

The Relationship Between Nursing Students' Therapeutic Communication Skills and Their Perceptions Concerning Care Behaviors

Abstract

Background: In the nursing profession, communication skills and care are defined as two complementary concepts. Communication skills are essential for providing spiritual care, managing symptoms effectively, offering psychosocial support, and facilitating advanced care planning.

Aim: This research aimed to determine the relationship between nursing students' therapeutic communication skills and their perceptions concerning care behaviors.

Methods: Conducted as a descriptive study, it included second-, third-, and fourth-year students from a university's nursing department (N=315), with 278 students meeting the inclusion criteria and forming the study sample. Data were collected using an information form, the Therapeutic Communication Skills Scale (TCSS), and the Care Assessment Scale (CAS) between December 2022 and January 2023. Descriptive methods, the independent t-test to compare the scale scores of two independent groups, and Analysis of Variance (ANOVA) to compare more than two independent groups were employed in the data analysis.

Results: The study found that 34.2% of the participants were third-year students, 33.5% were 20 years old or younger, 77.7% were female, and 97.1% were single. The average TCSS score of the nursing students in this study was 66.45 ± 11.59 , while the mean CAS score was 279.38 ± 36.59 . There was a significant and positive correlation between nursing students' caring assessment scores and their therapeutic communication skills (r=0.349; P < 0.05). Their communication skills and caring assessment scores also increased with age.

Conclusion: Nursing students demonstrated moderate therapeutic communication skills and a positive approach towards the application and perception of caring behaviors.

Keywords: Care perception, nursing students, skill, therapeutic communication

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Introduction

Nursing is an essential profession that plays a crucial role in maintaining and enhancing both individual and community health. Nurses strive to support physical, mental, and psychological well-being through their work. Establishing high-quality communication and care is fundamental to providing comprehensive health services, leading to increased patient security and initiating the nurse-patient interaction process.^{1,2}

Therapeutic communication, one of the most important techniques in the patient-nurse relationship, involves using verbal and non-verbal communication to establish a bond with patients. This communication technique promotes patient-based, holistic care that includes physiological, psychological, environmental, and spiritual aspects. It relies on understanding and considering the patient's situation—encompassing living conditions, beliefs, opinions, anxieties, and needs—in planning effective patient care. Furthermore, a systematic review has shown that communication skills are vital in providing spiritual care, managing symptoms effectively, offering psychosocial support, and facilitating advanced care planning.

The concept of therapeutic communication, considered one of the fundamental elements of nursing, is often unfamiliar to students.⁵⁻⁷ Positive or negative interactions with patients and their relatives, especially during care in the clinical setting, have been highlighted as the main factors affecting this type of communication. Researchs indicates a

Cite this article as: Sayılan AA, Koyun ZC. The relationship between nursing students' therapeutic communication skills and their perceptions concerning care behaviors. *J Educ Res Nurs.* 2024;21:174-182.

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Received: August 2, 2023 Accepted: March 22, 2024 Publication Date: June 1, 2024



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need to enhance awareness of this subject and integrate it into the nursing curriculum. $^{8 \cdot 10}$

Studies also suggest that communications skills are often inadequate, highlighting the importance of establishing the foundations of communications from the student years. This is a critical factor that directly impacts care quality.^{11,12} Furthermore, various researchers have demonstrated that, due to insufficient training or a lack of understanding regarding the importance of patient-centered communication, some nurses lack the necessary communication skills, thereby hindering their ability to provide effective care.^{13,14}

Since communication skills are developed during the student years, nursing instructors bear significant responsibilities in this context. It is crucial for such skills to be meticulously taught during training. The knowledge and experience gained through nursing education influence students' readiness to assume responsibility related to care. Consequently, research has reported the need for heightened awareness about communication, given its direct impact on care quality, and the integration of this subject into the nursing curriculum.^{4,9,10}

No previous studies have been found that examine the relationship between therapeutic communication skills and care perception among nursing students—the future nurses—although some studies have separately addressed these topics. ^{5,6,15} While studies evaluating the quality of care have been conducted in Türkiye, we encountered no research exploring its effect on communication and therapeutic care. Communication and care are paramount in the development of professionalism in nursing. It is thus of great importance to assess the current stance among nursing students and to foster awareness on the subject. The aim of this study, therefore, was to determine the link between nursing students' therapeutic communication skills and their perception of care.

Research Questions

- What is the level of therapeutic communication skills among nursing students?
- What is the level of caring assessment among nursing students?
- Is there an association between nursing students' therapeutic communication skills and sociodemographic variables?
- Is there a relationship between the levels of caring assessment among nursing students and sociodemographic variables?
- Is there a significant association between the levels of therapeutic communication skills and caring assessment among nursing students?

Materials and Methods

Type of Research

This study utilized a descriptive research design.

Population and Sample

The research population consisted of second-, third-, and fourth-year students from a university's nursing department (N=315). Utilizing the known population size formula, the aim was to include a minimum of 174 students to achieve a 95% confidence interval level with a 5% margin of error. The study sample comprised 278 students who met the inclusion criteria and agreed to participate in the research. However, the forms of eight students were incomplete, and 29 students refused to participate in the study. The research included students who consented to participate in the study, were aged 18 or over,

were enrolled in the nursing department, had completed practical internships, demonstrated communicative and cooperative behavior and fully and completely answered all the questions. The study excluded individuals who declined to participate in the research, were under 18 years of age, were not open to communication and cooperation and were not enrolled in the nursing department.

Data Collection Tools

Data collection tools for the study comprised an information form to investigate sociodemographic characteristics, a Therapeutic Communication Skills Scale, and a Care Evaluation Scale.

Information Form

This form gathered details such as academic seniority, age, gender, marital status, income level, the presence and number of siblings, the education and employment status of parents, the preference ranking of the nursing department on the university entrance application, voluntary selection of the nursing department (as opposed to selection under family pressure, etc.), and whether the student had received education on communication.^{3,4,6}

Therapeutic Communication Skills Scale

The Therapeutic Communication Skills Scale (TCSS), developed by Karaca et al⁶ in 2019 and subsequently validated, is designed to evaluate students' therapeutic communication skills. This scale includes 16 items categorized into three subdimensions: the first subdimension contains seven items, the second has six, and the third comprises three items. It utilizes a 7-point Likert-type scale ranging from 1 ("never") to 7 ("always"), without any reverse-coded questions. The possible scores on the TCSS range from a minimum of 16 (16x1=16) to a maximum of 112 (16x7=112). The Cronbach alpha value for the scale in this study was reported as 0.776. The scale's subdimensions are as follows: non-therapeutic communication skills with seven items, therapeutic communication skills 1 with six items, and therapeutic communication skills 2 with three items. The Chronbach alpha coefficients for these subdimensions are 0.717 for non-therapeutic communication skills, 0.741 for therapeutic communication skills 1, 0.607 for therapeutic communication skills 2, and 0.762 for the TCSS as a whole.

Caring Assessment Scale

The Caring Assessment Scale (CAS), developed by Larson in 1981. stands as the first quantitative care evaluation tool in nursing literature¹⁷ and was validated in Türkiye by Eskimez and Acaroğlu in 2012, achieving a Cronbach alpha coefficient of 0.97.18 This scale encompasses 50 items that reflect various care behaviors, scored based on the responses given to each caring behavior on a scale from 1 (the least important care behavior) to 7 (the most important care behavior). It is divided into six subdimensions with a total of 50 items. These subdimensions include accessibility (6 items), explanations and possibilities (6 items), comfort (9 items), expectations (5 items), trust-inspiring communication (16 items), and observations and impressions (8 items), with none of the items being reverse-scored. The lowest possible raw score on the scale is 50, while the highest possible raw score is 350. To calculate the total scale score, the total raw score is divided by the number of items (50), resulting in a score range between 1 and 7. Higher scores reflect a higher frequency of application and more positive perceptions of caring behaviors. In the validity and reliability study of the scale conducted by Eskimez and

Acaroğlu, the Cronbach alpha value was 0.97, whereas, in this study, it was found to be 0.875.

Data Collection

Data collection commenced after obtaining the necessary ethical committee approval and institutional permission and was conducted face-to-face with the students. After informing the students about the research's objectives, the assistant researcher visited a classroom weekly during December and January to distribute survey forms to students within the classroom setting. The forms were collected back after students completed them, with the process taking approximately 15-20 minutes. The study concluded with 278 nursing students who had fully completed all the questions and met the inclusion criteria during December 2022 and January 2023. Thirty-seven individuals who met the exclusion criteria were not included in the study.

The institution where the research was conducted mandates an interpersonal communication course in the first year of the nursing program and offers an elective course titled "communication in health sciences" in the third year. In the fourth year, as part of the teaching and practices in nursing course, students are required to prepare presentations. This course also includes an evaluation of the communication techniques used by the students in their presentations.

Data Analysis

The data from the study were analyzed using IBM Statistical Package for the Social Sciences version 25.0 (IBM SPSS; Armonk, NY, USA). Descriptive methods, including the number, percentage, minimummaximum values, mean, and standard deviation, were utilized in the data analysis. The normality of the data used in the study was assessed using a Q-Q plot, and the data were found to be normally distributed, evidenced by skewness and kurtosis values within \pm 3.19,20 The independent t-test was utilized to compare the CAS scores between two independent groups differentiated by participants' sociodemographic characteristics. For comparisons involving more than two independent groups, One-Way Analysis of Variance (ANOVA) was conducted. The independent t-test was applied to analyze normally distributed quantitative data between two independent groups, while One-Way Analysis of Variance was used when comparing more than two independent groups. In instances where differences were identified, Bonferroni analysis was employed to pinpoint the source of these differences. Pearson correlation analysis was utilized to test the relationships between numerical variables. P-values less than 0.05 were considered statistically significant.

Ethical Approval

The study received ethical approval from the Kırklareli University Health Sciences Institute Ethical Committee in Türkiye (Approval Number: E-69456409-199-73141-PR0428R0, Date: 29.11.2022), and official permission was granted by the Dean's Office of the Kırklareli University Health Sciences Institute Nursing Department (24.1 1.2022-E-73445267-605.01-69404). The study's objectives were explained to all students who met the inclusion criteria and agreed to participate, from whom written and verbal consent was obtained. Permissions to use the scales were acquired via email from their respective authors. The study adhered to the principles outlined in the Declaration of Helsinki.²¹

Results

The sociodemographic characteristics of the participants are depicted in Table 1. A majority, 34.2% of the participants were third-year students, 33.5% were aged 20 or younger, 77.7% were female, 97.1% were single, and 94.6% had siblings.

Regarding the educational background of the participants' parents, 41.4% of the participants' mothers were elementary school graduates, and 32.7% of fathers were high school graduates. Furthermore, 81.3% of the participants chose the nursing department voluntarily, and 57.2% had not received any education on communication. The average TCSS score for participants in this study was 66.45 \pm 11.59, while the average CAS score was 279.38 \pm 36.59.

It was observed that the participants demonstrated moderate therapeutic communication skills and had a positive frequency of application and perception of care behaviors (Table 1). The mean scores for the subdimensions were as follows: Non-therapeutic Communication Skills at 25.28 \pm 7.21, Therapeutic Communication Skills 1 at 25.27 \pm 5.83, Therapeutic Communication Skills 2 at 15.90 \pm 2.72, Accessibility at 33.29 \pm 4.92, Explanations and Possibilities at 31.81 ± 5.86 , Comfort at 50.13 ± 7.26 , Expectations at 25.53 ± 5.69 , Trust-Inspiring Communication at 91.42 \pm 13.07, and Observations and Impressions at 47.21 \pm 6.40. The analysis indicated that the scores for the non-therapeutic communication skills subdimension, therapeutic communication skills subdimension 1, and the overall therapeutic communication skills scale varied significantly based on age (P < 0.05) (Table 2). Significant differences were also observed in the scores for the two therapeutic communication subdimensions concerning sex, the numbers of participants' siblings, and the educational levels of parents (P < 0.05) (Table 3).

An independent t-test was employed to compare the CAS scores of two independent groups differentiated by the participants' sociode-mographic characteristics. The results revealed statistically significant differences in the explanations and possibilities subdimension scores concerning academic seniority, participants' ages, the education levels of participants' fathers, and whether participants entered the nursing department of their own volition (P < 0.05) (Table 4). Similarly, a significant difference was observed in the trust-inspiring communication subdimension and caring assessment scores based on participants' ages, the educational status of participants' fathers, and the voluntary selection of the nursing department by the participants (P < 0.05) (Table 4).

Pearson correlation analysis was used to explore the relationship between the scales used in the research. This analysis showed a significant positive correlation between the non-therapeutic communication skills subdimension and the explanations and possibilities subdimension (r=0.153, P<0.05) (Table 5).

The first dimension of therapeutic communication skills exhibited significant positive correlations with the accessibility (r=0.373, P < 0.05), explanations and possibilities (r=0.390, P < 0.05), comfort (r=0.342, P < 0.05), expectations (r=0.386, P < 0.05), trust-inspiring communication (r=0.398, P < 0.05), and observations and impressions (r=0.268, P < 0.05) subdimensions, as well as with the CAS (r=0.430, P < 0.05). The second dimension of therapeutic communication skills also showed significant positive correlations with the accessibility (r=0.363, P < 0.05), explanations and possibilities (r=0.259, P < 0.05), comfort (r=0.381, P < 0.05), expectations (r=0.198,

Variables		n	%
Academic year	2	90	32.4
	3	95	34.2
	4	93	33.4
Age ($\overline{X} \pm SD$, 21.36 \pm	20 and under	93	33.5
1.69)	21	75	27.0
	22	64	23.0
	23 and over	46	16.5
Sex	Female	216	77.7
	Male	62	22.
Marital status	Married	8	2.9
	Single	270	97.
Sibling(s)	Yes	263	94.
	No	15	5.4
Number of siblings	None	15	5.4
Ç	1	105	37.8
	2	63	22.
	3	38	13.
	4 or more	57	20.
Maternal education	Illiterate	26	9.4
status	Literate	12	4.3
	Elementary school	115	41.
	Middle school	40	14.
	High school	71	25.
	University and above	14	5.0
Paternal education	Illiterate	6	2.2
status	Literate	9	3.2
	Elementary school	84	30.
	Middle school	57	20.
	High school	91	32.
	University and above	31	11.
Mother working	Yes	85	30.
Trottier working	No	193	69.
Father working	Yes	210	75.
rather working	No	68	24.
Wishing to study	Yes	226	81.
nursing	No	52	18.
Nursing department	First preference	166	59.
ranking preference	2nd preference and above	55	19.8
	6 or above	57	20.
Receipt of education	Yes	119	42.
concerning communication	No	159	57.
Total		278	100

Table 2. Scales and Sub-dimensions (n=278)										
Scale and Dimensions	Minimum	Maximum	Mean	Standard Deviation						
NTCSS	9.00	45.00	25.28 ±	7.21						
TCSS-1	10.00	42.00	$25.27 \pm$	5.83						
TCSS-2	7.00	21.00	15.90 ±	2.72						
TCSS	33.00	103.00	66.45 ±	11.59						
Accessibility	10.00	42.00	33.29 ±	4.92						
Explanations and Possibilities	10.00	42.00	31.81 ±	5.86						
Comfort	27.00	63.00	$50.13 \pm$	7.26						
Expectations	8.00	35.00	$25.53 \pm$	5.69						
Trust-Inspiring Communication	44.00	112.00	91.42 ±	13.07						
Observations and Impressions	24.00	56.00	47.21 ±	6.40						
CAS	150.00	350.00	279.38 ±	36.59						

P < 0.05), trust-inspiring communication (r=0.312, P < 0.05), and observations and impressions (r=0.204, P < 0.05) subdimensions, and the CAS (r=0.344, P < 0.05) (Table 5).

Discussion

The nursing profession is often described as the heart of the healthcare team. The provision of reliable care and the improvement of the quality of nursing care are achievable through effective communication.¹² The mean TCSS score indicated that nursing students possess moderate therapeutic communication skills in this study. A systematic review highlighted the need for improvement in patientcentered communication skills among nursing students and suggested employing technical measures to achieve this.4 Another study pointed out that the therapeutic communication skills of nursing students need to be improved, noting that the widespread use of social media among this age group may be undermining their communication abilities.²² Söğüt et al²³ observed a moderate level of therapeutic communication skills among students in their study. Furthermore, Altundal Duru et al²⁴ (2022) assessed therapeutic communication skills in nursing students and found a notable score in non-therapeutic communication skills, suggesting that students should be encouraged to develop these skills further. It is believed that communication skills, influenced by numerous factors, are negatively impacted by social media and need enhancement among nursing students.

The nursing students' mean CAS score indicated a positive frequency and perception of their caring behaviors in this study. Previous research has shown high caring perceptions among nursing students, with the frequency of caring behaviors reported to increase with the length of their education. 25 Gül and Arslan's study on care perception among students reported a mean total CAS score of 150.79 \pm 21.81, suggesting a positive perception of care. 26 Moreover, a qualitative

		NTCSS		TCSS 1		TCSS 2		TCSS	
Variables	-	X	SD	X	SD	X	SD	X	SD
Age	20 and under (1)	24.19	± 7.29	24.26	± 6.32	15.70	± 2.76	64.15	± 11.78
	21 (2)	25.80	± 6.14	25.01	± 5.02	15.73	± 2.52	66.55	± 10.57
	22 (3)	24.58	± 7.69	25.53	± 5.46	15.89	± 2.69	66.00	± 11.20
	23 and over (4)	27.63	± 7.55	27.35	± 6.11	16.61	± 2.96	71.59	± 12.0
р		0.0	45*	0.0	29*	0.2	272	0.0	05*
Bonferroni		4>1		4>1				4>1	
Sex	Female	24.88	± 7.52	25.29	± 6.13	16.20	± 2.59	66.38	± 12.18
	Male	26.68	± 5.86	25.19	± 4.66	14.85	± 2.93	66.73	± 9.30
р		0.084		0.9	912	0.0	01*	0.8	834
Number of	None (0)	23.20	± 5.88	27.07	± 5.30	16.00	± 3.70	66.27	± 7.51
siblings	One (1)	24.65	± 7.31	25.34	± 5.82	16.30	± 2.45	66.29	± 11.68
	Two (2)	25.78	± 7.70	24.56	± 5.09	15.54	± 2.69	65.87	± 11.29
	Three (3)	26.63	± 6.59	26.18	± 6.97	16.58	± 2.65	69.39	± 11.9
	Four or more (4)	25.56	± 7.17	24.82	± 5.91	15.11	± 2.84	65.49	± 12.4
р			0.439		0.456		0.031*		556
Bonferroni						1:	>4		
Maternal	Illiterate (1)	27.15	± 6.60	24.00	± 4.26	14.12	± 2.96	65.27	± 9.69
education level	Literate (2)	26.00	± 7.92	24.83	± 4.53	15.50	± 2.07	66.33	± 12.4
	Elementary school (3)	24.84	± 6.94	25.32	± 5.84	16.10	± 2.42	66.27	± 11.3
	Middle school (4)	26.00	± 7.05	25.63	± 5.88	15.55	± 3.13	67.18	± 10.3
	High school (5)	24.56	± 7.74	25.48	± 6.44	16.49	± 2.84	66.54	± 13.4
	University and higher (6)	26.43	± 7.81	25.43	± 6.35	15.93	± 2.02	67.79	± 10.6
р		0.5	589	0.908		0.006*		0.986	
Bonferroni						3>1	, 5>1		
Paternal	Illiterate (1)	24.05	± 6.77	25.00	± 2.76	12.83	± 3.49	68.67	± 9.27
education level	Literate (2)	28.67	± 7.55	28.44	± 5.55	14.00	± 4.77	71.11	± 13.9
	Elementary school (3)	25.08	± 6.81	24.23	± 5.31	15.58	± 2.58	64.89	± 11.10
	Middle school (4)	24.72	± 6.65	25.77	± 6.18	16.09	± 2.41	66.58	± 10.5
	High school (5)	30.83	± 7.11	25.37	± 5.99	16.38	± 2.67	65.81	± 12.0
	University and above (6)	28.42	± 8.33	25.97	± 6.32	16.16	± 2.34	70.55	± 12.5
р		0.012*		0.281		0.005*		0.	195
Bonferroni		5:	>1			3:	3>1		

study involving nursing students emphasized the significant role of clinical practices and instructors in shaping positive evaluations of care.²⁷ Another study found students' care assessments to be partially adequate, recommending further training on the topic.²⁸ It can be inferred that factors like clinical application and the guidance of an instructor positively influence care perception.

Additionally, it was observed that nursing students' communication skills improved with age in current study. This finding aligns with previous research reporting increases in communication, self-confidence, self-efficacy, and empathy levels corresponding to students' ages and academic seniority.^{22,29} An international study found that the ability to handle stress and problematic situations improved with

		Acces	sibility		tions and bilities	Con	nfort	Expectations	
Variables		\bar{X}	SD	\overline{X}	SD	\bar{X}	SD	\bar{X}	SD
Bonferroni				3:	>1				
Age	20 and under (1)	32.94	± 4.43	30.23	± 6.69	49.13	± 7.09	24.77	± 5.56
	21 (2)	33.59	± 4.89	32.16	± 5.36	50.73	± 7.38	25.61	± 5.94
	22 (3)	32.05	± 5.49	31.50	± 5.12	48.66	± 7.09	25.19	± 5.76
	23 and over (4)	35.28	± 4.57	34.87	± 4.56	53.22	± 6.84	27.37	± 5.19
Test value		4.26	9***	7.029***		4.579***		2.261***	
р		0.006*		0.000*		0.004*		0.082	
Bonferroni		4>1, 4>3		4>1, 4>3		4>1, 4>3			
Paternal	Illiterate (1)	29.33	± 3.67	31.83	± 6.49	48.67	± 5.47	25.17	± 6.34
education level	Literate (2)	34.78	± 5.40	34.78	± 4.79	49.78	± 7.69	27.44	± 5.46
	Elementary school(3)	32.85	± 4.54	29.88	± 6.96	48.36	± 7.64	23.54	± 6.07
	Middle school (4)	32.74	± 4.39	31.81	± 4.86	51.47	± 6.36	26.26	± 5.33
	High school (5)	34.82	± 4.05	33.26	± 4.82	51.49	± 6.56	26.76	± 4.99
	University and above (6)	31.39	± 7.46	31.90	± 6.06	48.84	± 8.96	25.45	± 6.09
Test value		4.13	6***	3.563***		2.336***		3.455***	
р		0.0	01*	0.004*		0.042*		0.005*	
Bonferroni		5>6		5>3		5>3		5>3	
Entered the	Yes	33.59	± 4.91	32.03	± 6.04	50.62	± 7.29	25.80	± 5.77
nursing department of own volition	No	32.02	± 4.82	30.85	± 4.95	48.02	± 6.84	24.35	± 5.21
Test value	2.085**		1.317**		2.342**		1.662**		
р		0.0	38*	0.189		0.020*		0.098	

Table 5. Cor	Table 5. Correlations between the Scales (n=278)											
Scales		1	2	3	4	5	6	7	8	9	10	11
NTCSS	r	1.000	0.350	-0.022	0.793	0.061	0.153	0.056	0.065	0.059	0.054	0.084
	р	-	0.000*	0.713	0.000*	0.313	0.011*	0.351	0.283	0.330	0.366	0.161
TCSS 1	r		1.000	0.392	0.813	0.373	0.390	0.342	0.386	0.398	0.269	0.430
	р		-	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*	0.000*
TCSS 2	r			1.000	0.418	0.363	0.259	0.381	0.198	0.312	0.204	0.344
	р			-	0.000*	0.000*	0.000*	0.000*	0.001*	0.000*	0.001*	0.000*
CAS Scale	r											1.00
	р											-
*P < 0.05												

the age of nursing students, contributing to better communication skills.³⁰ Experience tends to increase with age, leading us to conclude that the ability to cope with stress and other adverse situations improves accordingly.

In this study, female students demonstrated better communication skills compared to male students. A previous study examining the communication skill levels of nursing students also reported higher overall communication skills scores among female students than males.²³ A qualitative study with male nursing students in China identified the male gender as a barrier to communication in nursing, often due to greater prejudice.³¹ Another study investigating gender differences in nursing students and their impacts highlighted that female students showed higher levels of communication and empathy, suggesting a need for additional support for male nurses' communication skills.³² Contrary to these findings, some studies have noted higher mean scores for non-therapeutic communication among male students compared to female students.^{24,33,34} It may be concluded that the enhanced empathy skills observed in female students, relative to male students, positively influence their communication abilities.

Students whose parents had higher levels of education also showed better communication skills in this study. A study investigating the impact of sociodemographic factors on professional values among nursing students found a positive correlation between the education levels of students' parents and their communication abilities, access to resources, and emotional intelligence. The Another study reported that individuals with more highly educated parents had better access to resources, thereby enhancing their individual and social skills, communication, and problem-solving abilities. We believe that higher maternal and paternal education levels afford access to more resources, improving personal and social skills, which in turn positively affects communication skills.

Students' CAS scores also increased with age and academic seniority in current study. A study on communications with patients among nursing students in Finland found that both age and academic seniority enhanced relationships with patients, positively impacting the quality of patient care and levels of occupational proficiency.³⁷ A meta-analysis focusing on patient care among nursing students highlighted professional values and the clinical learning environment as the key factors in caring assessments.³⁸ It can be concluded that factors such as increased age and progression through academic years positively affect students' professional competence levels.

Caring assessment levels also rose in conjunction with the education levels of parents. Critical thinking skills, emotional intelligence, empathy, and awareness of emotions have been identified as significant factors in care evaluations. ³⁹⁻⁴¹ Previous research has indicated that paternal education levels play an important role in an individual's critical thinking skills. ⁴² Another study revealed that the emotional intelligence of nursing students improved alongside the educational status of their fathers. It was found that sub-dimensions critical to patient care, such as empathy and awareness of emotions, were positively influenced as a result. ⁴³ We believe that a higher paternal education level positively impacts factors like emotional intelligence, empathy, and awareness, which, in turn, are reflected in the care evaluation scores.

In this study, nursing students who chose the nursing department of their own volition—as opposed to those pressured by families or

other external factors—registered higher caring assessment scores than their counterparts. The significance of elements such as professionalism, intuitive power, clinical decision—making skills, and critical thinking has been underscored in the evaluation of nursing care. 44 Another study reported a heightened ability to behave professionally among nursing students who chose their department independently. 45 Similarly, a study involving nursing students reported improved levels of clinical decision—making, professionalism, and intuitive thinking among those who freely selected their department. 46 We conclude that students who enter the nursing department by their own choice exhibit higher levels of clinical decision—making, professionalism, and intuitive thinking, positively influencing their care evaluation levels as a result.

Significant positive increases were observed in nurses' CAS and subdimension scores as their Therapeutic Communication Skills (TCS) scores increased in this study. Therapeutic communication skills have been described as offering benefits such as the direct optimization of care, improved time management, and the ability to overcome obstacles to communication caused by patient-related changes. 47 A study investigating nurse-patient communication reported that caring assessment, patient safety, and care quality were better among nurses with high levels of patient-centered communication skills.⁴⁸ In a study on the effects of simulation-based education, Li et al²⁹ (2019) found that weak student communication skills led to problems in the clinical setting, preventing them from making accurate assessments. Thus, the authors emphasized the need for education aimed at improving communication skills. A qualitative study of nursing students' clinical evaluations reported that students experienced communication problems, adversely affecting care and the clinical setting, and resulting in increased stress and anxiety for the students.⁴⁹ We believe that care and communication are two inseparable concepts, and that a deficiency in either will negatively affect both evaluation and patient care.

Limitations of the Study

The principal limitations of this study are that it was conducted with nursing students studying at the Health Sciences Faculty of a university in the west of Türkiye, and that the data were collected in a single period.

Conclusion

This study observed a positive correlation between students' communication skills and their perception and assessment of caring behaviors. The students' development of communication skills was influenced by various factors, including age, gender, the number of siblings, and the educational status of parents. Caring assessments were higher for older students and those with higher paternal education levels, as well as among students who voluntarily chose the nursing department.

Given that communication skills directly impact care quality and are primarily developed during the student years, nursing instructors bear a significant responsibility. The cultivation of communication skills throughout nursing education and the evaluation of care-related issues are of paramount importance. Nursing instructors also play a crucial role in motivating students and in identifying and addressing any existing deficiencies. Therapeutic communication skills, one of the factors affecting students' care perceptions, need to be developed from the onset of their professional education.

Therefore, the nursing education curriculum should be enhanced with professional communication courses, pilot practices should be initiated, and effective programs must be developed. We recommend conducting future multi-center studies on communication and care, involving larger samples and taking into account factors such as curriculum variations.

Ethics Committee Approval: Ethics committee approval was obtained from Ethics Committee of Kırklareli University (Approval Number: E-69456409-199-73141 -PR0428R0, Date: 29.11.2022).

Informed Consent: Written informed consent was obtained from the participants.

Peer-review: Externally peer-reviewed.

Author Contributions: Concept - A.A.S.; Design - A.A.S.; Supervision - A.A.S.; Resource - A.A.S.; Materials - A.A.S.; Data Collection and/or Processing - Z.C.K.; Analysis and/or Interpretation - Z.C.K.; Literature Review - A.A.S.; Writing - A.A.S.; Critical Review - A.A.S.

Conflict of Interest: The authors have no conflicts of interest to declare.

Funding: This study is a project supported under the scope of TUBİTAK 2209-A (Scientific and Technological Research Council of Turkey 2209-A Research Projects Support Program for Undergraduate Students).

References

- Rosenberg S, Gallo-Silver L. Therapeutic communication skills and student nurses in the clinical setting. Teach Learn Nurs. 2011;6(1):2-8. [CrossRef]
- Peplau H. Interpersonal Relations in Nursing: a Conceptual Frame of Reference for Psychodynamic Nursing. New York, NY: Springer Publishing Company; 1991.
- Cusatis R, Holt JM, Williams J, et al. The impact of patient-generated contextual data on communication in clinical practice: a qualitative assessment of patient and clinician perspectives. Patient Educ Couns. 2020; 103(4):734-740. [CrossRef]
- Gutiérrez-Puertas L, Márquez-Hernández VV, Gutiérrez-Puertas V, Granados-Gámez G, Aguilera-Manrique G. Educational interventions for nursing students to develop communication skills with patients: a systematic review. Int J Environ Res Public Health. 2020;17(7):2241. [CrossRef]
- Ryan CA, Walshe N, Gaffney R, Shanks A, Burgoyne L, Wiskin CM. Using standardized patients to assess communication skills in medical and nursing students. BMC Med Educ. 2010;10:24. [CrossRef]
- Karaca A, Açıkgöz F, Demirezen D. Hemşirelik öğrencileri için terapötik iletişim becerileri ölçeğinin geliştirilmesi. SDÜ Sağlık Bil Derg. 2019;10(2): 72-79. [CrossRef]
- Bullington J, Söderlund M, Bos Sparén E, Kneck Å, Omérov P, Cronqvist A. Communication skills in nursing: a phenomenologically-based communication training approach. Nurse Educ Pract. 2019;39:136-141. [CrossRef]
- Kim H, Tietsort C, Posteher K, Michaelides A, Toro-Ramos T. Enabling Selfmanagement of a chronic condition through patient-centered coaching: a case of an mHealth diabetes prevention program for older adults. Health Commun. 2020;35(14):1791-1799. [CrossRef]
- Ghiyasvandian S, Abdolrahimi M, Zakerimoghadam M, Ebadi A. Development and validation of a therapeutic communication questionnaire for nursing students. Contemp Nurse. 2020;56(1):49-61. [CrossRef]
- Abdolrahimi M, Ghiyasvandian S, Zakerimoghadam M, Ebadi A. Therapeutic communication in nursing students: a Walker & Avant concept analysis. Electron Phys. 2017;9(8):4968-4977. [CrossRef]
- Brownie S, Scott R, Rossiter R. Therapeutic communication and relationships in chronic and complex care. Nurs Stand. 2016;31(6):54-63.
 [CrossRef]
- Sowko LA, Fennimore LA, Drahnak DM. Teaching workplace interprofessional communication to undergraduate nursing students. J Nurs Educ. 2019;58(9):538-542. [CrossRef]
- Mullan BA, Kothe EJ. Evaluating a nursing communication skills training course: the relationships between self-rated ability, satisfaction, and actual performance. Nurse Educ Pract. 2010;10(6):374-378. [CrossRef]

- Hsu LL, Chang WH, Hsieh SI. The effects of scenario-based simulation course training on nurses' communication competence and self-efficacy: a randomized controlled trial. J Prof Nurs. 2015;31(1):37-49. [CrossRef]
- Demirel N, Turan N. Relationship between individualized care perception and innovativeness among final-year nursing students. Perspect Psychiatr Care. 2021;57(2):891-899. [CrossRef]
- Sümbüloğlu K, Sümbüloğlu V. Klinik ve Saha Araştırmalarında Örnekleme Yöntemleri ve Örneklem Büyüklüğü. 1st ed. Hatiboğlu Yayınevi; 2005.
- Larson PJ. Oncology Patients' and Professional Nurses' Perceptions of Important Nurse Caring Behaviors. Dissertation. University of California; 1981.
- Eskimez Z, Acaroğlu R. Validity and reliability of Turkish version of caring assessment questionnaire. Cukurova Med J. 2019;44(4):1172-1180. [CrossRef]
- Shao T. Marketing Research: an Aid to Decision Making. 3rd ed. South-Western/Thomson Learning; 2002.
- Uysal İ, Kılıç AF. Normal distribution dilemma. Anadolu J Educ Sci Int. 2022;12(1):220-248. [CrossRef]
- World Medical Association. World Medical Association Declaration of Helsinki: ethical principles for medical research involving human subjects. JAMA. 2013;310(20):2191-2194. [CrossRef]
- Gutiérrez-Puertas L, Márquez-Hernández VV, Gutiérrez-Puertas V, Granados-Gámez G, Aguilera-Manrique G. Interpersonal communication, empathy, and stress perceived by nursing students who use social networks. J Adv Nurs. 2020;76(10):2610-2617. [CrossRef]
- Sögüt S, Cangöl E, Dinç A. Determination of context levels of nursing students. Res Soc Sci Stud. 2018;6(2):272-280. [CrossRef]
- 24. Altundal Duru H, Denizhan NC, Güneşli G, Yağtu L, Yılmaz M. How are nursing students' therapeutic communication skills? Ordu Univ J Nurs Stud. 2022;5(1):67-74. [CrossRef]
- Pakiş Çetin S, Çevik K. The relationship between individualized care perceptions and compassion level of nursing students. J Ank Health Sci. 2021;1(1):57-70. [CrossRef]
- Gül Ş, Arslan S. Bir hemşirelik bölümünde öğrenim gören öğrencilerin hemşirelik bakım davranışları algısının belirlenmesi. Acıbadem Univ Sağlık Bilim Derg. 2021;12(2):432-438.
- Arreciado Marañón A, Isla Pera MP. Theory and practice in the construction of professional identity in nursing students: a qualitative study. Nurse Educ Today. 2015;35(7):859-863. [CrossRef]
- Akkuş Y, Karabağ Aydın A. Determining the relationship between spirituality and perceptions of care in nursing students: a cross-sectional study. Perspect Psychiatr Care. 2022;58(4):2079-2087. [CrossRef]
- Li J, Li X, Gu L, et al. Effects of simulation-based deliberate practice on nursing students' communication, empathy, and self-efficacy. J Nurs Educ. 2019;58(12):681-689. [CrossRef]
- Labrague LJ, McEnroe-Petitte DM, Papathanasiou IV, et al. Stress and coping strategies among nursing students: an international study. J Ment Health. 2018;27(5):402-408. [CrossRef]
- Cui N, Wang R, Song F, Jin J. Experiences and perceptions of male nursing students in a single-sex class: a qualitative descriptive study. Nurse Educ Pract. 2021;51:102996. [CrossRef]
- Strekalova YA, Kong S, Kleinheksel AJ, Gerstenfeld A. Gender differences in the expression and cognition of empathy among nursing students: an educational assessment study. Nurse Educ Today. 2019;81:1-6. [CrossRef]
- Akçam A, Kanbay Y, Işık E. Determining the communication skills and empathy levels of university students. Acu Inter J Soc Sci. 2019;5(2):74-92.
 [CrossRef]
- 34. Akgün R, Çetin H. Üniversite öğrencilerinin iletişim becerilerinin ve empati düzeylerinin belirlenmesi. Manas J Soc Stud. 2018;7(3):103-117.
- Fortes K, Latham CL, Vaughn S, Preston K. The influence of social determinants of education on nursing student persistence and professional values.
 J Prof Nurs. 2022;39:41-53. [CrossRef]
- Valadi S, Gabbard C, Hooshyari F. Effects of affordances in the home environment on children's personal-social, problem-solving, and communication skills. Child Care Health Dev. 2020;46(4):429-435. [CrossRef]
- Suikkala A, Leino-Kilpi H, Katajisto J, Koskinen S. Nursing student-patient relationship and related factors-A self-assessment by nursing students. J Clin Nurs. 2020;29(21-22):4030-4044. [CrossRef]

- Kaldal MH, Kristiansen J, Uhrenfeldt L. Nursing students experienced personal inadequacy, vulnerability and transformation during their patient care encounter: a qualitative meta-synthesis. Nurse Educ Today. 2018;64:99-107. [CrossRef]
- Kahlke R, Eva K. Constructing critical thinking in health professional education. Perspect Med Educ. 2018;7(3):156-165. [CrossRef]
- Wang Y, Zhang Y, Liu M, et al. Research on the formation of humanistic care ability in nursing students: a structural equation approach. Nurse Educ Today. 2020;86:104315. [CrossRef]
- 41. Khademi E, Abdi M, Saeidi M, Piri S, Mohammadian R. Emotional intelligence and quality of nursing care: a need for continuous professional development. Iran J Nurs Midwif Res. 2021;26(4):361-367. [CrossRef]
- 42. İskender MD, Karadağ A. Determining of critical thinking level of last year nursing students. J Dokuz Eylul Univ Nurs Fac. 2015;8(1):3-11.
- 43. Kılıç HF, Çağlıyan S, Dağ GS. Senior nursing students' emotional intelligence levels and affecting factors. Turk J Res Dev Nurs. 2017;14(4):275-282.

- Mohammadi-Shahboulaghi F, Khankeh H, HosseinZadeh T. Clinical reasoning in nursing students: a concept analysis. Nurs Forum. 2021;56(4):1008-1014. [CrossRef]
- Çevik K, Khorshid L. Determination of status of applying the professional behaviours of nursing students. Ege Univ Fac Nurs J. 2012;28(2): 23-30
- Özden D, Özveren H, Gülnar E. Nurse students' clinical decision-making abilities level and the factors that affect abilities. J Dokuz Eylul Univ Nurs Fac. 2018;11(1):41-47.
- 47. Popa-Velea O, Purcărea VL. Issues of therapeutic communication relevant for improving quality of care. J Med Life. 2014;7(4):39-45.
- 48. McCabe C. Nurse-patient communication: an exploration of patients' experiences. J Clin Nurs. 2004;13(1):41-49. [CrossRef]
- 49. Bazrafkan L, Najafi Kalyani M. Nursing students experiences of clinical education: a qualitative study. Invest Educ Enferm. 2018;36(3). [CrossRef]