

# The Relationship Between Nursing Students' Responsibility Levels and Their Caring Behaviors: Descriptive and Correlational Study

## Hemşirelik Öğrencilerinin Bireysel Sorumluluk Düzeyleri ile Bakım Davranışları Arasındaki İlişki: Tanımlayıcı ve İlişki Arayıcı Çalışma

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**ABSTRACT Objective:** In this study, the relationship between individual responsibility level and the caring behavior of nursing students was investigated. **Material and Methods:** The research is a descriptive and correlational type of study. The sample of the research consisted of 603 students studying in the nursing department in Türkiye between November and December 2022. The data were collected using the introductory characteristics form, the Student Individual Responsibility Scale-10, and the Caring Behaviors Inventory-24. **Results:** 71.8% of the students are female and the average age is 21.12±1.62. The mean total score of the Individual Responsibility Scale was ±32.64 4.84, and the mean total score of the care behaviors was ±122.11 21.90. A weak, positive correlation was found between individual responsibility and care behaviors and subdimensions. The mean scores of individual responsibility, care behaviors and sub-dimensions of women, those who chose the nursing department willingly, those who were satisfied with being a nursing student and those who performed very good caring for patients in the clinic were found to be significantly higher ( $p<0.05$ ). A weak, positive correlation was determined between individual responsibility and care behaviors and their sub-dimensions ( $p=0.000$ ). **Conclusion:** It was found that the students had above-average individual responsibility and caring behaviors. It was found that there was a positive correlation between individual responsibility and caring behaviors. It is recommended to plan initiatives to increase students' individual responsibility levels in order to improve their caring behaviors.

**Keywords:** Caring behaviors; individual responsibility; nursing students

**ÖZET Amaç:** Araştırmada, hemşirelik öğrencilerinin bireysel sorumluluk düzeyleri ile bakım davranışları arasındaki ilişki araştırılmıştır. **Gereç ve Yöntemler:** Araştırma, tanımlayıcı ve ilişki arayıcı tipte bir çalışmadır. Araştırmanın örneklemini Kasım-Aralık 2022 tarihleri arasında Türkiye'de, hemşirelik bölümünde öğrenim gören 603 öğrenci oluşturmuştur. Veriler, tanıtıcı özellikler formu, Öğrenci Bireysel Sorumluluk Ölçeği-10 ve Bakım Davranışları Ölçeği-24 kullanılarak toplanmıştır. **Bulgular:** Öğrencilerin, %71,8'i kadın ve yaş ortalaması 21,12±1,62'dir. Bireysel Sorumluluk Ölçeği toplam puan ortalaması 32,64±4,84 ve bakım davranışları toplam puan ortalaması 122,11±21,90 olarak bulundu. Kadınların, hemşirelik bölümünü isteyerek seçenlerin, hemşirelik öğrencisi olmaktan memnun olanların ve klinikte hastalara bakım vermeyi çok iyi gerçekleştirenlerin bireysel sorumluluk, bakım davranışları ve alt boyutlarının puan ortalamaları anlamlı derecede yüksek bulundu ( $p<0,05$ ). Bireysel sorumluluk ile bakım davranışları ve alt boyutları arasında zayıf, pozitif bir korelasyon belirlendi ( $p=0,000$ ). **Sonuç:** Öğrencilerin, ortalamanın üzerinde bireysel sorumluluk ve bakım davranışlarına sahip olduğu bulundu. Bireysel sorumluluk ile bakım davranışları arasında pozitif ilişki olduğu belirlendi. Öğrencilerin bakım davranışlarını geliştirmek için bireysel sorumluluk düzeylerini artırmaya yönelik girişimlerin planlanması önerilir.

**Anahtar Kelimeler:** Bakım davranışları; bireysel sorumluluk; hemşirelik öğrencileri

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The concept of responsibility is defined as caring for oneself and others, fulfilling duties, living in harmony with society, coping with pain, and making the world a better place. Responsibility is considered from an individual and social perspective. Social responsibility has an important place among nursing students, who are in of the profession whose goal is to improve the quality of health care in society.<sup>1</sup> It has been reported that individual responsibility significantly increases students' academic success.<sup>2</sup>

As defined by the American Nurses Association, nursing is the "definition and care of people's responses to existing or potential health problems during the course of their everyday life". Nursing has many roles to play, especially as caregivers to people who are undergoing illness or injury.<sup>3</sup> Nursing care means knowing the patient, caring about the patient's statements, spending time with the patient, meeting his demands, protecting the patient from dangers, making his life easier, and fulfilling his responsibilities with respect and compassion.<sup>4</sup> Although technological developments in recent years have led to changes in nursing services, the concept of person-centered care has not changed. Therefore, teaching and developing effective care behavior to nursing students constitutes one of the foundations of nursing education.<sup>5</sup>

Since nursing students spend much of their time caring for hospitalized patients, it is essential to determine their behavior in this regard.<sup>6</sup> Nursing students directly affect the health care quality of the society. For this reason, students are expected to have high levels of individual responsibility. It is seen that studies on nursing students' perception of care behaviors and individual responsibility levels are limited.<sup>5-7</sup> However, according to our research, there are small number of studies examining the effect of nursing students' individual responsibilities directly on their caring behaviors. Therefore, it is thought that the study will contribute to the limited knowledge available in the literature on the subject.

The research questions are as follows:

1. What are the individual responsibility levels of nursing students?
2. How are the caring behaviors of the students?
3. What is the relationship between students' de-

scriptive characteristics, caring behaviors and individual responsibility levels?

4. Is there a relationship between students' individual responsibilities and care behaviors?

## MATERIAL AND METHODS

### STUDY DESIGN

It has a descriptive and correlational research design.

### POPULATION AND SAMPLE

The research was conducted using the snowball sampling method between November and December 2022. Snowball sampling is a predetermined method used to include participants who are not easily accessible and unknown to the researcher. This sampling uses the characteristics of common friends and social networks.<sup>8</sup> Criteria for inclusion in the research: 1) Being a nursing student in Türkiye and agreeing to participate in the research. Exclusion criteria from the research: 1) Filling in the data collection forms incompletely or incorrectly and 2) Wanting to leave the research. An online survey form was prepared with the Google Forms application. The form was sent via social media tools (WhatsApp, Instagram, etc.) and email to the nursing department in Türkiye, 2. It was sent to 3<sup>rd</sup> and 4<sup>th</sup> grade students. In order to ensure data security in the online survey, informed consent was obtained from the students regarding the purpose, scope and inclusion criteria of the study. Students were asked to fill out the form and share it with their peers. Using this method, 603 nursing students were reached.

### DATA COLLECTION TOOLS

The introductory characteristics form, Student Individual Responsibility Scale-10, and Caring Behaviors Inventory-24 were used for data collection.

#### Introductory Characteristics Form

This form, which includes the students' descriptive characteristics (such as age, gender, grade point average), consists of 18 questions.

#### Student Individual Responsibility Scale-10

It was developed to determine the responsibility levels of university students.<sup>9</sup> It is one-dimensional, in

four-point Likert type and consists of 10 items. In the scale items; 3, 4, 6 and 9 are reverse coded. The scale score is minimum 10 and maximum 40. An increase in the score obtained from the scale also indicates an increase in responsibility. In the validity and reliability study, Cronbach's alpha value was found to be .63.<sup>2</sup> In this study, it was .83.

### Caring Behaviors Inventory-24

It was developed to measure nursing care behaviors.<sup>10</sup> It consists of six-point Likert type, four sub-dimensions and 24 items. The minimum score on the scale is 24 and the maximum is 144. An increase in the scale score indicates an increase in care behaviors. A validity and reliability study was conducted.<sup>11</sup> Cronbach alpha value; It was found to be 0.97 in the study conducted with patients and 0.96 in the study conducted with nurses.<sup>11</sup> In this study, it was 90.

### DATA ASSESSMENT

The data were analyzed with the SPSS 22 package program. In descriptive analyses; number, mean, percentage, standard deviation, minimum and maximum values were determined. Normality distribution was determined with the Kolmogorov-Smirnov test. The Kruskal-Wallis test was used to test the significance of the difference between three or more groups that were not normally distributed. Mann-Whitney U test was used to test the significance of the difference between two independent groups. In data that was not normally distributed, Spearman correlation analysis was used to determine the relationship between two variables. Statistical significance was evaluated at the  $p < 0.05$  level.

### ETHICAL CONSIDERATIONS

The research was approved by the Ethics Committee of Çankırı Karatekin University (date: 25 October 2022, no: 28). Students were informed about the study. Consent of the students was obtained with the Informed Voluntary Consent Form. Students were completed the data collection forms after reading the consent form and clicking "I agree to participate in the research". Permission to use the scales has been obtained. In this research, the Declaration of Helsinki principles were followed.

## RESULTS

The average age of the students is  $21.12 \pm 1.62$ . 71.8% are women and 99.2% are single. Data on other descriptive characteristics of the students are included in Table 1.

Forty-three percent of the students were in the second grade, and their grade point average was  $3.04 \pm 0.43$ . It was determined that 70.7% of them stayed in the dormitory, 71.3% preferred the nursing department willingly, 74% were satisfied with being a student of the nursing department, and 50.1% had a moderate level of care for patients in the clinic (Table 2).

The student's average total score on the Individual Responsibility Scale is  $32.64 \pm 4.84$ . The total score average of the Care Behaviors Scale is  $122.11 \pm 21.90$ . When the maintenance behavior scale subscale score averages are examined; assurance was determined as  $40.98 \pm 7.89$ , knowledge-skill as  $25.05 \pm 4.50$ , respectfulness as  $30.88 \pm 5.62$  and commitment as  $25.19 \pm 4.83$  (Table 3).

Female' individual responsibility, care behaviors and subscale mean scores were found to be statistically significantly higher than male. Individual responsibility, caring behaviors and sub-dimension mean scores of those who voluntarily chose nursing, were satisfied with their choice and thought that they provided very good care to patients in the clinic were found to be statistically significantly higher. The mean score of the assurance subscale was statistically significantly higher for 4<sup>th</sup> grade students than other grades ( $p < 0.05$ ) (Table 4).

A weak but positive relationship was determined between individual responsibility and care behaviors and their sub-dimensions. However, a high level of positive correlation was determined between care behaviors and the subdimensions of assurance, knowledge-skill, respectfulness, and connectedness ( $p = 0.000$ ) (Table 5).

## DISCUSSION

In this study, the relationship between nursing students' caring behaviors and individual responsibilities was investigated. The results of the study were discussed with literature information. According to

Sociodemographic characteristics number	n	%
Age ( $\bar{X}\pm\text{SD}$ )	21.12 $\pm$ 1.62	
	(Minimum=19, maximum=31)	
Gender		
Female	433	71.8
Male	170	28.2
Marital status		
Single	598	99.2
Married	5	0.8
High school		
Anatolian high school	433	71.8
Vocational high school of health	67	11.1
Science high school	52	8.6
Other*	51	8.5
Longest place of residence		
Metropolitans	211	35.0
Province	173	28.7
District	145	24.0
Village	74	12.3
Family type		
Nuclear family	480	79.6
Extended family	106	17.6
Broken family	17	2.8
Educational status of the mother		
Illiterate	69	11.5
Primary school	287	47.6
Secondary school	106	17.6
High school	101	16.7
University	40	6.6
Mother s Occupation		
Housewife/not working	504	83.5
Worker	55	9.1
Tradesman	12	2.0
Officer	19	3.2
Retired	13	2.2
Educational status of the father		
Illiterate	8	1.3
Primary school	207	34.3
Secondary school	108	17.9
High school	182	30.2
University	98	16.3
Occupation of father		
Unemployed	63	10.4
Worker	232	38.5
Tradesman	89	14.8
Officer	89	14.8
Retired	130	21.5
Income level of the family		
Income less than expenditures	188	31.2
Income equal to expenditures	351	58.2
Income more than expenditures	64	10.6
The general structure of the family		
Extremely authoritarian and rejecting	47	7.8
Overly protective	113	18.8
Inconsistent	40	6.6
Extremely tolerant	38	6.3
Indifferent and indifferent	17	2.8
Acceptable, reassuring, democratic	348	57.7

\*Vocational high school and religious vocational high school. SD: Standard deviation.

Descriptive characteristics	n	%
Class level (year)		
2	259	43.0
3	167	27.7
4	177	29.3
Grade Point Average ( $\bar{X}\pm\text{SD}$ )	3.04 $\pm$ 0.43	
	(Minimum=1.50, Maximum=3.90)	
Place of residence in university education		
In the dormitory	426	70.7
At home with family	76	12.6
At home with friends	70	11.6
At his relative's house	8	1.3
At home alone	23	3.8
Willingly choosing the nursing department		
Yes	430	71.3
No	173	28.7
Satisfaction with being a student of the nursing department		
Yes	446	74.0
No	157	26.0
Level of providing care to patients in the clinic		
Very bad	5	0.8
Bad	40	6.6
Moderate	302	50.1
Good	185	30.7
Very good	71	11.8

SD: Standard deviation.

our research, there are few studies examining the individual responsibilities of students.<sup>7,12,13</sup>

In the research, the students' Individual Responsibility Scale-10 total score average is 32.64 $\pm$ 4.84 (out of 40), which is above the average. In the studies conducted by Kesici with Yetiş and Aktaş, it was determined that the individual responsibilities of the students were high.<sup>7,12</sup> Another study was examined nursing students' academic self-efficacy, personal responsibility, and readiness for professional practice. As a result of the study, it was determined that nursing students who participated in clinical practice, developed care plans and participated in case discussions had higher levels of academic self-efficacy and personal responsibility and were more ready for professional practice.<sup>14</sup> Human-centered care is fundamental to the nursing profession and zero errors are expected to be made during the course of patient care.<sup>15</sup> As part of the nursing oath, "awareness of the responsibilities I have undertaken" is taught to students from the first year on-

**TABLE 3:** Student Individual Responsibility Scale-10 and Caring Behaviors Inventory-24 total and subdimension mean scores (n=603).

Scales and subscales	$\bar{X}\pm SD$	Minimum	Maximum
Student Individual Responsibility Scale-10			
Total score	32.64±4.84	14.00	40.00
Caring Behaviors Inventory-24			
Assurance	40.98±7.89	8.00	48.00
Knowledge-skill	25.05±4.50	5.00	30.00
Respectfulness	30.88±5.62	6.00	36.00
Connectedness	25.19±4.83	5.00	30.00
Total score	122.11±21.90	24.00	144.00

SD: Standard deviation.

wards. In this study, students' assuming the responsibilities of the patients they care for in their clinical practices and being aware that the nursing profession is a profession with a high level of responsibility may have affected the students' high levels of individual responsibility. In addition, students' involvement in clinical practice and thus developing care plans by taking part in case discussions may have contributed to increasing their individual responsibility levels.

In the study, the total mean score of the Caring Behaviors Inventory-24 was 122.11±21.90 (out of 144), which shows that the caring behavior was above average. In the study of Dığın and Kızılıcık Özkan, caring behaviors were determined to be high, and in the study of Birimoğlu and Ayaz, caring behaviors were determined to be at a good level.<sup>5,6</sup> In this study, the high average grade of the students (3.04±0.43), the fact that most of them chose the nursing profession willingly (71.3%), and that they were satisfied with being a nursing student (74%) may have affected the high level of caring behaviors.

In this study, the lowest mean score was determined from the knowledge-skill sub-dimension of the Care Behaviors-24 Scale and the highest score was determined from the assurance sub-dimension. In the studies of Dığın and Kızılıcık Özkan and Kilic, the lowest mean score was found in the commitment sub-dimension and the highest score in the knowledge-skill sub-dimension.<sup>6,16</sup> In Labrague and et al. study, the lowest mean score was found in the commitment sub-scale.<sup>17</sup> This finding of our study differs from the literature results. It is thought that this result was caused by the fact that 43% of the students were second year

students and that they performed patient care at an intermediate level in their clinical practice (50.1%).

In this study, it was found that women's Individual Responsibility Scale-10 and care Behaviors Scale-24 total and subscale mean scores were higher than men. In the literature, there are studies suggesting that gender has no effect on individual responsibility and that female students' individual social responsibility levels are higher than those of male students.<sup>13,7</sup> On the other hand, there are studies reporting that gender has no effect on caring behaviors, and male students have higher scores in terms of assurance, knowledge skills and attention than female students.<sup>5,6,18,19</sup> It is thought that the fact that most of the students participating in this study are women (71.8%), that nursing is a female-oriented profession, that femininity brings about compassionate behaviors, and that men face gender role pressure in the nursing profession may be effective in differentiating this result of our study from the literature.<sup>20</sup>

In this study, it was determined that the mean scores of the Individual Responsibility Scale-10 and the Care Behavior Scale-24 total and sub-dimensions were high for those who voluntarily chose the nursing department, were satisfied with being a nursing student, and gave excellent care to patients in their clinical practices. In the literature, there are studies stating that students who voluntarily prefer the nursing profession have high perceptions of caring behaviors, are more successful in clinical applications, and have more professional satisfaction.<sup>5,21</sup> The voluntary preference for a profession enables the adoption of profession-specific behaviors and



**TABLE 4:** Distribution of the mean scores of the Student Individual Responsibility Scale-10 and Caring Behaviors Inventory-24 by descriptive characteristics (n=603).

Features	Student Individual Responsibility Scale-10 total score		Assurance		Knowledge-skill		Respectfulness		Connectedness		Caring Behaviors Inventory-24 total points	
	$\bar{X} \pm SD$	Median (minimum-maximum)	$\bar{X} \pm SD$	Median (minimum-maximum)	$\bar{X} \pm SD$	Median (minimum-maximum)	$\bar{X} \pm SD$	Median (minimum-maximum)	$\bar{X} \pm SD$	Median (minimum-maximum)	$\bar{X} \pm SD$	Median (minimum-maximum)
Sex												
Female	33.29±4.35	34 (15-40)	42.06±7.06	44 (9-48)	25.44±4.20	26 (7-30)	31.70±4.92	33 (6-36)	25.87±4.30	26 (6-30)	125.08±19.45	129 (28-144)
Male	30.99±5.58	31 (14-40)	38.24±9.14	40 (8-48)	24.07±5.08	25 (5-30)	28.80±6.69	30 (6-36)	23.45±5.62	24.5 (5-30)	114.57±25.72	120 (24-144)
Statistical	Z=-4.759		Z=-4.640		Z=-2.794		Z=-4.769		Z=-4.786		Z=-4.159	
	p=0.001		p=0.001		p=0.005		p=0.001		p=0.001		p=0.001	
Grade (year)												
2	32.84 ± 4.08	34 (19-40)	41.52 ± 7.59	44 (9-48)	25.12 ± 4.58	26 (7-30)	31.21 ± 5.35	32 (6-36)	25.59 ± 4.44	26 (6-30)	123.45 ± 21.06	127 (28-144)
3	32.28 ± 5.52	34 (14-40)	39.29 ± 8.54	41 (11-48)	24.79 ± 4.34	25 (14-30)	29.86 ± 6.11	31 (14-36)	24.32 ± 5.32	25 (11-30)	118.27 ± 23.62	123 (64-144)
4	32.69 ± 5.18	33 (15-40)	41.78 ± 7.45	44 (8-48)	25.20 ± 4.55	26 (5-30)	31.37 ± 5.44	33 (6-36)	25.42 ± 4.80	27 (5-30)	123.79 ± 21.08	129 (24-144)
Statistical	KW=0.139		KW=9.416		KW=1.380		KW=5.829		KW=4.622		KW=4.380	
	p=0.933		p=0.009		p=0.502		p=0.054		p=0.099		p=0.112	
Willingly choosing the nursing department												
Yes	33.17±4.53	34 (16-40)	42.06±7.18	44 (11-48)	25.63±4.32	26 (10-30)	31.61±5.20	33 (9-36)	25.83±4.44	27 (9-30)	125.15±20.31	130.5 (40-144)
No	31.32±5.31	32 (14-40)	38.29±8.88	40 (8-48)	23.62±4.64	25 (5 - 30)	29.06±6.20	30 (6-36)	23.60±5.36	25 (5 - 30)	114.58±23.86	120 (24-144)
Statistical	Z=-3.714		Z=-5.336		Z=-5.304		Z=-5.221		Z=-5.077		Z=-5.642	
	p=0.001		p=0.001		p=0.001		p=0.001		p=0.001		p=0.001	
Satisfaction with being a student of the nursing department												
Yes	33.29±4.35	34 (16-40)	42.13±6.91	44 (9-48)	25.66±4.13	26 (7-30)	31.69±4.96	33 (6-36)	25.90±4.28	27 (6-30)	125.39±19.35	130 (28-144)
No	30.78±5.62	31 (14-40)	37.72±9.46	40 (8-48)	23.33±5.05	24 (5-30)	28.57±6.68	30 (6-36)	23.17±5.67	24 (5-30)	112.81±25.78	120 (24-144)
Statistical	Z=-4.870		Z=-5.116		Z=-5.210		Z=-5.192		Z=-5.440		Z=-5.515	
	p=0.001		p=0.001		p=0.001		p=0.001		p=0.001		p=0.001	
Level of providing care to patients in the clinic												
Very bad	34.11±3.74	33 (32-40)	38.40±7.02	40 (31-48)	21.20±4.96	20 (15-28)	29.00±4.89	27 (24-36)	22.20 ± 4.54	21 (19-30)	110.80±19.56	100 (95-142)
Bad	29.97±6.87	31 (14-40)	37.95±9.04	40 (21-48)	22.62±4.50	22 (15-30)	29.17±6.47	30.5 (17-36)	23.22 ± 5.85	25 (11-30)	112.97±23.99	117 (65-144)
Moderate	32.16±4.89	33 (16-40)	39.68±7.87	40.5 (11-48)	24.22±4.29	25 (11-30)	29.93±5.54	31 (11-36)	24.35 ± 4.76	25 (9-30)	118.20±21.47	121 (48-144)
Good	33.37 ± 3.91	34 (23-40)	42.57±6.95	45 (9-48)	26.06±4.21	27 (7-30)	31.97±5.23	34 (6-36)	26.19 ± 4.32	27 (6-30)	126.81±19.98	133 (28-144)
Very good	35.00 ± 4.70	35 (22-40)	44.25±7.91	48 (8-48)	27.59±4.36	30 (5-30)	33.16±5.38	36 (6-36)	27.45 ± 4.47	30 (5-30)	132.46±21.46	141 (24-144)
Statistical	KW=18.226		KW=54.645		KW=79.476		KW=49.617		KW=53.765		KW=68.667	
	p=0.001		p=0.001		p=0.001		p=0.001		p=0.001		p=0.001	

SD: Standard deviation; KW: Kruskal-Wallis test; Z: Mann-Whitney U test; p: Significant value.

**TABLE 5:** Correlation between Student Individual Responsibility Scale-10 and Caring Behaviors Inventory-24 scores (n=603).

Scales and subscales	Student Individual Responsibility Scale-10 total score	Assurance	Knowledge-skill	Respectfulness	Connectedness	Caring Behaviors Inventory-24 total points
Student individual responsibility scale-10 total score		r=0.323 p=0.000	r=0.322 p=0.000	r=0.328 p=0.000	r=0.345 p=0.000	r=0.346 p=0.000
Assurance	r=0.323 p=0.000		r=0.815 p=0.000	r=0.905 p=0.000	r=0.870 p=0.000	r=0.955 p=0.000
Knowledge-skill	r=0.322 p=0.000	r=0.815 p=0.000		r=0.804 p=0.000	r=0.791 p=0.000	r=0.904 p=0.000
Respectfulness	r=0.328 p=0.000	r=0.905 p=0.000	r=0.804 p=0.000		r=0.917 p=0.000	r=0.953 p=0.000
Connectedness	r=0.345 p=0.000	r=0.870 p=0.000	r=0.791 p=0.000	r=0.917 p=0.000		r=0.939 p=0.000
Caring Behaviors Inventory-24 total points	r=0.346 p=0.000	r=0.955 p=0.000	r=0.904 p=0.000	r=0.953 p=0.000	r=0.939 p=0.000	

p: Significant value, r: Spearman product-moment correlation.

responsibilities, the fulfillment of professional functions, and satisfaction with the service provided.<sup>22</sup> According to the present study, the high level of personal responsibility and caring behaviors may have been influenced by the fact that most of the students chose the profession willingly (71.3%) and were satisfied with being nursing students (74%).

In this study, it was found that the assurance subscale mean score of 4th grade students was higher than that of students in other grades. In the literature, there are studies suggesting that caring behaviors do not differ by class and that the total score of care behaviors increases as the class level increases, but there is no significant difference.<sup>16,23,6</sup> In this study, the increase in the knowledge and skill levels of 4th-grade students may have affected the high assurance subdimension.

In this study, a weak, positive correlation was determined between individual responsibility and care behaviors and their sub-dimensions. A high level of positive correlation was found between caring behaviors and their subdimensions. It is stated in the literature that satisfaction with the choice of the nursing profession and the desire to work as a nurse after graduation will affect students' individual responsibility levels and professional readiness. In the same study, it was reported that students' involvement in clinical practices, preparation of care plans, and participation in case discussions positively affected both academic self-efficacy and professional readiness.<sup>14</sup> In this study, the fact that 71.3% of nursing students chose the profession willingly and 74% of them were satisfied with being a nursing student may have contributed to their high level of individual responsibility and thus their professional readiness. Professional readiness will be directly reflected in students' care behaviors. Additionally, the fact that the students in this study are in the 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> grades shows that they are participated in clinical practice. In this study, the students' experience in clinical practice, preparing a care plan, and participating in case discussions may have contributed to the increase in academic self-efficacy and professional readiness, and thus the reflection of these experiences on care behaviors. In addition, there is also a study stating that female students' individual social responsibility levels are higher than male students.<sup>7</sup> The fact that the majority of nursing students are female students may have contributed to the high level of individual responsibility and thus contributed to the

increase in students with high professional readiness, and this may have contributed to their reflection on caring behaviors.

## STUDY LIMITATIONS

The data of the research is limited to participants who filled out a Google Form. Additionally, the results of the research are limited to the answers given by the participants.

## CONCLUSION

As a result of the study, it was found that students had above average individual responsibility and caring behavior. Additionally, a weak, positive relationship was found between students' individual levels of responsibility and caring behaviors. Based on these results, it is recommended that plans be made to increase the individual responsibility levels of nursing students in order to improve their caring behaviors.

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## Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

## Authorship Contributions

**Idea/Concept:** Yedigâr Ordu, Banu Cihan Erdoğan; **Design:** Yedigâr Ordu, Banu Cihan Erdoğan; **Control/Supervision:** Yedigâr Ordu; **Data Collection and/or Processing:** Yedigâr Ordu, Banu Cihan Erdoğan; **Analysis and/or Interpretation:** Yedigâr Ordu; **Literature Review:** Yedigâr Ordu, Banu Cihan Erdoğan; **Writing the Article:** Yedigâr Ordu, Banu Cihan Erdoğan; **Critical Review:** Yedigâr Ordu, Banu Cihan Erdoğan; **References and Fundings:** Yedigâr Ordu.

## REFERENCES

1. Erdoğan E, Erdem R. Hemşirelerin bireysel sosyal sorumluluk düzeyleri ile yaşam doyumunun demografik değişkenlere göre araştırılması [Research of nurses' individual social responsibility levels and life satisfaction according to demographic variables, master thesis]. Süleyman Demirel Üniversitesi Sosyal Bilimler Enstitüsü Dergisi. 2017;3(28):293-312. <https://dergipark.org.tr/en/pub/sbe/issue/38547/1186321>
2. Doğan U. Öğrenci Bireysel Sorumluluk Ölçeği-10'un Türkçe formunun geçerlik ve güvenilirlik çalışması [Validity and reliability study of the Turkish version of Student Personal Responsibility Scale-10]. Trakya Üniversitesi Sosyal Bilimler Dergisi. 2015;17(1):163-70. <https://dergipark.org.tr/en/pub/trakya-sobed/issue/30210/326093>
3. Craven RF, Hirnle C, Jensen S. Hemşirelik Esasları İnsan Sağlığı ve Fonksiyonları. Uysal N, Çakırcalı E, eds. 1. Baskı. Ankara: Palme Yayıncılık; 2015.
4. Berman AJ, Snyder S, Frandsen G, Kozier & Erb's Fundamentals of Nursing: Concepts, Process and Practice. 11th ed. United Kingdom: Pearson Education Limited; 2022.
5. Birimoğlu C, Ayaz S. Hemşirelik öğrencilerinin bakım davranışlarını algılamaları [Nursing students' perceptions of caring behaviors]. Hacettepe Üniversitesi Hemşirelik Fakültesi Dergisi. 2015;2(3):40-8. <https://dergipark.org.tr/en/pub/hunhemsire/issue/7860/332115>
6. Diğın F, Kızılcık Özkan Z. Hemşirelik öğrencilerinin bakım davranışları algılarının belirlenmesi [Determination of nursing students' perceptions of care behavior]. Gevher Nesibe Journal of Medical and Health Sciences. 2021;6(10):16-21. <https://doi.org/10.46648/gnj.155>
7. Yetiş H, Aktaş B. Sağlık bilimleri fakültesinde okuyan öğrencilerin bireysel sosyal sorumluluk düzeyleri ve etkileyen faktörlerin belirlenmesi [Determination of individual social responsibility level and the factors affecting them in students at the faculty of health sciences]. Hemşirelik Bilimi Dergisi. 2021;4(2):46-51. <https://dergipark.org.tr/en/pub/hbd/issue/64902/950795>
8. Marcus B, Weigelt O, Hergert J, et al. The use of snowball sampling for multi source organizational research: Some cause for concern. Personnel Psychology. 2017;70(3):635-73. <https://doi.org/10.1111/peps.12169>
9. Singg S, Ader JA. Development of the student personal responsibility scale-10. Social Behavior & Personality: an international journal. 2001;29(4):331-6. <https://doi.org/10.2224/sbp.2001.29.4.331>
10. Wu Y, Larrabee JH, Putman HP. Caring Behaviors Inventory: a reduction of the 42-item instrument. Nursing research. 2006;55(1):18-25. PMID: 16439925. <https://doi.org/10.1097/00006199-200601000-00003>
11. Kurşun Ş, Kanan N. Bakım Davranışları Ölçeği-24'ün Türkçe formunun geçerlik ve güvenilirlik çalışması [Validity and reliability study of the Turkish version of Caring Behaviors Inventory]. Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi. 2012;15(4):229-35. <https://hdl.handle.net/20.500.12395/27347>
12. Kesici A. Lise öğrencilerinin sorumluluk düzeylerinin çeşitli değişkenlere göre incelenmesi [An examination of high school students' level of responsibility according to several variables]. Gazi Üniversitesi Gazi Eğitim Fakültesi Dergisi. 2018;38(3):965-85. <https://doi.org/10.17152/gefad.380376>
13. Sönmez A, Turan S, Soyer F. Lise öğrencilerinin benlik saygılarının kişisel sorumluluk düzeylerine etkisinin incelenmesi [Investigation of the effect of high school students' self-respect on personal responsibility levels]. Akdeniz Spor Bilimleri Dergisi. 2022;5(1):27-37. <https://doi.org/10.38021/asbid.1076878>



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14. Ersoy E, Ayaz-Alkaya S. Academic self-efficacy, personal responsibility, and readiness for professional practice in nursing students: a descriptive and correlational design. *Nurse Education Today*. 2024;132:106007. <https://doi.org/10.1016/j.nedt.2023.106007>
  15. Marzilli C. A year later: Life after the year of the nurse. *Belitung Nursing Journal*. 2021;7(2):59-61. <https://www.belitungraya.org/BRP/index.php/bnj/article/view/1509/357>
  16. Kilic M. Students' perceptions of nursing care: the case of a city of south Turkey. *International Journal of Caring Sciences*. 2018;11(1):402. [https://internationaljournalofcaringsciences.org/docs/46\\_kilik\\_original\\_11\\_1.pdf](https://internationaljournalofcaringsciences.org/docs/46_kilik_original_11_1.pdf)
  17. Labraque LJ, McEnroe-Petitte DM, Papathanasiou IV, Edet OB, Arulappan J, Tsaras K. Nursing students' perceptions of their own caring behaviors: a multicountry study. *International Journal of Nursing Knowledge*. 2017;28(4):225-32. <https://doi.org/10.1111/2047-3095.12108>
  18. Fenizia E, Navarihi L, Scollo S, Gambera A, Ciccozzi M. A longitudinal study on caring behaviors of Italian nursing students. *Nurse Education Today*. 2020;88:104377. <https://doi.org/10.1016/j.nedt.2020.104377>
  19. Aupia A, Lee TT, Liu CY, Vivienne SF, Mills ME. Caring behavior perceived by nurses patients and nursing students in Indonesia. *Journal of Professional Nursing*. 2018;34(4):314-9. <https://doi.org/10.1016/j.profnurs.2017.11.013>
  20. Liu NY, Hsu WY, Hung CA, Wu PL, Pai HC. The effect of gender role orientation on student nurses' caring behaviour and critical thinking. *International Journal of Nursing Studies*. 2019;89:18-23. <https://doi.org/10.1016/j.ijnurstu.2018.09.005>
  21. Safadi RR, Saleh MYN, Nassar OS, Amre HM, Froelicher ES. Nursing students' perceptions of nursing: a descriptive study of four cohorts. *Int Nurs Rev*. 2011;58(4):420-7. <https://doi.org/10.1111/j.1466-7657.2011.00897.x>
  22. Primasheila D, Perizade B, Hanafi A, Widiyanti M. The influences of job satisfaction and organizational commitment on turnover intention. *International Research Journal of Management, IT & Social Sciences*. 2022;9(1):119-30. <https://doi.org/10.21744/irjmis.v9n1.2014>
  23. Durmaz ÇY, Serin KE, Önder YE, Polat HT. Nursing and midwifery students' perceived care behaviors and empathy tendencies. *Turkish studies*. 2019;14(4):2179-93. <https://turkishstudies.net/files/turkishstudies/407a09af-0d81-48f5-a86e-cb69753341c5.pdf>

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