

# The relationship between nurses' professional commitment and caring behaviors: A cross-sectional study

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**ABSTRACT.** This study aimed to examine the relationship between nurses' professional commitment and caring behaviors. This was a cross-sectional-correlational research design. Study conducted with 293 nurses. Data were collected between January and March 2023. Ethics committee approval and informed written consent of the participant were obtained for the study. The data were collected by using the 'Nurse Information Form', 'Caring Behaviours Inventory-24 (CBI-24)' and 'Nursing Professional Commitment Scale (NPCS)'. It was found that the mean score of the NPCS was  $82.71 \pm 14.306$ . and of the CBI-24 was  $5.38 \pm 0.653$ . Nurses' professional commitment and caring behaviors were high. It was found that the NPCS total and subscales' scores have positively correlations with the total and sub-scores of CBI-24. However, this relationship was weak ( $r = 0.421$ ,  $p < .001$ ). Professional commitment explained 17% of the variance in caring behaviors. Professional commitment and caring behaviors are at a high level in nursing. However, there is no significant relationship between nurses' professional commitment and caring behaviors. These findings may provide ideas for managers to strengthen nurses' professional commitment and increase their caring behaviors. Thus, health policies related to nurses can be developed.

**Keywords:** Nurse; care behaviors; professional commitment.

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## Introduction

Professional commitment is defined as an attitude that provides a mental, emotional and physical connection to one's job. It is also the harmony between one's beliefs and one's determination to continue working in one's profession. It consists of three factors: the first is believing in the goals and values of the profession, the second is wanting to make an effort to understand these values, and the last is being determined to stay in the profession (Gambino, 2010; García-Moyano et al., 2019).

Researchers state that the concept of professional commitment is affected by many sociodemographic and occupational factors. It has been reported that professional commitment is high in those who are married, those who are older, those who have high job satisfaction (Hsu et al., 2015), those who have family support, those who choose their profession willingly, those with low perception of organizational obstacles, and those with high education level (Duran et al., 2021).

Nurses with high professional commitment are expected to continue their work, fulfill their duties and save people's lives under difficult working conditions. Therefore, nurse managers' understanding of the factors affecting professional commitment can enable them to take effective measures to increase professional commitment. Because the future of nursing will be determined by nurses with high professional commitment (Duran et al., 2021). Higher professional commitment among nurses; It can improve professional competence, job satisfaction and quality of patient care (Hsu et al., 2015; Lu et al., 2019), increase employee performance and job satisfaction, reduce absenteeism and intention to leave (García-Moyano et al., 2019).

Care is a complex concept and subjective. The aim of care is to meet the needs of the patient. Care is a process and is based on the interaction between the nurse and the patient (Juanamasta et al., 2021; Stavropoulou et al., 2022). The essence of nursing is care, and care is one of the most important roles of nurses in the health system. Therefore, it is necessary to investigate the factors that improve care behaviors (Munro & Hope, 2020; Yau et al., 2019).

Among nurses, there are caring behaviors that focus on love, kindness, compassion, and relationships, but there are also behaviors that focus more on the application of skills or accomplishing a task (Putra et al., 2021). Improving nurses' professional commitment may influence their caring behavior (Chiang et al., 2016).

Despite the importance of the concepts of professional commitment and caring behaviors in clinical settings, when the literature was reviewed, no research was found that specifically addressed the relationship between nurses' professional commitment and caring behaviors. Accordingly, this study aimed to examine the relationship between nurses' professional commitment and caring behaviors.

## Materials and methods

### Study design and participants

This was a cross-sectional-correlational research design. The population of the research consisted of nurses working in public and private hospitals in Turkey. G-Power power analysis was used to calculate the appropriate sample size. An effect size of 0.7, a power of 0.8, and an  $\alpha$  of less than .05 were adopted for this nursing study. The calculated sample size was 293. The self-administered survey was sent to all potential participants via social media as a Google Form. A total of 400 surveys were sent and data collection was terminated when 293 were returned. Data were collected between January and March 2023. The inclusion criteria for the study were: agreeing to participate in the study, at least 1 year of work experience, direct relationship with patients. Exclusion criteria for nurses were: less than 1 year of work experience, inability to have direct contact with patients (e.g. operating rooms, outpatient clinics, vaccination units).

### Measurements

'Personal Information Form', 'Professional Commitment Scale in Nursing' and 'Caring Behaviours Inventory-24 (CBI-24)' were used to obtain information from the participants. Personal Information Form: Among the personal information queried were the nurses' age, working time (year), gender, marital status, education, type of hospital worked, working clinic, recommend the profession, choice of profession, participation in professional training (Duran et al., 2021). Nursing professional commitment scale (NPCS) was developed by Lu et al., (2000) to measure the nurses' professional commitment levels.

The scale is a 4-point Likert type ranging from 'strongly disagree' to 'strongly agree' and consists of 26 items. The overall score is calculated by adding up all items in the scale, which has 3 dimensions: 'Willingness to make an effort', 'Maintaining Professional membership' and 'Belief in the goals and values'. Scores between 26 and 104 can be obtained from the scale. The score ranges obtained from the subscales are; 'Willingness to make an effort' between 13-52; 'Maintaining professional membership' between 8-32; 'Belief in purpose and values' between 5-20. The scale has no cut-off point. An increase in the score obtained from the whole scale and its sub-dimensions indicates that individuals have high professional commitment (Lu et al., 2000).

The scale was translated into Turkish by Çetinkaya et al., (2015). In the Turkish validity and reliability study, the Cronbach's alpha value was found to be 0.90 (Çetinkaya et al., 2015). Caring Behaviours Inventory-24 (CBI-24) was developed by Wu et al. (2006). It is used to compare nurses' self-evaluations and patient perceptions. The scale has 4 sub-dimensions: assurance, knowledge-skill, respect and commitment, and a total of 24 items. The scale is a 6-point Likert type ranging from 'never' to 'always'. The total score is divided by 24 to obtain a score between 1-6. The internal consistency Cronbach Alpha ( $\alpha$ ) value of the scale for both patients and nurses was determined as 0.96 in total and 0.82-0.92 in the sub-dimensions (Kurşun & Kanan, 2012; Wu et al., 2006). The scale was adapted to Turkish by Kurşun and Kanan (2012) (Kurşun & Kanan, 2012).

### Data collection

To ensure the clarity of the questions, the forms were applied to 5 nurses, their opinions were taken and no changes were made to the forms. Data was collected between January and March 2023. Data collection tools were delivered to nurses via social media. Research data were collected online through Google Forms. After the purpose of the study was explained to the nurses, they were assured that they had free will to participate. At the same time, the researcher explained that they had to read and approve the informed consent form.

### Data analysis

Data were analysed with the SPSS 24.0 program (IBM SPSS Statistics for Windows, Version 24.0.). Continuous variables are expressed as means  $\pm$  SD, and categorical variables are expressed as percentages. Normal distribution of variables was evaluated by using the Shapiro-Wilk test. Predictor and predictor variables were determined to be continuous variables measured on at least an equal interval scale, and normal distribution analysis was evaluated between -2 and + 2 points (George, 2011). To determine the difference between the mean levels of independent variables, the t test was used for independent groups, and the Kruskal–Wallis test was used for more than two independent groups when assessing the scale scores with respect to the variables. Spearman r correlation coefficient was used to determine the relationship between variables. Regression analysis was performed. The level of significance was accepted as  $p < .05$ .

### Ethical aspects

The study was approved by a university ethics committee (Date:17.06.2022, No:2022/042). The study was planned and conducted in accordance with the Declaration of Helsinki. The purpose of the study was explained to each participant at the beginning. They were assured that their responses would remain confidential. All participants in this study were volunteers. Informed written consent was obtained from the participants.

### Results

The average age of the 293 nurses who participated in the study was  $32.68 \pm 8.188$ , and the participants had been working as nurses for at least 1 year and at most 37 years. The majority of the nurses were female (71.3%), married (61.1%), and more than half of them had undergraduate level education (56.7%). When individual characteristics for the profession are evaluated, it was determined that the majority of nurses worked in a public hospital (58.4%) and the vast majority of them chose their profession willingly (81.9%). Nearly a quarter of the participants worked in surgery clinics (23.5%), and nearly a quarter worked in internal medicine clinics (22.5%). It was determined that two hundred forty-four nurses attended professional training (83.3%) and two hundred seventy-seven of them recommended the profession (77.5%) (Table 1).

**Table 1.** The characteristics of nurses' socio-demographic and professional (n = 293).

	Min	Max	$\bar{X} \pm SD$
Age	20	56	$32.68 \pm 8.188$
Working time (year)	1	37	$9.62 \pm 8.104$
Characteristics	<b>n</b>	<b>%</b>	
Gender	Female	209	71.3
	Male	84	28.7
Marital status	Married	179	61.1
	Unmarried	114	38.9
Education	High School	40	13.7
	Associate degree	41	14.0
	Undergraduate	166	56.7
	Postgraduate	46	15.7
Type of hospital worked	Public hospital	171	58.4
	Private hospital	71	24.2
	University hospital	51	17.4
Working clinic	Internal medicine clinic	66	22.5
	Surgery clinic	69	23.5
	Pediatric clinic	21	7.2
	Emergency room	46	15.7
	Intensive care	44	15.0
	Obstetrics	11	3.8
	Psychiatric clinic	6	2.0
	Other	30	10.2
Recommend the profession	Yes	227	77.5
	No	66	22.5
Choice of profession	Willingly	240	81.9
	No willingly	53	18.1
Participation in professional training	Yes	244	83.3
	No	49	16.7

Min: Minimum, Maks: Maximum,  $\bar{X}$ : Mean, SD: Standart Deviation.

Table 2 reflects the information obtained from nurses regarding professional commitment and caring behaviors. Nurses' professional commitment general weighted mean score  $82.71 \pm 14.306$ ; The 'willingness to make an effort' subscale mean score is  $40.65 \pm 8.452$ , the 'maintaining professional membership' subscale mean score is  $25.99 \pm 5.435$ , and the 'belief in the goals and values' subscale mean score is  $16.06 \pm 2.692$ . The participants' mean CBI-24 score was  $5.38 \pm 0.653$ . The mean scores of the CBI-24 subscales indicated that the highest rated subscale was 'Knowledge and skills' (mean = 5.51, SD = 0.667), while 'Connectedness' (mean = 3.469) was the lowest rated subscale.

**Table 2.** Distribution of nurses' professional commitment and CBI-24 mean scores (n = 293).

Scales/subscales	Min.	Max.	$\bar{X}$	SD
Willingness to make an effort	13.00	52.00	40.65	8.452
Maintaining professional membership	8.00	32.00	25.99	5.435
Belief in the goals and values	8.00	20.00	16.06	2.692
Nursing professional commitment scale score	31.00	104.00	82.71	14.306
Assurance	1.00	6.00	5.35	0.708
Knowledge and skills	1.00	6.00	5.51	0.667
Respectfulness	1.00	6.00	5.35	0.700
Connectedness	1.00	6.00	5.28	0.716
CBI-24 Total	1.00	6.00	5.38	0.653

Min: Minimum, Maks: Maximum,  $\bar{X}$ : Mean, SD: Standart Deviation.

The correlations of NPCS and BDI-24 mean scores were calculated and evaluated and given in Table 3. Results showed that NPCS was significantly, positively related to CBI-24. However, this relationship was weak ( $r = 0.421$ ,  $p < .001$ ). Two of the three subscales in the Nursing professional commitment scale score correlated weak with the CBI-24 when considered individually; the exception was that the 'maintaining professional membership' subscale showed a very weak correlation. The four subscales in the CBI-24 correlated weak with NPCS when considered.

**Table 3.** The relationship between nurses' scores from the Nursing professional commitment scale and the CBI-24 (n = 293).

Scales/subscales	Willingness to make an effort	Maintaining Professional membership	Belief in the goals and values	Nursing professional commitment scale score
Assurance	$r = 0.418^{**}$	$0.242^{**}$	$0.393^{**}$	$0.413^{**}$
Knowledge and skills	$r = 0.364^{**}$	$0.162^{**}$	$0.444^{**}$	$0.360^{**}$
Respectfulness	$r = 0.400^{**}$	$0.201^{**}$	$0.396^{**}$	$0.387^{**}$
Connectedness	$r = 0.430^{**}$	$0.233^{**}$	$0.384^{**}$	$0.415^{**}$
CBI-24 Total	$r = 0.431^{**}$	$0.224^{**}$	$0.431^{**}$	$0.421^{**}$

Significant at  $*p < 0.05$ ,  $**p < 0.001$ ; Spearman correlation ( $r$ ).

The prediction of nurses' professional commitment was examined with simple linear regression analysis. Levels of nurses' professional commitment explained caring behaviors in a statistically significant way ( $F = 62.703$ ,  $p < 0.001$ ). Participants' levels of commitment to their profession explained 17% of the variance in their levels of caring behaviors ( $R^2 = 0.177$ ). Each unit increase in nurses' professional commitment levels resulted in a 0.019 (95 CI, 0.014 to 0.024) unit increase in their caring behavior levels (Table 4).

**Table 4.** The effect of nurses' professional commitment levels on caring behaviors (n = 293).

	Unstandardized coefficients			Standardized coefficients	t	p
	B	SE	%95 CI	$\beta$		
Sabit	3.789	0.204	3.387-4.190	-	18.573	$< 0.001$
Nursing professional commitment scale score	0.019	0.002	0.014; 0.024	0.421	7.919	$< 0.001$

Durbin-Watson = 1.946  $F = 62.703$   $R = 0.421$   $R^2 = 0.177$  Adjusted  $R^2 = 0.174$   $**p < 0.001$

Notes: Durbin-Watson = 1.946;  $F = 62.703$ ,  $p < .001$ ;  $R = 0.421$ ;  $R^2 = 0.177$ ; Adjusted  $R^2 = 0.174$ . Abbreviations: CI, confidence interval; SE, standard error;  $\beta$ , standardized regression coefficient. Significance level was accepted as  $*p < 0.05$ ,  $**p < 0.001$ .

## Discussion

The main finding of this study is that the mean scores of nurses' professional commitment and CBI-24 are high, but the correlation between the two concepts is weak. No study has been found in the literature

examining the effect of professional commitment level on caring behaviors in nurses. However, similar to the research results, a study conducted with a sample of approximately half of which was nurses reported that there was a weak relationship between professional commitment and job performance (Berberoglu, 2018).

However, the expected results of commitment to the organization and profession in nurses are better job performance and improved employee retention; These benefits ensure clients receive better quality care (Liou, 2008). In other words, professional commitment affects the outcome of healthcare (Chang et al., 2019). Unlike the current research results, Tuna and Sahin reported that they found a strong correlation between nurses' professional commitment and their attitudes towards work. Accordingly, nurses' professional commitment was explained by their attitudes towards job (Tuna & Sahin, 2021).

The pandemic has affected many events in human life and made professional commitment more fragile. However, in two different studies examining the factors affecting nurses' professional commitment, it was reported that nurses' professional commitment was at a moderate level even under very difficult conditions (Duran et al., 2021; Özkan Şat et al., 2021). Nurses' professional commitment is the intention to build a meaningful and lifelong career, but also a dynamic process (Gardner, 1992). A process such as the pandemic, which creates fear and uncertainty in society in general, has not reduced the level of nurses' professional commitment. If the pandemic had reduced the level of professional commitment, the already lacking nursing workforce problem could have increased further, deepening the negative impact of the pandemic on healthcare services.

Different studies have shown that enhanced professional development opportunities, improved salary structures (Chang et al., 2019), having a high level of education, being married, working in obstetric clinics, and having a high job level (Hsu et al., 2015) increase nurses' professional commitment. Just as there are factors that affect professional commitment, there are also some factors that affect professional commitment. One of these is compassion. A study found that as nurses' levels of professional commitment increased, their levels of compassion increased. (Duru et al., 2022).

Compassion is considered the fundamental element of nursing practice, that is, care (Su et al., 2020). The nursing profession is a familiar profession to most people around the world. Undoubtedly, the most important component of the nursing profession is care, which has different dimensions (van der Cingel & Brouwer, 2021). In the current study, nurses' high care behavior score was consistent with other studies (Düdener & Hallaç, 2023; Erol et al., 2024; Foster et al., 2020). As in the current study, in studies examining care behaviors, it was found that the highest mean was in the 'knowledge and skills' sub-dimension and the lowest mean was in the 'connectedness' sub-dimension (Efil et al., 2022).

Caring is a fundamental and characteristic aspect of nursing, is multidimensional and is affected by the individual and professional characteristics of nurses (Tehranineshat et al., 2020). It is estimated that there may be a relationship between resilience and caring behaviors, but Foster et al. (2020) reported that there is no relationship between resilience and caring behaviors (Foster et al., 2020). Erol et al. (2024) found that the regression model was significant in their study examining the relationship between nurses' care behaviors and stress and the nursing workforce in intensive care units (Erol et al., 2024). Aksu et al. (2023) reported that as nurses' interpersonal intelligence levels increased, their caregiving behaviors also increased (Aksu et al., 2023).

## Conclusion

In light of the findings of the current study, it was concluded that nurses' professional commitment and caring behaviors were high, but were not related to nurses' professional commitment and caring behaviors. It is important for nurses to demonstrate caring behaviors, which are the basis of the caring profession. The research results are important in terms of revealing that nurses' caring behaviors are high. Based on the study results, it can be said that hospitals and nurse managers need to develop policies to maintain nurses' professional commitment and caring behaviors.

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## Data Availability

The dataset (the applied questionnaires and responses) is available from the corresponding author on reasonable request.

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