Original Article

Journal of Occupational Health and Epidemiology
Journal homepage: http://johe.rums.ac.ir

Association between Job Satisfaction, Burnout, and Patient Safety Culture among Medical Staff of the Qom University of Medical Sciences in 2020, Iran

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Citation: Asgarian A, Sadeghi R, Abolhasani F, Mohammadbeigi A, Omidi Oskouei A, Soltanzadeh A. Association between Job Satisfaction, Burnout, and Patient Safety Culture among Medical Staff of the Qom University of Medical Sciences in 2020, Iran. JOHE 2021; 10(2):127-33.

Article Info

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Article history
Received: Mar 2021
Accepted: Jun 2021

10.52547/johe.10.2.127

Print ISSN: 2251-8096
Online ISSN: 2252-0902

Peer review under responsibility of Journal of Occupational Health and Epidemiology

Abstract

Background: Some factors, such as burnout and job satisfaction, may affect patient safety culture. This study aimed to examine the association between burnout, job satisfaction and patient safety culture among medical staff of the Qom University of Medical Sciences in 2020.

Materials and Methods: This descriptive-correlative study was conducted on 248 medical staff members of the Qom University of Medical Sciences in 2020. The demographic checklist, the standard hospital survey on patient safety culture (HSOPSO), the Maslach burnout inventory, and the job satisfaction questionnaire were used for data collection. Content validity of the questionnaires was evaluated based on expert judgments. The Cronbach's alpha coefficient was 78 and 41% for the Maslach burnout questionnaire and the JDI questionnaire, respectively. Besides, the Pearson's correlation coefficient, the independent t-test, and the analysis of variance were used to analyze the data via SPSS software.

Results: This study included 40 (16.1%) males and 208 (83.9%) females with the mean age of 32.04 ± 7.9 years. The mean and SD of the HSOPSO, JID, and frequency of burnout scores were 135.4 ± 10.1, 68.07 ± 13.2, and 53.8 ± 4.5, respectively. This study showed that job burnout has a significantly negative association with patient safety culture (r= -0.53, P < 0.000). In contrast, there was a statistically significant positive association between job satisfaction and patient safety culture (r= 0.643, P < 0.000).

Conclusion: The findings of this study indicated that both factors of job satisfaction and burnout might play a significant role in patient safety. Thus, top medical managers must provide appropriate conditions for employees to improve patient safety.

Keywords: Burnout, Job Satisfaction, Patient Safety, Medical Staff

Introduction

The Institute of Medicine (IOM) defines safety as the prevention of harm to patients, while emphasizing care delivery systems, such as prevention of mistakes, learning from past mistakes, as well as building a safety culture in healthcare organizations [1, 2]. The defining features of patient safety involve prevention of medical errors and avoidable adverse events, protection of patients from harms or injuries, collaborative efforts made by individual healthcare providers, as well as a strong and well-integrated healthcare system [3]. In a study in Sweden, it was

found that about 105,000 patients suffered preventable injuries at hospitals, with 3,000 of whom died in a one-year period [4].

It is worth mentioning that a positive safety culture could lead to the prevention of adverse incidents threatening patient safety, thereby improving the quality of medical care [5]. Safety culture is the result of values, perceptions, competencies, attitudes, and patterns of individual and group behaviors, which determine the commitment, style, and skills of managing a safe and healthy organization [6, 7]. The assessment of the patient safety culture is highly effective in improving the quality of a care system in which providing safe care services should be given priority in healthcare organizations [8]. Patient safety culture helps recognize diverse facets of patient safety and factors influencing it. Among these factors, one could mention burnout and job satisfaction in healthcare and medical staff at hospitals [9].

Job satisfaction status can be determined by comparing one’s previous expectations about the job and the actual job experience [10, 11]. Burnout commonly refers to a prolonged response to chronic emotional and interpersonal stressors, which is characterized by depersonalization, emotional exhaustion, and lack of social accomplishments [12, 13]. Research shows that job burnout has a significant negative relationship with patient safety culture, with job satisfaction having a significant positive relationship with patient safety culture. Given the effective role of both factors of satisfaction and burnout in patient safety culture, one can manage these two variables in the workplace so as to improve patient safety culture [10]. Due to the importance of patient safety at medical centers and its direct relationship with patient satisfaction, this study was conducted to investigate the impacts of burnout and job satisfaction on patient safety culture in the medical staff of the Qom University of Medical Sciences in 2020.

Materials and Methods

This descriptive correlational study was conducted on 248 medical staff members of the Qom University of Medical Sciences in 2020, who included physicians, nurses, midwives, anesthesiologists, operating room technicians, and para-clinic technicians. Besides, it was conducted at teaching hospitals of the Qom City and was approved by the research deputy of the Qom University of Medical Sciences. The total target population in this study included 3,500 people. According to the correlation coefficient formula for the sample size and considering r= 0.25 between job satisfaction and safety culture based on Rabiee et al study [9], the study power and confidence interval were 90 and 95%, respectively, with the required sample size having been estimated at 163. Based on the type of sampling, 260 people were included in this study. Convenience sampling was used for sample selection. One of the inclusion criteria of the study was working medical staff willing to participate in this study. Another inclusion criterion was having at least an associate's degree and one year of work experience. In contrast, the exclusion criterion was concerned with the people not willing to complete the questionnaires and participate in the study. This research was conducted at the teaching hospitals of the Qom City. The job descriptive index (JDI), the hospital survey on patient safety culture (HSOPSO), and the Maslach burnout inventory were used to collect the data. The required data were extracted from the questionnaires and analyzed via SPSS version 20 (SPSS Inc., Chicago, IL, USA).

The demographic questionnaire included eight questions about the variables, including the participants' age and gender, work experience, marital status, education, organizational position, employment status, and work shift.

JDI Questionnaire: The job descriptive index (JDI) questionnaire is one of the most reliable tools for measuring job satisfaction. This questionnaire was developed by Smith, Kendall, and Hyulin in 1969. The JDI questionnaire measures the five subscales of job satisfaction, including the boss, coworkers, promotion, wage, and work conditions. This tool has 72 items, and the scoring is based on a 5-point Likert scale ranging from 1 to 5. In addition, the total score of the questionnaire is 360. The Persian version of this questionnaire was prepared by Behrozi et al (2008), with some modifications applied to the scoring procedure. The total score of the job description index with the Cronbach's alpha was 41%, and the total content validity was 0.750. However, it was enough to add the scores of the items for each subscale to obtain the score of that subscale. The questionnaire was observed and approved by several experts [14].

Maslach Burnout Inventory Questionnaire: The job burnout questionnaire consists of 22 items and a dual scale of frequency and intensity for measuring the three aspects of burnout, including emotional fatigue, personal success, and depersonalization [15]. Muslim and Jackson reported internal reliability coefficients of 0.9, 0.79, and 0.71 for emotional fatigue, depersonalization, and individual success, respectively. The validity and reliability of this questionnaire were confirmed

for the first time in Iran [16, 17]. The reliability coefficient of the questionnaire was estimated at 78% by the Cronbach's alpha method. Given the standardization of the burnout questionnaire, it had necessary validity for measuring the burnout level. The method of scoring the items of this questionnaire was based on a 7-point Likert scale. In addition, options for this test included never, little, very little, medium, above average, high, and very high. When the subjects read this scale, they would express their feelings according to the options available to them. Muslim and Jackson used three methods for determining validity of this questionnaire. Questions 1, 2, 3, 6, 8, 13, 14, 16, and 20 were related to the subscale of emotional fatigue. In addition, questions 5, 10, 11, 15, and 22 were related to the depersonalization subscale. Furthermore, questions 4, 7, 9, 12, 17, 18, 19, and 21 were related to the subscale of lack of personal success. The scoring options of this test included scores of never, very low, low, average, medium to high, high, and very high. In fact, some questions were calculated in reverse or directly for the scoring purpose. Accordingly, the dependence of the individuals' scores in the present questionnaire was calculated with a score that gave a completely familiar personality to a person; the correlation between the dimensions of job experience and burnout was calculated; and the correlation between the individuals' scores in this questionnaire and various consequences was calculated, which was assumed to be related to burnout [15, 18].

Hospital Survey on Patient Safety Culture (HSOPSO): The HSOPSC, as designed by the US Agency for Health Research and Quality (2004), was used. This questionnaire consisted of 42 items for measuring patient safety culture using a 5-point Likert scale, ranging from strongly opposed to strongly agree. The scoring method of this questionnaire was based on a 5-point Likert scale that ranged from strongly disagree, disagree, having no opinion, agree, and, strongly agree. The study of Moghari et al confirmed the validity and reliability of this questionnaire for working in Iran [19, 20]. Dimensions with a response greater than 75 were considered as strengths, and dimensions with an average response of smaller than 50 were considered weaknesses requiring intervention. Besides, dimensions between these two values were considered neutral. To get the overall score of the questionnaire, the total score of all questions were added to each other, with this score ranging from 15 to 75. Besides, the larger the score was, the higher the patient safety culture would be [21].

Descriptive and inferential statistics were utilized to analyze the data. Besides, data distribution was assessed by the Kolmogorov–Smirnov test. Moreover, the independent-samples t-test and the one-way ANOVA were used to compare the mean scores among the groups after checking the normality of data. The chi-square test was used for the comparison of the qualitative variables. In addition, the Pearson correlation test was performed to assess the relationship between JDI, patient safety culture, and job burnout. Data analysis was performed using SPSS version 20 (SPSS, Chicago, IL). The significance level was considered 0.05

The research proposal was approved by the vice-chancellor for research at the Qom University of Medical Sciences. In addition, the Medical Ethics Committee (MEC) of the Qom University of Medical Sciences approved the study protocol (Code of Ethics IR.MUQ.REC1399.114). The questionnaire was completed with informed consent obtained from the participants. All employees' information was protected, and the results of the study were published in the groups.

Results

From 260 questionnaires distributed, a total of 248 staff members completed and delivered the questionnaires (a response rate of 95.4%). The mean age of the staff was 32.04 ± 7.9 years, with 208 staff members (83.9%) having been female. Based on our findings, the majority of the staff were married (63.3%), 76.2% had graduate degrees, and more than 30% of them were officially employed on a fulltime basis. In addition, less than half of the respondents in the current study were nurses (44.1%). Table 1 shows demographic and occupational features of the study participants.

Table 1. Demographic features of the employees participating in the current study

Variables		Frequency	Percent
Sex	Female	208	83.9
	Male	40	16.1
Marital status	Single	91	36.7
	Married	157	63.3
Education	Associate degree	32	12.9
	Graduate	189	76.2
	Master's degree	17	6.9
	PhD	7	2.8
	Proficiency	3	1.2

Employment status	Officially hired	96	38.7
	Experimental employment	9	3.6
	Employment contract	15	6
	Contractual	47	19
	Tarh (Employees of compulsory service program)	63	25.4
	Corporative	18	7.4
Organizational position	Doctor	8	3.2
	Nurse	103	41.5
	Midwife	41	16.5
	Anesthesiologist	37	14.9
	Operating room technician	52	21
	Para-clinic technician	7	2.8
Work shift	Day	28	11.3
	Evening	40	16.2
	Night	4	1.6
	Rotational	176	70.9

The mean scores and standard deviation of the HSOPSO, JID, and frequency of burnout were 135.4 ± 10.1, 68.07 ± 13.2, and 53.8 ± 4.5 respectively. Table 2 shows the mean scores of the studied variables in the hospital staff.

Table 2. The mean and standard deviation of the HSOPSO, JID, and frequency of burnout

Variables	Mean ± SD	Minimum	Maximum
Age	32.04 ± 7.9	22	50
Employee's history	7.69 ± 5.14	2	25
HSOPSO	135.4 ± 10.1	112	178
Frequency of burnout	53.8 ± 4.5	44	64
Severe burnout	53.9 ± 4.9	44	69
Job satisfaction	68.07 ± 13.2	32	100
Job score	8.02 ± 2.3	1.00	10.00
Boss score	52.2 ± 11.7	14.00	70.00
Coworker score	3.4 ± 0.8	1.00	5.00
Promotion score	19.9 ± 6.8	7.00	50.00
Wage score	17.5 ± 5.04	9.00	45.00
Work condition score	2.9 ± 0.8	1.00	5.00

In this study, we expected that job satisfaction and burnout would affect patient safety culture. The Pearson correlation coefficient test was performed to assess the relationships among the questionnaires of JID, HSOPSO, and Maslach burnout (Table 3). The results showed a significant relationship between job satisfaction (r: 0.643) and patient safety ($p < 0.000$) so that with an increase in job satisfaction among the employees, patient safety culture improved. In addition, burnout (r: -0.53) was shown to be inversely correlated with patient safety that decreased with an increase in burnout ($p < 0.000$). Besides, the results showed that employee satisfaction affected changes to patient safety culture.

Table 3. Correlation of HSOPSO and burnout scores with job satisfaction and its dimensions

Variable		Correlation	P-value
Burnout		-0.53	0.000
Job satisfaction	Total job satisfaction	0.631	0.000
	Job score	0.417	0.000
	Boss score	0.262	0.000
	Coworker score	0.292	0.000
	Work condition score	0.396	0.000

As the presumption of the test, a significant relationship was assumed between demographic factors and patient safety culture and job satisfaction. However, the present study showed no significant relationship between HSOPSO scores and gender, marital status, job status, and

organizational status. Besides, there was no significant difference between the education level and HSOPSO, yet the highest mean and standard deviation scores were observed between HSOPSO and the staff's educational level, especially the master's degree (64.8 ± 19.9). According to descriptive statistics, women were more likely to get engaged in HSOPSO than men, and single employees were more likely than married ones. Table 4 shows the relationship between demographic characteristics and HSOPSO.

Table 4. The relationship between HSOPSO and demographic characteristics

Variable		HSOPSO	P-value
Gender	**Male**	44.1±10.8	0.933
	Female	55.3±13.6	
Marital status	**Single**	55 ±14.7	0.390
	Married	48.3±13.1	
Employment status	**Officially hired**	54.6 ±14.5	0.400
	Experimental employment	59±18.9	
	Contract employment	56.03±10.9	
	Contractual	52 ± 13.2	
	Compulsory medical service staff	51.5 ± 13.07	
	Corporative	58.2 ± 16.5	
Organizational position	**Doctor**	48.95±7.9	0.545
	Nurse	54.9±14.17	
	Midwife	49.7±16.4	
	Anesthesiologist	58.5±10.08	
	Operating room technician	53.3± 11.06	
	Para-clinic technician	64.8 ±19.9	
Education	**Associate degree**	51.05±10.8	0.062
	Graduate	54.2±14.17	
	Master's degree	64.10±12.9	
	PhD	49.7±9.09	

Discussion

In the present study, job satisfaction and burnout, among other variables of gender, marital status, job status, and organizational position had a significant relationship with patient safety culture.

Job satisfaction and burnout had a direct relationship and an inverse relationship with patient safety, respectively. In fact, if employees are satisfied with their job, they will pay more attention to patient safety culture, while with burnout, no attention is paid to patient safety.

Furthermore, there was no significant relationship between demographic characteristics and patient safety [22, 23]. However, in the study of Shariati et al, there was a significant relationship between patient safety and some demographic factors [24]. In another study, there was a significant correlation between staff's occupational characteristics and patient safety [25]. Besides, in Rahimi's study, there was a relationship between patient safety dimensions and some demographic characteristics [26]. A study by Rabiee et al showed a significant relationship between patient safety and job satisfaction. In addition, it was reported that people satisfied with their work would demonstrate safe behaviors [9].

In addition to demographic characteristics of employees, the relationship between job satisfaction and safety culture was addressed in this study to identify the influential factors. Upon recognizing these factors, patient safety culture will be improved, with many studies done on this field [27]. Job dissatisfaction makes employees leave the health system, perform incorrect tasks, and provide inadequate medical services, thereby reducing patient safety. Kang, in her study, referred to the relationship between employee satisfaction and patient safety enhancement as well as all related aspects of patient satisfaction [28].

In this study, data on the variable of job satisfaction indicated that employees were relatively satisfied with their work. This result was similar to that of Habibi et al [19]. To increase employee satisfaction, suitable conditions must be provided for employees to enjoy their work. Research shows that burnout is associated with a 2-fold increase in the likelihood of unsafe care, unprofessional behavior, and poor patient satisfaction, thereby leading to a decrease in patient safety, being consistent with our study [29].

Past research shows that some work shifts may lead to exhaustion and low job satisfaction among employees [30, 31]. The effects and consequences of burnout, as one of the major organizational challenges, were investigated in various studies. In addition, the effects of this syndrome on job performance were verified. Besides, improper and

harmful work conditions along with working in the shift system for longer periods of time during irregular shifts are among the risk factors for burnout. Furthermore, the results of recent studies confirm the relationship between patient safety culture and the incidence rate of this disorder [32, 33].

As observed from the lenses of the public health, knowledge of the association between safety culture and the psychological health of healthcare professionals can provide leaders with an opportunity for synergistically intervening in the domains of occupational health and patient safety as they are connected to each other. Accordingly, it is recommended that strategies be adopted to promote patient safety culture so as to reduce the risk of burnout development and to provide an effective improvement in the quality of healthcare services [34]. Given the relationship of satisfaction and burnout with patient safety in various studies, employees need to feel that hospital managers value them and that they are in complete safety while performing their duties. Accordingly, we should pay attention to staff problems and their welfare to increase job satisfaction at an organizational level so as to achieve acceptable levels of patient safety.

The main limitation in the study was that a number of the participants did not have the opportunity for completing the questionnaire due to the lack of time. Thus, it is suggested that more research be conducted with a larger number of samples.

Conclusion

According to the findings, suitable conditions must be provided for employees to enjoy their work so as to increase employee satisfaction. Besides, there should be an incident reporting system because this system can lead to a positive outlook in employees on the safety improvement of patients.

Acknowledgement

The authors would like to extend their gratitude to all staff who contributed to this study.

Conflict of interest: None declared.

References

1. Farzi S, Farzi S, Taheri S, Ehsani M, Moladoost A. Perspective of Nurses toward the Patient Safety Culture in Neonatal Intensive Care Units. Iran J Neonatol 2017; 8(4):89-94.
2. Fazli B, Ansari H, Zare H, Hami Mahkoyeh S, Sadeghzadeh A, Fazli F, et al. Safety culture in GolGohar Mine in Southeast Iran in 2014. J Occu Health Epidemiol 2014; 3(2):117-25.
3. Kim L, Lyder CH, McNeese-Smith D, Leach LS, Needleman J. Defining attributes of patient safety through a concept analysis. J Adv Nurs 2015; 71(11):2490-503.
4. Källberg AS. Patient safety in the emergency department: Errors, interruptions and staff experience. [PhD thesis]. Stockholm, Sweden: Karolinska Institutet; 2015.
5. Mohebi Far R, Alijan Zadeh M, Safari Variani A, Khoshtarki H, Ghanati E, Teymouri F, et al. Studying patient safety culture from the viewpoint of staffs in educational hospitals in Tehran City. Health Saf work 2015; 5(1):57-64.
6. da Costa DB, Ramos D, Gabriel CS, Bernardes A. Culture of Safety for the Patient: Assessment Carried out by Nursing Professionals. Text Contex Nurs 2018; 27(3).
7. Akologo A, Abuosi AA, Anaba EA. A cross-sectional survey on patient safety culture among healthcare providers in the Upper East region of Ghana. PLoS One 2019; 14(8):e0221208.
8. Hamdan M. Measuring safety culture in Palestinian neonatal intensive care units using the Safety Attitudes Questionnaire. J Crit Care 2013; 28(5):886. e7-14.
9. Rabiei N, Gholami Fesharaki M, Maleki S, Mohamadian M. Relationship between Burnout, Job Satisfaction and Demographic Factors with the Level of Patient Safety Culture in Military Healthcare Staff. J Mil Med 2018; 19(6):571-8.
10. Lorber M, Skela Savič B. Job satisfaction of nurses and identifying factors of job satisfaction in Slovenian Hospitals. Croat Med J 2012; 53(3):263-70.
11. Bello S, Adewole DA, Afolabi RF. Work Facets Predicting Overall Job Satisfaction among Resident Doctors in Selected Teaching Hospitals in Southern Nigeria: A Minnesota Satisfaction Questionnaire Survey. J Occu Health Epidemiol 2020; 9(1):52-60.
12. Friganovic A, Selic P, Ilic B, Sedic B. Stress and burnout syndrome and their associations with coping and job satisfaction in critical care nurses: a literature review. Psychiatr Danub 2019; 31(Suppl 1):21-31.
13. Jahani F, Mosavian Asl Z, Kouhnavard B, Shamsaddini S. Association between Job Satisfaction and Occupational Accidents among Operating Staff at a Cement Factory, 2018. J Occu Health Epidemiol 2020; 9(3):189-93.
14. Behroozi N, Naami A, Shokrkon H, Taghipour M. The Comparison of Organizational Justice, Job Satisfaction and Mental Health of Disable and Normal Employees of Ahvaz Public Organizations. J Educ Psychol 2008; 15(1):137-52.
15. Esfandiari GR. Survey of the rate of occupational burnout between nursing staff of Sanandaj hospitals affiliated to Kurdistan University of Medical Sciences in 2001.

Scientific J Kurdistan Univ Med sci 2001; 6(1):31-5.
16. Payami Boosari M. Assessment of social support condition and correlation between intensive care nursing burnout. [MSc Thesis]. Tehran: Tehran University; 1994.
17. Ezzati E, Anooshe M. Assessment of nursing burnout in practical nursing in Kermanshah hospitals. [MSc Thesis]. Tehran: Tarbiat Modares University; 2005.
18. khodadadi A, Ravari A, Sayadi A, Khodadadi H, Jafarinaveh H. Occupational burnout assessment among nurses working in Iranian hospital of Ali-ebn Abitaleb, Rafsanjan- Iran. J Occu Health Epidemiol 2012; 1(2):103-10.
19. Habibi M, Gholami Fesharaki M, Samadinia H, Mohamadian M, Anvari S. Patient Safety Culture and Factors that Impact that Culture in Tehran Hospitals in 2013. Iran Red Crescent Med J 2017; 19(1):e30874.
20. Moghri J, Arab M, Akbari Saari A, Nateqi E, Rahimi Forooshani A, Ghiasvand H, et al. The Psychometric Properties of the Farsi Version of "Hospital Survey on Patient Safety Culture" in Iran's Hospitals. Iran J Public Health 2012; 41(4):80-6.
21. Smits M, Christiaans-Dingelhoff I, Wagner C, Wal Gv, Groenewegen PP. The psychometric properties of the 'Hospital Survey on Patient Safety Culture' in Dutch hospitals. BMC Health Serv Res 2008; 8:230.
22. 2Almasi A, Pourmirza Kalhori R, Ahmadi Jouybari T, Goodarzi A, Ahmadi A. Evaluation of patient safety culture in personnel of hospitals in Kermanshah, 2013. J Clin Res Paramedical Sci 2015; 4(1):e81582.
23. Jafarpanah M, Rezaei B. Patient Safety Culture; the Strengths and Weaknesses: A Case Study of Imam Reza Hospital of Kermanshah. J Health Develop 2019; 8(2):197-209.
24. Pourshareiati F, Amrollahi M. Patient Safety Culture from Rahnemon Hospital Nurses' Perspective. Occup Hyg Health Promot J 2017; 1(1):52-61.
25. Memarbashi E, Zadi Akhuleh O, Imani F, Nasiri E. Evaluation of the Patient Safety Culture Status and Its Related Factors from the Perspective of Operating Room Personnel. J Client-Cent Nurs Care 2020; 6(1):23-30.
26. Rahimi E, Alizadeh SH, Safaeian AR, Abbasgholizadeh N. An Investigation of Patient Safety Culture: The Beginning for Quality and Safety Improvement Plans in Patient Care Services. J Health 2020; 11(2):235-47.
27. Dehghani M, Hayavie Haghighi M, Salimi J, Khorami F. Culture of Patient Safety from Nurses' Perspective. Iran J Nurs 2015; 28(93-94):42-54.
28. Kang R, Kunkel ST, Columbo JA, Goodney PP, Wong SL. Association of Hospital Employee Satisfaction with Patient Safety and Satisfaction within Veterans Affairs Medical Centers. Am J Med 2019; 132(4):530-4.e1.
29. Panagioti M, Geraghty K, Johnson J, Zhou A, Panagopoulou E, Chew-Graham C, et al. Association between Physician Burnout and Patient Safety, Professionalism, and Patient Satisfaction: A Systematic Review and Meta-Analysis. JAMA Intern Med 2018; 178(10):1317-31.
30. Anıl M, Yurtseven A, Yurtseven İ, Ülgen M, Anıl AB, Helvacı M, et al. The evaluation of burnout and job satisfaction levels in residents of pediatrics. Turk Pediatri Ars 2017; 52(2):66-71.
31. Ashkar K, Romani M, Musharrafieh U, Chaaya M. Prevalence of burnout syndrome among medical residents: experience of a developing country. Postgrad Med J 2010; 86(1015):266-71.
32. Profit J, Sharek PJ, Amspoker AB, Kowalkowski MA, Nisbet CC, Thomas EJ, et al. Burnout in the NICU setting and its relation to safety culture. BMJ Qual Saf 2014; 23(10):806-13.
33. Moradi Y, Baghaei R, Rahmani A, Mollazadeh F. The Association between Organizational Commitment and Quality of Services Offered to Nurses by a Hospital: A Descriptive-Correlational Study. J Occu Health Epidemiol 2020; 9(1):35-40.
34. Bezerra IMP. Translational medicine and its contribution to public health. J Hum Growth Dev 2017; 27(1):6-9.