



ORIGINAL RESEARCH

Attitudes and Behaviours of Nurses Working in Surgical Clinics towards Caring Nurse-Patient Interaction

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Abstract

Objective: The study was conducted to examine the attitudes and behaviours of nurses working in surgical clinics towards care-oriented nurse-patient interaction.

Method: The sample of the descriptive study consisted of 176 nurses working in the surgical clinics of a university hospital. The data were collected using the nurse information form and the Caring Nurse-Patient Interaction Scale. The results were evaluated within 95% confidence interval and significance was evaluated under $p < 0.05$.

Results: It was determined that the importance score of nurses' caring nurse-patient interactions was 337.41 ± 13.32 ; the competency score was 313.01 ± 19.38 and the feasibility score was 311.93 ± 22.83 . The independent factors affecting the level of importance of caring nurse-patient interactions were female gender status [$\beta = 0.40$; $t = 2.24$; $p = 0.026$], increasing education level [$\beta = 0.40$; $t = 7.11$; $p < 0.001$], choosing the profession because they liked it [$\beta = 1.05$; $t = 4.84$; $p < 0.001$] and having no problems in interpersonal relationships; the independent factors affecting the level of competence in caring nurse-patient interaction were educational level [$\beta = 0.21$; $t = 1.31$; $p < 0.001$] and choosing the profession because they liked it [$\beta = 0.89$; $t = 3.18$; $p = 0.002$]; the independent factor affecting the level of feasibility of caring nurse-patient interaction was determined to be the status of choosing the profession because they liked it [$\beta = 0.78$; $t = 2.61$; $p = 0.010$].

Conclusion: Nurses' attitudes and behaviours towards the importance of caring nurse-patient interactions were more positive than their attitudes and behaviours towards their competency and feasibility.

Keywords

Surgical nursing, Nursing care, Nurse-patient interaction, Attitude

Introduction

Nursing is defined by ICN as "a professional group that helps to protect and improve the health of the individual, family and society and provides healing and rehabilitation in case of illness" [1]. Nursing is a professional profession based on human relations involving mutual trust and the phenomenon of care. Since helping the individual in the protection of all dimensions of the individual's existence forms the basis of nursing care, nurses should have the knowledge and skills to provide care in all these areas [2].

Nursing care is based on the relationship and interaction between the nurse and the patient. Watson defined nursing care as a scientific, ethical, aesthetic, professionally individualized interpersonal process with the mutual interaction of two people in physical, mental, spiritual and socio cultural ways [3,4], and nurse such as Orlando and Leninger defined the concepts of nursing and care as "an interaction process between people". This process is the human relationship between the individual who is ill or in need of health services and the nurse [5].

Determining and meeting the needs of the patient individual constitutes the focus of nurse-patient interaction [6,7]. Surgical nursing, one of the important specialties of nursing, aims to determine the physical and psychosocial needs of patients in order to regain their health and maintain their well-being and to meet these needs inline with the nursing process with a holistic

approach based on evidence-based knowledge [8]. Surgical nurses provide holistic care based on scientific knowledge in the process including the continuation of preoperative, intraoperative and postoperative care, discharge and home care planning [9]. In surgical units, interaction with the patient may be ignored due to reasons such as high patient circulation, application of invasive interventions, preoperative preparation, postoperative complication risks [4]. It is stated that nurses' behaviours and attitudes have strong effects on nurse-patient interactions. In the literature, it is reported that the interpersonal relationship established with healthy/patient individuals increases motivation for recovery, compliance with treatment and patient satisfaction [10].

It is important to examine the attitudes and behaviours of nurses working in surgical clinics towards caring nurse-patient interaction in order to improve the professional nursing relationship in the care-giving process and to increase patient satisfaction and quality of care. In this direction, the study was conducted to examine the attitudes and behaviours of nurses working in surgical clinics towards caring nurse-patient interaction (CNPI).

Research Questions

- What are the mean scores of the Caring Nurse-Patient Interaction Scale (CNPI) of nurses working in surgical clinics?
- What are the variables affecting the CNPI of nurses working in surgical clinics?

Methods

Type of study

It was carried out descriptively.

Population sample

The population of the study consisted of 325 nurses working in the surgical clinics of a university hospital between December 2022 and 2023. The sample of the study was determined as 176 by calculating the number of elements in the universe with a known formula. The minimum number requirement for the sample was met. Nurses who had at least one year of working time in surgical clinics and who were open to communication and cooperation were included in the study.

Data collection tool

Nurse information form: The form consists of 11 questions including descriptive and professional characteristics of the nurses who will participate in the study [11-13].

Caring nurse-patient interaction scale (CNPI): The scale developed by Cossette, et al. [14] and adapted into Turkish by Atar and Aşti [15] consists of 3 dimensions and 70 items. The lowest score that can be obtained

from the scale is 70 and the highest score is 350, and it is stated that as the score increases, the attitudes and behaviours of nurses towards caring nurse-patient interaction increase positively. In the study of Atar and Aşti [15], Cronbach Alpha reliability coefficient was calculated as $\alpha = 0.99$ for the importance dimension, $\alpha = 0.98$ for the competency dimension, and $\alpha = 0.99$ for the feasibility dimension. In this study, Cronbach's alpha (α) coefficient values for the importance, competency and feasibility sub-dimensions of the care-oriented nurse-patient interaction scale were calculated as 0.94, 0.95 and 0.96, respectively. With this finding, it was determined that the dimension total score reliability of the scales used in the study was excellent.

Data collection: The data collection period lasted approximately 20-25 minutes for each nurse.

Ethical issues

Ethics committee permission (Date: 17.12.2022, No: 2022/466) and institutional permission were obtained for the conduct of the study. Informed consent was obtained from all study participants. Permission was obtained from the author who performed the Turkish validity and reliability of the scale in order to use the "Caring Nurse-Patient Interaction Scale" among the data collection tools. The study was conducted in accordance with the Helsinki principles.

Data analysis

The normality assumption of continuous variables in the study was determined by the Kolmogorov-Smirnov test. Categorical variables were given as frequency (n, %); continuous variables were given as mean and standard deviation. Cronbach alpha reliability coefficients were calculated to determine the reliability of the scale used in the study. Comparisons between two groups in continuous variables were made with the Independent sample t test. Comparisons of more than two groups were made with the One-way ANOVA (Variance) test. In the ANOVA test, the Scheffe post-Hoc test was used to determine which groups caused the significant difference. The results were made with version 26 (IBM SPSS Statistics for Windows, Armonk, NY: IBM Corp, USA) at a 95% confidence interval.

Results

A total of 176 nurses, 89.8% of whom were female, with a mean age of 32.12 ± 6.67 years were included in the study. It was determined that 61.4% of the nurses were married, 31.8% had children, and 87.5% had a bachelor's degree or higher. When the occupational characteristics of the nurses were analyzed, it was found that 81.3% worked in shift system, the mean duration of occupational and clinical experience was 9.74 ± 6.38 and 7.18 ± 5.46 years, 52.3% chose the nursing profession because of job opportunities, 37.5% because they liked the profession, 10.2% because of family request,

Table 1: CNPIS sub-dimension total score mean and level of relationship between sub-dimensions (N = 176).

No	Sub Dimensions	Mean \pm SD	Minimum-Maximum	1	2
1	importance	337.41 \pm 13.32	276-350	NA	
2	competency	313.01 \pm 19.38	238-350	r = 0.664*	
3	feasibility	311.93 \pm 22.83	224-350	r = 0.564*	r = 0.814*

*p < 0.001; r: Pearson correlation test; NA: Not Applicable; SD: Standard Deviation

11.4% had difficulties in interpersonal relations in daily life; It was found that 20.5% of the nurses performed non-nursing work and 25.6% provided support services to other health professionals, apart from their routine treatment-care work during working hours.

It was determined that there was a statistically significant and positive correlation between the sub-dimensions of the nurses' CNPIS (r = 0.56 to 0.81; p < 0.001) (Table 1).

Compared to male nurses, female nurses had statistically significantly better attitudes and behaviours regarding the importance (t = 3,548; p = 0.002), competency (t = 3,798; p < 0.001) and feasibility (t = 3,064; p = 0.003) of caring nurse-patient interactions. It was found that the attitudes and behaviours of nurses who received high school or associate degree level education were statistically significantly lower regarding the importance (F = 51,634; p < 0.001), competency (F = 13,878; p < 0.001) and feasibility (F = 9,175; p < 0.001) of caring nurse-patient interactions.

It was found that the attitudes and behaviours of the nurses who chose the nursing profession because they liked it were statistically significantly better regarding the importance (F = 54,453; p < 0.001), competency (F = 24,852; p < 0.001) and feasibility (F = 16,261; p < 0.001) of caring nurse-patient interactions.

Nurses who had problems with interpersonal relationships in daily life had statistically significantly lower attitudes and behaviours regarding the importance (t = 3,424; p = 0.003), competency (t = 2,593; p = 0.017) and feasibility (t = 2,861; p = 0.005) of caring nurse-patient interactions (Table 2).

When the relationship between the independent variables of the model and the dependent variable was analyzed; female gender status [β = 0.40; t = 2.24; p = 0.026], increasing education level [β = 0.40; t = 7.11; p < 0.001], choosing the profession because they like it [β = 1.05; t = 4.84; p < 0.001] and not having problems in interpersonal relationships [β = 0.54; t = 3.10; p = 0.002] were found to be independent factors that increased nurses' level of caring nurse-patient interaction importance (Table 3).

It was found that increasing educational level [β = 0.21; t = 1.31; p < 0.001] and choosing the profession because they liked it [β = 0.89; t = 3.18; p = 0.002] were found to be independent factors that increased nurses' level of competency in caring nurse-patient interaction (Table 4).

It was determined that the condition of choosing the profession because they liked it [β = 0.78; t = 2.61; p = 0.010] was the only independent factor that increased the level of feasibility of caring nurse-patient interaction (Table 5).

Discussion

Caring nurse-patient interaction is a concept that includes understanding, empathy and a supportive approach in the nurse's relationship with the patient in order to increase the quality of patient care and improve patient outcomes [4,16-19]. In the study, the results of the studies in the literature [2,20-24], it was determined that nurses' attitudes and behaviours towards CNPI were positive and their importance scores were higher. It was found that nurses' attitudes and behaviours towards the importance of care-oriented nurse-patient interactions were more positive than their attitudes and behaviours towards their competency and feasibility. It can be thought that although nurses find patient interaction important, they have problems in terms of its competency and feasibility. This situation may be associated with the fact that nurses cannot allocate enough time to the patient due to high work load and incompatible nurse/patient numbers. However, the fact that the nurses' attitudes and behaviours towards CNPI were positive and the importance sub-dimensions were high in the study is a positive result for surgical nursing where CNPI is important.

Various factors such as gender perception, communication style, gender-based preferences of patients, cultural social factors may play a role in nurse-patient interaction. When the literature is examined, it is seen that the results of the studies on gender and CNPIS mean scores differ [15,18]. When the literature was examined, it was determined that in most of the studies, CNPIS scores did not differ significantly according to gender status [11,13,16,18,22]. In this study, it was determined that women's attitudes and behaviours regarding the importance, competency and feasibility of care-oriented nurse-patient interactions were statistically significantly better compared to male nurses. This result can be explained by the fact that male and female nurses have different communication styles and empathy levels, and women have a more empathic and emotionally supportive communication style.

A competency-based education is essential for the professionalism of a profession [25]. Sertgoz and Demir [22] reported that there was no significant difference

Table 2: Mean scores of nurses according to descriptive and professional characteristics (N = 176).

Variables	Category		Importance	Competency	Feasibility
		n	Mean ± SD	Mean ± SD	Mean ± SD
Gender	Woman	158	339.16 ± 11.13	314.81 ± 17.912	313.66 ± 21.98
	Male	18	322.06 ± 20.10	97.17 ± 24.66	296.67 ± 25.01
	Test value^a p-value		3.548 0.002*	3.798 < 0.001*	3.064 0.003*
Marital status	Single	108	337.85 ± 13.19	312.39 ± 19.32	311.59 ± 22.27
	Married	68	336.71 ± 13.58	313.99 ± 19.57	312.46 ± 23.84
	Test value^a p-value		0.555 0.580	0.531 0.596	0.244 0.808
Child presence	Yes	56	337.43 ± 13.42	312.61 ± 20.16	311.34 ± 25.36
	No	120	337.40 ± 13.33	313.19 ± 19.09	312.20 ± 21.65
	Test value^a p-value		0.013 0.989	0.186 0.853	0.219 0.827
Education level	High School/Associate Degree ¹	22	316.27 ± 17.37	294.18 ± 21.56	294.23 ± 19.60
	License ²	132	339.80 ± 9.72	315.26 ± 17.42	315.42 ± 21.11
	Graduate ³	22	344.23 ± 5.88	318.32 ± 18.40	308.64 ± 27.59
	Test value^b p-Value Difference**		51.634 < 0.001* f = 1 < 2,3	13.878 < 0.001* f = 1 < 2,3	9.175 < 0.001* f = 1 < 2,3
Mode of operation	Continuous day time	33	334.45 ± 16.56	310.03 ± 22.67	308.58 ± 24.75
	Night and day	143	338.09 ± 12.42	313.69 ± 18.56	312.70 ± 22.38
	Test value^a p-value		1.187 0.242	0.864 0.393	0.935 0.351
Doing non-nursing work	Yes	36	339.83 ± 10.46	315.75 ± 19.85	313.28 ± 23.62
	No	140	336.79 ± 13.92	312.30 ± 19.26	311.58 ± 22.69
	Test value^a p-value		1.226 0.222	0.952 0.342	0.397 0.692
Providing support services	Yes	45	339.53 ± 13.85	316.40 ± 21.56	314.73 ± 23.19
	No	131	336.68 ± 13.11	311.84 ± 18.51	310.96 ± 22.71
	Test value^a p-value		1.242 0.216	1.365 0.174	0.956 0.340
Reason for choosing nursing profession	Family preference ¹	18	318.67 ± 19.73	294.94 ± 24.75	296.39 ± 23.01
	Job Opportunity ²	92	334.80 ± 11.24	308.99 ± 17.17	307.10 ± 19.83
	Love of profession ³	66	346.15 ± 3.80	323.53 ± 14.57	322.89 ± 22.18
	Test value^b p-value Difference**		54.453 < 0.001* f = 3 > 2 > 1	24.852 < 0.001* f = 3 > 2 > 1	16.261 < 0.001* f = 3 > 1,2
Difficulties in Interpersonal relationships	Yes	20	323.15 ± 20.65	298.90 ± 26.72	298.45 ± 24.03
	No	156	339.24 ± 10.88	314.81 ± 17.54	313.65 ± 22.16
	Test value^a p-value		3.424 0.003*	2.593 0.017*	2.861 0.005*

p < 0.05; ^aIndependent sample t test; ^bOne-way ANOVA test; **: Post-Hoc Scheffe test; SD: Standard Deviation

Table 3: Independent variables associated with nurses' CNPIS importance subscale level.

Variables	B	SH	β	t	P	VIF	Tolerance
Fixed value	298.50	3.19		93.360	< 0.001		
Gender							
Female-Male**	5.34	2.38	0.401	2.240	0.026*	1.08	0.92
Education level	6.88	0.96	0.404	7.110	< 0.001*	1.13	0.88
Reason for choosing nursing profession						1.11	0.89
Job opportunity-Family preference	5.18	2.65	0.389	1.9500	0.53		
Love of profession-Family preference**	13.93	2.87	1.046	4.840	< 0.001*		
Difficulties in inter personal relationships						1.11	0.89
No-Yes**	7.24	2.23	5.44	3.100	0.002*		
Linear regression model Summary	F ₍₅₋₁₇₀₎ R ² Dependent Variable					45.50; p < 0.01 0.572 Importance	

Table 4: Independent variables associated with nurses' CNPIS competence subscale level.

Variables	B	SH	B	T	p	VIF	Tolerance
Fixed values	278.00	6.03		46.129	< 0.001		
Gender							
Female-Male**	5.87	4.49	0.303	1.307	0.193	1.08	0.92
Education level	5.13	1.82	0.207	2.815	0.005*	1.13	0.88
Reasons for choosing nursing profession						1.11	0.89
Job opportunities - Family preference**	4.97	5.01	0.256	0.992	0.323		
Love for the profession - Family preference**	17.24	5.43	0.890	3.178	0.002*		
Difficulties in interpersonal relationships						1.11	0.89
No-Yes**	6.67	4.40	0.344	1.516	0.131		
Linear regression model summary	F ₍₅₋₁₇₀₎ R ² Dependent variable					13.40; p < 0.001 0.282 Competency	

*p < 0.05; B: Estimates of unstandardized standardized regression weights; β : Estimates of standardized regression weights; SH: Standard Error; VIF: Variance Inflation Factor; **: Reference value

Table 5: Independent variables associated with nurses' CNPIS feasibility subscale level.

Variables	B	SH	β	t	p	VIF	Tolerance
Fixed value	283.42	7.57		37.429	< 0.001		
Gender							
Female-Male**	6.520	5.64	0.285	1.155	0.250	1.08	0.92
Education level	2.780	2.29	0.095	1.214	0.226	1.13	0.88
Reason for choosing nursing Profession						1.11	0.89
Job opportunities-Family preference**	3.86	6.29	0.168	0.613	0.541		
Love for the profession -Family preference**	17.78	6.82	0.778	2.608	0.010*		
Difficulties in interpersonal relationships						1.11	0.89
No-Yes**	6.74	5.53	0.225	1.218	0.225		
Linear regression model summary	F ₍₅₋₁₇₀₎ R ² Dependent variable					7.64; p < 0.001 0.183 Feasibility	

p < 0.05; B: Estimates of unstandardized standardized regression weights; β : Estimates of standardized regression weights; SH: Standard error; VIF: Variance Inflation Factor; **: Reference value

between the level of education and the importance and competence dimensions of the scale, but in the feasibility dimension, it was stated that graduate nurses had less care-oriented nurse-patient interaction than high school graduates. In the study of Uyar and Coskun [18], it was determined that there was a statistically significant difference in the importance sub-dimension of the CNPIS according to the educational level of the nurses and that the mean score of those with undergraduate and graduate education was higher than the mean score of high school and associate degree graduates. In Bayraktar and Eser's [2] study, it was stated that there was no significant difference between the level of education and the importance and competency dimensions of the scale, but the mean score was lower in the feasibility dimension. In this study, it was found that the attitudes and behaviours of nurses with high school or associate degree level education regarding the importance, competency and feasibility of care-oriented nurse-patient interactions were statistically significantly lower. This result confirms the results of the studies in the literature and once again draws attention to the importance of nursing education. With the increase in the level of education of nurses, professional knowledge and skills, professional attitudes, critical thinking and problem solving skills will improve, thus patient safety and quality of care will increase.

It is very important for surgical nurses to prefer their profession willingly in terms of professional development and professionalism [26]. Kumru [13] reported that there was a significant difference in the sensitivity sub-dimension in terms of importance, competency, and feasibility of the CNPIS according to the reason for choosing the nursing profession. In the study conducted by Erzincanlı and Yuksel [26], it was found that the total mean scores of the students who willingly chose the nursing profession were higher than the mean scores of the students who stated that they chose the nursing profession for other reasons. In the study of Yılmaz and Cinar [27], it was determined that there was no significant difference between the reasons of nursing students for choosing the profession and the total mean scores of the importance, competency and feasibility dimensions of the scale. In this study, it was seen that the attitudes and behaviours of nurses who chose the nursing profession because they liked it were statistically significantly better regarding the importance, competency and feasibility of care-oriented nurse-patient interactions. This result can be explained by the fact that nurses choosing their profession because they like it increases their professional satisfaction and motivation and positively affect their interactions with patients.

Nursing is a professional profession that provides direct service to individuals through interpersonal relationships in order to protect and maintain their health and ensure their comfort. Nurses who use communication skills during interpersonal relationships

with patients/healthy individuals help individuals meet their needs [28]. While Ozsezer, et al. [20] reported that there was a significant difference between the mean total scores of the importance, competence, and feasibility dimensions of the CNPIS according to student nurses' having difficulties in their relationships with patients, Yılmaz and Cinar [27] found that there was no significant difference between the mean total scores of the CNPIS importance, competency, and feasibility dimensions and the students' having difficulties inpatient relationships and social relationships. In this study, it was found that nurses who had problems in interpersonal relationships in daily life had statistically significantly lower attitudes and behaviours regarding the importance, competency and feasibility of caring nurse-patient interactions. Strategies such as nurses' participation in personal development programs to improve interpersonal skills such as stress management, emotional intelligence, conflict resolution and improving the working conditions of nurses can be implemented.

Limitations of the Study

Since the study was conducted for nurses working in the surgical clinics of a university hospital, the results obtained cannot be generalized to nurses working in hospitals with different characteristics.

Conclusions

It was observed that nurses' attitudes and behaviours towards the importance of care-oriented nurse-patient interactions were more positive than their attitudes and behaviours towards their competency and feasibility. In order to further increase these positive attitudes and behaviours of nurses working in surgical clinics towards caring nurse-patient interactions, trainings on communication and recovery-oriented care should be planned and nurses should be supported to participate in these trainings. Nurses with professional experience and high education level can play a key role in the implementation of caring nursing interactions. Therefore, it is recommended that comprehensive studies and projects should be carried out to analyse and solve the problems affecting nurse-patient interaction and nursing care and the study should be repeated in different samples.

Acknowledgement

We thank all the patients who participated and supported the study.

Credit Authorship Contribution Statement

The listed authors meet the criteria for authorship and agree with the content of the manuscript. Study design: MA, ESA; Data collection: MA; Data analysis: MA, ESA; Manuscript writing: MA, ESA. All authors supervised critically reviewed the manuscript and checked spelling and grammar. All the authors read and approved the final manuscript.

Competing Interests

The authors declare no competing interests.

Declarations Ethics Approval and Consent to Participate

Ethics committee permission (Date: 17.12.2022, No: 2022/466) and institutional permission were obtained for the conduct of the study. Informed consent was obtained from all study participants.

Funding

No funding.

References

1. ICN (2024) Nursing definitions.
2. Bayraktar D, Eşer İ (2017) Attitudes and behaviors of nurses towards care-oriented nurse-patient interaction. *Anatolian Journal of Nursing and Health Sciences* 20: 3.
3. Cossette S, Cote JK, Pepin J, Ricard N, D'Aoust LX (2006) A dimensional structure of nurse-patient interactions from a caring perspective: Refinement of the caring nurse-patient interaction scale (CNPI-Short Scale). *J Adv Nurs* 55: 198-214.
4. Yalçın N, Aşti T (2011) Nurse-patient interaction. *FNJN* 19: 54-59.
5. Karaca S (2010) An indispensable concept for nurses: Self-recognition. *Maltepe University Journal of Nursing Science and Art* 3: 79-84.
6. Yalçın G (2010) Patient-nurse interactions from the perspective of nurses working in acute psychiatry services. (Master's Thesis), Istanbul University, Institute of Health Sciences.
7. Zaybak A, İsmailoğlu E, Efteli E (2014) Hemşirelik öğrencilerinin bakım odaklı hemşire-hasta etkileşimine yönelik tutum ve davranışları. *Uluslararası Hakemli Hemşirelik Araştırmaları Dergisi* 1: 24-37.
8. DeWit S, Stromberg H, Dallred C (2017) *Medical-surgical nursing concepts and practice*. (3rd edn), Elseiver, Missouri, 1-19.
9. Saldamlı A, Andsoy II (2021) Surgical unit nurses' metaphors for surgical nursing. *JAREN* 7: 86-93.
10. Caris-Verhallen W, Timmermans L, van Dulmen S (2004) Observation of nurse-patient interaction in oncology: Review of assessment instruments. *Patient Educ Couns* 54: 307-320.
11. Onat N (2023) Determination of care-oriented nurse-patient interaction in internal medicine clinics: Adana Sample. (Master's Thesis), Adana, Çukurova University Institute of Health Sciences.
12. Atar NY, Asti T (2020) Attitudes and behaviors of nursing students towards nurse-patient interaction. *International Journal of Caring Sciences* 13: 411.
13. Kumru BE (2019) Attitudes and behaviors of intensive care nurses towards care-oriented nurse-patient interaction. (Master's Thesis), Istanbul, Acibadem Mehmet Ali Aydınlar University Institute of Health Sciences.
14. Cossette S, Cara C, Ricard N, Pepin J (2005) Assessing nurse-patient interactions from a caring perspective: Report of the development and preliminary psychometric testing of the caring nurse-patient interactions. *Int J Nurs Stud* 42: 673-686.
15. Atar NY, Aşti TA (2012) Reliability and validity of the care-oriented nurse-patient interaction scale. *Florence Nightingale J Nurs* 20: 129-139.
16. Kalaycı M, Olgun N (2023) Evaluation of care-oriented nurse-patient interaction of nurses caring for COVID-19 patients. *SBÜHD* 5: 93-98.
17. Danacı E (2018) The effect of nurses' job satisfaction and burnout levels on their perceptions of individualized care. Master's Thesis, Ondokuz Mayıs University Institute of Health Sciences.
18. Uyar G, Coskun S (2021) Investigation of attitudes and behaviors of nurses towards caring nurse-patient interaction in turkey. *International Journal of Health Services Research and Policy* 6: 93-104.
19. Potter PA, Perry AG, Stockert PA, Hall A (2013) *Fundamentals of nursing*. (8th edn), St. Louis Missouri, Canadap, 83.
20. Özsezer G, Sivrikaya S, Ataç M (2021) Determination of nursing students' attitudes and behaviors towards care-oriented nurse-patient interaction. *STED* 30: 19-28.
21. Tan M, Polat H (2020) Determination of nursing students' attitudes and behaviors towards care-oriented nurse-patient interaction. *ACU. Journal of Health Science* 11: 451-457.
22. Sertgöz B, Demir S (2022) Attitudes and behaviors of nurses working in psychiatric clinics towards care-oriented nurse-patient interaction. *Deuhfed* 15: 3-12.
23. Kaçmaz ED, Çam MO (2019) Investigation of the care-oriented nurse-patient interaction levels of nurses caring for psychiatric patients. *Journal of Psychiatric Nursing* 10: 65-74.
24. Cerit B, ÇıtakBilgin N, Çoşkun S, Yorgun S (2019) Attitudes and behaviors of nursing students and nurses regarding care. *ACU Health Science Journal* 10: 727-733.
25. Felsmann M, Andruszkiewicz A, Kosobucka A (2015) The adaptation of the caring nurse-patient interaction scale to polish conditions on the basis of nursing students self-assessment of their caring competencies. *Medical and Biological Sciences* 29: 47-55.
26. Erzincanlı S, Yüksel A (2018) Investigation of student nurses' attitudes and behaviors towards care-oriented nurse-patient interaction in terms of some variables. *Anatolian Journal of Nursing and Health Sciences* 21: 10-17.
27. Yılmaz D, Çınar HG (2017) Examining the attitudes of senior nursing students towards care-oriented nurse-patient interaction. *JHS* 14: 3300-3309.
28. Onat T (2019) Care-oriented nurse-patient interaction scale-short form (nurse-patient versions) validity and reliability study. (Master's) Thesis, Istanbul, Okan University, Institute of Health Sciences.