

The role of mental health and emotional intelligence in burnout among anesthesia nurses

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Abstract

Occupational burnout is often physically, emotionally, and mentally exhausting, and this has a profound effect on the quality of patient care. Therefore, the present study examined the relationship between emotional intelligence and mental health with burnout. This study was a descriptive-analytical study in 2009 on 200 anesthesiologists in the operating room who were selected by available scoring method; done Maslach's burnout questionnaire, Goldberg's mental health, and emotional intelligence were used to collect data. Descriptive and inferential statistical tests were used to analyze the data in SPSS statistical software. Out of 200 anesthesiologists, 76 had excellent mental health scores, 104 had good health and 8 had moderate mental health. A significant statistical relationship was observed between the dimensions of burnout and mental health with emotional intelligence in anesthesiologists with $p < 0.001$. There is a significant relationship between mental health variables and emotional intelligence with job burnout variables in anesthesiologists. This means that people with higher mental health and better emotional intelligence experience less burnout.

Key words: Emotional Intelligence, Mental Health, Burnout, anesthetists

Introduction

According to research, healthcare professions—owing to their inherent nature of patient care and treatment—represent some of the highest rates of occupational injury, including job burnout. At

present, job burnout is a prevalent challenge across all healthcare systems and is regarded as one of the most significant problems of the 21st century. Statistics indicate that, at the end of a workday, one out of every seven healthcare workers experiences severe fatigue (Khodabakhsh & Mansuri, 2011). The concept of burnout was first introduced by Freudenberger in the 1970s, who observed exhaustion among healthcare providers and defined burnout as a reaction to excessive occupational stressors. Burnout is considered an occupational disease, predominantly affecting professionals whose roles involve direct client interaction (Rashedi et al., 2012; Shahnazdoust et al., 2012).

Burnout syndrome can be attributed to working in stressful environments, lack of support and appreciation in the workplace, uncoordinated interventions, patient distrust and aggression, excessive workloads, unrealistic patient expectations, and frequent staff turnover—all of which contribute to antisocial behavior among staff (Keyvanara et al., 2018). Burnout yields a range of negative consequences, such as diminished staff morale, impaired job performance, reduced productivity, absenteeism, deteriorating interactions with patients, negative attitudes towards one's job, decreased job satisfaction, career changes, reduced quality of life, and impaired mental and physical well-being. Clinicians experiencing burnout often report physical, emotional, and cognitive fatigue, which can profoundly affect the quality of patient care (Goldard, 2000).

A study conducted among healthcare providers in Sweden found that those experiencing burnout had significantly higher rates of anxiety, sleep disorders, memory impairment, and musculoskeletal pain compared to non-burned-out counterparts (Peterson et al., 2008). Similarly, a Japanese longitudinal study reported that after five years, healthcare workers who had experienced burnout exhibited significantly higher risk factors for atherosclerosis than those who had not (Kitaoka-Higashiguchi et al., 2009).

Investigations on burnout among nurses indicate that, under similar conditions, not all individuals are equally susceptible to burnout. In other words, burnout results from the interaction of personal, occupational, and personality-related factors, with individual characteristics playing a particularly prominent role (Poncet et al., 2007; Wang et al., 2015). The ability to manage one's emotions can

positively impact relationships with colleagues and patients (Görgens-Ekermans & Brand, 2012). The capacity to assess, express, and regulate one's own and others' emotions—and to use this knowledge effectively to inform thinking and actions—constitutes emotional intelligence (Mayer et al., 1997).

Emotional Intelligence and Mental Health

Emotional intelligence has emerged as a critical predictor of job burnout. It encompasses a set of skills that enhance individuals' ability to manage environmental demands (Lautizi et al., 2009). High levels of emotional intelligence facilitate improved adaptation to life's challenges, better emotional regulation, and higher psychological well-being (McKenna et al., 2003). Conversely, a deficiency in emotional intelligence is considered a major risk factor for compromised mental health (Hafezi et al.).

Occupational Stress and Its Consequences

Job stress and its related mental health issues are increasingly common, contributing to a range of psychological disorders and overall diminished mental well-being. This trend has evolved into a significant global public health challenge, imposing substantial financial burdens on developed nations, while often being deprioritized in the socioeconomic agendas of developing countries. Data from domestic studies reveal high rates of burnout among healthcare workers in the region (Benson et al., 2007; Laschinger et al., 2013; Schutte et al., 2007).

Given that burnout is a significant psychological and physical risk factor for healthcare personnel—including anesthesia nurses—understanding and preventing burnout is vital for promoting both mental health and the quality of healthcare delivery. Medical and paramedical staff face unique challenges such as high occupational stress, the confined environment of operating rooms, and insufficient compensation, which can lead to reduced productivity, increased absenteeism, rising healthcare costs, staff turnover, diminished quality of care, and consequent patient dissatisfaction. Emotions and the ability to manage them are fundamental aspects of personality that affect individual health, particularly in high-stress environments such as operating rooms.

Study Purpose

Considering the inherent job stressors in the field of anesthesiology and the resultant burnout, as well as the pivotal roles of mental health and emotional intelligence in managing emotions and achieving professional and personal success, this study aimed to examine the relationship between mental health, emotional intelligence, and job burnout among anesthesia nurses working in the operating rooms of hospitals in Ahvaz, Iran, in 2019.

Methods

This descriptive-analytical study was conducted cross-sectionally between March and December 2019. The study population comprised 200 anesthesia nurses from hospitals in Ahvaz, selected using convenience sampling. Inclusion criteria were at least five years of professional experience, no personal or family history of specific illnesses or disorders, and informed consent to participate. The only exclusion criterion was incomplete completion of the questionnaire.

Data Collection:

Data were gathered using three validated instruments:

- **Maslach Burnout Inventory (MBI):** Comprises 22 questions spanning three dimensions—emotional exhaustion (9 items), depersonalization (5 items), and reduced personal accomplishment (8 items). Frequency and intensity of burnout were assessed.
- **Bar-On Emotional Quotient Inventory (EQ-i):** Contains 90 items evaluating five domains: intrapersonal skills, interpersonal skills, stress management, adaptability, and general mood. A five-point Likert scale was used, with negatively worded items reverse-scored.
- **Goldberg General Health Questionnaire (GHQ-28):** Assesses mental health across four dimensions: somatic symptoms, anxiety and insomnia, social dysfunction, and depression, also using a four-point Likert scale.

Demographic data—including age, gender, marital status, work experience, education, weekly work hours, shift schedules, number of children, and

economic status—were also collected at the beginning of the questionnaire.

Ethical Considerations:

Ethical approval was obtained from Jundishapur University of Ahvaz. Investigators visited operating rooms in Ahvaz hospitals, provided participants with information about the study's aims and confidentiality protocols, and obtained written informed consent prior to questionnaire administration.

Statistical Analysis:

Descriptive statistics (mean, standard deviation, frequency, percentage) and inferential methods (Pearson's correlation, t-tests, ANOVA, multiple regression) were used to analyze the data with

SPSS version 22. The significance level was set at 0.05.

Findings

Of the 200 anesthesia nurses studied, 76 (40.4%) had excellent mental health scores, 104 (55.3%) had good mental health, and 8 (4.3%) had moderate mental health. Regarding job burnout, in the depersonalization dimension, 58 nurses (30.9%) reported poor status, 87 (46.3%) reported moderate status, and 43 (22.9%) reported good status. In the emotional exhaustion dimension, 99 nurses (52.7%) reported poor status, 65 (34.6%) reported moderate status, and 24 (12.8%) reported good status. Concerning the personal accomplishment dimension, 163 nurses (85.7%) reported good status, 18 (9.6%) reported moderate status, and 7 (3.7%) reported low status.

Table 1: Correlation Between Mental Health Dimensions and Emotional Intelligence in Anesthesia Nurses

Mental Health Dimensions	Emotional Intelligence	
	Correlation Coefficient	P-Value
Social Dysfunction	-0.311	<0.001
Somatic Complaints	-0.365	<0.001
Anxiety	-0.333	<0.001
Depression	-0.480	<0.001
Overall Mental Health	-0.583	<0.001

The results of examining the relationship between mental health dimensions and emotional intelligence in anesthesia nurses indicated a statistically significant correlation between mental health and emotional intelligence ($p < 0.001$) (Table 1). A statistically significant correlation was also observed between the dimensions of emotional intelligence and mental health ($p < 0.001$) (Table 2).

Table 2: Correlation Between Emotional Intelligence Dimensions and Mental Health in Anesthesia Nurses

Emotional Intelligence Dimensions	Mental Health	
	Correlation Coefficient	P-Value
Intrapersonal Skills	-0.549	<0.001
Interpersonal Skills	-0.348	<0.001
Stress Management	-0.368	<0.001
Adaptability	-0.441	<0.001
General Mood	-0.456	<0.001
Overall Emotional Intelligence	-0.583	<0.001

Table 3: Correlation Between Mental Health Dimensions and Job Burnout Dimensions in Anesthesia Nurses

Mental Health Dimensions	Job Burnout			
	Emotional		Depersonalization	Personal

	Exhaustion				Accomplishment
	Correlation Coefficient	P-Value	Correlation Coefficient	P-Value	Correlation Coefficient
Social Dysfunction	-0.047	0.524	-0.190	0.009	-0.127
Somatic Complaints	0.585	<0.001	-0.157	0.032	0.290
Anxiety	0.589	<0.001	0.114	0.121	0.295
Depression	0.494	<0.001	0.136	0.063	0.188
Overall Mental Health	0.558	<0.001	-0.157	0.032	0.249

An analysis of the relationship between the dimensions of mental health and job burnout in anesthesia nurses revealed statistically significant correlations between all mental health dimensions and emotional exhaustion ($p < 0.001$). Furthermore, somatic complaints and

anxiety were significantly correlated with personal accomplishment ($p < 0.001$). No statistically significant correlation was found between the dimensions of mental health and depersonalization ($p > 0.05$) (Table 3).

Table 4: Correlation Between Emotional Intelligence Dimensions and Job Burnout Dimensions in Anesthesia Nurses

Emotional Intelligence Dimensions	Job Burnout				
	Emotional Exhaustion		Depersonalization		Personal Accomplishment
	Correlation Coefficient	P-Value	Correlation Coefficient	P-Value	Correlation Coefficient
Intrapersonal Skills	-0.525	<0.001	0.171	0.019	-0.344
Interpersonal Skills	-0.172	0.018	0.252	0.001	-0.198
Stress Management	-0.484	<0.001	-0.025	0.732	-0.266
Adaptability	-0.455	<0.001	-0.120	0.101	-0.275
General Mood	-0.497	<0.001	0.109	0.135	-0.243
Overall Emotional Intelligence	-0.549	<0.001	0.152	0.037	-0.343

A statistically significant correlation was also observed between the dimensions of emotional intelligence and the dimensions of job burnout in anesthesia nurses ($p < 0.001$) (Table 4).

Table 5: Correlation Between Job Burnout Dimensions and Emotional Intelligence and Mental Health in Anesthesia Nurses

Job Burnout Dimensions	Emotional Intelligence		Mental Health	
	Correlation Coefficient	P-Value	Correlation Coefficient	P-Value
Depersonalization	0.152	0.037	-0.157	0.032
Emotional Exhaustion	-0.549	<0.001	0.558	<0.001
Personal Accomplishment	-0.343	<0.001	0.249	<0.001

Finally, in examining the relationship between the dimensions of job burnout with emotional intelligence and mental health, a statistically significant correlation was observed between emotional exhaustion and personal accomplishment with emotional intelligence, and all dimensions with mental health ($p < 0.001$) (Table 5).

Discussion and Conclusion

In this study of 200 anesthesia nurses, regarding the job burnout variable, 58 (30.9%) reported a poor status in the depersonalization dimension, 87 (46.3%) reported a moderate status, and 43 (22.9%) reported a good status. In the emotional exhaustion dimension, 99 (52.7%) reported a poor status, 65 (34.6%) reported a moderate status, and 24 (12.8%) reported a good status. Concerning the personal accomplishment dimension, 163 (85.7%) reported good status, 18 (9.6%) reported moderate status, and 7 (3.7%) reported low status. Additionally, 76 nurses (40.4%) had excellent mental health scores, 104 (55.3%) had good mental health, and 8 (4.3%) had moderate mental health. The mental health status of nurses in the study by

Pourkiani et al., which aimed to investigate the relationship between mental health, emotional intelligence, and job stress among nurses, showed that the mental health scores were low for 6 individuals (2.4%), moderate for 117 (64.4%), and high for 129 (51.2%), indicating that nurses' mental health was moderate (Porkiani et al., 2012). This is consistent with the present study. A study by Akhavan et al. indicated that, among 119 anesthesia and operating room students, 75.6% of operating room students and 57.9% of anesthesia students generally had good mental health (Akhavan & Pourghane, 2017), which is also consistent with the present study. Similarly, Zarea et al. found results consistent with the present study, showing that the majority of operating room

students at Jundishapur University of Medical Sciences (62.5%) were in a healthy state (Zarea & Bahrani, 2013). Sa and Luis Manuelafleming conducted a study in Portugal in 2008 titled "Threat, Burnout, and Mental Health in Portuguese Nurses," which found that 13% of nurses who were threatened in six months had lower performance and efficiency, were unable to manage heavy workloads, and felt tired and bored with their assigned tasks, whereas these behaviors were not observed in the group of nurses who were not threatened or were free from threats (Sa & Fleming, 2008).

In examining the relationship between the dimensions of mental health and the dimensions of job burnout in anesthesia nurses, the results of the study showed a statistically significant correlation between all dimensions of mental health and the emotional exhaustion dimension, and between somatic complaints and anxiety with the personal accomplishment dimension. No statistically significant correlation was found between the dimensions of mental health and the depersonalization dimension ($p > 0.05$). These results are also consistent with the study by Prati et al. in 2009, which found a significant relationship between emotional intelligence and performance, mood, and physical complaints of employees. Thus, with increasing emotional intelligence, their performance improved, their mood increased, and they had fewer physical complaints (Prati et al., 2009).

The results of the research by Pourkiani et al. show that there is a significant inverse relationship between mental health and job burnout among nurses in hospitals in Kerman. In other words, with increasing mental health, job burnout among nurses decreases. Maslach believes that people who are mentally healthy can cope more easily with stressors and, as a result, are less likely to experience job burnout (Porkiani et al., 2012). According to Najafi et al., job burnout causes various psychological, physical, and emotional complications in individuals. Therefore, such a factor has a great impact on a person's mental health, and a person who can adapt well to the environment will be mentally healthy and will resist the inevitable failures of life with mental balance (MONTES-BERGES & Augusto, 2007).

The present study showed a significant correlation between emotional intelligence and mental health, as also found in the study by Pourkiani et al., where there was a significant positive relationship between emotional intelligence and mental health

(Porkiani et al., 2012). In other words, with increasing emotional intelligence, the mental health of nurses increases, which is consistent with the present study. Berges et al., 2007, concluded in their research that emotional intelligence is a skill that minimizes the negative consequences of stress, and emotional compensation is a key predictor of mental health (MONTES-BERGES & Augusto, 2007). In general, people who cannot cope well with their emotions do not have favorable interpersonal relationships, resulting in lower mental health and fewer career successes. However, a person with high emotional intelligence can better adapt to the problems and challenges of life and effectively control their emotions, thereby improving their own mental health. On the other hand, low emotional intelligence is a threatening factor to mental health (Porkiani et al., 2012). Scott, in a study conducted on 7,898 participants in 2006, concluded that high emotional intelligence is associated with greater health, and emotional intelligence is significantly strongly correlated with mental health (Schutte et al., 2007).

On the other hand, those who cannot cope well with their emotions do not have favorable interpersonal relationships, resulting in lower mental health and fewer career successes. People with low emotional intelligence cannot adapt to unpleasant events and show more depressive reactions and are more likely to become hopeless. In contrast, people with high emotional intelligence show more adaptive responses to adverse and negative life events and are expected to have direct communication and interaction with various life events and outcomes. A person with high emotional intelligence can better adapt to the problems and challenges of life and effectively control their emotions. In this way, they improve their own mental health. On the other hand, low emotional intelligence is a potentially threatening factor to mental health (Porkiani et al., 2012; Schutte et al., 2007).

In this study, a statistically significant relationship was observed between the dimensions of emotional intelligence and the dimensions of job burnout in anesthesia nurses. As Augusto Landa and López Zafra (2010) state, emotional intelligence has a protective effect against job burnout in the nursing profession. They believe that nursing, by its very nature, is associated with a high level of stress because nurses deal with people who are injured, tense, and frustrated, which fuels emotional exhaustion in them, which

is one of the main dimensions of burnout (Landa & López-Zafra, 2010). Goleman states that emotional intelligence is able to create meaningful emotional relationships in work environments and, while coordinating the emotions of employees in work environments, facilitates the exchange of positive feelings between them (Ranasinghe et al., 2017). Benson et al. (2010) also showed that there is a significant negative relationship between job burnout and emotional intelligence (Benson et al., 2010), which is consistent with the present study. In the study by Benson and Findley (2007) on surgeons, it was found that there is a relationship between the emotional intelligence and job burnout of individuals in the sample group (Benson et al., 2010). This relationship was also seen between the anesthesia nurse group in the current study. Don believes that the cause and treatment of job burnout are all related to emotional intelligence, and working with an emotional intelligence coach to strengthen skills such as flexibility, understanding, and awareness of the ability to recover and return to normal can prevent job burnout (Donna, 2003; Porkiani et al., 2012).

Gerits et al. conducted a two-year study in 2005 to identify the emotional intelligence status of nurses who had a low level of job burnout. The data for this study were collected from 380 Dutch nurses working in a center for the care of the mentally retarded. The results of this study showed a clear relationship between emotional intelligence and job burnout among nurses, and nurses with high overall scores in emotional intelligence showed completely favorable results in relation to burnout (Gerits et al., 2005). This finding is entirely consistent with the present study. In general, emotional intelligence indicates what is appropriate and what is inappropriate in social relationships and in specific situations, that is, in different situations, these people can keep hope alive in themselves, empathize with others, listen to the feelings of others, persevere in the face of problems, and maintain their motivation at all times. This emotional talent guarantees how we can best use our skills (Porkiani et al., 2012).

In another study conducted by Gerit et al. on 380 nurses, the results showed that there is a negative relationship between emotional intelligence and job burnout (Gerits et al., 2005), which is consistent with the results of our study in the dimensions of job burnout. Zapa showed in his research that emotional capabilities are related to all three sub-factors of job burnout (emotional burnout, depersonalization, and reduced personal

performance), and emotionally intelligent employees are more acceptably protected from the complications of job burnout, which overlaps in all dimensions in the present study (Zapf, 2002). The results of the research by Kafetsios and Zampetakis 2010 showed that the dimensions of emotional intelligence play a significant role in predicting job stress, burnout, and job satisfaction (Kafetsios & Zampetakis, 2008). Ghaderi et al. also concluded in their study of the relationship between emotional intelligence and job burnout that the components of emotional intelligence play a major role in explaining the distribution and changes in the job burnout component. According to the findings of studies conducted inside and outside the country, the emotional intelligence construct can be effective in reducing job burnout, but the exact amount of the effect size of this construct and the role of moderating variables are not clear (Kafetsios & Zampetakis, 2008).

Promoting the mental health of the work environment is one of the most important dimensions of the development and improvement of human resources, so that in the last decade, neglecting healthy physical and intellectual forces in economic, service, and educational institutions has created problems that have a significant impact on reducing the level of productivity. Psychological pressures resulting from work at the University of Medical Sciences can cause physical, psychological, and behavioral complications in individuals, endanger their health, and ultimately, while threatening organizational goals, lead to a decrease in individual performance. Considering that at least one-third of our lives is spent in the work environment and, on the other hand, many of our relationships and interactions are formed during working hours, examining and identifying the factors affecting the occurrence of job stress is of special importance. The present study showed that in examining the relationship between job burnout and mental health in the anesthesia staff of government hospitals affiliated with Ahvaz University of Medical Sciences, among all the dimensions studied, the relationship between the three dimensions of personal performance, depersonalization, and involvement with mental health and emotional intelligence was significant. When people get involved in problems and struggle with problems, and their minds are occupied with work and family problems, as a result, people suffer from physical and psychological damage that may endanger people's mental health, considering that job burnout causes

various psychological, physical, and emotional complications in individuals. Therefore, such a factor will have a great impact on a person's mental health. The higher the level of job burnout a person has, the more their mental health is affected (Mahmoodi & TabatabaeiNasab, 2015). As is clear from the results of this study, there is a significant relationship between mental health variables (social dysfunction, somatic complaints, anxiety, depression) and emotional intelligence variables (intrapersonal skills, interpersonal skills, stress management, adaptability, general mood) with job burnout variables (depersonalization, emotional exhaustion, and personal accomplishment) in anesthesia nurses working in the operating rooms of hospitals in Ahvaz. This means that people who have higher mental health and more appropriate emotional intelligence experience less job burnout.

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