

## ORIGINAL ARTICLE

Medicine Science 2020;9(3):662-7

# Analysis of the job satisfaction and burnout levels of operating room nurses

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Received 13 April 2020; Accepted 24 Jun 2020  
Available online 26.08.2020 with doi: 10.5455/medscience.2020.04.050

### Abstract

This study was performed for identifying the job satisfaction and burnout levels of nurses working in the operating room. As a descriptive and cross-sectional study, it was carried out with the participation of operating room nurses employed at two public hospitals in the Konya province of Turkey. As the research aimed to reach the entire population, a sample was not specifically selected. The data were collected via the 'Maslach Burnout Inventory' and the 'Minnesota Satisfaction Questionnaire'. The mean score obtained from the overall Minnesota Satisfaction Questionnaire was  $61.16 \pm 6.44$  points, and the mean score obtained from the Emotional Exhaustion, Depersonalization and Personal Accomplishment Sub-scales of the Maslach Burnout Inventory were found respectively as  $22.35 \pm 2.74$ ,  $12.51 \pm 3.08$  and  $15.28 \pm 4.46$  points. In conclusion, as per this study, the mean job satisfaction score of the operating room nurses was on a moderate level, and the means of their burnout scores were on high level.

**Keywords:** Surgical nurse, job satisfaction, burnout

### Introduction

Job satisfaction and burnout are concepts which have implications on various areas from workplaces to residents, which supplement and give meaning to each other and occupy crucial places in professional life [1, 2]. Job satisfaction is the case when the general attributes of a job and employees' desires conform to each other, and it also explains to what extent the employee is happy and pleased with their job [3, 4]. Individuals spend most of their lives at the workplace and express the effects of positive and negative workplace incidents toward not only their co-workers but also their own families. Coming into play when an individual's physical, spiritual and social needs are not satisfied, job dissatisfaction negatively affects an individual's mental and physical health and satisfaction with life in general [2]. In a similar vein to job satisfaction, burnout is one of the important problems of professional life. Burnout is defined as the case in which the employee feels depersonalized and emotionally exhausted at the workplace, and their sense of accomplishment is also lowered [5].

Job satisfaction is important to all professions. However, nurses run more risks of failing to have job satisfaction than other healthcare professionals alongside the fact that members of the profession of nursing do not have regular work hours, work for long hours at low wages, do not get sufficient respect and have critically important duties and responsibilities and the fact that it is a health-related profession in which different sophisticated technologies are used, rapid changes come into play, equipment is not adequately provided, and high levels of stress and pressure are felt [4, 6-10]. It was discerned that a low level of job satisfaction of nurses paved the way for physical problems such as migraine and sleep disorders [11, 12], mental problems such as anxiety, depression and increased substance use [13, 14] and social problems such as disappointment, deterioration of relationships, hopelessness and burnout syndrome [15].

Nursing is an occupation in which social interactions play a more active role and which requires more service work than other branches of healthcare. Heavy workload, patient responsibility, working under adverse conditions and workplace stress and tension give rise to burnout in nurses if they persist for a long time [16, 17]. Burnout causes deterioration in the service and care quality of nurses. Therefore, job satisfaction and burnout are phenomena that need to be recognized and acknowledged by nurses [17, 18].

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Job satisfaction and burnout occupy extremely crucial places in

the occupation of nursing in which each practice directly affects human life. Job satisfaction has a particular importance especially to surgical nursing which covers the care of patients before, during and after the surgical operation as a nurse with high job satisfaction and minimum burnout will meticulously follow up each practice which they undertake and will avoid performing erroneous practices. Thus, the nurse will ensure that good-quality nursing service is provided and will contribute to enhancement of the quality of the profession of nursing.

This study was conducted for the purpose of analyzing the job satisfaction and burnout levels of surgical nurses.

## Materials and Methods

### Design

This is a descriptive and cross-sectional study.

### Population and Sample

This study was carried out with the participation of surgical nurses employed at two public hospitals located in the Konya province of Turkey. As the research aimed to reach the entire population, a sample was not specifically selected. On the other hand, nurses who were not present at the hospitals during the study, those who did not agree to participate in the study and those who did not fill in the data collection forms were left out of the study. The sample of the study consisted of 60 nurses who were not on leave and reported, who voluntarily agreed to participate in the study.

### Data Collection

The data were collected through a 'Personal Information Form', the 'Maslach Burnout Inventory' and the 'Minnesota Satisfaction Questionnaire'. The data were obtained from forms filled in by the nurses during face-to-face interviews from December 2019 to February 2020. The data collection forms were designed in a way to keep the identity of the participants confidential, and all participant nurses were notified in written format that the confidentiality of their identities would be respected, and the collected data would solely be used for scientific purposes, as well as being informed about the objective, method and expected benefits of the research. Moreover, verbal consent was received from each participant.

### Data Collection Tools

**Personal Information Form:** This form contains questions on nurses' socio-demographic characteristics such as age, gender, marital status, education level, economic situation, total duration of work in the operating room and satisfaction with the workplace.

**Maslach Burnout Inventory:** The scale was developed by Maslach and Jackson in 1981, and a validity and reliability study for the scale was performed in Turkish by Ergin [19]. The scale is composed of three sub-scales, namely, Emotional Exhaustion, Depersonalization and Personal Accomplishment. Comprising a total of 22 items, it is a 5-point Likert-type scale scored from 0 to 4 points (0 – never, 4 – always). The score to be obtained from the scale ranges between 0 and 36 points for the Emotional Exhaustion sub-scale, between 0 and 20 points for the Depersonalization sub-scale and between 0 and 32 points for the Personal Accomplishment sub-

scale. High scores to be obtained from the Emotional Exhaustion and Depersonalization sub-scales and low scores to be obtained from the Personal Accomplishment sub-scale indicate that the individual suffers from burnout. In the aforementioned validity and reliability study by Ergin, the Cronbach's Alpha coefficient was found as 0.83 for the Emotional Exhaustion sub-scale, 0.65 for the Depersonalization sub-scale and 0.72 for the Personal Accomplishment sub-scale [19, 20]. For this study, the Cronbach's Alpha coefficient was found as 0.83 for the Emotional Exhaustion sub-scale, 0.73 for the Depersonalization sub-scale and 0.70 for the Personal Accomplishment sub-scale.

**Minnesota Satisfaction Questionnaire:** This scale was developed by Weiss et al. in 1967. Its Turkish version was created in 1985 by Baycan along with its validity and reliability testing. Composed of 20 items, it is a 5-point Likert-type scale. The highest score to be obtained from the Scale is 100 points, whereas the lowest score is 20 points. Scores close to 20 attest to low levels of job satisfaction, while on the other hand, scores close to 100 suggest high levels of job satisfaction. Through the scale, intrinsic satisfaction, extrinsic satisfaction and general satisfaction scores are obtained. By dividing the total score obtained from all 20 items by 20, the general satisfaction score is calculated. The intrinsic satisfaction score addresses elements pertaining to job satisfaction on the basis of the intrinsic nature of the job such as success, acknowledgement or appreciation, the job itself, job responsibility, getting promoted and reassignments in conjunction with being promoted. By dividing the total score obtained from the items under the intrinsic satisfaction sub-scale by 12, the intrinsic satisfaction score is calculated. The extrinsic satisfaction score covers elements related to job satisfaction in terms of the extrinsic character of the job such as institutional policies and management, supervision type, manager, working and interacting with those at junior positions, work conditions and wage. By dividing the total score obtained from the items under the extrinsic satisfaction sub-scale by 8, the extrinsic satisfaction score is calculated. As per the overall scale, the neutral satisfaction score is 3 points. If the score obtained from the scale is below 3 points, then job satisfaction is assessed to be low, while on the other hand, if the score obtained from the scale is above 3 points, then job satisfaction is deemed to be high. As the indicator of the reliability of the scale, the Cronbach's Alpha coefficient was found as 0.77 [4, 21]. In this study, the Cronbach's Alpha coefficient was ascertained as 0.75.

### Ethical Aspect of the Study

Prior to the data collection process, ethical approval was received from the Non-Invasive Clinical Trials Ethics Committee of the Faculty of Medicine of Selçuk University in the Konya province of Turkey (Decision no. 2019/389). Additionally, all participant nurses were informed about the study, the nurses were asked to fully read the informed consent form, and those who volunteered to participate in the study were included in the study. Verbal consent was received from each participant.

### Statistical Analysis

SPSS (Statistical Package for Social Sciences) Version 22.0 was used for the statistical analysis of the data. The socio-demographic data are expressed as percentages, means and standard deviations. Pearson's correlation test was used as the statistical method in the

study. As the indicator of the reliability of the scale, the Cronbach's Alpha coefficient was calculated. The findings were evaluated by using a 95% confidence interval, and statistical significance was identified if the P value was lower than 0.05 ( $p < 0.05$ ).

## Results

This part presents the findings of the research conducted for identifying the job satisfaction and burnout levels of nurses who worked in the operating room.

The breakdown of the descriptive characteristics of the surgical nurses covered by the research is presented in Table 1. It was found

that the nurses were aged 20-36 years (mean age =  $28.55 \pm 4.70$  years), and of all participant nurses, 53% were males, 66.7% were married, 60% were graduates of a vocational high school of healthcare, and 46.7% had worked in the operating room for 6 years or longer. Additionally, it was ascertained that, of all participant nurses, 81.7% voluntarily chose nursing as a profession, 41.7% thought of changing their jobs, 85% were pleased to work in the operating room, and 95% were happy with the department for which they worked in the operating room (Table 1). The breakdown of the mean scores obtained by the participant nurses from the Minnesota Satisfaction Questionnaire and the Maslach Burnout Inventory is displayed in Table 2.

**Table 1.** Socio-Demographic Characteristics of Nurses (N=60)

| Descriptive Characteristics                                                        | N  | %    |
|------------------------------------------------------------------------------------|----|------|
| Mean Age $\pm$ Sd (min=20, max=36) 28.55 $\pm$ 4.70                                |    |      |
| <b>Gender</b>                                                                      |    |      |
| Female                                                                             | 28 | 46.7 |
| Male                                                                               | 32 | 53.3 |
| <b>Marital Status</b>                                                              |    |      |
| Married                                                                            | 40 | 66.7 |
| Single                                                                             | 20 | 33.3 |
| <b>Educational Level</b>                                                           |    |      |
| Vocational High School of Healthcare                                               | 36 | 60.0 |
| Associate Degree                                                                   | 14 | 23.3 |
| Bachelor's Degree                                                                  | 10 | 16.7 |
| <b>Duration of work in the operating room</b>                                      |    |      |
| 0-1 year                                                                           | 9  | 15.0 |
| 2-5 years                                                                          | 23 | 38.3 |
| 6 years or longer                                                                  | 28 | 46.7 |
| <b>Did you choose this job voluntarily?</b>                                        |    |      |
| Yes                                                                                | 49 | 81.7 |
| No                                                                                 | 11 | 18.3 |
| <b>Have you ever thought of changing your job?</b>                                 |    |      |
| Yes                                                                                | 25 | 41.7 |
| No                                                                                 | 18 | 30.0 |
| Partially                                                                          | 17 | 28.3 |
| <b>Are you pleased to work in the operating room?</b>                              |    |      |
| Yes                                                                                | 51 | 85.0 |
| No                                                                                 | 9  | 15.0 |
| <b>Are you happy with the department for which you work in the operating room?</b> |    |      |
| Yes                                                                                | 57 | 95.0 |
| No                                                                                 | 3  | 5.0  |

**Table 2.** Mean scores obtained from the Minnesota Satisfaction Questionnaire and Maslach Burnout Inventory

|                                             | Min-Max. | Mean±SD    |
|---------------------------------------------|----------|------------|
| <b>Minnesota Satisfaction Questionnaire</b> | 41 – 80  | 61.16±6.44 |
| General Satisfaction                        | 2.05-4   | 3.05±0.32  |
| Intrinsic Satisfaction                      | 2-4      | 3.06 ±0.38 |
| Extrinsic Satisfaction                      | 2.13-4   | 3.04±0.38  |
| <b>Maslach Burnout Inventory</b>            | 35 – 64  | 50.15±5.98 |
| Emotional Exhaustion                        | 17-31    | 22.35±2.74 |
| Depersonalization                           | 7-29     | 12.51±3.08 |
| Personal Accomplishment                     | 6-24     | 15.28±4.46 |

The results of the correlation analysis between the scores obtained by the surgical nurses from the sub-scales of the Minnesota Satisfaction Questionnaire and the Maslach Burnout Inventory are shown in Table 3. There was a negative relationship between the scores obtained from the Intrinsic Satisfaction sub-scale ( $r=-0.528$ ), Extrinsic Satisfaction sub-scale ( $r=-0.410$ ) and General Satisfaction sub-scale ( $r=-0.410$ ) of the Minnesota Satisfaction Questionnaire and the scores obtained from the Emotional Exhaustion subscale of the Maslach Burnout Inventory ( $p<0.05$ ). Moreover, there was a negative relationship between the scores obtained from the Intrinsic Satisfaction sub-scale ( $r=-$

$-0.368$ ), Extrinsic Satisfaction sub-scale ( $r=-0.437$ ) and General Satisfaction sub-scale ( $r=-0.482$ ) of the Minnesota Satisfaction Questionnaire and the scores obtained from the Depersonalization sub-scale of the Maslach Burnout Inventory ( $p<0.05$ ). On the other hand, there was a positive relationship between the scores obtained from the Intrinsic Satisfaction sub-scale ( $r=0.560$ ), Extrinsic Satisfaction sub-scale ( $r=0.414$ ) and General Satisfaction sub-scale ( $r=0.517$ ) of the Minnesota Satisfaction Questionnaire and the scores obtained from the Personal Accomplishment sub-scale of the Maslach Burnout Inventory ( $p<0.05$ ) (Table 3).

**Table 3.** Results of the analysis of the correlation between scores obtained by surgical nurses from sub-scales of the Minnesota Satisfaction Questionnaire and Maslach Burnout Inventory

| Correlation                    | Intrinsic Satisfaction | Extrinsic Satisfaction | General Satisfaction | Emotional Exhaustion | Depersonalization | Personal Accomplishment |
|--------------------------------|------------------------|------------------------|----------------------|----------------------|-------------------|-------------------------|
| <b>Intrinsic Satisfaction</b>  | 1.000                  |                        |                      |                      |                   |                         |
| <b>Extrinsic Satisfaction</b>  | <b>0.369*</b>          | 1.000                  |                      |                      |                   |                         |
| <b>General Satisfaction</b>    | <b>0.887*</b>          | <b>0.756*</b>          | 1.000                |                      |                   |                         |
| <b>Emotional Exhaustion</b>    | <b>-0.528*</b>         | <b>-0.410*</b>         | <b>-0.410*</b>       | 1.000                |                   |                         |
| <b>Depersonalization</b>       | <b>-0.368*</b>         | <b>-0.437*</b>         | <b>-0.482*</b>       | <b>0.362*</b>        | 1.000             |                         |
| <b>Personal Accomplishment</b> | <b>0.560*</b>          | <b>0.414*</b>          | <b>0.517*</b>        | <b>-0.540*</b>       | <b>-0.443*</b>    | 1.000                   |

## Discussion

The results obtained through this study which was performed for identifying the job satisfaction and burnout levels of nurses working in the operating room are discussed in the light of the relevant literature.

Job satisfaction is a by-product of thoughts on and manners toward a job and co-workers that negatively or positively affect the overall life, physical and spiritual health, behavior and productivity of healthcare professionals [2]. Low levels of job satisfaction may lead nurses to develop opinions which are likely to have negative effects on the team performance and administrative process such that they will feel that they are neglected, unable to participate

in decisions as they wish, incapable of seeing themselves as a constituent part of teamwork and are not sufficiently encouraged and rewarded [22, 23].

As per this study, the job satisfaction of the nurses was on a moderate level. In the study conducted by Akkaş on operating room nurses, it was reported that job satisfaction levels were moderate [24]. Kahraman et al., in a study conducted with ICU nurses, reported that the job satisfaction of nurses was on a medium level [25]. Similarly, in another study conducted by Engin and Özgür on nurses, it was determined that the job satisfaction of nurses was on a medium level [26]. Lorber and Savic, in a study conducted with nurses working at 4 hospitals selected from 26 hospitals in Slovenia, reported that the job satisfaction levels

of nurses were on a medium level [27]. Several previous studies in the literature also referred to similar results [2, 13, 21, 28]. However, in Turkey, studies to determine the job satisfaction of operating room nurses are almost nonexistent. Job satisfaction is of importance to promotion of the quality of healthcare and its sustainability. Together with the satisfaction of patient needs, improving the working conditions of healthcare professionals and promoting development of healthcare systems are essential to employees' happiness and job satisfaction [29, 30].

The mean emotional exhaustion score the operating room nurses was  $22.35 \pm 2.74$ , their mean depersonalization score was  $12.51 \pm 3.08$ , and their mean personal achievement score was  $15.28 \pm 4.46$ . These results showed high levels of emotional exhaustion and depersonalization among the surgical nurses. When the burnout levels of the operating room nurses are compared to other studies conducted on nurses, while emotional exhaustion and depersonalization scores were similar, it was determined that the operating room nurses in this study had lower personal success scores [31, 32].

Being frequently confronted with traumatic experiences is likely to lead healthcare professionals to have burnout [33]. Excessive workload and emotional stress imposed on nurses due to being in constant interaction with patients and people in need of healthcare services do not only lower the job satisfaction of nurses but also cause them to feel depersonalized and to have high levels of burnout [34]. Employing nurses in fields in which they are interested as much as possible is an approach that is likely to be quite effective in raising their job satisfaction and alleviating their burnout levels [35]. In tandem with the relevant literature, the participants of this study had high levels of depersonalization and emotional exhaustion [35]. Altay et al. reported that emotional exhaustion was experienced intensely among the nurses in their study [36]. Similarly, Haifa et al. reported that emotional exhaustion was intense among multinational nurses working in Saudi Arabia [37]. Zencirci and Arslan stated that emotional exhaustion was experienced intensely among nurses [38].

In this study, it was found that there was a negative relationship between emotional exhaustion, depersonalization and job satisfaction. The two-way relationship which is acknowledged to exist between burnout and job satisfaction was addressed under certain studies. Just as the case in this study, previous studies found that job satisfaction was negatively associated with emotional exhaustion and depersonalization [1, 2]. In a study performed on those employed at a public office, it was discerned that, as the time duration devoted to work was extended at the public office, feelings of emotional exhaustion, depersonalization and personal failure came into play, and job satisfaction diminished [39]. Gürsoy et al. reported that burnout increases as the job satisfaction levels of nurses decrease [32]. Likewise, also in several other studies, job satisfaction fell down as emotional exhaustion and depersonalization went up, and job satisfaction increased as personal accomplishment went up [40].

### Limitations

This study was conducted at only two hospitals. Therefore, our results should not represent all operating room nurses. This was the limitation of our study. It is believed that the study will lead

further studies with a large sample as there are few studies on this particular topic in the literature.

### Conclusion

In this study which was conducted on the job satisfaction and burnout levels of nurses working in the operating room, it was deduced that the nurses occasionally thought of quitting their profession, and they were happy with working in the operating room and the department for which they worked in the operating room. As the job satisfaction levels of the surgical nurses increased, their burnout levels fell down. In conclusion, it is recommended that the job satisfaction and burnout levels of nurses who are employed in the surgical operation room, which is one of the most sophisticated places in every hospital, should be periodically assessed.

### Conflict of interests

*The authors have no conflicts of interest to declare.*

### Financial Disclosure

*All authors declare no financial support.*

### Ethical approval

*Prior to the data collection, the ethical endorsement was received from the Non-invasive Clinical Trials Ethical Committee of the Faculty of Medicine of Selçuk University in Konya province of Turkey (Decision no. 2019/389).*

### References

- Hombrados-Mendieta, I. and F. Cosano-Rivas, Burnout, workplace support, job satisfaction and life satisfaction among social workers in Spain: A structural equation model. *Int Soc Work*. 2013;56:228-46.
- Tekir Ö, Çevik C, Selma A ve ark. Sağlık çalışanlarının tükenmişlik, iş doyumu düzeyleri ve yaşam doyumunun incelenmesi. *Kırıkkale Üniversitesi Tıp Fakültesi Dergisi*. 2016;18:51-63.
- Georgellis, Y, Lange T, Tabvuma V. The impact of life events on job satisfaction. *J Vocat Behav*. 2012;80:464-73.
- Yüksel-Kaçan C, Örsal Ö, Köşgeroğlu N. Hemşirelerde iş doyumu düzeyinin incelenmesi. *Türk J Res Develop Nurs*. 2016;18.
- Hakanen J, Schaufeli W. Do burnout and work engagement predict depressive symptoms and life satisfaction? A three-wave seven-year prospective study. *J affect disor*. 2012;141:415-24.
- Durak İ, Serinkan C. Hemşirelerde iş tatmini: Denizli Devlet Hastanesi yoğun bakım ünitelerinde bir araştırma. *Karamanoğlu Mehmetbey Üniversitesi Sosyal ve Ekonomik Araştırmalar Dergisi*. 2007;119-35.
- Durmuş S, Günay O. Hemşirelerde iş doyumu ve anksiyete düzeyini etkileyen faktörler. *Erciyes Tıp Dergisi*. 2007;29:139-46.
- Kaçmaz N. Hemşirelerde iş stresi ve tükenmişlik. *Florence Nightingale Hemşirelik Dergisi*. 2005;13:65-75.
- Park M, Lee JY, Cho SH. Newly graduated nurses' job satisfaction: Comparison with allied hospital professionals, social workers, and elementary school teachers. *Asian Nurs Res*. 2012;6:85-90.
- Rao T, Malik S. Job satisfaction among nurses: a comparative study of nurses employed in government and private hospitals. *J Appl Manag Comput Sci* 2012;1:1-22.
- Costa G. Shift work and health: current problems and preventive actions. *Safety Health Work*. 2010;1:112-23.
- Nur D. Kamu hastanelerinde çalışan sağlık personelinde iş doyumu ve stres ilişkisi. *Klinik Psikiyatri Dergisi*. 2011;14:230-40.
- Birgili F, Salış F, Özdemir S. Sağlık çalışanlarının iş doyumunu etkileyen bazı etmenlerin incelenmesi. *Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi*. 2010;13:27-37.
- Li C. Job stress and dissatisfaction in association with non-fatal injuries on the job in a cross-sectional sample of petrochemical workers. *Occupation Med*.

- 2001;51:50-5.
15. Ökdemir P, Boyraz Ş, Öztürk Y. İstanbul Üniversitesi Cerrahpaşa Tıp Fakültesi Acil Cerrahi Kliniğinde çalışan hemşirelerin motivasyon durumlarının değerlendirilmesi. *Modern Hastane Yönetimi Dergisi*. 2004;8:63-73.
  16. Şenturan L, et al. Hemodiyaliz ünitelerinde çalışan hemşirelerin tükenmişlik düzeyi. *Maltepe Üniversitesi Hemşirelik Bilim ve Sanatı Dergisi*. 2009;2:33-45.
  17. Fındık Ü, Özgül E, Süt N ve ark. Bir üniversite hastanesinde çalışan hemşirelerin tükenmişlik düzeyi. *Ege Üniversitesi Hemşirelik Yüksekokulu Dergisi*. 2011;27:55-65.
  18. Koşucu SN, Göktaş SB, Yıldız T. Cerrahi ve dahiliye servislerinde çalışan hemşirelerin işe bağlı gerginlik ve iş doyumu düzeylerinin değerlendirilmesi. *Cukurova Med J*. 2017;42:675-81.
  19. Ergin C, Doktor ve hemşirelerde tükenmişlik ve Maslach tükenmişlik ölçeğinin uyarlanması. VII. Ulusal Psikoloji Kongresi, 22th September 1992 Ankara (Turkey), 1992.
  20. Karadağ F, Denizli ilinde çalışan hemşirelerde tükenme düzeyi. *Nöropsikiyatri Arşivi*. 2001;38:208-14.
  21. Kahraman G, Yoğun bakım hemşirelerinin iş doyumları ve etkileyen faktörler. *Dokuz Eylül Üniversitesi Hemşirelik Yüksekokulu Elektronik Dergisi*. 2011;4:12-8.
  22. Kvist T, Mantynen R, Partanen P, et al. The job satisfaction of Finnish nursing staff: the development of a job satisfaction scale and survey results. *Nursing Research And Practice*. 2012.
  23. Gider Ö, Şimşek G, Ocak S ve ark. Hastane organizasyonlarında örgütsel bağlılık ve iş doyumunun analizi: hemşireler ve tıbbi sekreterler üzerine bir araştırma. *Öneri Dergisi*. 2011;9:93-101.
  24. Akkaş B. Ameliyathane hemşirelerinin iş doyum ve etkileyen faktörlerin incelenmesi. 2018, Maltepe Üniversitesi, Sağlık Bilimleri Enstitüsü.
  25. Kahraman G. Yoğun bakım hemşirelerinin iş doyumları ve etkileyen faktörler. *DEUHYO ED*. 2011;4:12-8.
  26. Engin E, Özgür G. Yoğun bakım hemşirelerinin uyku düzen alışkanlıkları ile iş doyum arasındaki ilişkinin incelenmesi. *Ege Üniversitesi Hemşirelik Yüksekokulu Dergisi*. 2004;20:45-55.
  27. Lorber M, Skela Savič B. Job satisfaction of nurses and identifying factors of job satisfaction in Slovenian Hospitals. *Croat Med J*. 2012;53:263-70.
  28. Durmaz M, Sabuncu N. Ameliyathane ve cerrahi klinik hemşirelerinin kişilik özellikleri ve iş doyumları. *Genel Sağlık Bilimleri Dergisi*. 2019;1:40-52.
  29. Wada K, Arimatsu M, Higashi T, et al. Physician job satisfaction and working conditions in Japan. *J Occupational Health*. 2009;51:261-6.
  30. Kumar R, Ahmed J, Shaikh BT, et al. Job satisfaction among public health professionals working in public sector: a cross-sectional study from Pakistan. *Human Resources For Health*. 2013;11:2.
  31. McGrath A, Reid N, Boore J. Occupational stress in nursing. *Int J Nursing Studies*. 1989;26:343-58.
  32. Gürsoy AA, Çolak A, Danacı S et al. Ameliyathane hemşirelerinin iş doyum, anksiyete ve tükenmişlik: (Trabzon Örneği). *Turk J Res Develop Nurs*. 2007;9.
  33. Yıldırım A, Hacıhasanoğlu R. Sağlık çalışanlarında yaşam kalitesi ve etkileyen değişkenler. *Psikiyatri Hemşireliği Dergisi*. 2011;2:61-8.
  34. Theofilou P. Assessment of Job stress and burnout among hemodialysis nurses. *J Community Med Health Edu*. 2012;2:24-36.
  35. Kebapci A, Akyolcu N. The effects of the work environment on nurse burnout in emergency department. *Turk J Emerg Med*. 2011;11:59-67.
  36. Altay B, Gönener D, Demirkıran C. The level of burnout and influence of family support in nurses working in a university hospital. *Firat Tıp Dergisi*. 2010;15:10-6.
  37. Al-Turki HA, Al-Turki RA, Al-Dardas HA, et al. Burnout syndrome among multinational nurses working in Saudi Arabia. *Annals African Med*. 2010;9.
  38. Zencirci A, Arslan D. Morning-evening type and burnout level as factors influencing sleep quality of shift nurses: a questionnaire study. *Croatian Med J*. 2011;52:527-37.
  39. Avcı S. Farklı mesleklerde çalışan kadınların yaşam doyum, iş doyum, tükenmişlik ve algılanan cinsiyet ayrımcılığı düzeylerinin depresyon ile ilişkisinin incelenmesi. 2013, Sosyal Bilimler Enstitüsü.
  40. Kavlu I, Pinar R. Effects of job satisfaction and burnout on quality of life in nurses who work in emergency services. *Türkiye Klinikleri Tıp Bilimleri Dergisi*. 2009;29:1543-55.