Examining Burnout and Job Satisfaction of Nurses Working in Pediatric Units

Pediatri Kliniklerinde Çalışan Hemşirelerde Tükenmişlik ve İş Doyumunun İncelenmesi

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ABSTRACT

Aim: The aim of this descriptive and cross-sectional study is to determine the levels of burnout and job satisfaction of nurses working in pediatric units, and the relationship between burnout and job satisfaction.

Methods: The study was carried out in two pediatric hospitals in Ankara. The study comprised 235 nurses. Data were collected with the Sociodemographic Data Form, the Maslach Burnout Inventory, and the Minnesota Satisfaction Questionnaire. The nurses manifested average burnout and job satisfaction levels. During the evaluation of data, parametric statistics including one-way ANOVA and Independent Sample t Test for group comparisons, and the Pearson correlation coefficient for relations among quantitative variables were used. Multiple Regression Analysis was used to further examine the factors affecting burnout and job satisfaction levels.

Results: According to the findings of the study, the emotional exhaustion mean score was 20.0±6.89, the personal accomplishment mean score was 19.7±4.43, the depersonalization mean score was 5.7±3.38, and the nurses' overall satisfaction score was 2.6±0.62. Sub-scales of the burnout and satisfaction scales were related to each other at a statistically significant level ($p<0.05$). The levels of burnout and job satisfaction of nurses changed significantly according to their duties in the hospital, the ability of using autonomy, and the utilization of regular leaves per week.

Conclusion: It is recommended that levels of burnout and job satisfaction of nurses and the factors that affect them should be investigated regularly, and the working conditions should be improved.

Keywords: *Burnout, job satisfaction, pediatric nursing.*

ÖZ

Amaç: Tanımlayıcı ve kesitsel tipteki bu araştırmanın amacı, pediatri kliniklerinde çalışan hemşirelerde tükenmişlik ve iş doyumu düzeylerinin ve aralarındaki ilişkinin belirlenmesidir.

Yöntem: Araştırma Ankara ilinde bulunan iki çocuk hastanesinde yürütülmüştür. Araştırmaya 235 hemşire katılmıştır. Veriler sosyodemografik veri formu, Maslach Tükenmişlik Ölçeği ve Minnesota Doyum Ölçeği kullanılarak toplanmıştır. Verilerin değerlendirilmesinde gruplar arası farklılıkların belirlenmesinde Bağımsız Örneklem t Testi, ANOVA ve ölçek puanları arasındaki ilişkinin belirlenmesinde Pearson Korelasyon Testi kullanılmıştır. Tükenmişlik ve iş doyumu düzeylerini etkileyen faktörlerin belirlenmesinde Çoklu Regresyon Analizi kullanılmıştır.

Bulgular: Tükenmişlik ölçeği puan ortalamaları, duygusal tükenme alt boyutunda 20.0±6.89, kişisel başarı alt boyutunda 19.7±4.43 ve duyarsızlaşma alt boyutunda 5.7±3.38 olarak bulunurken, iş doyumu ölçeği genel doyum puan ortalaması 2.6±0.62 olarak bulunmuştur. Tükenmişlik ve iş doyum düzeyleri arasında her alt boyutun birbiriyle istatistiksel olarak anlamlı bir ilişkiye sahip olduğu belirlenmiştir ($p<0.05$). Hemşirelerin tükenmişlik düzeyleri hastanedeki görevlerine, otonomi kullanabilme durumlarına ve düzenli haftalık izin kullanma durumlarına göre anlamlı olarak değişmektedir ($p<0.05$).

Sonuç: Araştırma sonucunda hemşirelerin tükenmişlik ve iş doyum düzeyleri ile etkileyen faktörlerin düzenli olarak araştırılması ve çalışma koşullarının iyileştirilmesi önerilmiştir.

Anahtar kelimeler: *Tükenmişlik, iş doyumu, pediatri hemşireliği.*

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Burnout syndrome is a psychosocial situation that arises as a response to the chronic interpersonal stressors in the work environment.[1,2] Maslach and Jackson[1] stated that burnout was a multi-dimensional situation, characterized with emotional burnout, depersonalization, and low personal accomplishment. Nurses who experience depersonalization take care of patients in a way that deprives emotion, and without taking into account that they are individuals. The sense of low personal accomplishment is a situation in which people consider themselves inadequate, and develop negative self-respect.[3]

Job satisfaction is defined as the sense of pleasure in individuals who love their job.[4] In other words, job satisfaction is "a positive emotional response that the people give when their expectations from the work are met".[5]

As the patients they serve are vulnerable and desperate, pediatric nurses under hard working conditions are more inclined to experience trauma.[6] In working conditions with a high level of stress like pediatric units, nurses encounter many problems while providing healthcare service for the child and the family for 24 hours.[7] Providing care for children with illness or at the end of life, anxious parents, encountering child abuse, and being exposed to violence at work are some of these problems.[8] Pediatric nurses who work in intensive care units, hematology, and oncology clinics are especially prone to experience burnout syndrome.[9] When problems nurses encounter in their working environment cannot be handled, job dissatisfaction and burnout is experienced, reflecting on their care and leading to a decrease in quality of nursing care.[10] Institutions try to cope with nursing shortages by increasing the work hours of nurses and making them work overtime, increasing the workload and negatively affecting patient safety. In a study it is found that nurses often worked over 40 hours in a week and in shifts over 8 hours, increasing the risk of making mistakes.[11]

The experience of burnout and job dissatisfaction by nurses reflects negatively on the applications of patient care and thus, leads to a negative effect on the perception of nursing in society.[12] This negative effect decreases the preferences of individuals to choose the nursing profession, which can further exacerbate the nursing shortage. Lower incidences of 30-day mortality, pressure wounds, and ventilator-related pneumonia have been shown in units with more nurses.[13] It is thought that if nurses work in a supportive environment, job satisfaction will increase, the level of burnout will decrease, and this situation will ultimately enhance the quality of patient care.

Aim and questions of the study

The aim of this descriptive and cross-sectional study is to determine the levels of burnout and job satisfaction of nurses who worked in pediatric units and the relationship between burnout and job satisfaction. The questions of the study include the following:

- Is there a relationship between job satisfaction and burnout of the pediatric nurses?
- Are there differences in job satisfaction levels according to characteristics of pediatric nurses?
- Are there differences in burnout levels according to characteristics of pediatric nurses?

Methods

Study design

A descriptive, cross-sectional design was conducted for examining burnout and job satisfaction of nurses working in pediatric units.

Settings and sample

Participants met the following criteria were included in the study:

1. Nurses who were working in units at least six months. We thought that this working time is enough to experience burnout or job satisfaction.
2. Nurses who were not off duty with reasons such as maternity leave and illness.

A total of 274 nurses met criteria, with 235 accepting to participate in the current study. Thirty nine nurses were not volunteer to participate in this research.

The study was conducted in two pediatric hospitals in Ankara. The sample of the study was comprised of nurses working in pediatric units (internal medicine, surgery, oncology, intensive care, and emergency). In these two hospitals working shifts of nurses are from 8 am to 4 pm and 4 pm to 8 am. The number of patients cared by nurses are varies with regard to shift and work unit.

Ethical considerations

The current study was conducted according to the ethical guidelines of the Helsinki declaration. For the conformity assessment of the study in terms of ethics, application was made to the Non-interventional Clinical Researches Ethics Board of Hacettepe University, and approval of the ethics commission, dated 22 July 2015, with the register number GO 15/482 was received. Official written permission was obtained from administrations of the hospitals in which the study was carried out. Written informed consent was obtained from the nurses who was volunteer to participate in this research.

Instruments

The Socio-demographic Data Form

The socio-demographic data form was developed by the

researchers and was comprised of 24 questions like age, marital status, number of children, type of work unit, working in night shift, and the length of time nursing experience.

The Maslach Burnout Inventory

The Maslach Burnout Inventory was developed by Maslach and Jackson[1] and was adapted into Turkish by Ergin.[14] It is an inventory used to measure the burnout, and is composed of 22 items. Subscales of the inventory (emotional burnout, depersonalization, and personal accomplishment) were scored as 0-4 in a scale with 5 intervals ranging from "never" to "always." Scoring was calculated separately for each subscale. Low scores of personal accomplishment and higher scores of depersonalization and emotional burnout indicate exhaustion. In the reliability study conducted by Ergin[14] in Turkey, internal consistency coefficients for the three subscales were found as 0.83 for emotional burnout, 0.72 for depersonalization, and 0.67 for personal accomplishment. In the current study, the reliability coefficients were found as 0.88 for emotional burnout, 0.72 for personal accomplishment, and 0.66 for depersonalization.

The Minnesota Satisfaction Questionnaire

The Minnesota Satisfaction Questionnaire is a scale developed by Weiss et al.[15] in order to measure job satisfaction and is comprised of 20 questions. It is a five-choice, Likert-type scale, with scoring ranging from 1(not satisfied) to 5(extremely satisfied). It measures internal, external, and general job satisfaction. A neutral satisfaction score of the scale is 3. It is evaluated that if the score acquired is lower than 3, job satisfaction is low, and if it is higher than 3, job satisfaction is high.[16] In the original scale, the reliability coefficients for internal, external, and general satisfaction were reported to be 0.86, 0.80, and 0.90, respectively.[17] Baycan[18] translated the scale in Turkish in 1985, studied the validity and reliability of the scale, and found a reliability coefficient of 0.77. In this study, the reliability coefficients for internal, external, and general satisfaction were reported to be 0.83, 0.75, and 0.87, respectively.

Data collection

The data was collected between September and October 2015. The participation rate of the nurses was 85.7%. While collecting the data, information about the study was given first to head nurses of the units, then to the staff nurses who accepted to participate in the study. Surveys and informed consent forms, in closed envelopes, were given to the nurses, and were completed in approximately 15 minutes. Names of nurses were not included on the data collection forms.

Data analysis

For data analysis, all demographic and professional information in the socio-demographic data form were handled as independent variables, and the levels of the subscales of the burnout inventory and job satisfaction questionnaire as dependent variables. IBM SPSS Statistics 22 was used for data analysis. While investigating the relationship between the scores of the scale, correlation analysis (Pearson Correlation) was used. A t-test was used in the independent samples for comparison of the difference between two independent groups, and a one-way variance analysis (ANOVA) was used for the comparison of the difference between more than two independent groups. In the statistical analyses, $p < 0.05$ was accepted as significant. Cronbach Alpha was estimated for Maslach Burnout Inventory and Minnesota Satisfaction Questionnaire scores. Multiple regression analysis was used to further examination of factors effecting burnout and job satisfaction levels.

Results

The nurses who participated in the study were mostly in the age group of 25-29 years (39.6%). The majority of the study sample was composed of women (89.8%). More than half of the nurses were married (57.0%), and 53.2 % of them had no children. Most of them had bachelor's degree (71.9%). The nurses were working mostly in intensive care units (40.4%) and in internal medicine units (38.7%), as staff nurse (88.9%). A total of 80% of nurses were working in the night shift, and most of them were able to take regular leave (57.9%). Of the pediatric nurses, 90.6 % stated that there was no rewarding approach in the institutions they worked, and 96.2% stated that their salary was not sufficient. The number of the nurses who stated that there was teamwork in their units was 155 (66%). The majority of participants (73.6%) thought that they used autonomy in the work.

While the mean scores of the all nurses were 20.0 ± 6.89 for emotional burnout, the mean scores for personal accomplishment were 19.7±4.43, and those for depersonalization were 5.7±3.38(Table 1). As seen in the Table 1, while the mean scores were 2.9 ± 0.69 for internal satisfaction, the mean scores for external satisfaction were 2.2±0.68, and those for general job satisfaction were 2.6±0.62.

Table 1: Distribution of the Mean Scores of the Minnesota Satisfaction Questionnaire and Maslach Burnout Inventory

	N	MEAN	STANDARD DEVIATION(SD)
Maslach Burnout Inventory			
Emotional Burnout	235	20.0	±6.89
Personal Accomplishment	235	19.7	±4.43
Depersonalization	235	5.7	±3.38
Minnesota Satisfaction Questionnaire			
Internal Satisfaction	235	2.9	±0.69
External Satisfaction	235	2.2	±0.68
General Job Satisfaction	235	2.6	±0.62

As stated in Table 2, there was a statistically significant negative relationship between emotional burnout and internal, external, and general job satisfaction (r= -0.469, -0.435, -0.504, p<0.05). There was also a statistically significant positive relationship between the mean scores of personal accomplishment and internal, external, and general job satisfaction (r=0.396, 0.22, 0.366, p<0.05). Furthermore, a negative relationship was found between the mean scores of depersonalization and internal, external, and general job satisfaction (r=-0.352, -0.186, -0.317, p<0.05).

Table 2: Relationship between the Mean Scores of the Minnesota Satisfaction Questionnaire and Maslach Burnout Inventory

		Internal Satisfaction	External Satisfaction	General Satisfaction
Emotional Burnout	r	-0.469	-0.435	-0.504
	p	.000*	.000*	.000*
	N	235	235	235
Personal Accomplishment	r	0.396	0.229	0.366
	p	.000*	.000*	.000*
	N	235	235	235
Depersonalization	r	-0.352	-0.186	-0.317
	p	.000*	.004*	.000*
	N	235	235	235

*p < 0.05

The results pointed out that nurses who younger, have no children and work in intensive care units experience more depersonalization (p< 0.05). Furthermore, nurses who work as staff nurse in a unit, had more burnout scores than nurses work in administrative position (p < 0.05, Table 3). There was not a statistically significant difference related with burnout subscale scores in terms of education levels of nurses (p>0.05). As seen in the table 3, nurses who have less working experience, who work in night shifts and who were not able to take regular leaves, experienced more depersonalization and emotional exhaustion (p<0.05). Also, nurses who were working in night shifts, had low personal accomplishment scores (p<0.05). The results revealed that nurses who stated was there was no rewarding approach in their workplace, found their salary insufficient, thought there was no team work and were not able to use autonomy in their unit experienced emotional exhaustion at higher level (p<0.05). In addition, nurses who thought they were not able to use autonomy in their work had low personal accomplishment scores (p<0.05). A summary of the Maslach Burnout Inventory subscales scores according to characteristics of nurses are in Table 3.

Analysis revealed nurses who work in intensive care units had low external job satisfaction. There was not statistically significant difference related with job satisfaction scores in terms of education levels of nurses (Table 4). When job satisfaction scores examined in terms of length of time nursing experience and current working experience, there was not a statistically significant difference between groups (p>0.05). Furthermore, nurses who work as staff nurse in a unit had low job satisfaction scores than nurses who work in administrative position (p<0.05). According to the study results nurses who were not able to take regular leaves, had low general job satisfaction (p<0.05). Also, nurses who thought there was not rewarding approach and team work in their workplace, found their salary insufficient, and they were not able to use autonomy in their work unit, had low job satisfaction scores (p<0.05). Table 4 summarizes Minnesota Satisfaction Questionnaire subscales scores according to characteristics of the nurses.

Multiple regression analysis was used based on previously established significant correlations (Table 5). All variables that are correlated with subscales of Maslach Burnout Inventory and general job satisfaction were entered into regression models by using Enter method. Regression analysis showed that working in head nurse position or administrative position, salary and general job satisfaction explained 31.5% of variance in the emotional exhaustion score (R^2=0.315, F=26.420, P=.000). 13.4% of personal accomplishment score variance was predicted by general job satisfaction score (R^2=0.134, F=35.988, P=.000). Analysis indicated that number of children, using autonomy and general job satisfaction explained 17.7% of variance in the depersonalization score (R^2=0.177, F=16.570, P=.000). Furthermore, multiple regression analysis showed that taking regular leave, team work in unit, using autonomy, emotional exhaustion, personal accomplishment predicted job satisfaction levels (R^2=0.397, F=30.196, P=.000). These factors explained 39.7% variance in the general job satisfaction score.

Discussion

The mean scores of general job satisfaction of pediatric nurses were lower than 3, which is the neutral satisfaction score of the Minnesota Satisfaction Questionnaire (Table 1). On the other hand, Tüfekçi et al.[7] investigated levels of job satisfaction of pediatric nurses, and found that the general job satisfaction scores of nurses were higher than 3. It is thought that the levels of job satisfaction are neutral or under neutral score can be affected by many factors. For instance, career development possibilities are limited for nurses working in units, the nurse/patient ratio is insufficient, and they earn low salary.[5]

In the literature, nurses working in emergency services and intensive care units are generally described as the groups that experience high burnout.[19] Burnout levels in our study are similar to, or higher, than that of these groups (Table 1). This finding may depend on approximately half (47.6%) of the nurses who participated in the current study were working in pediatric and newborn intensive care, and pediatric emergency units.

In this study, there was a negative relationship between job satisfaction and burnout levels of nurses (Table 2). The results

Table 3: Mean Scores of the Maslach Burnout Inventory According to Characteristics of the Nurses

MASLACH BURNOUT INVENTORY								
SOCIODEMOGRAPHIC AND PROFESSIONAL CHARACTERISTICS		**n (%)**	**EMOTIONAL BURNOUT**		**PERSONAL ACCOMPLISHMENT**		**DEPERSONALIZATION**	
			Mean±SD	**p**	**Mean±SD**	**p**	**Mean±SD**	**p**
Age	20–24 years	34(14.4)	20.6 ± 7.38	.054	19.9 ± 4.66	.190	6.3 ± 3.61	.002*
	25–29 years	93(39.6)	21.1 ± 6.89		19.5± 4.24		6.5 ± 3.56	
	30–34 years	46(19.6)	20.7 ± 6.40		18.9 ± 4.01		5.8 ± 3.08	
	35–39 years	40(17.0)	18.2 ± 6.88		20.6 ± 4.59		4.2 ± 2.90	
	40 years and more	22(9.4)	17.2 ± 6.29		21.2 ± 5.18		4.4 ± 2.56	
Marital Status	Single	98(41.7)	20.3 ± 7.09	.767	19.6 ± 4.23	.658	6.4 ± 3.57	.012*
	Married	134(57.0)	20.0 ± 6.77		19.9 ± 4.61		5.3 ± 3.17	
Education	High school of health	21(8.9)	20.6 ± 6.57	.339	18.8 ± 4.06	.331	6.6 ± 2.69	.153
	Two years degree	33(14.0)	19.3 ± 7.62		19.9 ± 6.29		4.9 ± 3.31	
	Bachelor's degree	169(71.9)	20.4 ± 6.80		19.7 ± 4.05		5.9 ± 3.49	
	Master's degree	12(5.2)	16.9 ± 6.47		21.8 ± 4.11		4.5 ± 2.58	
Number of Children	None	125(53.2)	21.1 ± 6.82	.051	19.6 ± 4.40	.730	6.6 ± 3.49	.000*
	1	61(26.0)	18.8 ± 7.07		20.0 ± 4.14		4.7 ± 2.74	
	2 and more	49(20.8)	19.0 ± 6.58		20.1 ± 4.91		4.8 ± 3.27	
Unit type	Surgery	24(10.3)	20.0 ± 5.94	.344	20.6 ± 3.20	.246	5.8 ± 3.23	.012*
	Internal Medicine	91(38.7)	19.9 ± 6.99		19.5 ± 4.39		5.3 ± 2.92	
	Intensive care	95(40.4)	20.5 ± 7.00		19.7 ± 4.88		6.0 ± 3.66	
	Emergency	17(7.2)	21.1 ± 6.16		18.9 ± 3.48		7.6 ± 3.32	
	Nurse Administration	8(3.4)	15.4 ± 8.28		22.8 ± 3.54		3.0 ± 3.63	
Position	Staff Nurse	209(88.9)	20.9 ± 6.53	.000*	19.5 ± 4.35	.033*	6.1 ± 3.34	.000*
	Head Nurse	18(7.7)	13.4 ± 5.26		21.1 ± 4.93		3.1 ± 1.81	
	Nurse Administrators	8(3.4)	14.0 ± 8.86		23.1 ± 4.16		3.0 ± 3.63	
Length of time total nursing experience	6 months–4 years	93(39.6)	20.9 ± 6.66	.012*	19.6 ± 4.20	.131	6.5 ± 3.47	.000*
	5–9 years	73(31.0)	21.0 ± 6.44		19.3 ± 4.19		6.1 ± 3.37	
	10 years and more	69(29.4)	18.0 ± 7.31		20.7 ± 4.90		4.4 ± 2.87	
Length of time working in current pediatric unit	6 months–4 years	168(71.5)	20.2 ±6.90	.114	19.8 ± 4.04	.561	6.0 ± 3.29	.031*
	5–9 years	51(21.7)	20.9 ±6.68		19.4 ± 4.74		5.8 ± 3.78	
	10 years and more	16 (6.8)	16.8 ±7.01		20.7 ± 6.97		3.6 ± 2.22	
Working hours	Only day time	47(20.0)	18.3 ± 7.29	.052	21.0 ± 4.38	.035*	4.4 ± 2.73	.003*
	Shift	188(80.0)	20.5 ± 6.74		19.5 ± 4.41		6.1 ± 3.46	
Taking regular leave	No	136(57.9)	21.8 ± 6.32	.000*	19.8 ± 4.12	.870	6.2 ± 3.54	.010*
	Yes	99(42.1)	17.7 ± 6.94		19.7 ± 4.85		5.1 ± 3.05	
Rewarding approach in their institution	No	213(90.6)	20.6 ± 6.67	.001*	19.7 ± 4.35	.370	5.9 ± 3.38	.036*
	Yes	22(9.4)	15.5 ± 7.43		20.6 ± 5.21		4.3 ± 3.09	
Sufficient of their salary	No	226(96.2)	20.3±6.89	.006*	19.7 ± 4.41	.361	5.8 ± 3.41	.327
	Yes	9(3.8)	13.9 ± 2.89		21.1 ± 5.04		4.7 ± 2.45	
Team work in their unit	No	80(34.0)	21.7 ± 6.55	.010*	19.1 ± 4.47	.069	6.3 ± 3.24	.075
	Yes	155(66.0)	19.3 ± 6.94		20.2 ± 4.38		5.5 ± 3.43	
Using autonomy in their unit	No	62(26.4)	22.5 ± 6.03	.001*	18.5 ± 4.44	.009*	6.9 ± 3.44	.002*
	Yes	173(73.6)	19.2 ± 6.99		20.2 ± 4.36		5.3 ± 3.28	

*p < 0.05

were consistent with the literature. Studies carried out in adult and children units found a relationship between job satisfaction and the mean scores of emotional and depersonalization in the burnout inventory.[20, 21, 22]

In our study young nurses displayed depersonalization at higher levels (Table 3). Relationship between being young and burnout levels arised from not only length of time working experience, but also being more mature, balanced and resistant to burnout by increasing age.[23] However, a significant difference was not found between the mean scores of job satisfaction, according to the ages of the nurses (Table 4). The mean scores of the nurses' job satisfaction were high in the age group of 20-24 years. Satisfaction scores were decreasing in middle age and increasing again after the age of 35. Similarly in the literature, job satisfaction, is high in young individuals who are new in their careers and decreases in the mid-thirties, and increases towards the end of working life.[10]

In our study single nurses had higher depersonalization levels than married individuals. Also, nurses who have no children, experience more depersonalization than the ones have children. Similarly, Fuente et al.[3] stated, in a study in which they investigated the risk factors of burnout syndrome in nurses, that nurses who were married and had children had higher personal accomplishment levels. There was not any statistically significant difference between job satisfaction of nurses and their marital status and number of children in our study. Similarly, some studies showed that being married and having children does not affect job satisfaction scores.[24,25,26] It is thought that as educational level rises, nurses have better ability to cope with burnout and have higher job satisfaction. In a study, emotional exhaustion scores of nurses who have lower educational level were found statistically significant higher than nurses who have Bachelor's and Master's degree.[27] However, in the current study, it was not found that a statistically significant difference between burnout and job satisfaction scores and educational level of nurses. Many studies showed that burnout or job satisfaction levels of nurses did not differ according to educational status in Turkey.[5,28,29] This findings may depend on the fact that, in our country, there is not any difference in the workload, working hours or responsibilities of nurses according to their educational status.

Burnout levels of pediatric nurses based on work unit showed that depersonalization levels was high in emergency unit. Nurses working in pediatric emergency units encounter sudden deaths, traumas, and cases of child abuse more frequently than other units, this situation can lead them to be affected emotionally and experience high burnout. In a study conducted with emergency nurses reported that voluntary choosing of working in emergency units decrease depersonalization levels of nurses.[30] However, we did not ask nurses whether they preferred working emergency unit voluntarily. In terms of work units, external job satisfaction levels of nurses who work in intensive care units were low (Table 4). On the other hands, in a study it was found that nurses who work in neonatal intensive care unit, thought that working in intensive care unit increases job satisfaction because these units are instructive.[31] Also these nurses reported that discharging sick newborns healthy and seeing newborns as fine after years are satisfactory factors in intensive care units. In intensive care units, nurses are encounter children who have severe health problems more frequently than in other units. We thought that because of these factors in our study job satisfaction levels are low and burnout levels are high in this group. In other studies it is showed that intensive care nurses have moderate level job satisfaction levels.[25,26]

Sense of burnout among nurses who work in administrative position were found lower than staff nurses. Fuente et al.[3] investigated the risk factors of burnout in nurses and found that nurses in administrative positions had higher personal accomplishment than staff nurses. Also job satisfaction scores of staff nurses were lower than head nurses and nurse administrators. Similarly, Cimete et al.[29] reported higher job satisfaction in nurses working in administrative positions. Since the nurses in the administrative position spend less time with the patient, they may experience less burnout and more job satisfaction. Also, nurses working in administrative positions, generally have more professional experience and higher educational level. These factors can affect to cope with the burnout and increase job satisfaction levels.

In our study, as the length of working time and nursing experience in pediatric units increased, the mean scores of depersonalization decreased. The capability of young graduated nurses to cope with working stress is limited as compared with experienced nurses, so they may experience more burnout. In other studies, a relationship was not found between years of nursing experience and burnout levels in pediatric nurses.[21,22,32] In addition to this, mean scores of job satisfaction did not differ significantly with the length of nursing experience or the length of working time.

Nurses who worked in the night shift had high burnout mean scores and low job satisfaction scores than nurses work only day time. The night shifts in hospitals where the research is conducted, last 16 hours. We thought that job satisfaction and burnout levels might be affected by this long working hours. Long shift hours can negatively affect security of patients, as well as increases the burnout levels of nurses. In other study, job satisfaction of nurses who worked 12-hour shifts was lower than nurses working 8-hours shifts.[33] In addition to increasing malpractice risk[11], working higher than 12 hours, decrease job satisfaction and increase burnout levels.

Considering the burnout levels and the job satisfaction levels according to taking regular leave, nurses burnout level were decreased and job satisfaction level increased, when they could take regular leave. Overworking of nurses may lead to dangerous consequences. This may have negative impact on patient safety and overall quality of healthcare. It was shown

Table 4: Mean Scores of the Minnesota Satisfaction Questionnaire According to Characteristics of the Nurses

MINNESOTA SATISFACTION QUESTIONNAIRE								
SOCIODEMOGRAPHIC AND PROFESSIONAL CHARACTERISTICS		**n (%)**	**INTERNAL SATISFACTION**		**EXTERNAL SATISFACTION**		**GENERAL JOB SATISFACTION**	
			Mean±SD	**p**	**Mean±SD**	**p**	**Mean±SD**	**p**
Age	20–24 years	34(14.4)	3.0 ± 0.73	.383	2.3 ± 0.64	.327	2.7 ± 0.62	.279
	25–29 years	93(39.6)	2.9 ± 0.70		2.2 ± 0.69		2.6 ± 0.63	
	30–34 years	46(19.6)	2.9 ± 0.65		2.2 ± 0.63		2.6 ± 0.57	
	35–39 years	40(17.0)	3.0 ± 0.74		2.4 ± 0.77		2.8 ± 0.68	
	40 years and more	22(9.4)	3.2 ± 0.64		2.5 ± 0.61		2.9 ± 0.58	
Marital Status	Single	98(41.7)	2.9 ± 0.74	.770	2.3 ± 0.71	.532	2.7 ± 0.67	.939
	Married	134(57.0)	2.9 ± 0.66		2.3 ± 0.66		2.7 ± 0.59	
Education	High school of health	21(8.9)	2.9 ± 0.71	.122	2.3 ± 0.67	.195	2.7 ± 0.61	.107
	Two years degree	33(14.0)	2.9 ± 0.61		2.2 ± 0.61		2.6 ± 0.52	
	Bachelor's degree	169(71.9)	2.9 ± 0.71		2.3 ± 0.69		2.7 ± 0.64	
	Master's degree	12(5.2)	3.4 ± 0.69		2.7 ± 0.66		3.1 ± 0.58	
Number of Children	None	125(53.2)	2.9 ± 0.70	.727	2.3 ± 0.70	.906	2.6 ± 0.64	.769
	1	61(26.0)	3.0 ± 0.71		2.3 ± 0.63		2.7 ± 0.60	
	2 and more	49(20.8)	3.0 ± 0.67		2.3 ± 0.69		2.7 ± 0.61	
Unit type	Surgery	24(10.3)	3.0 ± 0.56	.253	2.6 ± 0.61	.005*	2.8 ± 0.52	.093
	Internal Medicine	91(38.7)	2.9 ± 0.75		2.3 ± 0.66		2.6 ± 0.66	
	Intensive care	95(40.4)	3.0 ± 0.65		2.2 ± 0.68		2.6 ± 0.58	
	Emergency	17(7.2)	2.8 ± 0.76		2.5 ± 0.62		2.7 ± 0.66	
	Nurse Administration	8(3.4)	3.4 ± 0.79		2.8 ± 0.80		3.2 ± 0.76	
Position	Staff Nurse	209(88.9)	2.9 ± 0.70	.005*	2.2 ± 0.67	.001*	2.6 ± 0.62	.001*
	Head Nurse	18(7.7)	3.4 ± 0.45		2.7 ± 0.46		3.1 ± 0.34	
	Nurse Administrators	8(3.4)	3.3 ± 0.68		2.8 ± 0.80		3.1 ± 0.71	
Length of time total nursing experience	6 months–4 years	93(39.6)	2.9 ± 0.71	.190	2.3 ± 0.73	.112	2.7 ± 0.64	.102
	5–9 years	73(31.0)	2.8 ± 0.66		2.2 ± 0.56		2.6 ± 0.56	
	10 years and more	69(29.4)	3.0 ± 0.72		2.4 ± 0.72		2.8 ± 0.65	
Length of time working in current pediatric unit	6 months–4 years	168(71.5)	2.9 ± 0.71	.829	2.3 ± 0.71	.986	2.7 ± 0.65	.893
	5–9 years	51(21.7)	3.0 ± 0.64		2.3 ± 0.57		2.7 ± 0.53	
	10 years and more	16 (6.8)	3.0 ± 0.80		2.3 ± 0.68		2.7 ± 0.65	
Working hours	Only day time	47(20.0)	3.1 ± 0.70	.075	2.5 ± 0.62	.007*	2.9 ± 0.62	.018*
	Shift	188(80.0)	2.9 ± 0.69		2.2 ± 0.68		2.6 ± 0.62	
Taking regular leave	No	136(57.9)	2.8 ± 0.73	.000*	2.1 ± 0.66	.000*	2.5 ± 0.63	.000*
	Yes	99(42.1)	3.1 ± 0.61		2.5 ± 0.65		2.9 ± 0.55	
Rewarding approach in their institution	No	213(90.6)	2.9 ± 0.71	.016*	2.2 ± 0.66	.004*	2.6 ± 0.62	.004*
	Yes	22(9.4)	3.3 ± 0.48		2.7 ± 0.74		3.0 ± 0.54	
Sufficient of their salary	No	226(96.2)	2.9 ± 0.70	.069	2.3 ± 0.67	.014*	2.7 ± 0.62	.022*
	Yes	9(3.8)	3.3 ± 0.41		2.8 ± 0.71		3.1 ± 0.37	
Team work in their unit	No	80(34.0)	2.7 ± 0.74	.000*	2.0 ± 0.65	.000*	2.4 ± 0.63	.000*
	Yes	155(66.0)	3.0 ± 0.65		2.4 ± 0.65		2.8 ± 0.58	
Using autonomy in their unit	No	62(26.4)	2.6 ± 0.70	.000*	2.0 ± 0.68	.001*	2.4 ± 0.64	.000*
	Yes	173(73.6)	3.1 ± 0.65		2.4 ± 0.66		2.8 ± 0.58	

*:p<0.05

Table 5: Nurses Burnout and Job Satisfaction Levels Regressed on Predictors

Emotional Exhaustion	**B**	**SE**	β	**t**	**VIF**
Constant	33.562	1.688		19.882	
Working in Head Nurse Position	-5.150	1.445	-0.199*	-3.565	1.048
Working in Administrative Position	-4.724	2.099	-0.125*	-2.251	1.028
Sufficient of Their Salary	-4.107	1.982	-0.115*	-2.072	1.027
General Job Satisfaction	-4.777	0.630	-0.432*	-7.579	1.089
R=0.315 F=26.420 P=.000					
Depersonalization					
Constant	12.126	0.972		12.481	
Number of Children	-1.026	0.243	-0.254*	-4.213	1.018
Using autonomy in their unit	-1.180	0.482	-0.154*	-2.447	1.112
General job satisfaction	-1.410	0.340	-0.260*	-4.142	1.102
R=0.177 F=16.570 P=.000					
Personal Accomplishment					
Constant	12.826	1.191		10.772	
General Job Satisfaction	2.604	0.434	0.366*	5.999	1.000
R=0.134 F=35.988 P=.000					
General Job Satisfaction					
Constant	2.273	0.210		10.824	
Taking regular leave	0.173	0.068	0.138*	2.544	1.114
Team work in their unit	0.212	0.070	0.162*	3.019	1.094
Using autonomy in their unit	0.155	0.077	0.110*	2.005	1.135
Emotional exhaustion	-0.033	0.005	-0.366*	-6.555	1.181
Personal accomplishment	0.037	0.007	0.265*	5.005	1.063
R=0.397 F=30.196 P=.000					

*p < 0.05

that overworking increased the risk to make at least one mistake during the shift.[11] In cases of long working hours, excess work burden, and nursing shortage, nurses have shorter time between shift and rest time. Nurses who cannot take regular leave do not have the required rest time in order to get satisfaction from their lives, so their job satisfaction levels decrease and burnout levels increase.

Nurses who stated that there was no rewarding approach in their institution experienced significantly high burnout and lower job satisfaction. Rewarding approach increases the enthusiasm of individuals to work and enabling them to feel themselves important and valuable.[34] Furthermore, when employees know that they will be rewarded in return for their success in their work, this increases motivation and job satisfaction.[35] Decreased organizational commitment and job satisfaction of nurses who are not awarded in return for their successful performance are expected results.

The nurses who found their salary insufficient had high emotional burnout and low job satisfaction. In a study carried out by Barutçu and Serinkan[36], it was found that depersonalization was higher in nurses who found their salary insufficient. On the other hand, Cimete et al.[29] stated that nurses who described their economic levels as high had higher levels of job satisfaction. Furthermore, in the literature it is stated that the lowest job satisfaction field for nurses is salary.[10] When level of salary is thought as an indicator of value given to the nurses by administration, it can be said that insufficient salary can decrease job satisfaction, and thus, affect burnout.

Nurses who thought that there was not teamwork in their units had statistically significant high emotional burnout and low job satisfaction levels. Working in close cooperation and communication of health professionals is important for providing quality healthcare service.[37] In a study, nurses stated that when there was an open relationship with the physicians in their team, and their opinions were considered, their job satisfaction would increase accordingly.[31] Open communication and cooperation between team members reflects positively on patient outcomes and decreases levels of emotional burnout of nurses.

In this study, nurses who could use autonomy in their work unit, had lower burnout scores and higher job satisfaction level. The concept of professional autonomy is among the most

important factors contributing to job satisfaction and professional development of nurses.[38] Kramer and Schmalenberg reported that the control and autonomy over the nursing applications had a highly positive relationship with job satisfaction.[39] Professional autonomy provides nurses evaluation of patient and determine nursing diagnosis and implementation proper nursing intervention.[40] Providing high quality nursing care, as a results of using professional autonomy, can decrease burnout level of nurses by enhancing personal accomplishment level.

Working as head nurse or administrators, sufficiency of salary and job satisfaction explained 31.5% of the emotional exhaustion level (Table 5). These factors were negative predictors of the emotional exhaustion level. In multiple linear regression model other demographic and professional factors did not affect the exhaustion. In a systematic review Urgiza et al. reported that nurses with higher salary and high job satisfaction have less burnout.[41] Also, Akman et al. reported that job satisfaction is a significant predictor of exhaustion level.[22] Furthermore, Lahana et al. found that income satisfaction significantly predicts emotional exhaustion level.[42] It is expected that the emotional exhaustion levels of the administrative nurses who communicate less with the patients and do not give nursing care are lower than the staff nurses.

Number of children, using autonomy in their unit and general job satisfaction explained the depersonalization level significantly. Nurses who have a child, could use autonomy and have higher job satisfaction have experiences less depersonalization (Table 5). Conversely, Lahana et al. reported that having children have not affect for depersonalization level of the nurses.[42] Madathil et al. reported that using autonomy in their work can be protective against burnout for nurses.[43] Moreover, regression analysis revealed that job satisfaction is important predictor of personal accomplishment (explained %13.4 of personal accomplishment). In addition to this, in this study, other demographic and professional variables (such as work unit, length of time total nursing experience) could not explained personal accomplishment level. We need for further researches to understand factors affect personal accomplishment.

Taking regular leave, team work in work unit, using autonomy, emotional exhaustion, personal accomplishment were significant predictors of job satisfaction level. Among these factors only emotional exhaustion found as negative predictor for job satisfaction. It is not surprising that job satisfaction levels of pediatric nurses explained by professional variables. Similarly, Kalish et al. found that teamwork is related with higher job satisfactions of nurses.[44] In other study autonomy found as related with nurse's job satisfaction.[45] As a result of multiple regression analysis it can be said that job satisfaction and burnout importantly predict each other.

Conclusion

According to these findings, it is recommended that newly graduated nurses should be supported by senior nurses and administration, and career development systems should be created especially for nurses working in intensive care and emergency units where burnout is intensively experienced. Providing mentorship support for the nurses, who have less experience in nursing and pediatric units can be useful. By taking institutional cautions to prevent nursing shortage, which is essential problem for not using regular leaves, overtime working and high patient/nurse ratios, could prevent burnout of pediatric nurses. A fair rewarding approach in units/ hospitals can contribute to job satisfaction levels of pediatric nurses. To empower autonomy of nurses, which was an important factor on burnout and job satisfaction levels of nurses, educational facilities related with patient care and nursing interventions may be improved. Supporting teamwork, as a management strategies, can contribute to job satisfaction level of pediatric nurses.

In addition, it is recommended that institutional measures should be taken in order to make up the insufficiency in numbers of nurses, which is the main problem for not taking regular leaves. In further studies, and the factors affecting job satisfaction and burnout in nurses, should be investigated because of their negative results in patient safety, and also necessary measures should be taken in order to reduce burnout and job dissatisfaction level of nurses.

REFERENCES

1. Maslach C, Jackson SE. The measurement of experienced burnout. J. Occup. Behav. 1981;2(2):99-113. Avaible from: http://dx.doi.org/10.1002/job.4030020205
2. Zanatta A, Lucca SR. Prevalence of burnout syndrome in health professionals of an onco-hematological pediatric hospital. Revista da Escola de Enfermagem da USP. 2015;49(2):251-8. Avaible from: http://dx.doi.org/10.1590/S0080-623420150000200010
3. Fuente GA, Vargas C, Luis C, Garcia I, Canadas GR, Fuente EI. Risk factors and prevalence of burnout syndrome in the nursing profession. Int. J. Nurs. Stud. 2015;52(1):240-9. Avaible from: http://dx.doi.org/10.1016/j.ijnurstu.2014.07.001
4. Castaneda G, Scanlan JM. Job satisfaction in nursing: a concept analysis. Nurs. Forum 2014; 49(2):130-8. Avaible from: http://dx.doi.org/10.1111/nuf.12056
5. Uzun Ö. Investigation of job satisfaction levels of nurses working in a university hospital and some variables in relation to their job satisfaction. İstanbul Üniversitesi Florance Nightingale Hemşirelik Dergisi. 2010;18(1):1-9. Turkish. Avaible from: http://dergipark.gov.tr/download/article-file/95164
6. Meyer R, Li A, Klaristenfeld J, Gold IJ. Pediatric novice nurses: examining compassion fatigue as a mediator between stress exposure and compassion satisfaction, burnout and job satisfaction. J. Pediatr. Nurs. 2015;30(1):174-83. Avaible from: https://dx.doi.org/10.1016/j.pedn.2013.12.008
7. Tüfekçi F, Kurudirek F, Baran G. Job description and satisfaction levels of pediatric nurses. Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi. 2015;4(4):70-83.Turkish. Avaible from: http://dergipark.gov.tr/download/article-file/220162
8. Jacobs M, Nawaz MK, Hood JL, Bae S. Burnout among workers in a pediatric health care system. Workplace Health Saf. 2012;60(8):335-44. Avaible from: http://dx.doi.org/10.1177/216507991206000803

9. Davis S, Lind BK, Sorensen CA. Comparison of burnout among oncology nurses working in adult and pediatric inpatient and outpatient settings. Oncol. Nurs. Forum. 2013;40(4):303-11. Avaible from: http://dx.doi.org/10.1188/13.ONF.E303-E311
10. Çam O, Yıldırım S. Job satisfaction and affecting factors in nurses. Türkiye Klinikleri Hemşirelik Bilimleri Dergisi. 2010;2(1):64-70. Turkish. Avaible from: http://www.turkiyeklinikleri.com/journal/hemsirelik-bilimleri-dergisi/1308-092X/issue/2010/2/1-0//tr-index.html
11. Rogers AE, Hwang WT, Scott LD, Aiken LH, Dinges DF. The working hours of hospital staff nurses and patient safety. Health Affair. 2004;23(4):202-212. Avaible from: http://dx.doi.org/10.1377/hlthaff.23.4.202
12. Aiken LH, Clarke SP, Sloane DM, Sochalski J, Silber JH. Hospital nurse staffing and patient mortality, nurse burnout, and job dissatisfaction. JAMA. 2002;288(16):1987-93. Avaible from: http://dx.doi.org/10.1001/jama.288.16.1987
13. Stone PW, Mooney-Kane C, Larson EL, Horan T, Glance LG, Zwanziger J, Dick AW. Nurse working conditions and patient safety outcomes. Med. Care. 2007;45(6):571-8. Avaible from: https://dx.doi.org/10.1097/MLR.0b013e3180383667
14. Ergin C. Burnout in doctors and nurses and adaptation of Maslach burnout inventory. In: Bayraktar R and Dağ İ, editors. VII. Ulusal Psikoloji Kongresi Bilimsel Çalışmaları; 1992; p.143-154. Turkish.
15. Weiss DJ, Dawis RV, England GW, Lofquist LH. Manual for the Minnesota Satisfaction Questionnaire. Minnesota Studies in Vocational Rehabilitation.1967;22:1-120. Avaible from: http://psycnet.apa.org/record/1968-08111-001
16. Çam O, Akgün E, Gümüş AB, Bilge A, Keskin GÜ. Investigation of relationship between assessments of clinic environment by doctors and nurses working in a mental health and diseases hospital and their job satisfaction. Anadolu Psikiyatri Dergisi. 2005;6(4):213-20. Turkish. Avaible from: http://uvt.ulakbim.gov.tr/uvt/index.php?cwid=9&vtadi=TPRJ%2CTTAR%2CTTIP%2CTMUH%2CTSOS%2CTHUK&c=google&ano=65077_b71e246451eba923a87096d0e5ba75d0
17. Gülnar B. Communication and Job Satisfaction in Organizations. Istanbul: Çınar Press; 2007. Turkish.
18. Baycan F. Analysis of some aspects of job satisfaction in different working groups. [master's thesis]. İstanbul: Boğaziçi University 1985.
19. Günüşen N, Üstün B. Burnout in nurses and doctors working in secondary healthcare services in turkey: investigation of literature. Dokuz Eylül Üniversitesi Hemşirelik Yüksekokulu Elektronik Dergisi. 2010;3(1):40-51. Turkish. Avaible from: http://acikerisim.deu.edu.tr/xmlui/bitstream/handle/12345/4548/40-51_pdf.pdf?sequence=1&isAllowed=y
20. Özden D, Karagözoğlu Ş, Yıldırım G. Intensive care nurses' perception of futility: job satisfaction and burnout dimensions. Nurs. Ethics. 2013;20(4):436-47. Avaible from: http://dx.doi.org/10.1177/0969733012466002
21. Adwan J. Pediatric nurses' grief experience, burnout and job satisfaction. J. Pediatr. Nurs. 2014;29(4):329-36. Avaible from: http://dx.doi.org/10.1016/j.pedn.2014.01.011
22. Akman Ö, Öztürk C, Bektaş M, Ayar D, Armstrong MA. Job satisfaction and burnout among paediatric nurses. J. Nurs. Manage. 2016;24:923-33. Avaible from: http://dx.doi.org/10.1111/jonm.12399
23. Çimen M. A field study for burnout, job satisfaction, organisational commitment and intention to leave of health personnel in Turkish Armed Forces. Philosophy of Doctarate Thesis. Gülhane Askeri Tıp Akademisi. 2000. Ankara. Turkish.
24. Durmuş S, Günay O. Factors affecting job satisfaction and anxiety levels in the nurses. Erciyes Tıp Dergisi. 2007;29(2):139-46. Turkish. Avaible from: http://erciyesmedj.com/sayilar/231/buyuk/pdf_EMJ_220.pdf
25. Aytekin A, Kurt YF. Factors affecting the job satisfaction of nurses working in the neonatal intensive care unit. Izmir Dr. Behcet Uz Çocuk Hastanesi Dergisi. 2014;4(1):51–8. Turkish. Avaible from: https://www.journalagent.com/behcetuz/pdfs/BUCHD_4_1_51_58.pdf
26. Kahraman G, Engin E, Dülgerler Ş, Öztürk E. The Job Satisfaction Of Intensive Care Unit Nurses And Affecting Factors. Dokuz Eylül Üniversitesi Hemşirelik Yüksekokulu Elektronik Dergisi. 2011;4(1):12-8. Turkish. Avaible from: http://acikerisim.deu.edu.tr/xmlui/bitstream/handle/12345/4577/12-18_kahraman%25281%2529.pdf?sequence=1&isAllowed=y
27. Günüşen N, Üstün B. Determining The Level of Burnout in Nurses Working at A University Hospital and Affecting Factors. Atatürk Üniversitesi Hemşirelik Yüksekokulu Dergisi. 2008;11(4):48-59. Turkish. Avaible from: http://e-dergi.atauni.edu.tr/ataunihem/article/view/1025000684/1025000675
28. Altay B, Gönener D, Demirkiran C. The Level of Burnout and influence of Family Support in Nurses working in a University Hospital. Fırat Tıp Dergisi. 2010;15(1):10-6.Turkish. Avaible from: http://www.firattipdergisi.com/pdf/pdf_FTD_606.pdf
29. Cimete G, Gençalp NS, Keskin G. Quality of life and job satisfaction of nurses. J. Nurs. Care Qual. 2003;18(2):151-8. Avaible from: https://www.ncbi.nlm.nih.gov/pubmed/12680602
30. Kebapçı A, Akyolcu N. The Effects of the Work Environment on Nurse Burnout in Emergency Department. Türkiye Acil Tıp Dergisi. 2011;11(2):59-67. Turkish. Avaible from: https://ais.ku.edu.tr/AR/AKEBAPCI201016__Akebapci.pdf
31. Archibald C. Job satisfaction among neonatal nurses. Ped. Nurs. 2006;32(2):176-9. Avaible from: https://www.ncbi.nlm.nih.gov/pubmed/16719430
32. Lazaridou C, Agakidou E, Diamanti E, Agakidis E. Burnout in doctors and nurses working in neonatal and pediatric intensive care units in a general hospital. Aristotle U. Med. J. 2011;38(3):37-43. Avaible from: http://ejournals.lib.auth.gr/aumj/article/view/4700/4801
33. Zboril-Benson LR. Why nurses are calling in sick: the impact of health-care restructuring. Can. J. Nurs. Res. 2002;33(4):89-107. Avaible from: https://www.ncbi.nlm.nih.gov/pubmed/11998199
34. Altuntaş SY. Tükenme. In: Baykal ÜT, Türkmen E. editors. Nursing Services Management. İstanbul: Akademi Basın; 2014.p.653-64. Turkish.
35. Türkkan NÜ, Bacaksız FE, Tuna R. Güdülenme. In: Baykal ÜT, Türkmen E.editors. Nursing Services Management. İstanbul: Akademi Basın; 2014.p.615-38. Turkish.
36. Barutçu E, Serinkan C. Burnout syndrome as one of the present important problems and a study conducted in Denizli. Ege Akademik Bakış. 2008;8(2):541-61.Turkish. Avaible from: http://www.onlinedergi.com/MakaleDosyalari/51/PDF2008_2_8.pdf
37. Ulusoy H, Tokgöz MD. The Views of Doctors and Nurses on Teamwork. Pamukkale Tıp Dergisi. 2009;2(2):55-61. Turkish. Avaible from: https://www.journalagent.com/ptd/pdfs/PTD_2_2_55_61.pdf
38. Finn CP. Autonomy: an important component for nurses' job satisfaction. Int. J. Nurs. Stud. 2001;38(3):349-57. Avaible from: https://www.ncbi.nlm.nih.gov/pubmed/11245871
39. Kramer M, Schmalenberg CE. Magnet hospital staff nurses describe clinical autonomy. Nurs. Outlook. 2003;51(1):13-9. Avaible from: http://dx.doi.org/10.1177/0193945903025004008
40. Baykara ZG, Şahinoğlu S. A Concept Analysis of Professional Autonomy in Nursing. Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi. 2013;16(3):176-81. Turkish. Avaible from: http://e-dergi.atauni.edu.tr/ataunihem/article/view/1025007996/1025007754
41. Gomez-Urquiza JL, Monsalve-Reyes CS, San Luis-Costas C, Fernández-Castill R, Aguayo-Estremera, R, Canadas-de la Fuente GA. Risk factors and burnout levels in Primary Care nurses: A systematic review. Atencion primaria. 2017;49(2):77-85. Avaible from: https://doi.org/10.1016/j.aprim.2016.05.004
42. Lahana E, Papadopoulou K., Roumeliotou O, Tsounis A, Sarafis P, Niakas D. Burnout among nurses working in social welfare centers for the disabled. BMC nursing. 2017;16(15). Avaible from: https://doi.org/10.1186/s12912-017-0209-3
43. Madathil R, Heck NC, Schuldberg D. Burnout in psychiatric nursing: examining the interplay of autonomy, leadership style, and depressive symptoms. Archives of psychiatric nursing. 2014;28(3):160-6. Avaible from: https://doi.org/10.1016/j.apnu.2014.01.002
44. Kalisch BJ, Lee H, Rochman M. Nursing staff teamwork and job satisfaction. J. Nurs. Manage. 2010;18(8):938-47. Avaible from: https://doi:10.1111/j.1365-2834.2010.01153.x
45. Iliopoulou KK, While AE. Professional autonomy and job satisfaction: survey of critical care nurses in mainland Greece. J Adv Nurs. 2010;66(11):2520-31. Avaible from: https://doi:10.1111/j.1365-2648.2010.05424.x