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## Does Surgical Nurses' Commitment to the Profession Affect Their Attitudes to Patient Safety? A Descriptive Study

### Cerrahi Hemşirelerinin Mesleğe Bağlılıkları Hasta Güvenliğine Yönelik Tutumlarını Etkiler mi? Tanımlayıcı Bir Çalışma

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#### Öz

Hemşirelik, mesleki bağlılığın çok önemli olduğu bir meslek grubudur. Mesleki bağlılığı yüksek olan hemşireler, işlerinde hasta yararı sağladıklarını ve mesleğe daha fazla motive olduklarını düşünmektedirler. Cerrahi hemşireliğinin doğası gereği hasta güvenliğine yönelik olumlu tutum ve uygulamalar çok önemlidir. **Amaç:** Çalışma, cerrahi hemşirelerinin mesleki bağlılıklarının hasta güvenliğine etkisini incelemek amacıyla planlandı.

**Gereç ve Yöntem:** Çalışma kesitsel ve tanımlayıcı desen kullanılarak yapıldı. Çalışmaya Mayıs-Haziran 2019 tarihleri arasında bir üniversite ve bir devlet hastanesinin cerrahi birimlerinde çalışan 72 hemşire dahil edildi. Veri toplama araçları olarak 'Hemşire Tanıtım Formu' ve 'Hasta Güvenliği Bilgi Formu', Hemşirelik Mesleğine Bağlılık Ölçeği (HMBÖ) ve Hasta Güvenliği Tutumları Anketi (HGTÖ) kullanıldı. Verilerin analizinde SPSS 15.0 istatistik paket programı kullanılmıştır.

**Bulgular:** Araştırmada, HGTÖ ortalaması  $73.91 \pm 11.98$ , HGTÖ ortalaması  $159.58 \pm 26.38$  olarak bulunmuştur. Hemşirelerin yaşı, çalışma yılı ve çalışılan kurum ile Çaba Gösterme İstekliliği arasında ve yine hemşirelerin yaşı ile çalışılan kurum arasında HMBÖ ile anlamlı fark bulundu. Hemşirelerin mesleki yılı ile HGTÖ 'nun ekip çalışması, güvenlik iklimi, stres tanılama alt boyutları ve toplam puan ortalamaları arasında istatistiksel ilişki saptandı.

**Sonuç:** Araştırmada, cerrahi hemşirelerinin mesleğe bağlılık algısı ile hasta güvenliği tutumu arasında pozitif yönde ve orta düzeyde bir ilişki bulundu. Hemşirelikte mesleğe bağlılık, bağımlı değişken olan hasta güvenliği tutumunu açıklamada önemli bir faktör olarak değerlendirildi.

**Anahtar Kelimeler:** cerrahi hemşireliği, mesleğe bağlılık, hasta güvenliği

#### Abstract

**Background:** Nursing is a profession group where professional commitment is very important. Nurses with high professional commitment considered that they provide patient benefit in their jobs and to be more motivated by the profession. Positive attitudes and practices towards patient safety are very important due to the nature of surgical nursing.

**Objective:** The study was designed to examine the effect of surgical nurses professional commitment on patient safety.

**Methods:** The study was conducted using cross-sectional and descriptive design. Two hundred and seventy-two

nurses included the study who is working in surgical units of a university and a public hospital was included in the study between May-June 2019. The instruments for data collection were 'Nurse Description Form' and 'Patient Safety Information Form', Nursing Professional Commitment Scale (NPCS) and Patient Safety Attitudes Questionnaire (PSAQ) were obtained. In the analysis of the data was used in SPSS 15.0 statistical package program.

**Results:** The average of NPCS was  $73.91 \pm 11.98$ , and the mean of PSAQ was  $159.58 \pm 26.38$ . There were significant difference between the nurses' age, working year and institution studied whit Willingness to Effort. There were significant difference between the nurses' age and the institution with the NPCS. There was a significant difference between nurses' professional year and teamwork, safety climate, stress diagnostic sub-dimensions and total mean scores of PSAQ.

**Conclusions:** In the study, a positive and moderate relationship was found between surgical nurses' perception of commitment to profession and patient safety attitude. Professional Commitment to the profession in nursing was found to be an important factor in explaining the patient safety attitude, which was a dependent variable.

**KeyWords:** Surgical Nursing, Professional Commitment, Patient Safety,

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## 1. Introduction

Commitment to a profession is a very important concept from the point of view of workers, institutions and the development level of the country. Nurses' professional commitment is high, and it is reported that they feel that they are providing benefit for their patients in their work, and that they are more motivated.[1, 2, 3] It is thought that nurses who are committed to their profession behave in a way to support professional developments and are more willing to work for the benefit of their profession and institution.[3] Attending to critically ill patients in situations where it is necessary to take urgent and important decisions, or the necessity to make correct decisions in life-threatening situations, make the nursing profession more important than some others [4]. For that reason, nursing is a profession in which professional commitment is very important.

It has been found in research that there is a significant correlation between nurses' professional commitment, patient security and the perceived quality of patient care. Increasing professional commitment in nursing has the potential to provide a great deal of benefit to professionals, the recipients of service and the organization as much as to the health care system and the economy [5].

Patient security has been defined as "preventing errors relating to health services, managing and

identifying risks to the patients and reporting to prevent the re-occurrence of those risks, and providing safe care for patients by applying the solutions produced"[6] Surgical wards, operating theaters and surgical intensive care units are places with a large amount of equipment, where work-flows are complex, and where patients are defenseless, and are therefore at particular risk from medical errors. Nurses working in those areas must have special knowledge, skills and equipment, and they are under intense pressure and stress, but they must always take care and work with a multidisciplinary team [7,8,9,10].

This cross-sectional descriptive study aims to determine the impact of nurses' professional commitment in the surgical field on their practices to ensure patient safety.

## 2. Materials And Methods

The research was conducted in May and June 2019 in the surgery departments of a government hospital and a university hospital. The population of the research consisted of the nurses working at the surgery departments (operating theater, intensive care, surgery ward) of these hospitals ( $N = 364$ ). No sample selection method was used in the study. The research sample ( $n = 272$ ) was formed by excluding nurses who were on leave or on sick leave, and those who did not wish to participate in the research. The participation rate was determined to be 74.72%.

The study data were collected using the; Nurses' Description Form, Patient Safety Information Form, Nursing Professional Commitment Scale (NPCS). Patient Safety Attitudes Questionnaire (PSAQ) were used to collect data by face-to-face, taking into account the nurses' working hours, after giving detailed information about the research in the nurses' room, and after obtaining the nurses' written and verbal approval. Completing the questionnaire forms took the nurses approximately 15-20 minutes.

**Nurses' Description Form:** This form consisted of 18 questions on such sociodemographic characteristics as the nurses' age, gender, marital status, education level, years of work, the ward in which they worked, working hours, and type of work.

**Nursing Professional Commitment Scale (NPCS):** This scale was developed by Lu et al.,2000 to determine the level of commitment of nurses to their profession, and its validity and reliability for Turkish were tested by Çetinkaya et al.,2015. Cronbach alpha coefficients of the scale are 0.90 for the whole scale [11, 12].

The scale has 26 items and three sub-dimensions: willingness to make an effort, continuing membership of the profession, and belief in targets

and values. Nine of the items on the four-way Likert-type scale, items 14, 15, 16, 17, 18, 19, 20, 21 and 25, are scored in reverse. The score which can be obtained on the whole scale ranges from 26 to 104. A higher score on the whole scale or on the sub-dimensions indicates high commitment to the profession [13]. In this study, the Cronbach Alpha coefficients for the sub-dimensions were found to be as follows: willingness to make an effort 0.88, continuing membership of the profession 0.88, and belief in targets and values 0.67, and for the total scale 0.91.

**Patient Safety Attitudes Questionnaire (PSAQ):**

The original scale was developed by Sexton et al., 2006, and the validity and reliability analysis of the Turkish version was performed by Baykal et al., 2010 [14,15]. The scale has 46 items in six sub-dimensions (job satisfaction 11, teamwork 12, perceptions of management 7, safety climate 5, working conditions 6, and stress recognition 5). The total score correlation values of the scale are between 0.35 and 0.58, and the total Cronbach Alpha value is 0.90. The scale is of five-way Likert type, scored 5: I completely agree, 4: I agree, 3: I partly agree, 2: I disagree, and 1: I completely disagree, with items numbers 21, 36, 37, 38, 39, 40, 41, 42, 43 and 45 scored in reverse. A higher total score on the scale indicates that workers have more positive attitudes to patient safety [15]. In this study, the Cronbach Alpha coefficients for the sub-dimensions were found to be as follows: job satisfaction 0.93, teamwork 0.89, safety climate 0.93, perceptions of management 0.92, stress recognition 0.81, and working conditions 0.79, and 0.95 for the total.

**Ethical Consideration**

The research was redacted by the ethics committee. Ethics Committee for Health Sciences permit was obtained from the institution. Oral and written approval was obtained from the nurses included in the research. Also, permission to use the questionnaires was obtained by email from the writers.

**Evaluation of Data**

**Table 1. Distributions of Nurses' Total and Sub-Dimension Mean Scores of the Nursing Professional Commitment Scale and Patient Safety Attitudes Questionnaire (PSAQ).**

Total and Sub-Dimension Mean Scores	X±sd	Median	Min-Max
<b>Nursing Commitment to the Professional Scale</b>			
Willingness to Effort	35,51±6,64	36,00 (7,00)	16,00-52,00
Maintaining Profession Membership	23,66±4,97	24,00 (8,00)	10,00-32,00
Belief in Goals and Values	14,73±2,48	15,00 (3,00)	5,00-20,00
Total Score	73,91±11,98	76,00 (14,75)	37,00-102,00
<b>Patient Safety Attitudes Questionnaire</b>			
	X±sd	Median	Min-Max

The licensed program package SPSS (Statistical Package for Social Sciences) 15.0 was used in the evaluation of data. In the data analysis, numerical and percentage distribution were used to describe demographic characteristics; to evaluate the correlation between demographic characteristics and mean scale scores, the Student t test was used for normally distributed data, and the Mann Whitney U test and the Kruskall Wallis test were used for data which was not normally distributed. To evaluate the correlation between the mean scores of the two scales, Spearman correlation analysis and simple linear regression were used.

**3. Results**

This study, differently from studies in the current literature examining knowledge and practice relating to patient safety, focused on surgical nurses' liking for and commitment to their profession and whether this affected their patient safety practices.

**Nurses Demographics**

The findings revealed that nurses' mean age was 32.31±6.56 years, 52.6% were university graduates, more than 70% had been working in the profession for more than six years, 45.6% were working in intensive care, 36.2% in the surgery clinic, and 17.6% in the operating theater. It was seen that 68.8% of nurses working in the surgery units had chosen the profession willingly, 52.9% had expectations relating to their professional lives, and 62.2% stated that the patient safety culture in the unit in which they worked was adequate.

**Professional Commitment of Nurses**

It was found in the present study that the nurses' commitment to their profession was at a medium level. In the score distribution of the Nursing Professional Commitment Scale total and its sub-dimensions, mean scores were found to be as follows: willingness to make an effort 35.51±6.64, continuing membership of the profession 23.66±4.97, belief in targets and values 14.73±2.48, and nursing professional commitment scale 73.91±11.98 (Table 1).

Job Satisfaction	35,56±9,10	36,00 (12,75)	11,00-55,00
Teamwork	44,00±7,39	45,00 (10,00)	12,00-60,00
Security Climate	18,06±3,85	19,50 (5,00)	5,00-25,00
Management Approach	24,79±5,58	26,00 (7,00)	7,00-35,00
Diagnosing Stress	15,56±3,91	15,00 (5,00)	5,00-25,00
Working conditions	21,58±4,13	22,00 (5,75)	8,00-30,00
Total Score	159,58±26,38	160,00 (36,00)	50,00-225,00

Various factors affecting surgical nurses' commitment to their profession are presented in (Table 2). Result showed that, there was a significant difference between the nurses' age and willingness to make an effort and their total mean NPCS scores: the mean scores of nurses aged 32 or less were found to be higher than those of nurses aged over 32. A significant difference was found between the mean scores of the nurses' years of working in the profession and their willingness to make an effort ( $p < 0.05$ ). The mean scores of nurses who had been working for less than one year and for 1-5 years were found to be higher than those of nurses who had been working for 11 years or more.

It was found that there was a significant difference between the unit where the nurses worked and their mean scores on the sub-dimension of willingness to make an effort ( $p < 0.05$ ), and the median score of nurses working in intensive care was higher than the median scores of those working in the operating theater or in the surgery clinics (Table 2).

No significant difference was found between the unit where the nurses worked and their scores on the sub-dimensions of continuing membership of the profession and belief in targets and values or the total NPCS ( $p > 0.05$ , Table 2). Also, was found a Patient Safety Attitudes of Nurses

The nurses' attitudes to patient safety were assessed using the Patient Safety Attitudes Questionnaire. The total score obtained on this scale was found to be 159.58±26.38

On nurses' practices regarding patient safety 96% of the nurses stated that carrying out patient safety practices was far preferable to doing more work, 93.4% stated that they thought carelessness was the most important reason for medical errors, 73.9% that patients should be told about errors made, 73.55% that the system in hospitals reduced errors, 73.2% that every error should be reported, and 62.9% that inexperienced health workers would make more frequent errors. Only 19.1% of the nurses stated that they agreed with the view that most medical errors cannot be avoided, and 10.7% that a failure in safe surgical practice does not affect patient safety.

Findings also revealed that the mean scores of nurses who had chosen the profession willingly were higher than those who had not. No significant difference was found between the nurses' willing choice of the profession and their mean scores on the sub-dimension of stress recognition ( $p > 0.05$ , Table 3).

There was a significant difference between the institution where the nurses work and the job satisfaction of the PSAQ teamwork, safety climate, management understanding, working conditions sub-dimensions and scale total scores, and the patient safety attitude perceptions of nurses working in university hospitals were higher than nurses working in a public hospital. (Table 3). It was found that there is a significant difference between the working years of the nurses and their teamwork, safety climate, stress diagnosis sub-dimensions and total scale scores (Table 3).

Comparing the nurses' unit and patient safety attitude perceptions compared to nurses working in operating rooms and surgical clinics, it was observed that patient safety attitude perceptions were higher especially in the sub-dimensions of job satisfaction and management understanding (Table 3).

Furthermore, Table 3 shows a significant difference between nurses' profession choice and their attitude towards patient safety, except for the stress identification sub-dimension. From the Pearson Correlation analysis findings showed that positive and moderate relationship was found between professional commitment to nursing and patient safety attitude ( $r_s: 0.544$ ) (Table 4).

**Table 2. Comparison of Some Characteristics of Nurses and Nursing Professional Commitment Scale Scores.**

Characteristic	n	Willingness to Effort		Maintaining Profession Membership		Belief in Goals and Values		Total Score	
		X±sd	Median	X±sd	Median	X±sd	Median	X±sd	Median
<b>Age</b>									
32 and under	136	36,50±6,78	38,00 (7,00)	24,00±4,92	24,00 (7,00)	14,74±2,55	15,00 (3,00)	75,25±12,40	76,00 (13,00)
33 and older	136	34,52±6,36	34,50 (7,00)	23,32±5,01	23,50 (7,00)	14,73±2,42	15,00 (2,00)	72,58±11,44	73,00 (15,75)
<b>z/p</b>		<b>-3,390/0,001*</b>		<b>-1,050/0,294</b>		<b>-0,252/0,801</b>		<b>-2,147/0,032*</b>	
<b>Year of work in the profession</b>									
Less than 1 year (a)									
1-5 years (b)	13	39,53±6,06	39,00 (8,00)	25,15±4,16	24,00 (7,00)	15,76±1,69	15,00 (2,50)	80,46±10,76	80,00 (18,50)
6-10 years (c)	53	37,00±6,86	38,00 (8,50)	24,20±4,41	24,00 (6,50)	14,71±2,35	15,00 (2,00)	75,92±11,69	76,00 (12,50)
11-15 years (d)	84	35,55±7,05	36,00 (8,00)	23,71±5,29	24,00 (8,75)	14,71±2,72	15,00 (3,00)	73,98±13,14	76,00 (14,75)
a15 years and upper (e)	62	34,54±6,88	34,00 (9,00)	22,77±5,18	22,00 (8,00)	14,38±2,49	14,00 (3,00)	71,70±12,08	71,50 (17,25)
	60	34,26±5,13	35,00 (7,00)	23,71±4,90	24,00 (6,75)	14,93±2,37	15,00 (2,75)	72,91±10,13	74,00 (14,75)
<b>x<sup>2</sup>/p</b>		<b>14,576/0,006* (a=b&gt;d=e)</b>		<b>3,561/0,469</b>		<b>4,029/0,402</b>		<b>7,828/0,098</b>	
<b>Institution studied</b>									
Government Hospital	126	33,76±7,12	34,00 (8,25)	22,82±5,70	23,00 (9,00)	14,34±2,79	14,00 (3,00)	70,92±13,36	71,50 (18,25)
University Hospital	146	37,02±5,80	37,00 (7,00)	24,39±4,12	24,00 (6,25)	15,08±2,13	15,00 (3,00)	76,50±10,00	77,00 (12,25)
<b>z/p</b>		<b>-3,704/0,001*</b>		<b>-2,506/0,012*</b>		<b>-2,429/0,015*</b>		<b>-3,238/0,001*</b>	
<b>Unit studied</b>									
Intensive care (a)	124	36,62±6,47	37,00 (5,00)	24,29±4,77	24,00 (8,00)	14,71±2,41	15,00 (2,00)	75,64±11,45	77,00 (13,00)
Operating room (b)	48	34,25±7,12	35,00 (7,75)	23,62±5,00	23,00 (9,50)	14,93±2,87	15,00 (4,00)	72,81±13,11	72,00 (16,75)
Surgical clinic (c)	100	34,74±6,45	35,00 (8,00)	22,90±5,13	23,00 (7,75)	14,67±2,39	14,00 (3,00)	72,31±11,90	73,00 (16,00)
<b>x<sup>2</sup>/p</b>		<b>6,437/0,040* (a&gt;b=c)</b>		<b>4,603/0,100</b>		<b>1,315/0,518</b>		<b>5,123/0,077</b>	
<b>Choosing the profession willingly</b>									
Yes	187								
No	85	37,62±5,40	37,00 (6,00)	25,09±4,64	24,00 (7,00)	15,17±2,26	15,00 (3,00)	77,89±9,83	78,00 (11,00)
		30,87±6,76	31,00 (9,50)	20,51±4,16	21,00 (5,50)	13,78±2,70	14,00 (2,50)	65,17±11,69	65,00 (15,50)

\*p<0,05, x2: Kruskal Wallis test, z: Mann Whitney U test

significant difference between the nurses' meeting of expectations regarding their profession and their mean scores on the NPCS total and sub-dimensions (Table 2).

**Table 3. Comparison of Nurses' Sociodemographic Characteristics and Patient Safety Attitudes Questionnaire Scores**

Sociodemographic Characteristics and PSAQ	n	Job Satisfaction	Teamwork	Security Climate	Management Approach	Diagnosing Stress	Working conditions	Total score
		X±sd	X±sd	X±sd	X±sd	X±sd	X±sd	X±sd
<b>Age</b>								
32 and under	136	36,45±9,47	45,11±7,07	18,69±3,51	25,22±5,48	15,99±4,05	22,11±4,08	163,58±26,02
33 and older	136	34,66±8,66	42,89±7,56	17,44±4,07	24,36±5,66	15,13±3,73	21,06±4,12	155,58±26,21
<b>t/p</b>		1,623/0,106	2,492/0,013*	2,691/0,008*	1,283/0,201	1,805/0,072	2,097/0,037*	2,528/0,012*
<b>Institution studied</b>								
Government Hospital	126	32,77±8,71	42,37±7,55	17,03±3,95	23,31±5,65	15,11±3,71	20,73±4,07	151,35±25,12
University Hospital	146	37,96±8,77	45,41±6,98	18,96±3,53	26,06±5,20	15,95±4,05	22,32±4,05	166,68±25,43
<b>t/p</b>		-4,878/0,001*	-3,446/0,001*	-4,258/0,001*	-4,172/0,001*	-1,757/0,080	-3,205/0,002*	-4,984/0,001
<b>Year of work in the profession</b>								
Less than 1 year (a)	13	40,30±8,80	49,15±5,09	20,23±3,89	27,84±6,64	14,69±5,37	22,23±6,37	174,46±26,08
1-5 years (b)	53	37,98±9,55	46,28±6,96	19,30±2,70	26,00±5,09	16,67±4,68	22,71±3,92	168,96±26,03
6-10 years (c)	84	34,65±9,37	43,85±7,29	17,83±4,13	24,32±5,31	16,04±3,55	21,55±3,77	158,27±25,82
11-15 years (d)	62	35,00±9,01	42,51±8,56	17,24±4,19	23,67±6,12	14,91±3,52	20,91±4,28	154,27±28,70
15 years and upper (e)	60	34,25±7,97	42,61±6,13	17,70±3,60	24,88±5,28	14,76±3,43	21,18±3,95	155,40±22,19
<b>x<sup>2</sup>/p</b>		8,766/0,067	15,525/0,004* a=b>c=d=e	12,387/0,015* a=b>c=d=e	9,503/0,050	10,904/0,028* b>d=e/c>e	6,012/0,198	12,908/0,012* a=b>c=d=e
<b>Unit studied</b>								
Intensive care (a)	124	37,45±9,56	44,78±7,68	18,49±3,90	25,81±5,78	15,87±4,09	22,12±4,59	164,54±28,47
Operating room (b)	48	33,72±8,18	42,41±7,68	17,22±3,88	23,50±5,64	15,66±2,80	21,00±4,11	153,54±25,62
Surgical clinic (c)	100	34,10±8,55	43,80±6,80	17,95±3,73	24,15±5,10	15,14±4,12	21,20±3,43	156,34±22,95
<b>F/p , Tukey's-b</b>		5,079/0,007* a>b=c	1,842/0,160	1,950/0,144	4,117/0,017* a>b	0,985/0,375	2,004/0,137	4,306/0,014* a>b
<b>Choosing the profession willingly</b>								
Yes	187	37,29±8,41	45,18±7,21	18,50±3,79	25,53±5,38	15,75±3,97	22,29±3,98	164,57±25,21
No	85	31,74±9,45	41,40±7,15	17,11±3,81	23,16±5,69	15,14±3,75	20,03±4,05	148,60±25,67
<b>t/p</b>		4,856/0,001*	4,024/0,001*	2,783/0,006*	3,303/0,001*	1,209/0,228	4,312/0,001*	4,816/0,001*

\*p<0,05, x<sup>2</sup>: Kruskal Wallis test, F: One-way analysis of variance. , t: t test in independent groups

## 5. Discussion

### Evaluation of the relationship between nurses' love for the profession and their commitment to the profession

In Turkey, anyone wanting to have a university education must first graduate from high school and then pass a government exam which is given nationwide. Selection of profession is carried out according to the general knowledge score achieved in this exam. As a result of this, students may end up selecting nursing when they have little knowledge of or interest in the profession. However, nursing is a profession which involves emotions such as self-sacrifice, compassion and love, and it was for this

reason that participants in the research were asked whether they had chosen the profession willingly and whether they loved the profession.

It was seen that 68.8% of nurses working in the surgery units had chosen the profession willingly, 52.9% had expectations relating to their professional lives, and 62.2% stated that the patient safety culture in the unit in which they worked was adequate. In a study by Mollaoğlu et al. (2010), it was found that nurses who had chosen their profession willingly had a better perception of institutional values, had more positive professional relations, and had greater job satisfaction. Choosing a profession willingly greatly affects a person's

**Tablo 4. Correlation Between The Nurses' Scores From The Nursing Professional Commitment Scale and Patient Safety Attitudes Questionnaire**

Scales		The Nursing Commitment to The Profession Scale			
		Willingness to Effort	Maintaining Profession Membership	Belief in Goals and Values	Scale total score
Patient Safety Attitude Scale	Job Satisfaction	r: 0,434 p=0,001*	r: 0,450 p=0,001*	r: 0,358 p=0,001*	r: 0,501 p=0,001*
	Teamwork	r: 0,361 p=0,001*	r: 0,385 p=0,001*	r: 0,280 p=0,001*	r: 0,418 p=0,001*
	Security Climate	r: 0,349 p=0,001*	r: 0,299 p=0,001*	r: 0,245 p=0,001*	r: 0,368 p=0,001*
	Management Approach	r: 0,402 p=0,001*	r: 0,357 p=0,001*	r: 0,284 p=0,001*	r: 0,429 p=0,001*
	Diagnosing Stress	r: 0,189 p=0,001*	r: 0,265 p=0,001*	r: 0,216 p=0,001*	r: 0,260 p=0,001*
	Working conditions	r: 0,358 p=0,001*	r: 0,446 p=0,001*	r: 0,315 p=0,001*	r: 0,449 p=0,001*
	Scale total score	r: 0,471 p=0,001*	r: 0,492 p=0,001*	r: 0,379 p=0,001*	r: 0,544 p=0,001*

\*p<0,01, r: Pearson Correlation Analysis

enthusiasm for their profession, their liking for the institution where they work and their colleagues and their professional relations and their job satisfaction, as well as their positive perceptions of their work environment [16].

In this study, age of nurses was an influencing factor to their occupational commitment. The NPCPS mean scores of nurses aged 32 or less were found to be higher than those of nurses aged above 32. This finding is consistent with the findings of Al-Hamdan et al. (2018), where age factor was found to be significant with regard to professional commitment. No significant difference was found between the nurses' age and their mean scores on the sub-dimensions of continuing membership of the profession and belief in targets and values [2]. Honyenuga & Adzoyi (2012) reported that there was a significant difference between nurses' professional commitment and age [17]. In the same way, Mrayyan (2012) found that age, education level and nursing experience were significant in explaining professional commitment [18]. Different from our study, no statistically significant difference was found in a study by Uysal (2019) between age and

scores on the total NCPS scale or its sub-dimensions [19]. Also differently, in a study by Cihangiroğlu et al. (2015) with nurses in Ankara, older nurses and those with a longer period of service were found to have a higher level of professional commitment than those who were younger [20].

The study found that the mean scores of nurses who worked for less than one year and 1-5 years in the willingness to make an effort dimension of the commitment to the profession scale were higher than those of nurses who worked for 11 years or more. Additionally, nurses working in a university hospital had higher professional commitment subscale and total score averages than those working in a city hospital. The mean scores on the sub-dimensions of continuing membership of the profession and belief in targets and values and on the total scale of nurses who stated that they had chosen the profession willingly were higher than those of nurses who had not chosen the profession willingly. In a study by Dönmez & Karakuş (2019) examining the commitment to their profession of newly graduated nurses, it was found that their scale total mean score was 74.56±10.43, and their scores on the sub-dimensions were as follows: willingness to make an

effort  $35.74 \pm 6.97$ , continuing membership of the profession  $23.21 \pm 4.73$ , and belief in targets and values  $15.60 \pm 2.13$ . Similarly, in a study researching nurses' commitment to their profession and its effect on their tendency to make medical errors, nurses' scores on the sub-dimensions were  $37.56 \pm 7.03$  for willingness to make an effort,  $23.35 \pm 5.83$  for continuing membership of the profession and  $15.32 \pm 2.67$  for belief in targets and values, with a scale total mean score of  $76.23 \pm 11$ .<sup>[21]</sup> Their commitment to the profession was seen to be at a medium level.<sup>[19]</sup> Also, in studies by Haydari et al., (2016) and in a study by Numminen et al., (2016) with the participation of 318 nurses, professional commitment was found to be good. According to these results, a high or low level of professional commitment is an important indicator of nurses continuing in the profession and of their professional development [22, 23].

There was no significant difference between meeting expectations relating to the profession in the professional lives of nurses and the mean scores of the NPCS and its sub-dimensions, and that the mean scores of nurses whose professional expectations were not met were lower than those of nurses whose professional expectations were met. In the literature, it was found that the mean scores of nurses whose professional expectations were not met were lower than those of nurses whose professional expectations were met.<sup>[12, 14, 24]</sup>

Findings revealed that the nurses obtained the highest mean scores on the sub-dimension of teamwork. This is consistent with the findings of Sexton, (2006) and Gündoğdu and Bahçecik, (2012) where the score for teamwork was similarly positive and high [14, 24].

It was found that there was a significant difference between the unit where the nurses worked and their mean scores on the sub-dimension of willingness to make an effort, and the median score of nurses working in intensive care was higher than the median scores of those working in the operating theater or in the surgery clinics. No significant difference was found between the unit where the nurses worked and their scores on the sub-dimensions of continuing membership of the profession and belief in targets and values or the total NPCS. In a study by Akbari et al., (2015), the professional commitment levels of nurses working in internal medicine units were found to be higher than those of nurses working in surgical units [1]. There are studies in the literature which have shown no significant correlation between the units where nurses worked and their professional commitment [25]. It was found that there was a significant difference between the nurses' scores for willing choice of profession and NPCS total and sub-dimension scores, and that the mean scores of nurses who had chosen their profession willingly were higher than the scores of those who had not. In a study by Şimşek & Aslan,

(2012), it was stated that nurses who had chosen their profession willingly had a higher level of commitment to their profession than those who had chosen it for other reasons. Nursing is not just a profession but a way of living. Greater conformity to this demanding lifestyle and high professional commitment in these individuals is an expected result of having willingly chosen the nursing profession, which entails long working hours, shift working, being under high stress and pressure, and great devotion [26].

#### **Evaluation of Nurses' Attitudes to Patient Safety**

The nurses' attitudes to patient safety were assessed using the Patient Safety Attitudes Questionnaire. Result showed that the mean patient attitude scores of the nurses in the present study were higher ( $159.58 \pm 26.38$ ) than those reported in literature (Tunçer et al., 2018,  $146.49 \pm 20.40$ ) and (Kızır, 2016,  $136.69 \pm 22.14$ ) [27, 28]. Similarly, Gündoğdu & Bahçecik, (2012) reported that nurses' patient safety attitude scores were at a medium level, and in a study to measure the cultural perceptions of patient safety of operating theater and intensive care nurses by Rızalar & Topçu (2017), scores on patient safety were at a medium level. [24, 29] At the same time, there are also studies which have reported patient safety attitudes to be below a medium level [27, 30]. In the study, nurses received the highest average score in the teamwork sub-dimension. In other studies in the literature, team collaboration score was found to be positive and high, similar to this study [14, 24].

A significant difference was found between the surgical nurses' age and teamwork, safety climate, working conditions sub-dimensions, and patient safety attitude scale total scores. Bernalte-Martí and Vicente (2022) conducted a study on nurses in the era of increased teamwork and safety climate. They found that positive attitudes towards working conditions were prevalent [31].

There was a significant difference between the institution where the nurses work and the job satisfaction of the patient safety attitude scale, teamwork, safety climate, management understanding, working conditions sub-dimensions and scale total scores, and the patient safety attitude perceptions of nurses working in university hospitals were higher than nurses working in a public hospital. There are different studies in our country that support or reach different results [24, 28, 32]. This situation can be explained by the fact that patient safety attitude is closely related to organizational awareness and competence behavior and affects the organizational commitment of nurses.

There was a significant difference between the working years of the nurses and their teamwork, safety climate, stress diagnosis sub-dimensions and total scale scores. Similar to the results of the study, as nurses' professional experience increased, teamwork was one of the studies that reported



positive attitudes to the safety climate<sup>[31, 33]</sup> as distinct, Karayurt et al., (2017) in their study, health workers with little professional experience reported higher 'teamwork' scores [34].

Comparing the nurses' unit and patient safety attitude perceptions compared to nurses working in operating rooms and surgical clinics, it was observed that patient safety attitude perceptions were higher especially in the sub-dimensions of job satisfaction and management understanding. The study found that surgical nurses worked in ICUs (n = 124), surgical clinics (n = 100) and operating theatres (n = 48), this difference may be due to the high number of nurses working in ICUs. Another perspective on these results, while requiring intensive care units found in terms of both critical and continuous maintenance of patient profiles and strict follow-up, can be considered to increase nurses' perceptions of patient safety culture in this area. In the literature, it has been reported that in specialized units where teamwork is essential, patient data are better, and employees have less stress and higher job satisfaction [31, 33, 35, 36].

A significant difference was found between nurses who willingly chose their profession and their scores on the patient safety attitudes scale (excluding the stress sub-dimension). This result shows that, in accordance with the research hypothesis, willingness to choose and love the profession is a factor affecting patient safety attitude, similar to the perception of commitment to the profession.

### **Comparison of Nurses' Perceptions of Professional Commitment and Patient Safety Attitude Perceptions**

We found a positive and moderate relationship between professional commitment to nursing and patient safety attitude. As the professional commitment score increased, the patient safety attitude score also increased. Al-Hamdan et al., (2018) stated that there is a positive and medium level relationship between nurses' professional commitment and patient safety attitude [2]. Similarly Teng et al., (2009) stated that there was a positive relationship between the two scales [37]. Also, Yang et al., (2013) reported that there is a relationship between strengthening nurses' professional practice authority, professional and organizational commitment and patient safety [38]. In conclusion, the study revealed that surgical nurses' commitment to their profession and their scores for patient safety attitude were at a medium level, and that nurses with a high level of commitment to the profession had high mean scores for patient safety attitude. It was shown that there was a medium level positive correlation between the nurses' commitment to their profession and their patient safety attitude, and that commitment to the profession was an important factor in explaining patient safety attitude. And another implication is that willingly choosing and loving the profession is

indirectly a factor for positive patient safety attitude and patient safety practices.

In general, the results obtained in this study, which had the aim of determining nurses' perceptions concerning professional commitment and patient safety attitudes in health institutions, will show the current state of levels of professional commitment and attitudes and behaviors relating to patient safety of surgical nurses. In particular, we are of the opinion that when the importance of patient safety in surgical units is taken into account, the result that the perception of commitment to the profession is a factor which affects patient safety practices will make a contribution to the professional literature.

### **Competing interest**

The authors declare no competing interests.

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