

### **ORIGINAL PAPER**

# Evaluation of the relationship between job satisfaction and professional behaviors in pediatric nurses

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#### **ABSTRACT**

**Introduction and aim.** Pediatric nurses play an important role in ensuring quality healthcare through job satisfaction and professional behaviors. This study aims to examine the relationship between job satisfaction and professional behaviors in pediatric nurses.

Material and methods. This was a descriptive and cross-sectional study. The sample of the study consisted of 244 pediatric nurses who worked in tertiary university hospitals in Turkey and agreed to participate in the study. Data were obtained through face-to-face interviews using a personal information form, the job satisfaction scale for nurses (JSSN), and the behavioral inventory form for professionalism in nursing (BIPN). Data were analyzed using the SPSS 22.0 software and evaluated using descriptive statistics, independent t-tests, one-way ANOVA, Pearson correlation, and simple linear regression analysis.

**Results.** The nurses' JSSN and BIPN means scores were  $3.42\pm0.59$  and  $5.69\pm4.05$ , respectively. A statistically significant moderate positive relationship was found between the pediatric nurses' professional behaviors and job satisfaction (R=0.342; p<0.001). The regression analysis revealed that professional behaviors significantly and positively influenced job satisfaction in pediatric nurses ( $\beta$ =0.050; p<0.001).

**Conclusion.** This study found that pediatric nurses had a moderate level of job satisfaction and a low level of professional behaviors, and as their professional behavior increased, their job satisfaction also increased.

Keywords. job satisfaction, nursing professionalism, pediatric nurses

### Introduction

According to the State of the World's Nursing 2020 report by the World Health Organization (WHO), nurses are the largest professional group in the healthcare sector worldwide, numbering 27.9 million. However, nursing shortages continue to be a significant problem in global health services. The WHO estimates that an additional nine million nurses will be needed worldwide by 2030.

Pediatric nurses work with children who have different biopsychosocial characteristics and are unable to fully express themselves verbally and cognitively.<sup>3</sup> Job satisfaction is defined as positive emotions and expectations from work resulting from one' evaluation of their job and influences one's intention to leave their job. 4 Job satisfaction in health professionals has a significant impact on patient care and treatment. 5 Job satisfaction in pediatric nurses also affects the quality of care they provide to children. 6,7 Therefore, it is important to examine job satisfaction and related factors in pediatric nurses.

Professionalism is considered a process associated with acquiring professional knowledge, skills, values, norms, and behaviors, and fulfilling both roles and responsibilities of a specific profession.<sup>8</sup> Professionalism is necessary and important for establishing nursing stan-

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dards and providing quality services.9 Nowadays, it is not enough for nurses to have experience; they should also have high compatible professional behaviors in line with the changes and developments in the healthcare sector.<sup>10</sup> To foster the development of nursing profession, there is a need for professional nurses who embrace professional identity, consider ethical values, have a high level of autonomy and problem-solving skills, follow scientific advancements and publications, and engage in continuous development.11,12 The Wheel of Professionalism in Nursing Model, developed by Miller provides a framework for understanding professional behaviors among nurses.13 Professional behaviors are important for pediatric nurses in elevating the significance and values of nursing profession and establishing a framework for providing quality and ethical care. 14,15

Recent studies have suggested a relationship between nurses' job satisfaction and several concepts such as professional behaviors and professional values. However, evidence-based research is needed to further elaborate this relationship. 15,16 This study aims to provide comprehensive data in this field and lay the groundwork for future research. Various practices can be implemented to enhance job satisfaction among pediatric nurses, and one of them is increasing their professional behaviors. 11,14 Increased professional behavior can enhance the knowledge, skills, autonomy, and empowerment of pediatric nurses, which in turn can lead to job satisfaction.<sup>17</sup> When nurses are highly committed to their profession, they can derive more satisfaction from their work.<sup>18</sup> Therefore, higher levels of professional behaviors are considered important to retain nurses in the profession.<sup>11,14</sup> There are only a few studies in the literature that examine nurses' job satisfaction and professional behaviors. Most of these studies have focused on determining the job satisfaction and professional behaviors of nurses working outside pediatric clinics. 10,11,17,18 Job satisfaction among pediatric nurses has been examined in relation to concepts such as burnout and compassion fatigue. 15,16,19-22 However, to the best of our knowledge, there is no study specifically on the impact of professional behaviors on job satisfaction among pediatric nurses. Therefore, this study aims to determine the relationship between job satisfaction and professional behaviors among pediatric nurses in Turkey. The results of this study are considered to reveal an important factor that increases job satisfaction among pediatric nurses. This, in turn, will shed light on healthcare institutions, professional organizations, research centers, and all other units related to nursing, providing guidance for planned projects in the field.

### Aim

This study was conducted to determine the relationship between job satisfaction and professional behaviors in pediatric nurses.

### Research questions

- What are the job satisfaction scores of pediatric nurses according to their professional characteristics?
- What are the professional behavior scores of pediatric nurses according to their professional characteristics?
- Is there a relationship between the job satisfaction and professional behavior scores of pediatric nurses?

### Material and methods

### Ethical approval

For conducting the study, an ethical approval was obtained from the non-interventional clinical research ethics committee of a training and research hospital (decision no: 18/10, decision date: 16.01.2018), and institutional permissions were obtained from the hospitals where the study was conducted (Number: E-77597247-604.02/E-50687469-799/E-98206329/770). The study was conducted in line with the Declaration of Helsinki, and the nurses were informed about the purpose and content of the study. They were also explained that their data would be used only for scientific purposes, and then their written consent was obtained.

#### Design and sample

This descriptive correlational study was conducted with pediatric nurses working in three tertiary university hospitals in İzmir and Ankara provinces in Turkey, which provide services in accordance with the Quality Standards in Health. The total sample in the three hospitals consisted of 320 pediatric nurses. Therefore, no sampling method was used. Twenty nurses who were on maternity leave, on sick leave, on annual leave, etc., and 56 nurses who did not agree to participate in the study were not included in the sample. A total of 244 nurses who agreed to participate in the study were included in the study. The participation rate in the study was 76.25%. The power of the study was calculated using the "G. Power-3.1.9.2" program with  $\alpha$ =0.05. Based on the analysis conducted on 244 participants, the effect size was found to be 0.342, and the post-hoc power of the study was calculated as 0.99. The minimum power value required for post-hoc analysis is 0.67. Therefore, the achieved power level is acceptable, and the data size is sufficient.23

### Instruments

The data were obtained through face-to-face interviews using a personal information form, the Job satisfaction scale for nurses (JSSN), and the behavioral inventory form for professionalism in nursing (BIPN).

### Personal information form

This form consists of 10 questions regarding the pediatric nurses' demographic and professional characteristics, including gender, education and marital status, nursing experience, motivation for choosing nursing, working clinic, pediatric nursing experience, type of work shift, participation in scientific activities, and membership in professional organizations.

### Job satisfaction scale for nurses (JSSN)

This scale was developed by Muya et al. in Japan. It consists of 27 items and four subscales, including "Positive emotions toward work", "Appropriate support from superiors", "Perceived significance in the workplace", and "Pleasant working environment". <sup>24</sup> Its Turkish validity and reliability study was conducted by Türe Yıldırım and Yılmaz. <sup>25</sup> This is a 5-point Likert type scale, scoring from "1=strongly disagree" to "5=strongly agree." The 6th and 20th items in the scale are reverse scored. There is no cut-off point for the scale. A higher scale score indicates greater job satisfaction. The internal consistency of the scale cronbach's alpha was reported as 0.90. In this study, the cronbach's alpha value for the scale was determined as 0.91.

# Behavioral inventory form for professionalism in nursing (BIPN)

This scale was developed by Miller et al. and its Turkish validity and reliability study was conducted by Karadağ et al. 26,27 It consists of a 7-item demographic information form and two sections with 39 items, measuring professional behaviors across nine subscales. The subscales include educational preparation, publication, research, participation in a professional organization, community service, competence and continuing education, code for nurses, theory, autonomy. Each subscale has a total score of 3, and the total possible weighted score on the scale is 27. A higher scale score indicates greater level of professional behaviors. The Cronbach's alpha value of the scale is 0.78-0.87, and the test-retest reliability coefficient is 0.86. In this study, the Cronbach's alpha value for the scale was determined as 0.80.

### Data collection

The study was conducted between February 1, 2018, and April 29, 2018, at three university hospitals located in Ankara and Izmir provinces of Turkey. These hospitals were chosen because they provide specialized inpatient treatment services to patients with various health problems in the field of pediatrics, allowing access to a wide population of nurses specializing in pediatrics. During data collection, the unit head nurses were initially informed about the study, followed by the full-time nurses who agreed to participate in the study. It was emphasized that the participation was voluntary. Both surveys and informed consent forms were provided to pediatric nurses in sealed envelopes. The data collection forms did not include the names of the nurses. Filling out the

data collection tools lasted around 10 minutes. The participants left the completed surveys at the designated drop-off locations in each unit, and the authors returned to the study site on the same day to collect the completed surveys.

### Evaluation of data

The data were analyzed by using the Statistical Package for Social 22.0 program (SPSS, IBM, Armonk, NY, USA) and evaluated using descriptive statistics such as frequency and percentage. The skewness and kurtosis statistics were utilized to test whether the data were normally distributed.28 The student's t test was used to compare the means between two groups, and ANOVA to compare the means among three or more groups. Post-Hoc analyses were performed where appropriate using Bonferroni correction. Pearson's correlation analysis was used to determine the relationship between job satisfaction and professional behaviors of pediatric nurses. Simple linear regression analysis was conducted to examine the effect of professional behaviors on job satisfaction. The level of significance was accepted as p<0.05 in all analyzes.

#### Results

### The characteristics of pediatric nurses

Of the pediatric nurses, 91% were female, 67.6% were married, 75.4% had a bachelor's degree, 59.0% had over 5 years of experience in the nursing profession, 50.4% chose the nursing profession due to job opportunities, 28.7% worked in general pediatric departments, 57.8% had 5 years or more of nursing experience in pediatric clinics, 61.1% worked in rotating day and night shifts, 91.0% did not participate in any scientific nursing activities, and 93.4% were not members of a nursing association (Table 1).

# Job satisfaction scale for nurses and behavioral inventory form for professionalism in nursing scores

The pediatric nurses' JSSN and BIPN mean scores were 3.42±0.59 and 5.69±4.05, respectively (Table 2).

# Comparison of the pediatric nurses' JSSN and BIPN scores according to their professional characteristics

A statistically significant difference was found between the pediatric nurses' JSSN mean scores according to work experience in pediatric units, willingness to choose nursing profession, working department, and shift type (p<0.05). An advanced analysis was conducted to determine which groups the difference originated from. Accordingly, the pediatric nurses with more than 5 years of work experience had significantly higher JSSN mean score than those with 0–2 years and 2–5 years of experience (p=0.002). In addition, the pediatric nurses who willingly chose the nursing profession had significantly

**Table 1.** Demographic and professional characteristics of the pediatric nurses (n=244)

Variables	Group	n (%)
Candan	Female	222 (91)
Gender	Male	22 (9)
Marital Cratara	Married	165 (67.6)
Marital Status	Female Male	79 (32.4)
	Associate degree	42 (17.2)
Educational level	Female Male Married Single Associate degree Bachelor degree Master degree 0–5 6–10 11–15 16–20 21 or more Willingly At my parent's request Due to job opportunities General child clinic Pediatric hematology oncology clinic Pediatric intensive care unit Outpatient clinic Pediatric surgery Neonatal intensive care unit 0–2 3–5 5 or more Day Day/Night Rotation Night Yes No	184 (75.4)
		18 (7.4)
	0–5	144 (59)
	6–10	60 (24.6)
Working experience (year)	11–15	19 (7.8)
	16-20	8 (3.3)
	21 or more	13 (5.3)
	Willingly	75 (30.7)
Willingness to choose nursing	At my parent's request	46 (18.9)
profession	Due to job opportunities	123 (50.4)
	General child clinic	70 (28.7)
	<b>5</b> ,	24 (9.8)
	Pediatric intensive care unit	36 (14.8)
Department	Outpatient clinic	6 (2.5)
	Pediatric emergency	27 (11.1)
	Pediatric surgery	22 (9.0)
	Neonatal intensive care unit	59 (24.1)
	0–2	57 (23.4)
Working experience in pediatric units	3–5	46 (18.8)
year)	5 or more	141 (57.8)
	Day	88 (36.1)
Shift type	Day/Night Rotation	149 (61.1)
	Associate degree 42 (17 Bachelor degree 184 (75 Master degree 18 (7. 0-5 144 (5) 6-10 60 (24 11-15 19 (7. 16-20 8 (3. 21 or more 13 (5) Willingly 75 (3) At my parent's request 46 (13) Due to job opportunities 123 (5) General child clinic 70 (28) Pediatric hematology oncology clinic Pediatric intensive care unit 36 (14) Outpatient clinic 6 (2. Pediatric emergency 27 (11) Pediatric surgery 22 (9) Neonatal intensive care unit 59 (2 0-2 57 (2 3-5 46 (1) 5 or more 141 (5) Day 88 (3) Day/Night Rotation 149 (6) Night 7 (2 Yes 22 (5) No 222 (5)	
Na	Yes	22 (9)
Attended the scientific conference	Male         22 (9)           Married         165 (67.           Single         79 (32.           Associate degree         42 (17.           Bachelor degree         184 (75.           Master degree         18 (7.4           0-5         144 (59.           6-10         60 (24.           11-15         19 (7.8.           16-20         8 (3.3.)           21 or more         13 (5.2.           Willingly         75 (30.           At my parent's request         46 (18.           Due to job opportunities         123 (50.           General child clinic         70 (28.           Pediatric hematology         24 (9.8.           oncology clinic         24 (9.8.           Pediatric intensive care unit         36 (14.           Outpatient clinic         6 (2.5.           Pediatric surgery         22 (9.0.           Neonatal intensive care unit         59 (24.           0-2         57 (23.           3 -5         46 (18.           5 or more         141 (57.           Day         88 (36.           Day/Night Rotation         149 (61.           No         222 (9.0.           No	222 (91)
M	Yes	16 (6.6)
Member of a professional association	No	228 (93.4)
Total		244

Table 2. JSSN and BIPN scores\*

Table 2135511 and bit 11 scores			
JSSN and subscales	Mean±SD	min-max	
Positive emotions toward work	3.58±0.76	1.5-5	
Appropriate support from superiors	3.3±1	1–5	
Perceived significance in the workplace	3.91±0.6	1.6-5	
Pleasant working environment	2.52±0.83	1–5	
Total mean score	3.42±0.59	1.3-4.9	
BIPN and subscales			
Educational preparation	0.93±0.69	0-3	
Publication	0.18±0.52	0-2	
Research	0.47±0.84	0-3	
Participation in a professional organization	$0.36 \pm 0.5$	0-2.5	
Community service	0.35±0.9	0-3	
Competence and continuing education	1.27±0.69	0.5-3	
Code for nurses	0.19±0.39	0–1	
Theory	1.67±1.09	0-3	
Autonomy	0.23±0.48	0-2	
Total mean score	5.69±4.05	0.5-19.5	

<sup>\*</sup> JSSN – job satisfaction scale for nurses; BIPN – behavioral inventory form for professionalism in nursing; SD – standard deviation

higher JSSN mean score than those who chose the profession due to their family's request or job opportunities (p<0.001). Furthermore, the pediatric nurses from pediatric intensive care and pediatric emergency departments had significantly higher JSSN mean scores than those from general pediatric departments (p<0.001). The pediatric nurses working pediatric intensive care, pediatric emergency, and neonatal units hid significantly higher JSSN mean scores than those working in pediatric surgical departments (p<0.001). Finally, the pediatric nurses who worked in day shifts had significantly higher JSSN mean score than those who worked in rotating or night shifts (p=0.016) (Table 3).

A statistically significant difference was also found between the pediatric nurses' BIPN mean scores according to department and shift type (p<0.05). The pediatric nurses from the pediatric intensive care, pediatric surgery and neonatal units had significantly higher BIPN mean scores than those from the pediatric emergency unit (p=0.003). In addition, the pediatric nurses who worked in day shifts had significantly higher BIPN mean score than those who worked in rotating or night shifts (p=0.034) (Table 3).

**Table 3.** Comparison of the nurses' job satisfaction and professional behaviors by professional characteristics

Variables	Group	JSSN			BIPN		
741142143		Mean	SD	F test	Mean	SD	F test
Working	0–2 (1)	3.27	0.72	0.002*	5.03	3.14	0.189
experience in pediatric units	3–5 (2)	3.27	0.53	3>1, 3>2	5.30	2.85	
(year)	5 or more	3.54	0.53		6.09	4.64	
	Willingly (1)	3.67	0.64	<0.001**	5.55	3.45	0.445
Willingness to choose nursing	At my parent's request (2)	3.34	0.52	1>2, 1>3	6.38	4.02	
profession	Due to job opportunities (3)	3.31	0.54		5.53	4.39	
	General child clinic (1)	3.26	0.62	<0.001**	5.64	4.25	0.003
	Pediatric hematology oncology clinic (2)	3.49	0.56	3>1, 5>1,	4.71	2.51	3>5, 6>5,
Department	Pediatric intensive care unit (3)	3.70	0.37	3>6, 5>6,	6.76	4.21	7>5
·	Outpatient clinic (4)	3.64	0.61	7>6	7.33	2.16	
	Pediatric emergency (5)	3.65	0.53		2.98	1.58	
	Pediatric surgery (6)	3.01	0.66		6.80	3.88	
	Neonatal intensive care unit (7)	3.45	0.55		6.17	4.64	
T	Day (1)	3.57	0.58	0.016*	6.57	4.47	0.034
Type of working shift	Day/Night Rotation (2)	3.34	0.60	1>2	5.16	3.78	1>2
	Night (3)	3.31	0.25		5.93	1.79	

<sup>\*</sup> JSSN – job satisfaction scale for nurses; BIPN – behavioral inventory form for professionalism in nursing; SD – standard deviation; Independ – F: One-Way ANOVA

# The relationship between job satisfaction and professional behaviors of pediatric nurses

There was a moderately positive statistically significant relationship between the pediatric nurses' professional behaviors and job satisfaction (r=0.342; p<0.001) (Table 4).

**Table 4.** The relationship between behavioral inventory form for professionalism in nursing and job satisfaction scale for nurses (n=244)\*

		JSSN
Behavioral Inventory Form for Professionalism in Nursing	R	0.342
	р	< 0.001

<sup>\*</sup> SD – standard deviation; R – correlation coefficient; p – Sig.2 tailed-values

### Examining the effect of professional behaviors on job satisfaction in pediatric nurses by simple linear regression

Table 5 present the results of the regression analysis performed to determine whether professional behaviors of pediatric nurses affect their job satisfaction. Accordingly, the regression model was statistically significant (F=32.107; p<0.001), and revealed that professional behaviors of pediatric nurses positively and significantly affected their job satisfaction ( $\beta$ =0.050, p<0.001), where professional behaviors explained 11.7% of the variance in job satisfaction ( $R^2$ =0.117).

**Table 5.** The results of regression analysis between behavioral inventory form for professionalism in nursing and job satisfaction scale for nurses (n=244)

Independent	ndependent B SE	CE	0		_	%95 CI		VIF
Variables	D	SE	β		р	LL	UL	VIF
Constant	3.138	0.062		50.876	<0.001	3.017	3.260	
BIPN	0.050	0.009	0.342	5.666	< 0.001	0.003	0.067	1.000
F=32.107, p=0.000, R <sup>2</sup> =0.117, Durbin Watson: 1.830								

B – unstandardized beta coefficients; SE – standard Error;  $\beta$  – standardized beta coefficients; CI – confidence interval; LL – lower limit; VIF – variance inflation factor; Independent variable: BIPN – behavioral inventory form for professionalism in nursing; Dependent variable: JSSN – job satisfaction scale for nurses

### Discussion

This study examined the relationship between job satisfaction and professional behaviors in pediatric nurses.

# Job satisfaction scale for nurses and behavioral inventory form for professionalism in nursing scores

This study found that the pediatric nurses had moderate level of job satisfaction. Several studies have also reported moderate or above-average levels of job satisfaction for pediatric nurses scores. <sup>2,19,21,29-32</sup> The result of this study was consistent with those in previous studies.

Furthermore, this result is significant as it suggests that job satisfaction of nurses working in pediatric care clinics will reflect in their caregiving practices.

This study determined that the pediatric nurses had low level of professional behaviors. Several studies have also reported low levels of professional behavior for nurses.<sup>33-37</sup> However, a study reported moderate levels of professional behavior for nurses in Poland and Belarus.<sup>38</sup> Higher levels of professionalism are important for nurses to enhance their autonomy, empowerment, recognition, establishment of nursing care standards, and provision of quality services.<sup>9,39</sup> This result of our study may be because pediatric nurses have low participation in scientific activities and are not members of nursing associations.

# Comparison of the pediatric nurses' JSSN and BIPN scores according to their professional characteristics

In this study, the pediatric nurses who had worked in pediatric units for more than 5 years had significantly higher job satisfaction scores. It is expected that employees who have worked in a workplace for a long time generally have a better understanding of the workplace, a harmony between their experiences and expectations, the ability to make quick decisions in times of crisis, and improved professional problem-solving skills, leading to higher levels of job satisfaction.<sup>40</sup> Studies of pediatric nurses have also found a positive relationship between the duration of professional experience and job satisfaction.<sup>7,22</sup>

In our study, the pediatric nurses who willingly chose the nursing profession had significantly higher job satisfaction scores. Studies emphasize that choosing nursing as a profession due to family preferences or job security reasons can negatively affect job satisfaction.<sup>22,41</sup> Nurses who do not only consider nursing as an economic necessity but also have a motivation to improve their profession and contribute to society can nurture their personal feelings of achievement. Güdücü Tüfekçi et al. found higher job satisfaction among pediatric nurses who chose nursing willingly.<sup>29</sup> This may be due to the multidimensional care provided by pediatric nurses who care for children with different biological, psychological, and social characteristics from birth to adolescence, which can enhance their intrinsic satisfaction.

In this study, the pediatric nurses who worked on continuous day shifts had significantly higher levels of job satisfaction professional behaviors. Studies indicate that night shifts, which involve long and exhausting working hours, can decrease job satisfaction, making nurses consider leaving the profession.<sup>21,42-44</sup> Two studies found that pediatric nurses working only on day shifts had higher job satisfaction compared to others.<sup>21,22</sup> This may be because working night shifts affects bot physiological and psychological well-being of nurses, disrupts their sleep patterns, reduces their participation in so-

cial life, and has a negative impact on patient safety due to the increased workload during long hours of night shifts. Considering these factors mentioned in the literature, job satisfaction of nurses is negatively affected by working in night shifts.

This study found that the pediatric nurses working in pediatric intensive care, emergency, and neonatal intensive care units had significantly higher job satisfaction. Several studies have also found high job satisfaction among nurses working in units that employ technological applications, require rapid critical thinking in stressful situations, and provide health care services for complex patients. 46,48 This may be because nurses working in these pediatric units provide care to pediatric patients, which increases their autonomy and level of interdisciplinary communication.

This study determined that the pediatric nurses working in pediatric intensive care, pediatric surgery and neonatal units exhibited significantly higher levels of professional behavior. This may be because nurses working in specialized pediatric units in Turkey are generally certified and use guidelines for care practices based on current knowledge and skills as required by institutional policies.

# The relationship between job satisfaction and professional behaviors in pediatric nurses

This study examined the relationship between job satisfaction and professional behaviors in pediatric nurses, and found a significant moderate positive relationship between their job satisfaction and professional behaviors. This result is consistent with those in the literature, suggesting that as professional behaviors of nurses increase, their job satisfaction also increase. This result may be because increased professional behaviors are associated with increased nursing roles, knowledge and practical success, which positively reflects on job satisfaction.

## Examining the effect of professional behaviors on job satisfaction in pediatric nurses through simple linear regression

Our study suggests that professional behaviors of pediatric nurses affect their job satisfaction. This result is consistent with those in the literature, suggesting that an increase in professional behaviors increases job satisfaction in pediatric nurse. <sup>35,51,52</sup> In our study, the professional behavior of pediatric nurses accounted for 11.7% of the variation in their job satisfaction.

### Study limitations

As one of the limitations of the study, the results of this study cannot be generalized according to gender groups, since the majority of the participants are female.

### Conclusion

This study determined that pediatric nurses had a moderate level of job satisfaction and a low level of professional behaviors. The professional characteristics of pediatric nurses influenced their job satisfaction and professional behaviors. As the professional behaviors of pediatric nurses increased, their job satisfaction also increased. Additionally, the professional behaviors of pediatric nurses had an impact on job satisfaction. Based on these results, it is recommended to conduct further studies on the factors influencing professional behaviors of pediatric nurses in order to enhance their job satisfaction, and to develop, implement and evaluate relevant strategies to increase professional behaviors and job satisfaction in pediatric nurses.

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### Author contributions

Conceptualization, F.D. and D.Y.; Methodology, F.D. and D.Y.; Software, F.D. and D.Y.; Validation, F.D. and D.Y.; Formal Analysis, F.D. and D.Y.; Investigation, F.D. and D.Y.; Resources, F.D. and D.Y.; Data Curation, F.D. and D.Y.; Writing – Original Draft Preparation, F.D. and D.Y.; Writing – Review & Editing, F.D. and D.Y.; Visualization, F.D. and D.Y.; Supervision, F.D. and D.Y.; Project Administration, F.D. and D.Y.; Funding Acquisition, F.D. and D.Y.

### Conflicts of interest

The authors declare that there is no conflict of interest.

### Data availability

Data available on request from the authors.

### Ethics approval

An ethical approval was obtained from the non-interventional clinical research ethics committee of a training and research hospital (decision no: 18/10, decision date: 16.01.2018).

### References

- World Health Organization. State of the world's nursing report. https://www.who.int/publi cations-detail/nursing--report-2020. Accessed April 14, 2023.
- World Health Organization. Nursing and midwifery. https://www.who.int/news-room/fact-sheets/detail/nursing-and-midwifery. Accessed April 10, 2023.
- Alves DFS, Guirardello EB. Safety climate, emotional exhaustion and job satisfaction among Brazilian paediatric professional nurses. *Int Nurs Rev.* 2016;63(3):328-335. doi: 10.1111/inr.12276

- Kaya A, İşler-Dalgıç A. Evaluating the job satisfaction of nurses working in pediatric clinics in terms of eleven dimensions and the influencing factors. FN Journal of Nursing. 2020;28(3):312-320. doi: 10.5152/FNJN.2020.19101
- Zahednezhad H, Hoseini MA, Ebadi A, Farokhnezhad Afshar P, Ghanei Gheshlagh R. Investigating the relationship between organizational justice, job satisfaction, and intention to leave the nursing profession: A cross-sectional study. *J Adv Nurs*. 2021;77(4):1741-1750. doi: 10.1111/jan.14717
- Adwan JZ. Pediatric nurses'grief experience, burnout and job satisfaction. *J Pediatr Nurs*. 2014;29:329-336. doi: 10.1016/j.pedn.2014.01.011
- Roberts-Turner R, Hinds PS, Nelson J, et al. Effects of leadership characteristics on pediatric registered nurses' job satisfaction. *Pediatr Nurs*. 2014;40(5):236-241.
- 8. Klopper HC, Madigan E, Vlasich C, et al. Advancement of global health: Recommendations from the Global Advisory Panel on the Future of Nursing & Midwifery (GAPFON\*). *J Adv Nurs*. 2020;76(2):741-748. doi: 10.1111/jan.14254
- 9. Cao H, Song Y, Wu Y, et al. What is nursing professionalism? A concept analysis. *BMC Nurs.* 2023;22(1):34. doi: 10.1186/s12912-022-01161-0
- Barać I, Prlić N, Plužarić J, Farčić N, Kovačević S. The mediating role of nurses' professional commitment in the relationship between core self-evaluation and job satisfaction. *Int J Occup Med Environ Health*. 2018;31(5):649-658. doi: 10.13075/ijomeh.1896.01256
- Tanaka M, Taketomi K, Yonemitsu Y, Kawamoto R. Professional behaviours and factors contributing to nursing professionalism among nurse managers. *J Nurs Manag.* 2016;24(1):12-20. doi: 10.1111/jonm.12264
- Ichikawa N, Yamamoto-Mitani N, Takai Y, Tanaka M, Takemura Y. Understanding and measuring nurses' professionalism: Development and validation of the Nurses' Professionalism Inventory. *J Nurs Manag.* 2020;28(7):1607-1618. doi: 10.1111/jonm.13116
- 13. Miller BK. A model for professionalism in nursing. *Todays OR Nurse.* 1988;10(9):18-23.
- Zengin M, Yayan EH, Yıldırım N, et al. Effect of professional values upon professional attitudes of pediatric nurses. *Arch Health Sci Res.* 2018;5:316-323. doi:10.17681/hsp.324725
- Ayar D, Bektaş M, Bektaş İ, Bülbül Ö, Cesur A. The impact of professional values and job satisfaction of pediatric nursing on their intercultural sensitivity. *J Educ Res Nurs*. 2021;18(3): 323-328. doi: 10.5152/jern.2021.44522
- Kaya A, Çelik D, İşler Dalgıç A. Professional values and job satisfaction levels of pediatric nurses and influencing factors: A cross sectional study. *J Pediatr Res.* 2020;7(1):58-63. doi: 10.4274/jpr.galenos.2019.68815
- Castaneda GA, Scanlan JM. Job satisfaction in nursing: Aconcept analysis. *Nurs Forum*. 2014;49(2):130-138. doi: 10.1111/nuf.12056
- 18. Lee SE, MacPhee M, Dahinten VS. Factors related to perioperative nurse' job satisfaction and intention to leave. *Jpn J Nurs Sci.* 2020;17(1):e12263. doi: 10.1111/jjns.12263

- 19. Akman O, Oztürk C, Bektaş M, Ayar D, Armstrong MA. Job satisfaction and burnout among paediatric nurses. *J Nurs Manage*. 2016;24(7):923-933. doi: 10.1111/jonm.12399
- Meyer RM, Li A, Klaristenfeld J, Gold JI. 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):174-183. doi: 10.1016/j.pedn.2013.12.008
- 21. Torun T, Çavuşoğlu H. Examining burnout and job satisfaction of nurses working in pediatric units. *HEAD*. 2018;15(2):71-80. doi: 10.5222/HEAD.2018.071
- 22. Kaya A, İşler Dalgiç A. Examination of job satisfaction and burnout status of pediatric nurses: A cross-sectional and correlational study using online survey research in Turkey. *Perspect Psychiatr Care*. 2021;57:800-808. doi: 10.1111/ppc.12617
- 23. Cohen J. Statistical Power Analysis for the Behavioral Sciences. 2nd. United States of America: Lawrence Erlbaum Associates;1988:8-14.
- 24. Muya M, Katsuyama K, Ozaki F, Aoyama H. Development of a scale measuring the job satisfaction of Japanese hospital nurses. *Jpn J Nurs Sci.* 2014;11(3):160-170. doi: 10.1111/jjns.12017
- 25. Türe Yılmaz A, Yıldırım A. Validity and reliability of the nurse job satisfaction scale in Turkish. *SHYD*. 2016;3(3):158-168. doi:10.5222/SHYD.2016.158
- Miller BK, Adams D, Beck LA. Behavioral inventory for professionalism in nursing. *J Prof Nurs*. 1993;9(5):290-295. doi: 10.1016/8755-7223(93)90055-h
- 27. Karadağ A, Hisar F, Elbaş NÖ. A behavioural inventory for professionalism in nursing: A sample from Turkey. *Hemşirelik Forumu*. 2004;7:14-22.
- 28. George D, Mallery P. *IBM SPSS Statistics 26 Step by Step: A Simple Guide and Reference.*(16th ed.). Routledge; 2019. doi: 10.4324/9780429056765
- 29. Güdücü Tüfekçi F, Kurudirek F, Baran G. The levels of job satisfaction and description of pediatric nurses. *Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi*. 2015;4:70-76.
- Roney LN, Acri MC. The cost of caring: An exploration of compassion fatigue, compassion satisfaction, and job satisfaction in pediatric nurses. *J Pediatr Nurs*. 2018;40:74-80. doi: 10.1016/j.pedn.2018.01.016
- 31. Xu S, Tao L, Huang H, Little J, Huang L. Pediatric nurses' turnover intention and its association with calling in China's tertiary hospitals. *J Pediatr Nurs*. 2020;52:e51-e56. doi: 10.1016/j.pedn.2020.01.005
- 32. Khatatbeh H, Al-Dwaikat T, Oláh A, et al. The relationships between paediatric nurses' social support, job satisfaction and patient adverse events. *Nurs Open.* 2021;8(6):3575-3582. doi: 10.1002/nop2.907
- 33. Hisar F, Karadağ A. Determining the professional behaviour of nurse executives. *Int J Nurs Pract*. 2010;16(4):335-341. doi: 10.1111/j.1440-172X.2010.01849.x
- 34. Kim-Godwin YS, Baek HC, Wynd CA. Factors influencing professionalism in nursing among Korean American

- registered nurses. *J Prof Nurs*. 2010;26(4):242-249. doi: 10.1016/j.profnurs.2009.12.007
- 35. Çelik S, Hisar F. The influence of the professionalism behaviour of nurses working in health institutions on job satisfaction. *Int J Nurs Pract.* 2012;18(2):180-187. doi: 10.1111/j.1440-172X.2012.02019.x
- 36. Solomon Y, Beker J, Belachew T. Professionalism and its predictors among nurses working in Jimma Zone Public Hospitals, South West Ethiopia. *J Nurs Care*. 2015;5(4):292. doi: 10.4172/2167-1168.1000292
- 37. Dikmen Y, Karataş H, Arslan GG, Ak B. The level of professionalism of nurses working in a hospital in Turkey. *J Caring Sci.* 2016;5(2):95-102. doi:10.15171/jcs.2016.010
- 38. Marcinowicz L, Shpakou A, Piatrou S, et al. Behavioural categories of professionalism of nurses in Poland and Belarus: A comparative survey. *J Clin Nurs*. 2020;29(9-10):1635-1642. doi: 10.1111/jocn.15226
- 39. Huber TH. Nursing professionalism. *Ky Nurse*. 2015;63(1):15.
- 40. Kalisch BJ, Lee H, Rochman M. Nursing staff teamwork and job satisfaction. *J Nurs Manag.* 2010;18(8):938-947. doi: 10.1111/j.1365-2834.2010.01153.x
- 41. Sabancıoğulları S, Doğan S. Relationship between job satisfaction, Professional identy and intention to leave the profession among nurses in Turkey. *J Nurs Manag.* 2015;23(8):1076-1085. doi: 10.1111/jonm.12256
- 42. Dobrowolska B, Visintini C, Pokorná A, et al. Exploring the meaning of night shift placement in nursing education: a European multicentre qualitative study. *Int J Nurs Stud.* 2020;112:103687. doi: 10.1016/j.ijnurstu.2020.103687
- 43. Larsen AD, Ropponen A, Hansen J, et al. Working time characteristics and long-term sickness absence among Danish and Finnish nurses: A register-based study. *Int J Nurs Stud.* 2020;112:103639. doi: 10.1016/j.ijnurstu.2020.103639

- 44. Smith A, McDonald AD, Sasangohar F. Night-shift nurses and drowsy driving: A qualitative study. *Int J Nurs Stud.* 2020;112:103600. doi: 10.1016/j.ijnurstu.2020.103600
- 45. Tambağ H, Kahraman Y, Şahpolat M, Can R. The effect of nurses' work environment on job satisfaction. *Bakırkoy Medical Journal*. 2015;11(4):143-149. doi:10.5350/BTDMJB201511402
- McDonald K, Rubarth LB, Miers LJ. Job satisfaction of neonatal intensive care nurses. Adv Neonatal Care. 2012;12(4):E1-8. doi: 10.1097/ANC.0b013e3182624eb1
- Sekol MA, Kim SC. Job satisfaction, burnout, and stress among pediatric nurses in various specialty units at an acute care hospital. *J Nurs Educ and Pract* 2014;4(12):115-124. doi: 10.5430/JNEP.V4N12P115
- Snapp B, McCutchon EW, Moore TA, Teel D. Neonatal nurse practitioner job satisfaction, workforce environment, and mental well-being. J Am Assoc Nurse Pract. 2022; 1;34(9):1058-1065. doi: 10.1097/JXX.00000000000000754
- 49. Hwang JI, Lou F, Han SS, et al. Professionalism: the major factor influencing job satisfaction among Korean and Chinese nurses. *Int Nurs Rev.* 2009;56(3):313-318. doi: 10.1111/j.1466-7657.2009.00710.x
- Kantek F, Kaya A. Professional values, job satisfaction, and intent to leave among nursing managers. *J Nurs Res*. 2017;25(4):319-325. doi: 10.1097/JNR.0000000000000164
- 51. Zhang W, Meng H, Yang S, Liu D. The influence of professional identity, job satisfaction, and work engagement on turnover intention among township health inspectors in China. *Int J Environ Res Public Health*. 2018;14;15(5):988. doi: 10.3390/ijerph15050988
- 52. Wang C, Xu J. Zhang TC, Li QM. Effects of professional identity on turnover intention in China's hotel employees: The mediating role of employee engagement and job satisfaction. *Journal of Hospitality and Toursim Management*. 2020;45:10-22. doi: 10.1016/j.jhtm.2020.07.002