.9%) were mentors, 68 persons (33.4%) nurses, 68 persons (33.4%) nurse assistants and 36 persons (17.9%) service staffs. 108 participants (53.5%) reported career satisfaction and 94 participants (44.5%) reported no career satisfaction.

The average of occupational stress was 3.65 ± 0.51 and the average of burnout was 29.67 ± 4.38 (Figure 1).

Figure 1) Mean of HSE and MBI questionnaires scores and the frequency of samples in categories

Parameter	Mean	High	Medium	Low	No Stress
Role	4.21±0.72	0	2 (1)	34 (16.8)	166 (82.2)
Relationship	3.77±0.82	0	26 (12.9)	56 (27.7)	120 (59.4)
Managerial support	3.47±0.78	0	22 (10.9)	88 (43.6)	92 (45.5)
Peer support	3.63±0.78	0	14 (6.9)	92 (45.5)	96 (47.5)
Control	3.43±0.69	0	26 (12.9)	90 (44.6)	86 (42.6)
Demand	3.28±0.83	0	44 (21.8)	82 (40.6)	76 (37.7)
Changes	3.61±0.88	0	28 (13.9)	58 (28.7)	116 (57.4)
General occupational stress	3.65±0.51	0	24 (11.9)	72 (35.6)	106 (52.4)
Depersonalization	36.18±6.30	176 (86.1)	18 (8.9)	8 (4)	0
Success	30.72±5.36	186 (93)	8 (4)	8 (4)	0
Emotional exhaustion	22.50±4.14	190 (94.0)	4 (2.0)	8 (4.0)	0
General burnout	29.67±4.38	182 (90.1)	12 (5.9)	8 (4.0)	0

There was no significant correlation between demographic parameters of sex, age, marital

status, and career background with occupational stress and burnout syndromes

($p > 0.05$). The education level of samples had a significant correlation with burnout ($p = 0.001$) but not with occupational stress. There was no significant correlation between occupational stress and occupational groups ($p = 0.86$) but there was a significant correlation between burnout and

occupational groups ($p = 0.006$).

There were significant positive correlations between occupational stress parameters and burnout parameters. Just the peer support of occupational stress had no correlations with success, emotional exhaustion and general burnout (Figure 2).

Figure 2) Pearson correlation between occupational stress- and burnout parameters

Parameters	Depersonalization	Success	Emotional Exhaustion	General Burnout
Role	0.346*	0.550*	0.296*	0.477*
Relationship	0.463*	0.363*	0.543*	0.550*
Managerial Support	0.266*	0.265*	0.324*	0.342*
Peer Support	0.223**	0.054	0.168	0.179
Control	0.300*	0.263*	0.291*	0.343*
Demand	0.295*	0.297*	0.481*	0.431*
Change	0.424*	0.522*	0.511*	0.584*
General Stress	0.554*	0.530*	0.626*	0.686*

*Significant correlation at 0.01; **Significant correlation at 0.05

Discussion

48% of participants suffered from average and low stress levels. In Vafaei *et al.* study the level of nurses' stress is in the average levels [20]. Furthermore, in Malek *et al.* study, most nurse assistants (54% of the participants) reported low and average occupational stress levels [21]. On the other hand, in Mohammadfam *et al.* [22], a vehicle manufacturing company employees stated high occupational stress levels.

The most important underlying reason of various stress levels can be due to the distribution of workforce in the occupational environment, their level of career satisfaction that should be harmonized with their capabilities and expectations and the way they can generate amiable and friendly communication in the occupational environment.

90% of participants suffered from burnout syndromes. In Mohammadi-Fakhar *et al.*, nurses' burnout syndromes in their emotional exhaustion, depersonalization and success are in high and average levels [23]. However, in Qari Alavije *et al.* study, burnout syndromes in nurse assistants of Kuhrang county are low [24]. The high levels of burnout syndrome reported in this study can be due to the fact that participants spent most of their working hours with their mentally and physically sick clients; besides, intense working hours and disharmony between workforce and occupational commitments can be regarded as

the other effective factors to obtain burnout syndromes. In this study, there was no significant difference between occupational stress and the age. This result is consistent with the result of Malek *et al.* study analyzing occupational stress in nurse assistants of one of the teaching hospitals of the Tehran University of Medical Sciences [21].

Furthermore, in a study on nurse assistants, psychologist, neurologist and specialists of Shahid Beheshti University [25, 26] and in Soori & Hatami Sadabadi [27], no significant difference was observed between occupational stress and age. There was no significant difference between occupational stress and sex. This result is consistent with the results of the prior studies [20, 21, 28-30]. There was no significant correlation between occupational stress and education which is consistent with the result of Vafaei *et al.* study [20].

On the other hand, a significant correlation was found between burnout syndromes and education. In Ashrafirizi & Kazempour [31], a significant difference is observed between burnout syndromes and education. Low income and educational level can be the reasons behind such scholarly findings. In this study, there was no significant correlation between burnout syndromes and career background. This result is consistent with the results of prior studies [10, 32, 33].

There was a significant correlation between burnout syndromes and occupational groups.

This could be due to the low educational level in service staffs and nurse assistants leading to career dissatisfaction. There was a significant correlation between burnout syndromes and stressful parameters. This result is in accordance with the result of Zeighami Mohammadi & Asgharzadeh Haghighi [18]. Furthermore, in Malach-Pines & Keinan [34], there is a positive significant difference between burnout syndromes and occupational stress. Generally, working in tense and stressful environments results in facilitation of occupational stress and burnout syndromes.

Not assessing some effective factors on occupational stress and burnout such as work time and number of supported patients were the limitations of this study. The researcher suggests the necessity of recognition of other effective parameters on occupational stress so that by detecting the correlative relationship between the proposed parameters and burnout syndromes, their damaging effects can be managed towards deterioration of burnout.

Conclusion

Deterioration of stressful parameters in occupational environment can mitigate damaging effects of burnout syndromes.

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References

1- Aghilinejad M, Mohammadi S, Afkari M, Abbaszade Dizaji R. Surveying the association between occupational stress and mental health, personality and life stressful

events in Tehran police officers. *Pejouhesh*. 2007;31(4):355-60.

2- Hajiamini Z, Cheraghalipour Z, Azad Marzabadi E, Ebadi A, Norouzi Koushali A. Comparison of job stress in military and non-military drivers in Tehran city. *J Milit Med*. 2011;13(1):25-30.

3- Gharibi V, Malakouti J, Arsang Jang Sh, Gholami A. Prevalence of Occupational Stress and Its Relationship to Individual Characteristics in Tunneling Industry Workers. *J Health Syst Res*. 2013;9(1):57-65.

4- AbuAlRub RF. Job stress, job performance, and social support among hospital nurses. *J Nurs Scholarsh*. 2004;36(1):73-8.

5- Khajeddin N, Hakim Shoushtari M, Hajebi A. The impact of perception of locus of control on burnout syndrome among nurses in a psychiatric hospital. *Iran J Psychiatry Clin Psychol*. 2006;12(1):43-8. [Persian]

6- Khaniyan M, Foroughan M, Hosseini M, Biglarian A. Emotional Intelligence and Occupational Stress among Rehabilitation Staffs working in Tehran's Training Hospitals. *IRJ*. 2013; 11 (17) :68-74

7- Tavafi N, Hatamizadeh N, Kazemnejad A, Jazayeri A. Organizational stressors and related stress intensities in Tehran's Comprehensive Rehabilitation Centers: From the employees' point of view. *J Rehabil*. 2007;7(4):30-5.

8- Azadmarzabadi E, Gholami Fesharaki M. Reliability and validity assessment for the HSE job stress. *J Behav Sci*. 2011;4(4):291-7.

9- Laschinger HK, Grau AL. The influence of personal dispositional factors and organizational resources on workplace violence, burnout, and health outcomes in new graduate nurses: A cross-sectional study. *Int J Nurs Stud*. 2012;49(3):282-91.

10- Sahebazzamani M, Safavi M, Farahani H. Burnout of nurses employed at Tehran psychiatric hospitals and its relation with social supports. *Med Sci J Islamic Azad Univ Tehran Med Branch*. 2009;19(3):206-11. [Persian]

11- Wu H, Ge CX, Sun W, Wang JN, Wang L. Depressive symptoms and occupational stress among Chinese female nurses: the mediating effects of social support and rational coping. *Res Nurs Health*. 2011;34(5):401-7.

12- Gandi JC, Wai PS, Karick H, Dagona ZK. The role of stress and level of burnout in job performance among nurses. *Ment Health Fam Med*. 2011;8(3):181-94.

13- Curride J. The lived experience and meaning of stress in acute mental health nurses. *Br J Nurs*. 2008;17(14):880-4.

14- Yadegarfar Gh, Alinia T, Gharaaghajiasl R, Allahyari T, Sheikhabagloo R. Study of association between job stress and cardiovascular disease risk factors among Urmia Petrochemical Company personell. *J Isfahan Med School*. 2010;28(112):665-80.

15- Kanai-Pak M, Aiken LH, Sloane DM, Poghosyan L. Poor work environments and nurse inexperience are associated with burnout, job dissatisfaction and quality deficits in Japanese hospitals. *J Clin Nurs*. 2008;17(24):3324-9.

16- Talaei A, Mokhber N, Mohammad Nejad M, Samari AA. Burnout and its related factors in staffs of university hospitals in Mashhad in 2006. *J Semnan Univ Med Sci*. 2008;9(3):237-45. [Persian]

17- Azad Marzabadi E, Gholami Fesharaki M. Effective factors on job stress in military personnel. *J Milit Med*. 2011;13(1):1-6.

- 18- Zeighami Mohammadi Sh, Asgharzadeh Haghighi S. Relation between job stress and burnout among Nursing staff. *Sci J Hamedan Nurs Midwifery Fac.* 2011;19(2):42-9.
- 19- Abdi Masooleh F, Kaviani H, Khaghanizade M, Momeni Araghi A. The relationship between burnout and mental health among nurses. *Tehran Univ Med J.* 2007;65(6):65-75
- 20- Vafaei SM, Hoseini M, Forootan R, Hoseini SN. Evaluation of nursing staff stress and its relationship with demographic characteristics of their primary health care in city hospitals Nayshabur. *J Nurs Midwifery Urmia Univ Med Sci.* 2006;4(4):158-66. [Persian]
- 21- Malek M, Mohammadi S, Attarchi M. Occupational stress and influencing factors, in medical residents of one of the educational hospitals of Tehran University of Medical Sciences. *Razi J Med Sci.* 2011;18(87):24-35.
- 22- Mohammadfam A, Bahrami F, Fatemi R, Golmohammadi H, Mahjub H. Evaluation of the relationship between job stress and unsafe acts with occupational accidents in a vehicle manufacturing plant. *Sci J Hamedan Med Univ.* 2008;15(3):60-6.
- 23- Mohammadi-Fakhar F, Rafii F, Heshmat R, Haghani H. Relationship between Supervisor Social Support and Burnout in Nurses. *Iran J Nurs.* 2012;25(79):63-71. [Persian]
- 24- Qari Alavijeh A, Arab M, Kheiri S, Akbari sari A, asgari moqadam M, Mohammadi G, et al . Job burnout and some of its risk factors on the health workers (Behvarz) in Koohrang County, I.R.Iran, in 2010. *J Shahrekord Univ Med Sci.* 2012;14(3):62-71. [Persian]
- 25- Oubiña VMT, Calvo MCM, Fernández-Ríos L. Occupational stress and state of health among clinical psychologists and psychiatrists. *Psychol Spain.* 1997;1(1):63-71.
- 26- Bahreinian SA, Sabahi A. The evaluation of the degree of occupational stress in a group of specialists and residents of vary specialties in Shahid Beheshti University of Medical Sciences. *Res Med.* 1999;23(4):239-44. [Persian]
- 27- Soori H, Hatami Sadabadi AR. Job stress in working in Ahwaz. *Hakim.* 2003;6(1):65-72. [Persian]
- 28- Molazem Z, Mohammadhosseini S, Karimi Z, Bagheri GH. Assessing of job stress factors and the score of stress from sight of nurses in Kohgilooyeh Boyrahmad University of Medical Sciences hospitals. *J Armaghan-e-Danesh.* 2005;10(3):95-103. [Persian]
- 29- Shahnazdoust M, Maghsoudi Sh, Tabari R, Kazemnejad E. Relationship between nursing burnout and occupational support. *J Guilan Univ Med Sci.* 2012;20(80):49-59. [Persian]
- 30- Aziz Nejad P, Hosseini SJ. Occupational burnout and its causes among practicing nurses in hospitals affiliated to Babol University of Medical Sciences, 2004. *J Babol Univ Med Sci.* 2006;8(2):63-9. [Persian]
- 31- Ashrafirizi H, Kazempour Z. A survey on job stressors of librarians working in libraries of Isfahan University of Medical Sciences. *Health Inf Manag.* 2011;8(1) 41-9.
- 32- Soleimani K, Sharifi V, Tehranidust M. Achieving higher stability in watermarking according to image complexity. *Adv Cogn Sci.* 2005;7(4):36-42. [Persian]
- 33- Kowalski C, Ommen O, Driller E, Ernstmann N, Wirtz MA, Köhler T, Pfaff H. Burnout in nurses-the relationship between social capital in hospitals and emotional exhaustion. *J Clin Nurs.* 2010;19(11-12):1654-63.
- 34- Malach-Pines A, Keinan G. Stress and burnout in Israeli border police. *Int J Stress Manag.* 2006;13(4):519-40.