

12-31-2024

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Recommended Citation

Yel P, Zengin N, Üçeriz AÇ. Investigation of the Relationship Between Nursing Students' Ethical Sensitivities and Care Behaviors. Makara J Health Res. 2024;28.

Investigation of the Relationship Between Nursing Students' Ethical Sensitivities and Care Behaviors

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Abstract

Background: Care encompassing ethical and legal aspects is essential for nursing and involves actions that aim to improve individual well-being. In this study, we assessed the relationship between nursing students' ethical sensitivity and care behaviors.

Methods: This descriptive study included 191 students enrolled at a foundation university who consented to participate. Relevant data were gathered by using the Descriptive Information Form, Ethical Sensitivity Scale Adapted for Nursing Students, and Caring Behaviors Scale-24. Surveys were conducted face-to-face with the attending students and via Google Forms for the non-attending students.

Results: The mean total score of the ethical sensitivity scale was 4.89 ± 0.60 , indicating a moderate level, while the mean score for care behaviors was 5.32 ± 0.70 , indicating a high level. Ethical sensitivity varied significantly by sex, and care behaviors varied according to sex and grade level ($p < 0.05$). A moderate positive correlation was found between ethical sensitivity and the total care behavior score ($p < 0.05$).

Conclusions: Students had moderate ethical sensitivity and high care behaviors, with female students scoring higher in both areas compared to male students. In addition, higher ethical sensitivity levels were correlated with increased care behaviors.

Keywords: ethics, nursing care, nursing student, Turkey

INTRODUCTION

Ethics are moral principles that regulate how a person or group of people should behave or act. These principles serve as a critical model for ethical standards in the nursing profession, emphasizing the human rights of patients, families, and communities, social issues, the work of nurses within health care systems, and responsibility and advocacy toward other health professionals.^{1,2} Nurses are responsible for providing care based on ethical principles.³ Accordingly, nurses are expected to evaluate patients based on their knowledge level, skills, feelings, and experiences while performing care behaviors and to determine solutions when faced with ethical problems.^{4,5}

Nurses adopt responsibilities regarding nursing care practices and develop ethical sensitivity with the theoretical knowledge and experiences they acquire during their student years.⁶⁻⁸ Good nursing care is aimed at increasing human dignity in all its dimensions and transforming it into practical applications.⁹ Therefore, student nurses are expected to act in accordance with

ethical principles and rules, laws, and professional values in their care domain.^{10,11}

In order to improve the knowledge and skill levels of student nurses regarding ethical decision-making in the process of vocational education, first, their ethical sensitivity levels should be determined, their awareness should be raised, and they should be educated on relevant issues by considering the factors that are effective in ethical decision-making throughout their education life. Nursing education focuses on an educational process that enables students to adopt ethical values and principles.¹²⁻¹⁴ Past studies have reported that the ethical sensitivity levels of student nurses are not at the desired level and that nurses with low ethical sensitivity have difficulty in making moral decisions in clinical settings.¹⁵⁻¹⁷

Studies conducted on nurses so far have shown an interrelation between the perceived quality of nursing care and ethical sensitivity, and the perception of quality of care increases for nurses with exposure to training avenues related to professional values and ethics. Education, clinical experience, personal characteristics, and autonomy also affect nurses' ethical behaviors. It has been seen that nurses who internalize ethical principles contribute positively to the quality of patient care.¹⁸⁻²²

A few studies have examined the relationship between ethical sensitivity and the care behaviors of nursing students. These studies have generally focused on the

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relationship between ethical sensitivity and the quality of care among professional nurses, with limited reports addressing this relationship with student nurses in the education process before entering professional life. This study was conducted to examine the relationship between student nurses' ethical sensitivity levels and their care behaviors with the aim to contribute toward nursing education and professional development, strengthening their ability to make ethical decisions in their professional nursing careers and improving the quality of care.

In line with the present aim, answers to the following research questions were sought: 1) What is the level of ethical sensitivity among student nurses? 2) What are the levels of care behaviors of student nurses? 3) What is the relationship between ethical sensitivity and the caregiving behaviors of student nurses?

METHODS

Before starting the study, board approval (Decision No: 2023-200) was obtained from the Haliç University Non-Interventional Clinical Research Ethics Committee. In accordance with the ethical principles of the Declaration of Helsinki, the purpose of the research was explained to the students before collecting the study data, and written informed consent was obtained from all students. Researchers who conducted a reliability and validity study of the Ethical Sensitivity Scale Adapted for Nursing Students and Care Behaviors Scale-24, which will be used in the research, were contacted, and permission to use the scale was obtained via e-mail.

The study was conducted between January 15, 2024, and June 15, 2024, with students studying in the Turkish nursing department of a foundation university. The study population consisted of students enrolled in the nursing (Turkish) department of a foundation university ($N = 317$). The G*Power 3.1 program was used to calculate the sample size of the study. As a sampling method, a convenience sampling method was preferred to nonprobability sampling methods. At least 174 participants were to be included in the sample so as to reflect an effect size of 0.25, an error level of 0.05, a confidence interval of 95%, and a 95% strength of the measurement to perform analysis of variance in repeated measurements. After obtaining informed consent from the students, the researchers collected face-to-face interview data in a classroom environment from students present and via a Google survey form from students away from the class. The research was completed by 191 students who agreed to participate. The curriculum of the university where the study was conducted had compulsory courses under the name of nursing values and ethics at the third-grade level.

The research data were obtained with the Descriptive Information Form, Ethical Sensitivity Scale Adapted for

Nursing Students, and Care Behaviors Scale-24. During the evaluation of the relationship between ethical sensitivity and caring behaviors, it was considered that the relationship between these two variables may be affected by different demographic and educational factors. In this context, to minimize the effect of conflicting variables such as the duration of clinical experience, age, grade level, gender, and the scope of ethical education received, these conflicting variables were considered in the analysis of the data, grouping was performed according to the demographic characteristics, and statistically significant differences were evaluated.

The descriptive information form included six questions, including the gender of the students, the type of high school they graduated from, the grade level they studied up to in the nursing department, the status of encountering ethical problems in the clinical practice process, the ethical problem encountered, professional values, and participation in the training/meeting on ethics.

The ethical sensitivity scale developed by Lützn *et al.* was adapted to the Turkish language by Sahin *et al.*²³⁻²⁵ Scale were rated on a Likert scale ranging from 1 (strongly disagree) to 7 (completely agree). Scale: Interpersonal Orientation (establishing a trusting relationship with the patient and finding ways to meet the patient's needs), Modified Autonomy (recognizing the principle of patient autonomy and allowing the patients to make their own decisions in situations requiring physical and psychological protection of the patient or others or limiting the patient's autonomy), benevolence (doing good deeds or acting in favor of the patient), Creating Ethical Meaning (reflecting and interpreting decisions made by patients that are deemed inappropriate for them), Experiencing an Ethical Dilemma (recognizing the existence of an ethical dilemma, emotionally and consciously defining and understanding the ethical problem, and determining ways to resolve the ethical dilemma, and application the measures), and Referral to Expert Knowledge (consultation with a specialist to resolve patient-care-related problems). The range of points that could be obtained varies between 30 and -210. Scale mean scores and total scores are considered very important at 7 to -5.9 (total: 177-210), significant at 5.8 to -5 (total: 150-176), neutral at 4.9 to -3.1 (total: 93-149), and ethical at <3.1 (total: 93). Cronbach's alpha value was found to be 0.64 on the original scale, 0.73 in the Turkish adaptation of the scale, and 0.83 in the present study.²³⁻²⁵ This value promotion signifies that growth is measured ethically and reliably at a high level.

Care behaviors scale-24 was developed in 1994 as 42 expressions by both patients and nurses to evaluate the nursing care process. It was revised in 2006, and a short form with 24 expressions was created and adapted to the Turkish language in 2010.²⁶⁻²⁸ The scale, which consists of four sub-dimensions: assurance, knowledge-skill, respect-

fulness, and commitment, is rated on a six-point scale (1: never, 2: almost never, 3: sometimes, 4: usually, 5: most of the time, 6: always). The total score obtained from the scale varies between 24 and 144, and the average score is used in further evaluation. A high score indicates a high level of perception of the quality of care of patients and nurses. In a previous study, Cronbach's alpha value of the Turkish version of the scale was found to be 0.97 for patients and 0.96 for nurses.²⁸ In the present study, the Cronbach's alpha reliability coefficient of the scale was 0.971. In the reliability analysis of the scales, Cronbach's alpha coefficient was considered as a basis, and it was determined that both scales had high internal consistency. In the study, the validity of the scales was based on the content validity and construct validity analyses reported in the literature.

Research data was analyzed by IBM SPSS 25. In this study, the descriptive features of the qualitative data were expressed in numbers and percentages, and the descriptive features of the quantitative data were expressed in mean, standard deviation, minimum, maximum, and median values. As the first step of the statistical analysis, the normality assumption was examined by using the Shapiro-Wilk test and the homogeneity of variance was checked with the Levene test. In cases where the normality assumption was met, the Independent Sample T-test was applied to examine the differences between two independent groups. In cases where the normality assumption was not met, the Mann-Whitney U test was performed. ANOVA was applied to compare three or more independent groups with a normal distribution, while Kruskal Wallis test was applied when there was no normal distribution. Post-hoc Bonferroni and Tamhane analyses were conducted to determine groups with a difference. Spearman's correlation analysis was performed to measure the relationship between continuous variables that were not normally distributed.

RESULTS

The results showed that 79.6% of the students participants were female and 74.9% had graduated from Anatolian High School. In addition, 17.3% of the students were studying in the 1st grade, 28.3% in the 2nd grade, 27.2% in the 3rd grade, and 27.2% in the 4th grade. Moreover, 15.7% of the students encountered ethical problems in the clinical practice process, and 48.7% of them participated in training or meeting professional values and ethics (Table 1).

The total mean score of the students on the Ethical Sensitivity Scale Adapted for Nursing Students was 4.89 ± 0.60 ; sub-dimension scores were determined as interpersonal orientation 5.66 ± 0.85 , experiencing ethical

dilemma 3.59 ± 1.20 , benevolence 4.56 ± 0.84 , ethical meaning formation 5.01 ± 0.68 , modified autonomy 4.87 ± 0.85 , and application to expert knowledge 5.07 ± 0.96 . The mean total score of the students on the Care Behaviors Scale-24 was 5.32 ± 0.70 , and the sub-dimension scores were reassurance (5.31 ± 0.74), knowledge skill (5.40 ± 0.75), respectfulness (5.32 ± 0.74), and dependency (5.27 ± 0.75) (Table 2).

A statistically significant difference was recorded among interpersonal orientation, application of expert knowledge, and creation of ethical dilemmas based on the total score and sub-dimensions of the ethical sensitivity scale in accordance with the gender of the students ($p < 0.05$). It was determined that the total score of the ethical sensitivity scale of women and the mean scores of interpersonal orientations, application of expert knowledge, and creation of ethical dilemmas were higher in females than in males. A significant difference was also noted between the high school factor from which the students graduated and the Ethical Sensitivity Scale Adapted for Nursing Students-application of expert knowledge subdimension ($p < 0.05$). The average score of students who graduated from Anatolian High School and Vocational High School to apply expert knowledge was higher than that of students who graduated from Straight High School.

TABLE 1. Distribution of nursing students according to their descriptive characteristics (N = 191)

Descriptive characteristics	N	%
Sex		
Female	152	79.6
Male	39	20.4
Graduated high school		
Straight High School	3	1.6
Anatolian High School	143	74.9
Vocational High School	39	20.4
Science High School	6	3.1
Current year in the nursing program		
1	33	17.3
2	54	28.3
3	52	27.2
4	52	27.2
Having previously encountered any ethical problems during the care process in clinical practice		
Yes	30	15.7
No	161	84.3
Participation in training/meetings on professional values and ethics		
Yes	93	48.7
No	98	51.3

TABLE 2. Distribution of the total and subdimensions of the Ethical Sensitivity Scale Adapted for Nursing Students and the Care Behaviors Scale-24 according to the descriptive characteristics of the students (Mean $\pm$ SD)

	Interpersonal Orientation	Experiencing an Ethical Dilemma	Benevolence	Ethical meaning formation	Modified autonomy	Expert Knowledge	ESS-NS	Reassurance	Knowledge-Skill	Respectfulness	Dependence	CBS-24
Mean $\pm$ SD	5.66 $\pm$ 0.85	3.59 $\pm$ 1.20	4.56 $\pm$ 0.84	5.01 $\pm$ 0.68	4.87 $\pm$ 0.85	5.07 $\pm$ 0.96	4.89 $\pm$ 0.60	5.31 $\pm$ 0.74	5.40 $\pm$ 0.75	5.32 $\pm$ 0.74	5.27 $\pm$ 0.75	5.32 $\pm$ 0.70
(Min – Max)	(2.00 – 7.00)	(1.00 – 7.00)	(2.13 – 7.00)	(2.83 – 6.83)	(2.40 – 7.00)	(6.67 – 7.00)	(3.00 – 6.40)	(2.25 – 6.00)	(2.80 – 6.00)	(2.50 – 6.00)	(3.00 – 6.00)	(3.00 – 6.00)
Sex												
Female	5.81 $\pm$ 0.69	3.52 $\pm$ 1.16	4.6 $\pm$ 0.82	5.09 $\pm$ 0.64	4.93 $\pm$ 0.82	5.16 $\pm$ 0.93	4.96 $\pm$ 0.56	5.44 $\pm$ 0.65	5.49 $\pm$ 0.69	5.42 $\pm$ 0.65	5.42 $\pm$ 0.65	5.43 $\pm$ 0.62
Male	5.06 $\pm$ 1.11	3.88 $\pm$ 1.32	4.4 $\pm$ 0.92	4.72 $\pm$ 0.76	4.65 $\pm$ 0.92	4.69 $\pm$ 0.98	4.63 $\pm$ 0.68	4.82 $\pm$ 0.86	5.05 $\pm$ 0.87	4.94 $\pm$ 0.92	4.94 $\pm$ 0.92	4.91 $\pm$ 0.86
<i>p</i>	<0.001*	0.093	0.190	0.004*	0.066	0.006*	0.004*	<0.001*	0.005*	0.003*	0.003*	0.001*
Year in the nursing program												
1	5.83 $\pm$ 0.86	3.84 $\pm$ 1.25	4.78 $\pm$ 0.94	5.10 $\pm$ 0.66	5.19 $\pm$ 0.83	5.26 $\pm$ 1.05	5.09 $\pm$ 0.62	5.45 $\pm$ 0.65	5.44 $\pm$ 0.75	5.44 $\pm$ 0.66	5.44 $\pm$ 0.66	5.42 $\pm$ 0.61
2	5.60 $\pm$ 0.76	3.51 $\pm$ 1.21	4.50 $\pm$ 0.86	4.94 $\pm$ 0.64	4.86 $\pm$ 0.83	5.00 $\pm$ 0.96	4.84 $\pm$ 0.59	5.31 $\pm$ 0.81	5.41 $\pm$ 0.77	5.27 $\pm$ 0.72	5.27 $\pm$ 0.72	5.30 $\pm$ 0.74
3	5.57 $\pm$ 0.87	3.35 $\pm$ 1.20	4.48 $\pm$ 0.88	5.11 $\pm$ 0.75	4.70 $\pm$ 0.93	5.11 $\pm$ 0.90	4.84 $\pm$ 0.66	5.47 $\pm$ 0.63	5.56 $\pm$ 0.64	5.58 $\pm$ 0.60	5.58 $\pm$ 0.60	5.52 $\pm$ 0.60
4	5.69 $\pm$ 0.91	3.76 $\pm$ 1.13	4.56 $\pm$ 0.71	4.95 $\pm$ 0.68	4.86 $\pm$ 0.74	4.97 $\pm$ 0.95	4.88 $\pm$ 0.52	5.06 $\pm$ 0.78	5.19 $\pm$ 0.80	5.05 $\pm$ 0.84	5.05 $\pm$ 0.84	5.09 $\pm$ 0.76
<i>p</i>	0.527	0.147	0.507	0.457	0.135	0.449	0.249	0.021*	0.090	0.002*	0.002*	0.015*
Graduated high school												
Straight High School	4.92 $\pm$ 1.81	3.67 $\pm$ 0.67	4.04 $\pm$ 0.14	4.83 $\pm$ 1.04	3.87 $\pm$ 0.23	3.67 $\pm$ 0.33	4.27 $\pm$ 0.58	4.50 $\pm$ 0.98	4.67 $\pm$ 0.99	4.28 $\pm$ 0.63	4.33 $\pm$ 0.58	4.44 $\pm$ 0.81
Anatolian High School	5.64 $\pm$ 0.86	3.52 $\pm$ 1.12	4.51 $\pm$ 0.79	4.99 $\pm$ 0.69	4.85 $\pm$ 0.84	5.14 $\pm$ 0.95	4.87 $\pm$ 0.58	5.26 $\pm$ 0.77	5.34 $\pm$ 0.78	5.31 $\pm$ 0.72	5.23 $\pm$ 0.77	5.28 $\pm$ 0.72
Vocational High School	5.74 $\pm$ 0.76	3.70 $\pm$ 1.44	4.67 $\pm$ 0.98	5.09 $\pm$ 0.66	4.95 $\pm$ 0.87	4.87 $\pm$ 0.93	4.97 $\pm$ 0.67	5.51 $\pm$ 0.59	5.64 $\pm$ 0.56	5.41 $\pm$ 0.81	5.42 $\pm$ 0.71	5.49 $\pm$ 0.62
Science High School	5.92 $\pm$ 0.61	4.61 $\pm$ 1.29	5.15 $\pm$ 0.86	5.17 $\pm$ 0.47	5.47 $\pm$ 0.62	5.22 $\pm$ 1.00	5.34 $\pm$ 0.46	5.60 $\pm$ 0.24	5.67 $\pm$ 0.39	5.58 $\pm$ 0.42	5.50 $\pm$ 0.30	5.59 $\pm$ 0.22
<i>p</i>	0.356	0.247	0.159	0.806	0.051	0.027*	0.064	0.050	0.035*	0.062	0.069	0.050
Having ethical problems												
Yes	5.62 $\pm$ 0.64	3.69 $\pm$ 1.12	4.52 $\pm$ 0.73	5.12 $\pm$ 0.59	4.73 $\pm$ 0.82	5.10 $\pm$ 0.91	4.87 $\pm$ 0.49	5.42 $\pm$ 0.62	5.57 $\pm$ 0.50	5.41 $\pm$ 0.79	5.41 $\pm$ 0.79	5.44 $\pm$ 0.61
No	5.66 $\pm$ 0.88	3.57 $\pm$ 1.22	4.57 $\pm$ 0.86	5.00 $\pm$ 0.70	4.90 $\pm$ 0.85	5.06 $\pm$ 0.97	4.90 $\pm$ 0.62	5.29 $\pm$ 0.76	5.37 $\pm$ 0.78	5.31 $\pm$ 0.73	5.31 $\pm$ 0.73	5.30 $\pm$ 0.72
<i>p</i>	0.777	0.630	0.863	0.399	0.271	0.834	0.897	0.375	0.162	0.514	0.514	0.316
Participation in training/meetings												
Yes	5.54 $\pm$ 0.93	3.52 $\pm$ 1.08	4.48 $\pm$ 0.83	4.96 $\pm$ 0.73	4.80 $\pm$ 0.88	5.01 $\pm$ 1.00	4.82 $\pm$ 0.63	5.32 $\pm$ 0.73	5.41 $\pm$ 0.74	5.34 $\pm$ 0.79	5.34 $\pm$ 0.79	5.34 $\pm$ 0.72
No	5.77 $\pm$ 0.75	3.66 $\pm$ 1.31	4.63 $\pm$ 0.85	5.07 $\pm$ 0.63	4.94 $\pm$ 0.81	5.12 $\pm$ 0.91	4.97 $\pm$ 0.56	5.30 $\pm$ 0.76	5.39 $\pm$ 0.76	5.31 $\pm$ 0.69	5.31 $\pm$ 0.69	5.31 $\pm$ 0.69
<i>p</i>	0.058	0.445	0.210	0.282	0.231	0.466	0.245	0.919	0.818	0.723	0.723	0.812

**p* < 0.05

TABLE 3. Relationship between the Ethical Sensitivity Scale Adapted to Nursing Students and the Caring Behaviors Scale-24

	Reassurance	Knowledge-skill	Respectfulness	Dependence	Care behaviors scale-24
Interpersonal orientation					
r	0.344	0.267	0.387	0.341	0.350
p	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*
Experiencing an ethical dilemma					
r	-0.124	-0.166	-0.065	-0.133	-0.120
p	0.088	0.022*	0.371	0.067	0.099
Benevolence					
r	0.251	0.235	0.343	0.262	0.292
p	<0.001*	0.001*	<0.001*	<0.001*	<0.001*
Ethical meaning formation					
r	0.359	0.337	0.393	0.366	0.380
p	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*
Modified autonomy					
r	0.317	0.292	0.375	0.308	0.336
p	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*
Expert knowledge					
r	0.164	0.181	0.237	0.194	0.179
p	0.023*	0.012*	0.001*	0.007*	0.013*
Ethical sensitivity scale adapted for nursing students					
r	0.373	0.344	0.468	0.374	0.406
p	<0.001*	<0.001*	<0.001*	<0.001*	<0.001*

r: correlation coefficient r = Spearman's correlation coefficient (r < 0.2 very weak correlation, r = 0.2–0.4 weak correlation, r = 0.4–0.6 medium correlation, r = 0.6–0.8 high correlation, r = 0.8 > very high correlation)

*p < 0.05

The mean scores of the Care Behaviors Scale-24 total and subdimensions differed significantly according to the gender and grade of the students ($p < 0.05$). The female students' mean scores on the Care Behaviors Scale-24 total and subdimensions were 3rd higher than those of the male students. The mean score of students studying in the classroom on the Care Behaviors Scale-24 total, respectfulness, and assurance subdimensions was 4, which was higher than the mean score of students in the class. A statistically significant difference was recorded between the high school factor from which the students graduated and the mean scores of the Care Behaviors Scale-24 knowledge-skill subdimension ($p < 0.05$). The average knowledge and skill scores of the students who graduated from vocational high school were higher than those of the students who graduated from Anatolian high school (Table 2).

In our study, Ethical Sensitivity Scale Adapted for Nursing Students sub-dimensions such as interpersonal orientation ($r = 0.350$, $p < 0.001$), benevolence ($r = 0.292$, $p < 0.01$), ethical meaning formation ($r = 0.380$, $p < 0.001$), modified autonomy ($r = 0.336$, $p < 0.001$), reference to expert knowledge ($r = 0.179$, $p < 0.05$), and the Care Behaviors Scale-24, a weak, positive, significant correlation was found among the total scores. A low-level and negative relationship was noted between the ethical sensitivity scale ($r = -0.166$, $p < 0.05$) and the caregiving

behaviors scale-knowledge-skill subdimension. A moderate, positive, significant correlation was found between the total and sub-dimension scores of the Ethical Sensitivity Scale Adapted for Nursing Students and the Care Behaviors Scale-24 (Table 3).

DISCUSSION

The provision of quality and good care requires a high level of ethical sensitivity among the caregivers. Student nurses, who are future professionals, need to increase their knowledge and skills with regard to potential ethical issues they may encounter during patient care provision as a part of their education.

The ethical sensitivity levels of students may vary. In the literature, results differ among studies that examined the ethical sensitivities of students. Studies have reported that students' ethical sensitivities are at a high, medium/neutral, or low level.^{29,30–36} In the present study, students' ethical sensitivities were found to be at a medium/neutral level, which conforms to the results of some other studies.^{32–35} The differences in the results of the studies can be attributed to the cultural characteristics of the students, their current school curriculum, and their personal characteristics. Ethical sensitivity is closely related to the personal and social values of an individual.

It has been reported that ethical sensitivity levels differ with the sex. Although some studies have reported that women have a better level of ethical sensitivity than men, others have reported that ethical sensitivity is not different between genders or that men's ethical sensitivity is better.^{9,29,32-34,37} The present results indicated that women's ethical sensitivity was at a better level than men's. In addition, female students were significantly better than male students at establishing a trusting relationship with the patient and finding ways to meet the patient's needs (interpersonal orientation), making decisions that may limit a patient's decisions that are not good for him or her (creating ethical meaning), and applying to a specialist or consulting (applying expert knowledge) to resolve a patient's care problems.

Education and experience play an important role in the development of ethical sensitivity.^{9,38} In a past study, the ethical sensitivity levels of working nurses were found to be higher than those of student nurses, with experience having a positive effect on ethical sensitivity.³⁸ In the present study, the ethical sensitivity levels of the students did not differ with their study grades.^{29,33} While the teaching time of the students increased, there was no difference in the development of ethical sensitivity levels of the third and fourth grades due to the increase in clinical field experience and patient interaction. It can be thought that the fact that students do not take sufficient responsibility in the clinical field is effective in the absence of this difference. In this study, students' perceptions of the quality of care were high. In past studies, care behavior scores of students were found to be high.³⁹⁻⁴¹ The present study had the highest knowledge-skill sub-dimension scores for the students.

Our results revealed that students who graduated from vocational high school had higher knowledge skills in care behaviors than those who graduated from Anatolian high school. The current research findings are similar to those of Türk *et al.*³⁹ While the care behaviors of the students do not differ significantly according to the high school they graduated from, the knowledge-skill levels differ in their care behaviors.³⁹ It may be so that students who graduate from health vocational high schools easily receive information about care during the secondary education process, which improves their knowledge in their undergraduate education segment.

In the present study, students studying in the third grade had significantly better care behaviors, security, and respect than students studying in the fourth grade. This can be attributed to the fact that the care behaviors of fourth-year students, who have more knowledge and skills in the clinical sense, are lower than that of third-year students, thus, with increasing grade level, the students' experience increases in lieu of their time spent in the clinic and their ever-increasing enthusiasm for their profession

akin to the results of the studies conducted in the country and abroad.⁴²

In our study, while the levels of ethical sensitivity increased in general, care behaviors also improved. Students must constantly make decisions and realize good care behaviors. Making these decisions requires not only proficiency in clinical skills but also ethical sensitivity.⁴³ In addition, nursing care has been defined as "a phenomenon with a moral aspect, a moral ideal that protects human dignity, a virtue that includes sensitive awareness and rational judgment."² In daycare, nurses are constantly challenged to make decisions to provide good care. Making and implementing these decisions requires not only clinical competence but also ethical competence. Past studies have shown that the perceptions of student nurses about professional values and care behaviors were at a high level and their ethical sensitivity is at a moderate level, indicating a positive relationship between ethical decision-making and moral sensitivity.^{12,14} Based on the information obtained from the literature, a relationship can be expected between ethical sensitivity and care behaviors.

This study was conducted with 191 students from a foundation university, and the participants were selected from only one educational institution. This aspect limits the generalizability of the results obtained. In addition, there is undeniable a social approval bias or a tendency of the participants to idealize their behavior since the study data was collected through self-report. The use of face-to-face and online surveys as a data collection method makes it difficult to compare the impact of different forms of participation directly. In future studies, it is recommended to expand the sample by including students from different universities, to understand students' perceptions of ethical sensitivity and care behaviors in more detail by conducting in-depth interviews with qualitative methods, and to conduct longitudinal studies by evaluating students' knowledge, skills, and behaviors about ethical decision-making processes in clinical settings using observational approaches.

CONCLUSIONS

The present study determined that the ethical sensitivity levels of the students were medium, their care behaviors were high, and the ethical sensitivity and care behaviors of female students were higher than those of the corresponding male students. It was determined that the ethical sensitivity levels of the students increased proportional to their care behaviors. In line with these results, it is recommended to provide training to increase students' ethical sensitivity at every grade level in the undergraduate nursing education curriculum. In training, the critical thinking skills of students should be developed using case-centered approaches, and effective nursing ethics training that links theoretical knowledge with the

field of practice should be provided. Within the scope of these trainings, it is important to enable nursing students who undertake clinical practice to perform their care behaviors by considering ethical principles and to create standard care guidelines for the supervision and evaluation of care behaviors in order to increase the quality of care. In the future, it will be necessary to conduct research using high-quality methods that deal with ethical sensitivity and care behaviors of nursing students and to bring them into the relevant literature.

CONFLICT OF INTEREST

The authors declare no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

FUNDING

The authors received no financial support for the research, authorship, or publication of this article.

Received: July 4, 2024 | Accepted: November 28, 2024

REFERENCES

- Haddad LM, Geiger RA. *Nursing Ethical Considerations*. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024.
- Stievano A, Tschudin V. The ICN code of ethics for nurses: A time for revision. *Int Nurs Rev*. 2019;66:154–56.
- Karaçar Y, Bademli K, Özgönül ML. Hemşirelerde kişisel değerler ile etik duyarlılık arasındaki ilişkinin belirlenmesi [Determining the relationship between personal values and ethical sensitivity in nurses]. *Türkiye Biyoetik Derg*. 2020;7:47–58. Turkish.
- Gürdoğan EP, Aksoy B, Kınıcı E. Hemşirelik öğrencilerinin etik duyarlılık düzeyleri ve mesleki değerler ile ilişkisi [Ethical awareness of nursing students, and their relationship with professional values]. *Sağlık ve Hemşirelik Yönetimi Derg*. 2018;5:147–54. Turkish.
- Tosun H. Sağlık bakım uygulamalarında etik duyarlılık [Ethical sensitivity in health care practices]. *Sağlık Ve Yaşam Bilimleri Derg*. 2021;3:101–4. Turkish.
- Birimoğlu C, Ayaz S. Hemşirelik öğrencilerinin bakım davranışlarını algılamaları [Nursing students' perceptions of caring behaviors]. *Hacettepe Üniversitesi Hemşirelik Fakültesi Derg*. 2015;2:40–8. Turkish.
- Erenoğlu R, Can R, Tambağ H. Hemşirelik bakım davranışları ve bakım davranışları ile ilgili faktörler; Doğumevi örneği [Nursing care behaviors and factors related to care behaviors; Maternity hospital]. *Sağlık ve Toplum*. 2019;29:79–88. Turkish.
- Çelikkanat Ş, Akça K, Güngörmüş Z. Hemşirelik öğrencilerinde klasik ve senaryo temelli etik eğitiminin etkinlik düzeyinin ve etik duyarlılığın incelenmesi [Investigation of the effectiveness level of classical and scenario-based ethics education and ethical sensitivity in nursing students]. *Sürekli Tıp Eğitimi Derg*. 2023;32:198–207. Turkish.
- Cheraghi R, Valizadeh L, Zamanzadeh V, Hassankhani H, Jafarzadeh A. Clarification of ethical principle of the beneficence in nursing care: An integrative review. *BMC Nurs*. 2023;22:89.
- Ertuğrul B, Arslan GG, Ayik C, Özden D. The effects of an ethics laboratory program on moral sensitivity and professional values in nursing students: A randomized controlled study. *Nurse Educ Today*. 2022;111:105290.
- Knecht LD, Dabney BW, Cook LE, Gilbert GE. Exploring the development of professional values in an online RN-to-BSN program. *Nurs Ethics*. 2020;27:470–9.
- Kaya A, Düzgün MV, Boz İ. The relationship between professional values, ethical sensitivities and caring behaviors among nursing students: A structural equation modeling approach. *Nurse Educ Pract*. 2023;70:103676.
- Marques-Sule E, Baxi H, Arnal-Gómez A, Cortés-Amador S, Sheth M. Influence of professional values on attitudes towards professional ethics in future physical therapy professionals. *Int J Environ Res Public Health*. 2022;19:13952.
- Chen Q, Su X, Liu S, Miao K, Fang H. The relationship between moral sensitivity and professional values and ethical decision-making in nursing students. *Nurse Educ Today*. 2021;105:105056.
- Sari D, Baysal E, Celik GG, Eser I. Ethical decision making levels of nursing students. *Pak J Med Sci*. 2018;34:724–9.
- Lee W, Choi S, Kim S, Min A. A case-centered approach to nursing ethics education: A qualitative study. *Int J Environ Res Public Health*. 2020;17:7748.
- Sasso L, Bagnasco A, Bianchi M, Bressan V, Carnevale F. Moral distress in undergraduate nursing students: A systematic review. *Nurs Ethics*. 2016;23:523–34.
- Ye Y, Hu R, Ni Z, Jiang N, Jiang X. Effects of perceived stress and professional values on clinical performance in practice nursing students: A structural equation modeling approach. *Nurse Educ Today*. 2018;71:157–62.
- Darzi-Ramandi M, Sadeghi A, Tapak L, Purfarzad Z. Relationship between moral sensitivity of nurses and quality of nursing care for patients with COVID-19. *Nurs Open*. 2023;10:5252–60.
- Huang FF, Yang Q, Zhang J, Khoshnood K, Zhang JP. Chinese nurses' perceived barriers and facilitators of ethical sensitivity. *Nurs Ethics*. 2016;23:507–22.
- Özden D, Arslan GG, Ertuğrul B, Karakaya S. The effect of nurses' ethical leadership and ethical climate perceptions on job satisfaction. *Nurs Ethics*. 2019;26:1211–25.
- Mert S, Kersu Ö, Aydın Sayılan A, Akyolcu N. An investigation of surgical nurses' professional values, ethical sensitivity and quality of care: A cross-sectional study from Northwest Turkey. *Eval Health Prof*. 2023;46:30–40.
- Lützen K, Blom T, Ewalds-Kvist B, Winch S. Moral stress, moral climate and moral sensitivity among psychiatric professionals. *Nurs Ethics*. 2010;17:213–24.

24. Comrie RW. An analysis of undergraduate and graduate student nurses' moral sensitivity. *Nurs Ethics*. 2012;19:116–27.
25. Sahin SY, İyigün E, Açikel C. Validity and reliability of a Turkish version of the modified moral sensitivity questionnaire for student nurses. *Ethics Behav*. 2015;25:351–9.
26. Wolf ZR, Giardino ER, Osborne PA, Ambrose MS. Dimensions of nurse caring. *Image J Nurs Sch*. 1994;26:107–11.
27. Wu Y, Larrabee JH, Putman HP. Caring behaviors inventory: A reduction of the 42-item instrument. *Nurs Res*. 2006;55:18–25.
28. Kurşun Ş, Kanan N. Bakım davranışları ölçeği-24'ün türkçe formunun geçerlik ve güvenilirlik çalışması [Validity and reliability study of the Turkish form of the care behavior scale-24]. *Anadolu Hemşirelik ve Sağlık Bilimleri Derg*. 2012;15:229–35. Turkish.
29. Hançerlioğlu S, Toygar İ, Gül İ. Hemşirelik öğrencilerinin etik duyarlılık düzeyleri ve etkileyen faktörler [Ethical sensitivity levels of nursing students and affecting factors]. *Türkiye Klinikleri J Med Ethics*. 2020;28:330–6. Turkish.
30. Kaya A, Boz İ. The development of the Professional Values Model in nursing. *Nurs Ethics*. 2019;26:914–23.
31. Caner N, Sezer Efe Y, Erdem E, Başdaş Ö, Bayat M, Yıldırım M. İntörn hemşirelerde mesleki değerler ve etik duyarlılık [Professional values and ethical sensitivity in intern nurses]. *Sağlık Bilimleri Derg*. 2019;28:123–8. Turkish.
32. Özdemir RC, Işık MT, İnce S. İntörn hemşirelerin etik duyarlılığının, empati becerisine etkisi: Kesitsel tanımlayıcı bir çalışma [The effect of intern nurses' ethical sensitivity on empathy skills: A cross-sectional descriptive study]. *Türkiye Klinikleri J Med Ethics*. 2022;30:264–73. Turkish.
33. Baydın NÜ, Büyük ET. Hemşirelik öğrencilerinin etik duyarlılıkları ile kişisel sağlık verilerinin kayıt ve korunmasına yönelik tutumları arasındaki ilişki [Association between ethical sensitivity and attitudes towards recording and protecting personal data in nursing students]. *Türkiye Biyoetik Derg*. 2020;7:198–210. Turkish.
34. Lee JM, Min HY, Kim Y. Factors affecting ethical sensitivity among nursing students: Secondary data analysis. *Int J Adv Cult Technol*. 202;9:204–12.
35. Külekci E, Şahin SY, İyigün E. Hemşirelik son sınıf öğrencilerinin etik duyarlılıklarının incelenmesi [The effect of sociodemographic characteristics of senior nursing students on ethical sensitivity]. *Ankara Eğitim ve Araştırma Hastanesi Tıp Derg*. 2022;55:195–9.
36. Kurt D. Hemşirelik öğrencilerinde mahremiyet bilinci ve etik duyarlılık [Privacy consciousness and ethical sensitivity in nursing students]. *Türkiye Biyoetik Dergisi*. 2021;8:144–53.
37. Jingwei Z, Shuhao L, Xuebei W, Haoxin K, Xinyue Z, Jing L, et. al. Factors influencing ethical behavior among Chinese undergraduate nursing students. *Sage Open*. 2024;14:21582440241241451.
38. Dülgerler Ş, Durgu N, Güler C. Çalışan ve öğrenci hemşirelerde etik duyarlılık düzeyi ve etkileyen faktörler [Ethical sensitivity levels of employed and student nurses and effective factors]. *Türkiye Klinikleri J Med Ethics*. 2020;28:345–53. Turkish.
39. Türk G, Adana F, Erol F, Çevik Akyl R, Taşkıran N. Hemşirelik öğrencilerinin meslek seçme nedenleri ile bakım davranışları algısı [The reasons for choosing the career of the nursing students and their perceptions of care behaviours]. *Gümüşhane Üniversitesi Sağlık Bilimleri Derg*. 2018;7:1–10. Turkish.
40. Diğın F, Özkan ZK. Hemşirelik Öğrencilerinin bakım davranışları algılarının belirlenmesi [Determination of nursing students' perceptions of care behavior]. *Gevher Nesibe Tıp ve Sağlık Bilimleri Derg*. 2021;6:16–21. Turkish.
41. Gül Ş, Arslan S. Bir hemşirelik bölümünde öğrenim gören öğrencilerin hemşirelik bakım davranışları algısının belirlenmesi. *Acıbadem Üniversitesi Sağlık Bilimleri Derg*. 2021;12: 432–8. Turkish.
42. Gözütok Konuk T, Tanyer D. Investigation of nursing students' perception of caring behaviors. *J Caring Sci*. 2019;8:191–7.
43. İzadi F, Bijani M, Fereidouni Z, Karimi S, Tehranineshat B, Dehghan A. The effectiveness of teaching nursing ethics via scenarios and group discussion in nurses' adherence to ethical codes and patients' satisfaction with nurses' performance. *ScientificWorldJournal*. 2020;2020:5749687.