





The Relationship between Burnout and Mental Health of Employees Working in Khorshid Educational and Therapeutic Complex, Isfahan, Iran

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Quantitative Study

Abstract

Background: Promotion of workplace mental health is one of the most important aspects of human resource improvement and development, and in recent decades, organizations' attention to healthy physical and intellectual forces in economic, educational, service, and industrial institutions has had an undeniable role in increasing productivity. This study was conducted with the aim to investigate the relationship between burnout and mental health at Khorshid Educational and Research Complex, Iran.

Methods: This study was applied in terms of purpose and descriptive correlational in terms of the data collection method. The study population included all employees working in Khorshid Hospital in 2020 who had at least a diploma and 3 years of work experience. From among them, 255 individuals were selected as the sample. The participants were selected through convenience sampling and non-contingent methods. The participants were selected from among the staff who met the inclusion criteria through an easy sampling method. The required information in this study was collected using the Maslach Burnout Inventory (MBI), Goldberg's General Health Questionnaire (GHQ), and the Revised NEO Personality Inventory (NEO PI-R). Data were analyzed using independent t-test and chi-square test in SPSS software.

Results: There was a significant relationship between personality and neuroticism with burnout ($P < 0.001$). There was a significant relationship between burnout and overall mental health and decreased mental health ($P < 0.001$). There was no significant relationship between "poor social performance" with burnout; "physicalization", "anxiety and insomnia", and "degree of depression had a significant relationship with burnout ($P < 0.001$).

Conclusion: According to the results of this study, there was a relationship between burnout, and mental health and personality traits in the educational and therapeutic complex. Employees with higher burnout and neuroticism personality traits showed reduced mental health.

Keywords: Burnout; Mental health; Employees

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Introduction

Promotion of workplace mental health is one of the most important aspects of human resource improvement and development, and, in recent decades, organizations' attention to physically and intellectually healthy forces in economic, educational, service, and industrial institutions has had an undeniable role in increasing productivity (Melvin, 2015). Burnout syndrome is a psychological syndrome that is most often seen in occupations where a person spends many hours in close contact with other people (Forouzanfar et al., 2013). The conventional definition of burnout is a negative psychological experience characterized by mental and physical exhaustion and is due to long-term mental work (Forouzanfar et al., 2013). The concept of burnout consists of the 3 dimensions of emotional exhaustion, pessimism, and personal incompetence. Emotional fatigue is defined as pressure linked to stress, anxiety, physical fatigue, and insomnia. Pessimism is a negative and callous response to persons who are usually recipients of service from the individual and refers to a person's negative perception of his clients.

Personal incompetence is a diminished sense of competence in performing personal tasks and is a negative self-assessment concerning work (Chou, Li, & Hu, 2014). Therefore, it is of particular importance in jobs related to human services. Reduced personal adequacy is a reduction in feelings of competence and the adequacy of successful performance. This aspect also represents a person's negative self-assessment of the work (Huang, Pu, Huang, & Chou, 2019). Maslach believes that burnout can lead to a decrease in the quality of services, is an effective factor in giving up a job, absenteeism, and low morale, and is associated with disorders such as insomnia, physical fatigue, alcohol and drugs use, and family and marital problems (Salimi, Azad Marzaabadi, & Abedi, 2013). Some researchers believe that high expectations in workplaces cause job pressures and eventually cause long-term burnout. In contrast, several other researchers believe that external factors such as low income can pave the way for burnout. Therefore, burnout at work can be acknowledged as a public health problem (Yavari, Shamsaei, & Yazdanbakhsh, 2014) that can affect the mental health of the individual. Individual and genetic factors such as age, sex, occupation, social class, and lifestyle, quality of service delivery, and environmental factors have been mentioned as effective factors in this regard (Huri, Bagis, Eren, Umaroglu, & Orhan, 2016).

In recent years, the signs, causes, and effects of burnout have attracted the attention of psychologists. The increase in environmental demands and demands, and the reduction of the individual's abilities to respond to them exacerbate psychological pressures and burnout; moreover, in modern societies, job, stress, and burnout are among the most important issues in health care occupations (Maslach, Schaufeli, & Leiter, 2001). Accordingly, burnout can cause disorders such as body fatigue, insomnia, and family and interpersonal problems. Burnout is a physical and mental syndrome that leads to negative behavior and attitude towards self, work, and clients. Absence from work, low morals, and job dissatisfaction are its other complications (Cho, Rutherford, & Park, 2013).

The U.S. Department of Intelligence has stated that health care jobs are associated with the highest rates of occupational injuries, including burnout (Toubaei & Sahraeian, 2007). Treatment environments are always affected by a wide range of stressors such as exposure to severe diseases, death of patients, high workload, and role ambiguity, which cause many psychological stresses and have undesirable effects on the nurse-patient relationship (Vahey, Aiken, Sloane, Clarke, & Vargas,

2004). The staff of educational and medical complexes is among those directly and closely connected with all segments of society and their problems. This close relationship doubles their critical responsibility for people's health and lives (Hatami, Razavi, Ardabili, Sayed Nawazi, Parizadeh, 2007). According to Piko (2006), the highest burnout was related to health care workers and the lowest was related to employees of public offices, organizations, universities, and research institutes.

Since human beings have different dimensions and these differences are manifested in people's abilities, talents, interests, and thus, in their personalities, recognizing the personality characteristics of employees and guiding them toward the appropriate career and life path. Personality is composed of special intellectual, emotional, and behavioral patterns that distinguish each person from other people. It can be acknowledged that personality has an inner origin and remains almost stable throughout life (Oreyzi, Nouri, Zare, & Amiri, 2013). Moreover, personality has a great impact on job performance. Normal personality is the chief predictive factor for a person's performance in the workplace and the strongest force for leadership and success. When people realize their true personality and identity, they try to improve it and their performance improves, they treat each other better, and the benefits of work increase. It helps create an environment where everyone wins. Personality not only has a positive effect on individual relationships and social interaction, but also has a positive effect on physical and mental health; those who are sick, but work on their skills and develop them during treatment are cured from many diseases, including the deadliest, and reduce mortality (Gill, Flaschner, & Shachar, 2006).

Moreover, preventing burnout requires regular efforts by the organization to give employees more opportunities to influence their work and collaborate on the effectiveness of the whole organization. In this way, every organization, with optimal and effective efficiency, seeks ways to empower employees to a degree that they can apply their intelligence, which is done by participating and participating more employees in the decision-making process (World Health Organization, 2012).

Considering that at least one-third of people's life is spent in the workplace and many relationships are formed during working hours, investigating and identifying the factors affecting the occurrence of job pressures is of great significance. Burnout in health care workers reduces efficiency and causes psychosomatic injuries and dissatisfaction with services; therefore, recognizing its mechanism of action and the severity of its destructive effects in service sectors will be effective in promoting mental health and the quality of services provided. Furthermore, as the prevalence of communicable diseases during the epidemic affects people's mental health, especially in developing countries that are faced with a shortage of human resources and sanitary equipment, and thus, the necessity of investigating employees' burnout and its impact on their mental health is felt. Accordingly, the present study was conducted with the aim to investigate the relationship between burnout and mental health among employees of Khorshid Educational and Research Complex, Iran.

Methods

The present study was an applied research in terms of purpose and a descriptive correlation research in terms of the data collection method. The study population included all employees working in Khorshid Hospital in 2020 who had at least a diploma and 3 years of work experience; from among them, 255 individuals were selected as the sample. Based on the study inclusion criteria, an effect size of 0.25, alpha of 0.05, and power of 0.80, it was determined that the minimum number

of samples to achieve the desired power was 250. The participants were selected through convenience sampling methods. From among the staff working in the hospital, the participants were selected through an easy sampling method based on the inclusion criteria. The required information in this study was collected using the Maslach Burnout Inventory (MBI), Goldberg's General Health Questionnaire (GHQ), and the Revised NEO Personality Inventory (NEO PI-R). At the beginning of the study, the general information of all participants was recorded in the data collection sheet and all subjects completed the MBI, GHQ, and NEO PI-R. The inclusion criteria included informed consent of participation in the research, employment in Khorshid Research Complex, and a work experience of 3 years. The exclusion criteria included incomplete questionnaires were considered by the lack of cooperating in the research process. Ethical considerations of the research included ensuring the confidentiality of the information obtained from the employees, and explaining the research objectives and the right of participants to withdraw from the research.

The instruments used in this study include the MBI, GHQ, and NEO PI-R.

Maslach Burnout Inventory: The MBI (1993) is composed of 22 separate items and measures the 3 aspects of emotional exhaustion, pessimism, and personal adequacy. The first 9 questions are related to emotional exhaustion, the next 5 questions are related to pessimism, and the final 8 questions are related to personal adequacy. The questions are scored based on a 7-point Likert scale ranging from 0 to 6. Based on the obtained scores, the subjects were classified into the 3 categories of mild, medium, and severe. The MBI was validated using Cronbach's alpha method ($\alpha = .71$). (Maslach & Jackson, 1986). In the present study, the reliability of this questionnaire was assessed using Cronbach's alpha method ($\alpha = 0.77$).

General Health Questionnaire: The GHQ was constructed by Goldberg (1972). This multiple and self-administered tool is designed to investigate mental health and mental disorders in the community. The questionnaire consists of 4 subscales, each of which has 7 questions and measures 4 categories of non-psychotic disorders including somatization, anxiety and sleep disturbances, social dysfunction, and depression (Goldberg & Hillier, 1979). Several studies have been conducted on the reliability of the GHQ. Goldberg and Hillier (1979) reported the validity of the GHQ to be 0.95 among 83 people. Cheung and Spears (1994) assessed and approved the internal stability of the GHQ using Cronbach's alpha method in a statistical population of 72 students (Cheung & Spears, 1994). The reliability of this questionnaire in the present study was determined using Cronbach's alpha method ($\alpha = 0.85$).

Revised NEO Personality Inventory: The NEO PI-R is a self-assessment questionnaire based on personality characteristics. It is based on a famous character model presented by Costa and McCrae (1989-1992) called the Five Factor Model (FFM). It evaluates the 5 dimensions of the FFM: A- neuroticism (N): tendency to experience negative emotions and mental sadness in response to stressors; B- extraversion (E): degree of sociality, positive excitability, and overall activities, curiosity, judgment, and conservatism, D- agreeableness (A): altruism and empathy and tendency for cooperation; and - conscience :(C) the first level of self-control in planning and organization. The long-form of this questionnaire contains 240 items (8 items for each of the 20 aspects or 48 materials for each of the 5 domains). The 240 items are scored based on a 5-point Likert scale (I completely disagree = 5; I disagree = 4; I have no opinion = 3; I agree = 2; I fully agree = 1 graded) (McCrae & Costa, 1989; Ahmadi, 2017). The alpha coefficients reported by them were within the range of 0.74-0.98, with an average of 0.81. Bakkeret et al. (2006) reported a coefficient of 0.85 for psychopathy,

0.72 for extroversion, 0.68 for agreeableness, and 0.79 for conscientiousness. Moreover, Bakker et al., (2006), they reported test-retest validity, with a time interval of 6 months, of 0.53, 0.6, 0.76, and 0.74, respectively, for range, success, openness (experientialism), and extraversion. The reliability of this questionnaire in the present study was obtained using Cronbach's alpha method ($\alpha = 0.79$).

In the present study, the statistical analysis of data was performed in SPSS software (version 22; IBM Corp., Armonk, NY, USA). All qualitative variables are presented as absolute and relative frequencies, and quantitative variables as mean and standard deviation. In this study, based on the Kolmogorov-Smirnov test, the distribution of all quantitative variables was normal, and if their distribution was not normal, it was normalized through logarithmic conversion or reverse conversion. Therefore, to investigate the similar distribution of confounding variables between the two groups at the beginning of the study, independent t-test and chi-square test were used for continuous quantitative variables.

Results

From among the 255 personnel working in the selected hospitals of Isfahan University of Medical Sciences, Iran, 196 people participated in this study, and their data were analyzed. The distribution of subjects based on age range showed that most of the subjects (48.7%) had an age range of 31-40 years; in addition, 84% were women and 75% were married. Furthermore, 72.3% had a bachelor's degree and the majority had a work experience of 11-15 years. Moreover, 84.1% of the employees were working in medical wards.

The personality traits of the study participants is shown in table 1. In terms of the mental health status, the results showed that in the dimensions of somatization, 50% of the subjects had moderate mental health and 43.6% of the subjects had severe psychosomatic disorder, and their status regarding the dimensions of anxiety, insomnia, and poor social functioning was reported to be moderate. In terms of depression, 10.4% of the subjects were depressed and the mental health status of the subjects was estimated to be moderate (Table 2).

The results of the survey showed that in the dimensions of emotional exhaustion, the amount of misery and reduction in personal adequacy of employees were at a moderate level. In general, the level of burnout in employees was reported to be moderate and severe, and they had experienced burnout (Table 3).

Table 1. Personality Traits of the Study Participants

Feature studied	Range	n (%)	Valid percent
Neuroticism	No anxiety	19 (9.7)	9.9
	Moderate anxiety	171 (87.2)	89.1
Extroversion	Anxious	2 (1)	1
	Introvert	0 (0)	0
	Neither introvert nor extrovert	183 (93.4)	95.3
Openness	Extrovert	(4.6)	4.7
	High	0 (0)	0
	Moderate	190 (96.9)	100
Agreeableness	Low	0 (0)	0
	High	2 (1)	0
	Moderate	191 (97.4)	99.0
Conscientiousness	Low	0 (0)	0
	High	5 (2.6)	2.6
	Moderate	186 (94.9)	97.4
	Low	0 (0)	0

Table 2. Mental health characteristics of the study participants

Feature studied	Range	n (%)	Valid percent
Physicalization	Healthy	12 (6.1)	6.2
	Moderate health	98 (50.0)	50.3
	Severe psychosomatic disorder	85 (43.4)	43.6
Anxiety and Insomnia	High	81 (41.3)	42.0
	Moderate	89 (45.4)	46.1
	Low	23 (11.7)	11.9
Poor social performance	High	75 (38.3)	38.3
	Moderate	116 (59.2)	59.2
	Low	5 (2.6)	2.6
Depression	No Depression	98 (50.0)	50.8
	Moderate	75 (38.3)	38.9
	Depressed	20 (10.2)	10.4
Mental Health	Healthy	0 (0)	0
	Mild	14 (7.1)	7.3
	Moderate	130 (66.3)	68.1
	Severe	47 (24.0)	24.6

In this study, the mean and standard deviation of burnout scores showed a significant increase only in the neurotic dimension of the anxiety domain ($P < 0.001$) (Table 4). Moreover, the burnout score in the extrovert dimension showed a significant increase ($P = 0.053$). Other personality traits did not show a significant relationship with burnout (Table 4).

The relationship between burnout rate and mental health dimensions is presented in table 5. Based on the findings presented in this table, there was a significant increase in burnout scores in severe psychosomatic disorder ($P < 0.001$).

Discussion

In recent years, there has been much interest in studying burnout among researchers, focusing on the negative effects of burnout on the labor forces. Burnout is considered a mental health problem in the field of work. Research has shown that people who suffer from burnout have lower productivity, efficiency, and cooperation which directly affect their organization's performance. This study was conducted with the aim to investigate the relationship between burnout and mental health at Khorshid Educational and Research Complex. The results of this study showed that in terms of personality traits, 87.2% of the employees reported moderate anxiety neuroticism.

Table 3. Burnout among the study participants

Feature studied	Range	n (%)	Valid percent
Emotional fatigue	Mild	0 (0)	0
	Moderate	130 (66.3)	67.0
	Severe	64 (32.7)	33.0
Pessimism	Mild	33 (16.8)	16.9
	Moderate	135 (68.9)	69.2
	Severe	27 (13.8)	13.8
Feeling personal adequacy	Mild	1 (5.0)	5.0
	Moderate	148 (75.5)	76.7
	Severe	44 (22.4)	22.8
Job burnout	Mild	0 (0)	0
	Moderate	153 (78.1)	80.1
	Severe	38 (19.4)	19.9

Table 4. The relationship between the mean and standard deviation of burnout and personality traits

Feature studied	Range	Mean ± SD	P-value
Neuroticism	No anxiety	70.22 ± 11.84	0.001
	Moderate anxiety	79.69 ± 12.64	
	Anxious	106.05 ± 5.65	
Extroversion	Introvert	0	0.053
	Neither introvert, nor extrovert	78.66 ± 12.50	
	Extrovert	87.87 ± 19.56	
Openness	High	0	0.323
	Moderate	79.24 ± 12.92	
	Low	0	
Agreeableness	High	99.00 ± 36.76	0.069
	Moderate	78.89 ± 12.54	
	Low	0	
Conscientiousness	High	82.20 ± 15.27	0.598
	Moderate	79.11 ± 12.91	
	Low	0	

SD: Standard deviation

Our results in general were similar to those of previous studies including Bakker et al. (2006), Buhler and Land (2003), Kim, Shin, and Swanger (2009), Morgan and de Bruin (2010), Zellars, Perrew, and Hochwarter (2000), and Vine and Morgan (2020), who had examined the relationship between the 5 personality factors and burnout.

In this study, there was no significant relationship between neuroticism and burnout in other dimensions. Due to symptoms such as anxiety, uncertainty, insecurity, and nervousness in working and non-working conditions of people with high levels of neuroticism, it can be expected that these people have higher levels of burnout. Therefore, what can be understood from the findings of this study and past results is that high levels of neuroticism can increase burnout in employees, which can also lead to many personal and organizational problems. Therefore, considering that people's personality is formed based on the two factors of environment and genetics. Neuroticism is an attribute that causes many emotional problems such as depression and anxiety, which itself causes a great deal of intellectual rumination and cognitive errors in the individual, all of which play a great role in accelerating the process of burnout (Buhler & Land, 2003).

Table 5. The relationship between the mean and standard deviation of burnout and mental health

Feature studied	Range	Mean ± SD	P-value
Physicalization	Healthy	69.90 ± 13.03	0.001
	Moderate health	75.22 ± 9.63	
	Severe psychosomatic disorder	84.85 ± 13.97	
Anxiety and Insomnia	High	86.25 ± 8.90	0.001
	Moderate	75.95 ± 8.90	
	Low	67.13 ± 7.85	
Poor social performance	High	77.42 ± 12.52	0.290
	Moderate	80.20 ± 13.12	
	Low	79.20 ± 13.40	
Depression	No Depression	74.21 ± 10.60	0.001
	Moderate	82.64 ± 12.28	
	Depressed	90.31 ± 15.42	
Mental Health	Healthy	0	0.001
	Mild	67.15 ± 9.83	
	Moderate	77.43 ± 11.14	
	Severe	87.93 ± 13.94	

SD: Standard deviation

It can be said that extroverts have more experience with positive emotions than introverts, which can make them hopeful about their work performance. Therefore, it is expected that employees with extrovert personalities experience lower rates of burnout and higher success rates in their work. Extroverts are social people, and in addition to being friends with others and wanting to participate in gatherings and parties, they are decisive or talkative. These people love excitement and mobility, and hope for success in the future. This leads to lower levels of emotional exhaustion. Extroverts experience more positive emotions and these positive emotions have a positive impact on their assessment of the future and a certain sense of efficiency. In this context, in the study by Dianati, Shafiepour, Zare Zeidi, and Matani (2017), there was a significant negative relationship between extroversion dimensions and job analysis, and a positive relationship between the openness dimension and job dissociation, but significant relationships were not identified in other communication dimensions.

The findings of the above-mentioned studies and the results of the present study confirm the hypothesis that the personality characteristics of the medical staff can predict their job burnout; thus, it can be concluded that the dimensions of variety, job stresses, and burnout formation process in nurses act in a continuous and interrelated chain. Therefore, it is expected that by strengthening personality strengths, in this regard, it is necessary to provide more social and psychological support to medical staff and to teach them strategies to cope with stress and job pressures.

In the present study, there was a significant relationship between burnout and overall mental health, and employees with decreased mental health experienced a higher level of burnout. Among the 4 domains of mental health, there was no significant relationship between "poor social performance" and burnout, but "physicalization", "anxiety and insomnia", and "degree of depression had a significant relationship with burnout ". In another study (Saber, Sadr, Ghadyani, Yazdi, Bahari, & Shahmoradi, 2008), the scores of "rate of social dysfunction" and "anxiety and sleep disorders" were higher than the two domains of "physical symptoms" and depression and suicidal tendencies", indicating that employees had more problems in the first two areas of mental health. Today, the fact that everyone in any place and situation feels some degree of stress in their workplace is undeniable. Burnout is one of the results of various stresses that appear as physical symptoms (headache and stomach ulcer), psychological symptoms (depression and anger), and behavioral symptoms (absence at work). Burnout reduces the adaptability of a person in the face of stressors and this leads to behavioral and physical symptoms that endanger people's health.

Conclusion

According to the results there was the relationship between burnout, and mental health and personality traits in the educational and therapeutic complex. Employees with higher burnout and neuroticism personality traits showed reduced mental health.

Limitations: The present study had limitations. It is suggested that there is a possibility of resistance or intentional showing of high stress and burnout for various reasons by the subjects. The lack of separation of job stresses in terms of employment of subjects in different parts of the hospital, and the lack of generalizability results to the general community because of the small sample size of the research were other limitations of the research. Moreover, studying the economic and welfare status of the subjects and the possibility of the imprecise response of the subjects due to the high number of questions in the desired tools should be considered.

Conflict of Interests

Authors have no conflict of interests.

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