Nurses’ Job Burnout: A Hybrid Concept Analysis

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Abstract

Introduction: Job burnout can significantly affect nurses’ physical and mental health and the quality of the care services they provide. Yet, there is no clear definition for job burnout in nursing. This study aimed to analyze the concept of nurses’ occupational burnout.

Methods: This concept analysis was conducted, using the three-phase hybrid model. In the theoretical phase, online databases, namely Iranmedex, Scientific Information Database (SID), Science Direct, MagIran, ProQuest, Web of Sciences, Scopus, and PubMed were searched to retrieve studies published from 2007 to 2018. In the fieldwork phase, twelve semi-structured interviews were conducted with nurses and head-nurses selected from teaching hospitals in Isfahan, Iran. The interviews were transcribed and analyzed through thematic analysis. In the final analytic phase, the findings of the first and the second phases were combined.

Results: Based on the findings of the theoretical and the fieldwork phases, job burnout can be defined as, “a state of physical, mental, emotional, and social exhaustion resulting from the negative effects of unmanaged occupational stress and inadequate managerial and social support, which reduces interest in and motivation for work, affects care quality, and results in negative attitudes and behavior towards self, clients, and the work”.

Conclusion: This study provides an in-depth understanding of the concept of job burnout in the nursing context of Iran. Managers need to develop strategies for job burnout prevention and management based on its contributing factors.

Introduction

Nurses work in the difficult conditions of clinical settings and in close relationships with human-beings and their health conditions. Patient care is a really arduous task which puts high physical and psychological pressure on nurses.¹⁻³ Patients have high expectations from nurses while nurses may not have the ability or the authority to fulfill all patients’ expectations. All these factors could put nurses at risk for physical and mental disorders, including job burnout.⁴

Job burnout is among the most important occupational disorders and phenomena which have received great attention in the recent century.⁵ It was first described in 1974 by both Herbert Freudenberger and Ginsburg.⁶ By definition, job burnout is defined as a psychosocial syndrome⁷ which is manifested by emotional fatigue, indifference, and reduced personal achievement.⁷ It results from increasing environmental demands and reduced ability to fulfill them. It is the consequence of occupational stress⁸ and is affected by personal, organizational, and social factors.⁹ Long-term exposure to occupational demands and stress can lower physical and psychological resistance to them and finally result in job burnout.¹⁰

Through affecting their mental health, job burnout can significantly reduce nurses’ productivity and service quality and may even require them to leave their profession.¹¹ A review study reported that the rate of nurses’ turnover in different contexts was 4%–68%.¹² A cross-sectional study in ten countries also showed that 33% of nurses intended to leave their hospitals and 9% of them had actually left their profession.¹³ The rate of intention to leave nursing in Iran was also reported to be as high as 32.7%.¹⁴ Nurses’ turnover imposes heavy costs on healthcare organizations.¹¹,¹⁵ The results of a comparative review of nurses’ turnover rates and costs illustrated that the financial costs related to nurses’ turnover in the United States and Australia were respectively $20561 and $48790 per nurse.¹⁶

The concept of job burnout has been analyzed in several concept analyses. The results of Karaman Özlü and colleagues studying the difference between nurses’ job burnout in Iran and Turkey have shown that the context and culture of each country can affect the nurses’ burnout.¹⁷ Nursing practices in Iran are also influenced by traditional, political and cultural factors.¹⁸ Considering that exhaustion has a worrying effect on nurses, nurses’ perception of burnout is different in the culture and context of each country. The study may help nurses
identify the symptoms of burnout; develop a plan to cope with the burnout; and return to the nursing career with passion, job excitement, and caring. The study provides nursing leaders with insight into nursing burnout. Health care leaders are able to implement policies that alleviate burnout, and strategies to alleviate burnout contribute to a more satisfying nursing experience. The conclusions of the study contribute to the existing body of knowledge on nursing burnout and might provide information for developing programs that prevent burnout and improve the work environment for nurses. Therefore, this study sought to analyze the concept of nurses’ job burnout.

Methods
This concept analysis was done in 2018, using the hybrid model. As a method for conceptualization, concept development, and theory advancement, the hybrid model is used in nursing to clarify ambiguities about concepts and assess concepts in their contexts. Concept analysis through the hybrid model integrates deductive and inductive approaches and hence, helps refine commonly used concepts. This model consists of three phases, namely the theoretical phase, the fieldwork phase, and the final analytic phase. The main goal of the theoretical phase is to create an appropriate context for the in-depth analysis and the redefinition of the intended concept in the next phases. At the end of this phase, an operational definition is provided to be used in the fieldwork phase. On the other hand, the aim of the fieldwork phase is to strengthen and refine the definition provided in the first phase. This phase deals with the empirical components of the intended concept and hence, fresh qualitative data are collected for more in-depth concept analysis. The third phase combines the findings of the theoretical and the fieldwork phases and reports the data.

The Theoretical Phase
In this phase, the existing literature on nurses’ job burnout was reviewed. Accordingly, an online search was conducted in national and international databases, namely Iranmedex, Scientific Information Database (SID), ScienceDirect, Magiran, ProQuest, Web of Sciences, Scopus, and PubMed. The search keywords for searching the PubMed database were “break-out”, “burnout”, “burn-out”, and “nurse” while, in other databases, they were “burnout” and “nurse”. The search results were combined through the Boolean operators AND and OR. Date limitation was set at 2007–2018. The eligibility criteria were the inclusion of the keywords in the article, relevance to the study subject matter, and access to full-text. In total, 91 studies (26 in Persian and 65 in English) were retrieved (Figure 1). After excluding similar and irrelevant records, 57 quantitative and qualitative studies were included. A data extraction form was used for data extraction based on the aim of the study. It included items on the definitions, dimensions, antecedents, consequences, and contributing factors of job burnout. The extracted data were organized and reported.

The Fieldwork Phase
This phase included the collection of qualitative data about nurses’ first-hand experiences and perceptions of job burnout, its antecedents, and its consequences. Nurses were selected with maximum variation (respecting their gender, work experience, affiliated hospital, ward, work shift, and nurses without management posts) from teaching hospitals affiliated to Isfahan University of Medical Sciences, Isfahan, Iran.

The data collection tool in this phase was face-to-face semi-structured interviews. Each interview was started with a question, i.e. “Have you, as a nurse, ever experienced job burnout?” Participants who provided a positive answer to this question were asked further broad questions such as, “How do you define job burnout?” “In what nursing situations did you have greater feeling of burnout?” “How did job burnout and its symptoms affect your life?” “How did it physically and emotionally affect you?” “What strategies can help prevent job burnout?” In case of any need for further clarification, we asked follow-up questions such as “Can you provide an example?” “Could you please provide further explanation?” and “What did you mean by this?” Each interview was held in a private room at his/her workplace. The interviews lasted fifty minutes, on average, and were recorded with the participants’ consent. Study data were saturated after twelve interviews with twelve participants.

The recorded interviews were transcribed and frequently reviewed to obtain their main ideas. After that, the meaning units were extracted and labeled with primary codes and then, similar codes were grouped together to form main categories and subcategories.

The Final Analytic Phase
In this phase, the findings of the first and the second phases were compared and combined to provide a comprehensive definition of the concept of nurses’ job burnout and to determine its antecedents and consequences in the context of Iran.

Trustworthiness
The four criteria of credibility, dependability, confirmability, and transferability were used to enhance the trustworthiness of the qualitative findings. Credibility and dependability were maintained, using techniques such as constant comparison, prolonged engagement with the data, and asking several participants to assess the congruence between their experiences and our findings. Transferability was also maintained by providing detailed descriptions about the participants’ experiences and characteristics, the study context, barriers, and limitations. Moreover, to ensure confirmability, all phases of the study were documented so that other researchers can use the
documents to follow the study phases.\textsuperscript{19,20}

To verify the credibility of the data, the handwritten notes and the voice of the participants were reviewed frequently and reviewed by returning them to the member check and reviewing them by peer check. Also, long-term conflict with the phenomenon and the allocation of sufficient time to collecting data and continuous surveys were also other measures to increase the credibility of the findings of the study. In order to investigate the dependability of the data, the work stages were independently investigated by qualitative researchers and then the audited results were compared.

Verbal informed consents were obtained from all participants and they were provided with the opportunity to access the study findings. Moreover, the interviews were anonymized, using numerical codes and the data were reported anonymously.

\textbf{Results}

\textbf{The Findings of the Theoretical Phase}

\textbf{Definitions of Job Burnout}

Different definitions have been provided for job burnout. Merriam-Webster’s dictionary defines burnout as the “exhaustion of physical or emotional strength or motivation usually as a result of prolonged stress or frustration”. The Oxford dictionary also defines it as “physical or mental collapse caused by overwork or stress”. Dehkhoda Persian Dictionary equates it with exhaustion and wearing out. According to the World Health Organization, job burnout is a psychological process caused by occupational stress, manifested by emotional exhaustion, depersonalization, and reduced motivation and functionality.\textsuperscript{22} Demirci et al., consider job burnout as a disorder resulting from prolonged exposure to psychological strain induced by work and people, which is associated with emotional, physical, and mental collapse.\textsuperscript{23} Melvin believes that job burnout is a physical and psychological syndrome which results in negative behaviors and attitudes towards self, work, and clients.\textsuperscript{24} Leiter et al., also consider job burnout as the syndrome of emotional exhaustion following years of engagement in and commitment to work and people, and results in physical, emotional, and psychological fatigue, which consequently reduces ability and motivation to do work.\textsuperscript{25} A burned-out employee frequently feels strained and non-energetic at workplace due to internal and external factors.\textsuperscript{26} S/he losses the ability to cope with stressors, and develops negative self-concept, negative attitude towards work, and poor relationships with clients during task performance.\textsuperscript{27}

\textbf{The Dimensions of Job Burnout}

The concept of job burnout consists of three main dimensions, namely emotional exhaustion, depersonalization (i.e. negative response to clients), and lack of personal accomplishment (i.e. reduced competence in task performance).\textsuperscript{27}

\textit{Emotional exhaustion:} Emotional exhaustion is defined as the sense of being under strain with limited emotional resources which results in poor interest in and motivation for work, indifference to work, and finding no positive feelings at doing work.\textsuperscript{28} It is associated with stress, anxiety, physical fatigue, sleeplessness, and senses of having no energy and no feelings.\textsuperscript{29}

\textit{Depersonalization:} Depersonalization is an individual's negative and hardened responses to his/her service receivers and refers to his/her negative attitudes towards his/her clients.\textsuperscript{30} It is also considered as a state of pessimism or indifference towards clients and colleagues and viewing service receivers as objects.\textsuperscript{31}

\textit{Personal insufficiency or lack of personal accomplishment:} Personal insufficiency is a state of reduced competence in task performance and a negative self-evaluation with respect to task performance which is associated with a sense of having no personal achievement at work.\textsuperscript{23} It is a negative evaluation and attitude about self which is accompanied by the reduction of the ability to successfully perform work-related tasks or responsibilities in relation to others.\textsuperscript{32}
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The Antecedents of Job Burnout in Nurses

There are four main types of factors which predispose nurses to job burnout. These factors include organizational, interpersonal, intrapersonal, and environmental factors.

Organizational factors: The most important factors behind job burnout in nurses are organizational factors. These factors include organizational policies which are not beneficial to nurses (such as increased working hours or staff layoffs), vertical organizational structure and centralized decision-making, job insecurity, limited career advancement opportunities, intensive supervision without standard criteria, conflicts between organizational goals and plans, role conflicts, and role expansion. Moreover, factors such as injustice, lack of rewards for nurses, nursing staff shortage, heavy workload, and frequent night or rotational shifts with subsequent sleep problems can result in job dissatisfaction and burnout among nurses.

Interpersonal factors: Nurses may experience job burnout due to interpersonal factors such as lack of social support, criticism by manager, inappropriate physician-nurse relationships, conflict with colleagues, and family-work conflict.

Intrapersonal factors: Intrapersonal factors behind job burnout include demographic factors such as gender, age, educational level, marital status, and work experience. Compared to older nurses, younger nurses are more likely to experience job burnout, because with their limited work experience, they feel lower personal sufficiency and have greater fear over committing errors in critical conditions. Moreover, female nurses are more at risk of job burnout, because they are emotionally more vulnerable to occupational stress, work-family conflict, and sleep disorders and hence, are more likely to develop psychological distress. Lack of preparation for job can also significantly contribute to job burnout so that nurses who have not received the necessary work-related education are more prone to job burnout. Marital status is another intrapersonal factor behind job burnout. Studies showed that compared with single, divorced, and widowed nurses, married nurses suffer lower levels of job burnout probably due to factors such as positive public attitude toward marriage and negative public attitude toward divorce and widowhood.

Environmental factors: Job burnout may result from intolerable environmental factors such as noise, overcrowding, and poor lighting. These factors can cause psychological and behavioral problems, fatigue, impatience, and inefficiency. It has been shown that noise pollution can lead to anxiety, stress, and fatigue among hospital staff. In contrast, a well-ventilated and well-lighted environment with adequate facilities and equipment for nursing care delivery can reduce mental and emotional fatigue and stress, improve job satisfaction, and thereby, reduce the risk of job burnout among nurses. The type of the affiliated hospital ward is also a significant factor so that job burnout is more prevalent among nurses who work in the emergency departments, burn care, neonatal care, intensive and coronary care, and hemodialysis units. Workplace violence can also contribute to job burnout through psychological damage and creating a sense of insecurity.

The Consequences of Job Burnout

The consequences of job burnout are patient-, nurse-, and organization-related consequences. The main patient-related consequences are reduced care quality, increased risk of complications, impaired recovery, long hospital stay, high hospitalization-related costs, and low patient satisfaction. Nurse-related consequences include increased probability of medication errors, high rate of physical and psychological problems (such as headache, hypertension, depression, anxiety, fatigue, sleeplessness), and increased risk for behavioral disorders (such as smoking and alcohol consumption). Job burnout can also result in absence from work and low job satisfaction, thus reducing the quality of work life. The negative consequences of job burnout for healthcare organizations are inappropriate organizational culture, increased dissonance between the staff and managers, increased staff turnover, and reduced productivity, effectiveness and care quality, which would finally decrease the organizations' customers.

The Findings of the Fieldwork Phase

In total, 224 primary codes were generated which were categorized into three main categories, namely the definition of job burnout, the antecedents of job burnout, and the consequences of job burnout. The antecedents of job burnout were grouped into the two subcategories of unmanaged occupational stress and lack of managerial and social support. The consequences of job burnout were grouped in the two main categories of physical and emotional fatigue and reduced care quality.

The Definition of Job Burnout

Most participants were familiar with job burnout. Their definitions were abstracted as “the inability to cope with the stressful conditions of work which can negatively affect physical and mental health and give rise to feelings of fatigue, frustration, and depression”. They considered job burnout as discouragement and boredom at work which gradually reduce the ability to continue working and the interest in it.

“Burnout is fatigue, boredom, and lack of motivation to continue working (P. 4).” In my opinion, burnout is psychological strains which are gradually caused by occupational stress and result in disappointment at work (P. 9).

Antecedents of Job Burnout

The antecedents of job burnout were grouped into the two
subcategories of unmanaged occupational stress and lack of managerial and social support.

Unmanaged occupational stress: According to the participants, there are numerous stressors at nurses’ workplace, the most important of which are low nurse-patient ratio, inadequate preparation for fulfilling patients’ and their family members’ needs, numerous visitations by patients’ family members, equipment noises, witnessing patients’ pain and ailment, witnessing and performing stressful procedures such as cardiopulmonary resuscitation, problems related to communication with physicians, inaccessibility of physicians in emergency situations, shift work, long working hours, disturbed sleep and rest, long waking hours, low salaries, poor working conditions, occupational hazards (such as infections and exposure to chemicals and radiation), shortage of equipment and medications, the obligation to use non-standard equipment, and problems related to patients, colleagues, head-nurses, and supervisors.

When workload is heavy and nurse-patient ratio is low, I cannot perform my tasks effectively or with good quality. Most of the time, I feel tired because I have to perform most of my tasks in a short period of time, without having established appropriate relationships with my patients (P. 3). The highest level of stress is related to cardiopulmonary resuscitation, preparation of equipment for it, communication with physicians during it, and its outcomes (P. 7).

Lack of managerial and social support: most of the participants emphasized the importance of nursing managers’ support in the prevention of job burnout. They also highlighted that managers could enhance nurses’ motivation for work by adopting certain strategies such as tangible and intangible rewards, career advancement, fair treatment, giving authorization, timely payments, involvement of nurses in decision-making, creation of friendly relationships, valuing nurses’ ideas and viewpoints, job enrichment, fair performance evaluation, and effective management and supervision.

I felt really tired when I successfully managed a busy work shift, but received no appreciation from my supervisor. Similarly, I feel high levels of job burnout when I see injustice in our monthly work schedule (P. 4). Longer leaves for major tragedies in life (such as great losses) together with appropriate recreational facilities can refresh nurses and prevent job burnout (P. 5). Authorities’ friendly relationships with us and their attention to our ideas and viewpoints can encourage us and enhance our motivation for work (P. 1).

Consequences of job burnout

The consequences of job burnout were grouped in two main categories of physical and emotional fatigue and reduced care quality.

Physical and emotional fatigue: According to the participants, the inability to cope with stressful conditions of work and the subsequent job burnout negatively affect nurses’ physical and mental health, bringing about fatigue, frustration, and depression. Most of them complained of physical and mental health problems such as musculoskeletal problems, sleep and mood disorders, and headache, and reported that these problems had negatively affected their personal lives, made them indifferent, and reduced their empathy.

Most of the time, I feel heavy on my shoulders and back. I have frequently experienced anxiety during my shifts. Moreover, most of the time, I feel listless and find myself not in the mood for work (P. 1). Fatigue has affected all aspects of my life so that sometimes I may not even have the energy to communicate with my family. I always feel guilty that I cannot spare adequate time to be with my family. Moreover, sleep problems are one of my main problems (P. 9). Sleep deprivation and fatigue make me irritable, distract me, and give me a feeling of indifference (P. 5).

Reduced care quality: Most participants pointed that while nursing is to provide effective care to patients, job burnout reduces care quality, causes frequent absences from work, and reduces satisfaction with work and organization, and finally results in quitting job.

I don’t have enough energy to properly care for my patients like a professional nurse should (P. 12). Most of the time, I don’t want to continue nursing and like to practice another profession (P. 11).

The Findings of the Final Analytic Phase

Most of the findings of the fieldwork phase were similar to and confirmed the findings of the theoretical phase. Based on the findings of these two phases, job burnout in nursing can be defined as “a state of nurses’ physical, mental, emotional, and social exhaustion resulting from the negative effects of unmanaged occupational stress and inadequate managerial and social support which reduces the nurses’ interest in and motivation for work, affects care quality, and results in negative attitude and behavior towards self, clients, and work”. According to this definition, the concept of job burnout consists of five main dimensions, namely physical exhaustion (including physical fatigue and sleeplessness), emotional exhaustion (including disappointment and anxiety), social exhaustion (including lack of appropriate relationships with colleagues and managers), depersonalization (or negative response to clients), and lack of personal accomplishment (or reduced sufficiency in task performance). Physical exhaustion refers to the feelings of tiredness, weakness, and pressure on the limbs, particularly the back and the knees, which result from heavy workload, low nurse-patient ratio, irregular and rotational work schedules, long working and waking hours, inadequate rest, and sleep disorders. Emotional exhaustion is the feeling of emotional fatigue and reduced interest in and motivation for work resulting from reduced emotional resources. The major factors
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behind nurse’s emotional exhaustion are job insecurity, insufficient income, and inadequate preparation and skills for fulfilling the patients’ needs. Social exhaustion refers to social dysfunction due to non-involvement in care planning and decision-making, ineffective relationships with colleagues and managers, and lack of recreational facilities. The depersonalization dimension of job burnout in nurses refers to their negative and hardhearted response to care receivers and adopting negative attitude towards them. It results from shift work, rotational shifts, long working hours, disturbances in the wake and sleep cycle, physicians’ inappropriate relationships with nurses, inadequate managerial support, role conflict, and ambiguous policies. Lack of personal accomplishment is the final dimension of job burnout in nursing. It refers to reduced nurses’ competence in performing tasks and a negative self-evaluation in relation to task performance which results from lack of career advancement, non-involvement in planning and decision-making, and lack of job enrichment.

Discussion
Different cultural and structural factors, having different socio economic levels on nurses’ burnout, are effective. Job burnout can significantly affect nurses’ physical and mental health and the quality of their healthcare services. The findings of the present study revealed that due to the characteristics of their job and the conditions of their work environment, nurses experience high levels of occupational stress. Occupational stress, in turn, inevitably leads to job burnout. Job burnout also imposes high levels of physical and mental strain on the nurses, reduces their interest in and motivation for nursing practice, affects their job satisfaction, and brings about lethargy and fatigue. Another study also reported, there was a significant and negative correlation between the nurses’ job satisfaction and emotional exhaustion.

Lack of managerial and social support have also been reported as factors contributing to job burnout for nurses, with higher levels of job burnout observed among nurses who received limited managerial support and suffered from poor nursing management. Effective management and leadership in hospitals are known to have positive effects on different aspects of nursing, including nurses’ self-efficiency and job burnout.

Our findings also indicated the negative effects of job burnout on nurses’ physical, emotional, and social health. In line with this finding, an earlier study reported that job burnout negatively affects all aspects of nurses’ personal and professional life. Another study also reported its negative effects on the physical, emotional, interpersonal, and attitude-related aspects of behavior. Obviously, burnout and its subsequent problems can reduce nurses’ efficiency, job satisfaction, and motivation for quality care delivery. Strategies to enhance nurses’ job satisfaction and productivity can encourage their involvement in decision-making, reduce their occupational stress, reducing their job burnout and improving their quality of work life. Because of the significant correlation between nurses’ job burnout and their perceived professional value, strategies to help them perceive the importance and value of their job can enhance their job satisfaction and protect them against job burnout. Our findings also indicated the negative effects of job burnout on reduced care quality. In line with this finding, an earlier study reported a statistically reverse relationship between emotional exhaustion and personal accomplishment and the quality of nurses’ working life.

The first limitation was the sample size. Twelve participants is a small sample for the nurse population in Iran and might not adequately represent the larger population. The second limitation had to do with the nurses who had left the profession and who might have had the highest incidence of burnout; this segment of the population was excluded from the study. Their input and findings could well have contributed to the results and implications for nursing burnout.

Conclusion
Given the negative effects of job burnout on nurses’ professional performance, work attendance, and care quality, strategies are needed for its prevention and management. A basic strategy is to develop valid and reliable burnout measurement tools for periodical burnout screening among nurses. Moreover, managerial, organizational, and environmental improvements can help prevent and manage job burnout. Strategies for such improvements may include recruitment of more competent nurses to alleviate staff shortage and reduce nurses’ workload, budget allocation for timely payments, provision of recreational facilities, periodical in-service training programs on different aspects of professional practice (such as effective coping strategies, interpersonal communication, and stress management), improvement of physician-nurse relationships and interdisciplinary collaboration, promoting nurses’ professional autonomy, clarification of nurses’ professional roles, and promotion of their perceived managerial and organizational support.

Recommendations for further research resulted from the study. The first recommendation is to explore the lived experience of nurse leaders and their intent to stay in the profession. Research that involves both staff nurses and nurse leaders might indicate a connection between the two groups regarding their feelings and perceptions of the respective roles during a burnout episode.

Acknowledgments
We would like to express our sincere gratitude to all the researchers whose studies were used in this study. We would like to thanks the Nurses and Nursing Managers who have collaborated on the preparation of the article.

Ethical Issues
The study was approved by the research management of nursing
and midwifery faculty of Kashan university of Medical Sciences (code: IR.KAUMS.NUHEPM.REC.1398.074).

**Conflict of Interest**
The authors declared no potential conflicts of interest.

**Author's Contributions**
ZNZh designed the review protocol in collaboration with MAH. ShBB developed the search strategy and drafted the protocol. ZNH and ShBB were searches and conduct data selection and extraction. All authors involved in data analysis and interpretation of results. Also authors have read and approved the final manuscript.

**References**
1. Serin A, Balkan M. Burnout: the effects of demographic factors on staff burnout: an application at public sector. Int Bus Res. 2014; 7 (4): 151-9. doi: 10.5539/ibr.v7n4p151
2. Shoroofi SA, Karimzadeh M. Factors associated with burnout in nursing staff: a review article. Clinical Excellence. 2015; 3(2): 56-70. [Persian]
3. Li A, Early SF, Maher NE, Klaristenfeld JL, Gold JI. Group cohesion and organizational commitment: protective factors for nurse residents' job satisfaction, compassion fatigue, compassion satisfaction, and burnout. J Prof Nurs. 2014; 30(1): 89-99. doi: 10.1016/j.profnurs.2013.04.004
4. Lee EK, Ji EJ. The moderating role of leader-member exchange in the relationships between emotional labor and burnout in clinical nurses. Asian Nurs Res (Korean Soc Nurs Sci). 2018; 12(1): 56-61. doi: 10.1016/j.amr.2018.02.002
5. Negi Y, Bagga R. Burnout among nursing professionals in tertiary care hospitals of Delhi. J Health Manag. 2015; 17(2): 163-77. doi: 10.1177/0972063415575802
6. Freudenberger HJ. Staff burn-out. J Soc Issues. 1974; 30 (1): 159-65. doi: 10.1111/j.1540-4560.1974.tb00766.x
7. Bhatti GA, Islam T, Mirza HH, Ali FH. The relationships between LMX, job satisfaction and turnover intention. Sci Int. 2015; 27(2): 1523-6.
8. Nguyen HTT, Kitaoka K, Sukigara M, Thai AL. Burnout study of clinical nurses in Vietnam: development of job burnout model based on Leiter and Maslach's theory. Asian Nurs Res (Korean Soc Nurs Sci). 2018; 12(1): 42-9. doi: 10.1016/j.amr.2018.01.003
9. Hudek-Knezević J, Kalebćić Maglica B, Krapić N. Personality, organizational stress, and attitudes toward work as prospective predictors of professional burnout in hospital nurses. Croat Med J. 2011; 52(4): 538-49. doi: 10.3325/cmj.2011.52.538
10. Keykaleh MS, Safarpour H, Yousefian S, Faghisolouf F, Mohammadi E, Ghomian Z. The relationship between nurse's job stress and patient safety. Open Access Maced J Med Sci. 2018; 6(11): 2228-32. doi: 10.3889/oamjms.2018.351
11. Lee KR, Kim JM. Effects of emotional labor on burnout in nurses: focusing on the moderating effects of social intelligence and emotional intelligence. J Korean Acad Nurs Adm. 2016; 22(1): 22-32. doi: 10.11111/jkana.2016.22.1.22
12. Flinkman M, Leino-Kilpi H, Salanterä S. Nurses' intention to leave the profession: integrative review. J Adv Nurs. 2010; 66(7): 1422-34. doi: 10.1111/j.1365-2648.2010.05322.x
13. Heinen MM, van Achterberg T, Schwendimann R, Zander B, Matthews A, Kózka M, et al. Nurses' intention to leave their profession: a cross sectional observational study in 10 European countries. Int J Nurs Stud. 2013; 50(2): 174-84. doi: 10.1016/j.ijnurstu.2012.09.019
14. Sokhanvar M, Kakemam E, Chegini Z, Sarbaksh P. Hospital nurses' job security and turnover intention and factors contributing to their turnover intention: a cross-sectional study. Nurs Midwifery Stud. 2018; 7(3): 133-40. doi: 10.4103/2322-1488.235640
15. Han MR, Gu JA, Yoo IY. Influence of workplace bullying and leader-member exchange on turnover intention among nurses. J Korean Acad Nurs Adm. 2014; 20(4): 383-93. doi: 10.11111/jkana.2014.20.4.383
16. Duffield CM, Roche MA, Homer C, Buchan J, Dimitrelis S. A comparative review of nurse turnover rates and costs across countries. J Adv Nurs. 2014; 70(12): 2703-12. doi: 10.1111/jan.12483
17. Karaman Özli Z, Çay Yayla A, Gümüş K, Khaghanyrad E. Comparison of nurses in two different cultures: who experiences more burnout. J Perianesth Nurs. 2017; 32(3): 238-44. doi: 10.1016/j.jopan.2015.09.012
18. Nikbakht Nasrabadi A, Emami A. Perceptions of nursing practice in Iran. Nurs Outlook. 2006; 54(6): 320-7. doi: 10.1016/j.outlook.2006.06.001
19. Schwartz-Barcott D, Kim HS. An expansion and elaboration of the hybrid model of concept development. In: Rodgers BL, Knafl KA, eds. Concept development in nursing foundations, techniques, and applications. 2nd ed. London: Saunders; 2000.
20. Rodgers BL, Knafl KA. Concept development in nursing foundations, techniques, and applications. 1st ed. Philadelphia, United States: Saunders; 2000.
21. Walker LO, Avant KC. Strategies for theory construction in nursing. 5th ed. United States: Prentice Hall; 2005.
22. Schaufeli WB, Leiter MP, Maslach C. Burnout: 35 years of research and practice. Career Dev Int. 2009; 14(3): 204-20. doi: 10.1108/1362043091096606
23. Demirci S, Yildirim YK, Ozsarar Z, Uulu R, Yalan M, Aras AB. Evaluation of burnout syndrome in oncology employees. Med Oncol. 2010; 27(3): 968-74. doi: 10.1007/s12032-009-9318-5
24. Melvin CS. Historical review in understanding burnout, professional compassion fatigue, and secondary traumatic stress disorder from a hospice and palliative nursing perspective. J Hosp Palliat Nurs. 2015; 17(1): 66-72. doi: 10.1097/njh.0000000000000126
25. Leiter MP, Bakker AB, Maslach C. Burnout at Work: A
psychological perspective. (Current Issues in Work and Organizational Psychology). England: Psychology Press; 2014.

26. Kim S, Jung H, Kim Y. Emotional labor experienced of ward nurses. J Korean Soc Occup Environ Hyg. 2016; 26(3): 377-87. doi: 10.15269/jksoeh.2016.26.3.377

27. Hunt PA, Denieffe S, Gooney M. Burnout and its relationship to empathy in nursing: a review of the literature. J Res Nurs. 2017; 22(1-2): 7-22. doi: 10.1177/174498716678902

28. Salvagioni DAJ, Melanda FN, Mesas AE, González AD, Gabani FL, Andrade SM. Physical, psychological and occupational consequences of job burnout: a systematic review of prospective studies. PLoS One. 2017; 12(10): e0185781. doi: 10.1371/journal.pone.0185781

29. Maslach C, Schaufeli WB, Leiter MP. Job burnout. Annu Rev Psychol. 2001; 52: 397-422. doi: 10.1146/annurev.psych.52.1.397

30. Maslach C, Leiter MP. Understanding the burnout experience: recent research and its implications for psychiatry. World Psychiatry. 2016; 15(2): 103-11. doi: 10.1002/wps.20311

31. Lin F, St John W, McVeigh C. Burnout among hospital nurses in China. J Nurs Manag. 2009; 17(3): 294-301. doi: 10.1111/j.1365-2834.2008.00914.x

32. Emold C, Schneider N, Meller I, Yagil Y. Communication skills, working environment and burnout among oncology nurses. Eur J Oncol Nurs. 2011; 15(4): 358-63. doi: 10.1016/j.ejon.2010.08.001

33. van Mol MM, Kompanje EJ, Benoit DD, Bakker J, Nijkamp MD. The prevalence of compassion fatigue and burnout among healthcare professionals in intensive care units: a systematic review. PLoS One. 2015; 10(8): e0136955. doi: 10.1371/journal.pone.0136955

34. Rezo JA, Olson DM, Thu HS, Stutzman SE. Situational factors associated with burnout among emergency department nurses. Workplace Health Saf. 2017; 65(6): 262-5. doi: 10.1177/2165079917705669

35. Giorgi F, Matti A, Notarnicola I, Petrucci C, Lancia L. Can sleep quality and burnout affect the job performance of shift-work nurses? a hospital cross-sectional study. J Adv Nurs. 2018; 74(3): 698-708. doi: 10.1111/jan.13484

36. Porter S, Ayman R. Work flexibility as a mediator of the relationship between organizational climate and occupational coping self-efficacy on new graduate nurses’ work environment indices and their burnout aspects in TUMS teaching hospitals. Iran Occupational Health. 2012; 9(3): 39-51. [Persian]

37. Hoseini M, Sharifzadeh G, Khazaie T. Occupational burnout in Birjand dentists. J Dent Med. 2011; 24(2): 113-20. [Persian]

38. Wei H, Sewell KA, Woody G, Rose MA. The state of the science of nurse work environments in the United States: a systematic review. Int J Nurs Sci. 2018; 5(3): 287-300. doi: 10.1016/j.ijnss.2018.04.010

39. Hosseinejad SM, Aminiahiadashi H, Montazer SH, Elyasi F, Moosazadeh M, Ahmadi N. Job burnout among the emergency department nurses of medical training centers affiliated to Mazandaran University Of Medical Sciences. Iran Emerg Med. 2016; 3(4): 125-31.

40. Zhao J, Shan N, Yang X, Li Q, Xia Y, Zhang H, et al. Effect of second child intent on delivery mode after Chinese two child policy implementation: a cross sectional and prospective observational study of nulliparous women in Chongqing. BMJ Open. 2017; 7(12): e018823. doi: 10.1136/bmjopen-2017-018823

41. Nantsupawat A, Nantsupawat R, Kunaviktikul W, Turale S, Poghosyan L. Nurse burnout, nurse-reported quality of care, and patient outcomes in Thai hospitals. J Nurs Scholarsh. 2016; 48(1): 83-90. doi: 10.1111/jnu.12187

42. Metzger MMD. Program Administrators’ Perceptions and Experiences of Managing DSP Work-Related Stress and Burnout [dissertation]. Minnesota: Capella University; 2018.

43. You LM, Aiken LH, Sloane DM, Liu K, He GP, Hu Y, et al. Hospital nursing, care quality, and patient satisfaction: cross-sectional surveys of nurses and patients in hospitals in China and Europe. Int J Nurs Stud. 2013; 50(2): 154-61. doi: 10.1016/j.ijnurstu.2012.05.003

44. Farsi Z, Rajaei N, Habibi H. The relationship between burnout and quality of working life in nurses of AJA hospitals in Tehran. Military Caring Sciences Journal. 2015; 1(2): 63-72. doi: 10.18869/acadpub.mcs.1.2.63 [Persian]

45. Bahrami MA, Taheri GH, Montazeralfaraj R, Dehghani Tafti A. The relationship between organizational climate and psychological well-being of hospital employees. World Journal of Medical Sciences. 2013; 9(1): 61-7. doi: 10.5829/idosi.wjms.2013.9.1.75152

46. Sadeghi A, Shadi M, Moghimbaeigi AA. Relationship between nurses’ job satisfaction and burnout. Scientific Journal of Hamadan Nursing & Midwifery Faculty. 2016; 24(4): 238-46. [Persian]

47. Laschinger HK, Bortogni L, Consiglio C, Read E. The effects of authentic leadership, six areas of worklife, and occupational copying self-efficacy on new graduate nurses’ burnout and mental health: a cross-sectional study. Int J Nurs Stud. 2015; 52(6): 1080-9. doi: 10.1016/j.ijnurstu.2015.03.002

48. Gentene L. A phenomenological study of nurse strategies to address nursing burnout [dissertation]. Arizona: University of Phoenix; 2013.

49. Cheng F, Meng AF, Jin T. Correlation between burnout and professional value in Chinese oncology nurses: a questionnaire survey. Int J Nurs Sci. 2015; 2(2): 153-7. doi: 10.1161/jnss.2015.04.004