



Inclination of Nursing Students Towards Ethical Values and The Effects of Ethical Values on Their Care Behaviours

Duygu Bayraktar[✉] · Arzu Karabağ Aydın[✉] ·
Tunç Eliş[✉] · Kader Öztürk[✉]

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Abstract A descriptive, cross-sectional study aimed to determine the inclination of nursing students towards ethical values and the effects of these values on care behaviours. The data for this study were collected from 466 students studying from May 13–24, 2019. The data were collected using a questionnaire on the sociodemographic characteristics of the students, Inclination to Ethical Values Scale (IEVS), and Caring Behaviors Inventory-24 (CBI-24). In this study, 43.1 per cent of them belonged to families who had a protective attitude. The total mean (SD) IEVS and CBI-24 scores were 63.99 (12.68) and 117.19 (17.95), respectively. The mean item score was 4.88 (0.74). A moderate positive correlation was observed between the inclination of the students towards

ethical values and their care behaviours. The general family structure of the nursing students and their participation in an ethics class affected the inclination of the nursing students to ethical values and their care behaviours. This study showed that the ethical values of the students positively affected their care behaviours.

Keywords Ethics · Education · Caring · Behaviour · Nursing students

Introduction

Social and individual relationships are based on certain values (Gül et al. 2016). Values are the principles and beliefs that determine the behaviour of an individual (Parandeh et al. 2015; Arries 2019) and are guiding factors for taking and executing decisions (Parandeh et al. 2015). Ethic refers to the practice of values (Boozaripour et al. 2017). Values and ethics are critical for setting standards of moral accountability in nursing care practices (Parandeh et al. 2015). Ethical values play an integral part in defining the nursing care practices and specifying what is important for nurses, and these values significantly affect the behavior of the nurses (Arries 2019).

The ability of nurses to make ethical decisions during care practices depends on their ability to recognize their own ethical values and their inclination towards improving these values before completing

D. Bayraktar (✉) · A. K. Aydın
Kafkas University, Faculty of Health Sciences Department
of Nursing, 36100 Kars, Turkey
e-mail: duygubayraktar2009@hotmail.com

A. K. Aydın
e-mail: akarabag.aydin@gmail.com

T. Eliş
Kafkas University, Atatürk Vocational School of Health
Service, Department of Elderly Care, 36100 Kars, Turkey
e-mail: tuncelis@hotmail.com

K. Öztürk
Ardahan University, Vocational School of Health
Service, Medical Services and Techniques Department,
75000 Ardahan, Turkey
e-mail: kadcercifci@ardahan.edu.tr

the nursing education programmes (Gül et al. 2016; Arries 2019). It is important for nurses to have strong ethical values to make the best decision and to form an appropriate and ethical judgement when required in different working environments (Albert et al. 2020). These ethical values are often acquired during academic training (Koo 2016). Therefore, nursing students should be able to exercise the appropriate ethical values and make the right decisions in different situations requiring ethical judgement and apply their nursing-related knowledge and skills (Koo et al. 2018). Educational institutions play a key role in developing individuals who have ethical values, are aware of their responsibilities, and are capable of realizing their own abilities themselves (Yıldırım et al. 2020). The knowledge, skills, attitudes, and values acquired during the educational process have a considerable impact on an individual's personality and have a significant contribution on the overall development of an individual (Taş 2018).

Care is one of the core values in nursing education. Caring is at the heart of and is the essence of nursing (Fenizia et al. 2019). Studies on ethical values in nursing showed that nurses defined care as human dignity, privacy, justice, autonomy in decision-making, commitment, human relations, respect and empathy, personal approach, communication and meeting needs, and individual and professional competence (Shahriari et al. 2012). Care includes positive behaviours such as prioritizing individuality, meeting needs, providing information about procedures, helping to cope with problems, and showing tenderness (Toru 2020). A caring attitude is the most important element of the nursing practice and is considered the only way of applying the knowledge and skills obtained by the nurses in treating patients (Dursun Ergezen et al. 2020). Education regarding caring for patients is provided to the nursing students, especially during their undergraduate training, so that they show appropriate caring attitudes during nursing practice (Ferri et al. 2020). Thus, nursing students are expected to improve their caregiving skills through relevant education (Fenizia et al. 2019).

Previous studies have examined the care behaviours in student nurses (Fenizia et al. 2020; Ferri et al. 2020; Fenizia et al. 2019; Kılıç 2018) and in nurse clinicians (Klarare et al. 2021). Warshawski et al. (2018) and Labrague et al. (2016) found that the care behaviours of nursing students were affected by the level

of social support they received, their professional values, and the care behaviours of their instructors. Further, previous studies have examined the inclination of nursing students towards ethical values (Kirca et al. 2020; Koo 2016). To date, however, no studies have determined the effects of the ethical values of the nursing students on their care behaviours. Thus, studies investigating the impact of ethical values on care behaviours of nurses are imperative for providing effective care to patients and for preparing the nursing students to be a nurse practitioner.

Purpose of Study

This study aimed to determine the inclination of the nursing students towards ethical values and the impact of these values on their care behaviours.

Methodology

Design

A descriptive, cross-sectional design was used.

Participants and settings

The study was conducted from May 13–24, 2019, at the nursing department of the faculty of health sciences at a university in a city located in the North-eastern Anatolia Region of Turkey. The study participants were freshman, sophomore, junior, and senior year nursing students.

Sample size

The target study population included 667 nursing students. The study sample included 466 students who agreed to participate (percentage of participation: 69.86 per cent).

Measures

The data were collected using a questionnaire on the sociodemographic characteristics of the students, the Inclinations to Ethical Values Scale (IEVS), and the Caring Behaviors Inventory-24 (CBI-24).

Questionnaire on the Sociodemographic Characteristics of Students

This questionnaire was prepared by the researchers after reviewing the literature (Taş 2018; Türk et al. 2018; Kılıç, 2018). The questionnaire has eight questions about the class, gender, age, family's attitude, highest education level, the reason behind selecting the nursing profession to help people, their participation in a nursing ethics class, and their status of providing their own definition of ethics.

IEVS This 16-question scale was developed by Kaya (2015). It has three subscales: love–respect (items 1–8), justice–honesty (items 9–13), and cooperation (items 14–16). The scale items are scored as follows: strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4), and strongly agree (5). The highest possible score is eighty, and the lowest is sixteen. High scores indicate high levels of inclination to ethical values. The Cronbach's alpha coefficient for the scale was 0.90 (Kaya 2015). The Cronbach's alpha coefficient obtained in this study was 0.94.

CBI-24 This inventory was developed by Wolf et al. (1994) and shortened by Wu et al. (2006). Kurşun and Kanan (2012) performed a study to determine the validity and reliability of the Turkish version of this scale. This 24-question inventory has four subscales: assurance (items 16, 17, 18, 20, 21, 22, 23, 24), knowledge and skill (items 9, 10, 11, 12, 15), respectful (items 1, 3, 5, 6, 13, 19), and connectedness (items 2, 4, 7, 8, 14). The scale items are scored as follows: never (1), rarely (2), sometimes (3), generally (4), mostly (5), and always (6). The total scale score is calculated by adding up the item scores and then dividing by 24. High scale and subscale scores indicate high levels of perceived care quality. The Cronbach's alpha coefficient for the scale was 0.96 (Kurşun and Kanan 2012). The Cronbach's alpha coefficient obtained in this study was 0.95.

Data Analysis

The collected data were analysed using the IBM Statistical Package for Social Sciences (SPSS) for Windows Version 23.0. The frequencies of the questionnaire on students' sociodemographic characteristic were calculated. The answers of open-ended questions were coded and

categorized as follows: moral principles (1), behaviours that are accepted as correct or appropriate (2), professional ethics (3), social rules (4), not violating but respecting others' rights (5). The total scores on the IEVS and CBI-24 scales and subscale scores were calculated. The Kolmogorov–Smirnov (K-S) and the Shapiro–Wilk tests were used to determine the normal distribution of the variables. The data were analysed using the Mann–Whitney *U* test, Kruskal–Wallis test, and a reliability test. Spearman's correlation analysis was used to determine the relationship between the IEVS and the CBI-24. The threshold for statistical significance was $p < .05$.

Ethical Considerations

Written permission was obtained from scale authors (Kaya 2015 and Kurşun and Kanan 2012). Ethics committee approval (81829502.903/56) and written permission were obtained from the university's ethics committee and the university where this study was conducted, respectively.

The researchers informed the nursing students about the aim of the study. Verbal and written consent was obtained from the students who volunteered to participate in the study. The data were collected using the face-to-face interview method by handing out the data collection forms to students in the classroom environment. The students handed out the filled forms to the researchers. The data collection process took approximately 15–20 minutes. Two of the researchers gave ethics course in the fall semester. Two of the researchers took the Fundamentals of Nursing course of first-year students in the Spring semester. Data collection was not carried out during the courses. Data collection was done at the end of the Spring semester. It was stated that students who did not want to participate in the study would not adversely affect their academic achievement. The students were told that the questionnaire form was not intended to evaluate them individually. No data was requested showing which student the questionnaire belonged to.

Results

Sociodemographic Characteristics of the Nursing Students

The mean (standard deviation [SD]) age of the participants was 21.05 (1.95) years. Of the participants,

Table 1 Sociodemographic characteristics of the nursing students (n = 466)

Sociodemographic Characteristics		n	%
Age, years	17–22	382	82.0
	23–28	79	17.0
	29–34	5	1.0
Class	Freshman	177	38.0
	Sophomore	140	30.0
	Junior	69	14.8
	Senior	80	17.2
Gender	Female	279	59.9
	Male	187	40.1
Family's attitude	Authoritarian	78	16.8
	Democratic	187	40.1
	Protective	201	43.1
Highest education level	Medical vocational high school	21	4.5
	Anatolian high school	280	60.1
	Science high school	16	3.4
	General high school	127	27.3
	Associate's degree	22	4.7
Chose the nursing profession to help people	Yes	73	15.7
	No	393	84.3
Took the nursing ethics class	Yes	247	53.0
	No	219	47.0
Provided their own definition of ethics*	Moral principles	111	33.8
	Behaviors that are accepted as correct or appropriate	98	29.9
	Professional ethics	74	22.6
	Social rules	26	7.9
	Not violating but respecting others' rights	19	5.8
Mean age, years	21.05±1.95 (min, 17; max, 33)		

*Some of the students did not answer this question

38 per cent were freshman, 59.9 per cent were female, 43.1 per cent belonged to families who had protective attitudes, 60.1 per cent graduated from an Anatolian High School, 15.7 per cent chose the nursing profession to help people, 53 percent took the nursing ethics class, and 33.8 per cent defined ethics as moral principles (Table 1).

Mean Scores on the IEVS and CBI-24 Scale and Subscales

The mean (SD) IEVS score of the participants was 63.99 (12.68). The highest mean (SD) subscale score was 32.56 (6.96) on the love-respect subscale and the lowest was 11.41 (2.66) on the cooperation subscale. The total mean (SD) CBI-24 score was 117.19

(17.95). The total scale score is calculated by adding up the item scores and then dividing by twenty-four. The mean (SD) item score was 4.88 (0.74). The mean item score was made to facilitate discussion and interpretation by comparing the findings of this study with other studies. The highest mean (SD) subscale score was 4.91 (0.82) on the knowledge and skill subscale and the lowest was 4.79 (0.83) on the connectedness subscale (Table 2).

Mean Scores on the IEVS and Subscale Based on the Sociodemographic Characteristics of the Nursing Students

Participants who were 23–28 years age group, female, chose the nursing profession to help people, and took

Table 2 Mean scores of the nursing students on the inclination to ethical values scale and caring behaviors inventory-24 scale and subscales (n = 466)

Scales and Subscales	Min–Max	Mean (SD)	Cronbach's Alpha Values
IEVS	18–80	63.99 (12.68)	0.944
IEVS-F1 Love-respect subscale	8–40	32.56 (6.96)	0.909
IEVS-F2 Justice-honesty subscale	5–25	20.01 (4.39)	0.909
IEVS-F3 Cooperation subscale	3–15	11.41 (2.66)	0.787
CBI-24	1.29–6.00	4.88 (0.74)	0.958
CBI-24-F1 Knowledge and skill subscale	1.40–6.00	4.91 (0.82)	0.849
CBI-24-F2 Assurance subscale	1.25–6.00	4.90 (0.81)	0.907
CBI-24-F3 Respectful subscale	1.00–6.00	4.89 (0.82)	0.870
CBI-24-F4 Connectedness subscale	1.60–6.00	4.79 (0.83)	0.850

CBI-24, caring behaviors inventory-24; IEVS, inclination to ethical values scale, SD, standard deviation

the nursing ethics class had significantly higher mean IEVS scores. Participants who belonged to a family with an authoritarian attitude had significantly lower mean IEVS scores ($p < 0.05$). No statistically significant differences were observed between the mean IEVS scores and the variables of class, highest education level, and the status of providing their own definition of ethics ($p > 0.05$, Table 3).

Mean Scores on the CBI-24 Scale and Subscale Based on the Sociodemographic Characteristics of the Nursing Students

In nursing, it is very important to comply with professional ethics. Professional ethics, which refers to the use of knowledge, rationale, consistent communication, clinical competency, emotions, and values; in nursing practice, it is directly related to the quality of clinical care (Azadian et. al. 2020). The participants who had an associate's degree,¹ took the nursing

ethics class, and defined ethics as professional ethics had significantly higher mean CBI-24 scores, and those who had belonged to families with an authoritarian attitude had significantly lower mean CBI-24 scores ($p < 0.05$). No statistically significant differences were observed between the mean CBI-24 scores and the variables of age, class, gender, and the status of choosing the nursing profession to help people ($p > 0.05$, Table 4).

Relationship Between Variables

The IEVS and CBI-24 scores showed a weak positive correlation with age, family's attitude, and the status of taking the nursing ethics class ($p < 0.05$). The IEVS scores showed a weak positive correlation with gender and the status of choosing the nursing profession to help people ($p < 0.05$). The CBI-24 scores had a weak positive correlation with the highest education level ($p < 0.05$). The inclination of nursing students to ethical values had a moderate positive correlation with their care behaviours ($p < 0.05$) (Table 5).

¹ An Associate's degree is a two year higher education programme in Turkey that constitutes the first stage of undergraduate education covering four semesters based on secondary education and aiming to train intermediate manpower.

Table 3 Distribution of the mean inclination to ethical values scale and subscale scores of nursing students by sociodemographic characteristics (n = 466)

Variables		IEVS Mean (SD)	IEVS-F1 Mean (SD)	IEVS-F2 Mean (SD)	IEVS-F3 Mean (SD)
Age, years	17–22	63.58 (12.48)	32.39 (6.85)	19.87 (4.36)	11.31 (2.62)
	23–28	66.59 (12.68)	33.78 (6.84)	20.88 (4.22)	11.92 (2.68)
	29–34	54.00 (21.20)	26.00 (13.01)	17.40 (7.50)	10.60 (4.50)
		KW = 8.150 p = 0.017*	KW = 7.128 p = 0.028*	KW = 5.632 p = 0.060	KW = 4.021 p = 0.134
Class	Freshman	63.47 (13.38)	32.33 (7.11)	19.82 (4.67)	11.31 (2.88)
	Sophomore	63.47 (13.29)	32.32 (7.12)	19.95 (4.63)	11.20 (2.66)
	Junior	65.43 (10.19)	33.23 (6.50)	20.34 (3.71)	11.85 (2.13)
	Senior	64.81 (12.01)	32.91 (6.79)	20.27 (3.88)	11.62 (2.55)
Gender		KW = 0.708 p = 0.871	KW = 1.744 p = 0.627	KW = 0.331 p = 0.954	KW = 2.524 p = 0.471
	Female	65.36 (10.84)	33.30 (6.07)	20.45 (3.96)	11.60 (2.34)
	Male	61.95 (14.82)	31.45 (8.00)	19.35 (4.90)	11.13 (3.05)
		Z = 1.965 p = 0.049*	Z = 1.712 p = 0.087	Z = 2.187 p = 0.029*	Z = 0.832 p = 0.406
Family's attitude	Authoritarian	61.42 (12.20)	30.85 (6.66)	19.21 (4.45)	11.34 (2.30)
	Democratic	64.35 (13.11)	32.77 (7.15)	20.29 (4.40)	11.29 (2.82)
	Protective	64.65 (12.40)	33.03 (6.82)	20.06 (4.34)	11.55 (2.64)
		KW = 8.201 p = 0.017*	KW = 12.697 p = 0.002*	KW = 5.278 p = 0.071	KW = 1.856 p = 0.395
Highest education level	Medical vocational high school	65.19 (7.77)	33.66 (4.30)	19.61 (3.15)	11.90 (1.94)
	Anatolian high school	63.78 (12.70)	32.46 (6.96)	20.02 (4.40)	11.30 (2.73)
	Science high school	60.62 (16.71)	30.81 (8.81)	19.00 (5.53)	10.81 (3.08)
	General high school	64.85 (11.51)	33.03 (6.59)	20.18 (4.04)	11.62 (2.41)
Associate's degree		63.09 (18.73)	31.36 (9.46)	20.09 (6.27)	11.63 (3.40)
		KW = 1.228 p = 0.873	KW = 0.555 p = 0.968	KW = 2.933 p = 0.569	KW = 2.810 p = 0.590
Chose the nursing profession to help people	Yes	66.93 (10.36)	34.20 (5.94)	20.79 (3.41)	11.93 (2.17)
	No	63.45 (13.01)	32.25 (7.10)	19.87 (4.54)	11.31 (2.73)
		Z = 2.204 p = 0.027*	Z = 2.637 p = 0.008*	Z = 1.118 p = 0.263	Z = 1.400 p = 0.161
Took the nursing ethics class	Yes	65.85 (12.05)	33.39 (6.89)	20.57 (4.02)	11.89 (2.49)
	No	61.89 (13.07)	31.63 (6.94)	19.39 (4.71)	10.87 (2.74)
		Z = 4.080 p = 0.000**	Z = 3.936 p = 0.000**	Z = 2.610 p = 0.009*	Z = 4.256 p = 0.000**
Provided their own definition of ethics	Moral principles	65.40 (10.98)	33.13 (6.38)	20.46 (3.82)	11.80 (2.58)
	Behaviors that are accepted as correct or appropriate	64.87 (12.20)	33.19 (6.72)	20.17 (4.28)	11.51 (2.56)
	Professional ethics	65.95 (10.32)	33.51 (5.62)	20.64 (3.83)	11.79 (2.13)
	Social rules	65.73 (12.25)	33.57 (6.64)	20.42 (4.57)	11.73 (2.14)
	Not violating but respecting others' rights	67.47 (7.57)	34.47 (5.01)	20.47 (2.75)	12.52 (1.98)
		KW = 0.511 p = 0.972	KW = 1.125 p = 0.890	KW = 0.595 p = 0.964	KW = 3.400 p = 0.493

IEVS, inclination to ethical values scale, SD, standard deviation

Table 4 Distribution of the mean caring behaviors inventory -24 scale and subscale scores of the nursing students by some sociodemographic characteristics (n = 466)

Variables		CBI-24 Mean (SD)	CBI-24-F1 Mean (SD)	CBI-24-F2 Mean (SD)	CBI-24-F3 Mean (SD)	CBI-24-F4 Mean (SD)
Age, years	17–22	4.85 (0.74)	4.88 (0.80)	4.89 (0.83)	4.87 (0.81)	4.76 (0.83)
	23–28	4.98 (0.78)	4.99 (0.88)	5.01 (0.76)	4.99 (0.86)	4.90 (0.84)
	29–34	5.29 (0.29)	5.30 (0.42)	5.08 (0.22)	5.30 (0.54)	5.48 (0.36)
		KW = 4.070 p = 0.131	KW = 3.346 p = 0.188	KW = 1.137 p = 0.566	KW = 3.720 p = 0.156	KW = 6.588 p = 0.037*
Class	Freshman	4.90 (0.72)	4.94 (0.78)	4.90 (0.77)	4.92 (0.81)	4.82 (0.84)
	Sophomore	4.92 (0.66)	4.93 (0.72)	4.96 (0.80)	4.96 (0.71)	4.82 (0.73)
	Junior	4.90 (0.75)	4.87 (0.84)	5.01 (0.84)	4.91 (0.79)	4.84 (0.78)
	Senior	4.73 (0.91)	4.77 (0.99)	4.79 (0.93)	4.71 (1.02)	4.63 (0.98)
		KW = 1.626 p = 0.653	KW = 1.276 p = 0.735	KW = 2.879 p = 0.411	KW = 1.997 p = 0.573	KW = 2.567 p = 0.463
Gender	Female	4.92 (0.68)	4.94 (0.74)	4.94 (0.76)	4.96 (0.75)	4.84 (0.77)
	Male	4.81 (0.83)	4.84 (0.90)	4.88 (0.90)	4.80 (0.90)	4.71 (0.90)
		Z = 1.004 p = 0.315	Z = 0.554 p = 0.580	Z = 0.054 p = 0.957	Z = 1.583 p = 0.113	Z = 1.281 p = 0.200
Family's attitude	Authoritarian	4.62 (0.86)	4.67 (0.89)	4.59 (0.94)	4.65 (0.92)	4.51 (0.96)
	Democratic	4.91 (0.73)	4.93 (0.78)	4.97 (0.80)	4.91 (0.82)	4.82 (0.83)
	Protective	4.95 (0.69)	4.96 (0.79)	4.99 (0.76)	4.97 (0.76)	4.87 (0.75)
		KW = 10.423 p = 0.005*	KW = 6.702 p = 0.035*	KW = 11.080 p = 0.004*	KW = 7.927 p = 0.019*	KW = 8.707 p = 0.013*
Highest education level	Medical vocational high school	4.91 (0.70)	4.89 (0.81)	5.04 (0.72)	4.88 (0.78)	4.82 (0.77)
	Anatolian high school	4.82 (0.74)	4.84 (0.81)	4.87 (0.81)	4.86 (0.81)	4.71 (0.83)
	Science high school	4.55 (0.95)	4.54 (0.91)	4.48 (1.18)	4.59 (1.17)	4.57 (0.86)
	General high school	4.96 (0.73)	5.00 (0.80)	4.96 (0.82)	4.94 (0.80)	4.92 (0.82)
	Associate's degree	5.33 (0.56)	5.39 (0.59)	5.34 (0.54)	5.34 (0.61)	5.20 (0.65)
Chose the nursing profession to help people		KW = 14.741 p = 0.005*	KW = 16.229 p = 0.003*	KW = 9.689 p = 0.046*	KW = 9.245 p = 0.055	KW = 12.300 p = 0.015*
	Yes	5.06 (0.55)	5.07 (0.69)	5.06 (0.63)	5.11 (0.61)	5.00 (0.63)
	No	4.84 (0.77)	4.87 (0.83)	4.89 (0.85)	4.85 (0.85)	4.75 (0.85)
		Z = 1.883 p = 0.060	Z = 1.672 p = 0.095	Z = 1.101 p = 0.271	Z = 2.100 p = 0.036*	Z = 2.096 p = 0.036*
Took the nursing ethics class	Yes	4.97 (0.75)	4.98 (0.83)	5.04 (0.81)	4.97 (0.81)	4.86 (0.83)
	No	4.78 (0.72)	4.80 (0.78)	4.78 (0.81)	4.80 (0.83)	4.71 (0.82)
		Z = 3.044 p = 0.002*	Z = 2.738 p = 0.006*	Z = 3.797 p = 0.000**	Z = 2.394 p = 0.017*	Z = 2.142 p = 0.032*

Table 4 (continued)

Variables		CBI-24 Mean (SD)	CBI-24-F1 Mean (SD)	CBI-24-F2 Mean (SD)	CBI-24-F3 Mean (SD)	CBI-24-F4 Mean (SD)
Provided their own definition of ethics	Moral principles	4.86 (0.69)	4.83 (0.77)	5.02 (0.73)	4.87 (0.75)	4.74 (0.82)
	Behaviors that are accepted as correct or appropriate	4.97 (0.65)	5.01 (0.73)	4.95 (0.80)	4.99 (0.70)	4.89 (0.73)
	Professional ethics	5.12 (0.61)	5.15 (0.64)	5.11 (0.69)	5.19 (0.66)	5.01 (0.72)
	Social rules	5.11 (0.73)	5.14 (0.80)	5.15 (0.78)	5.14 (0.75)	4.98 (0.78)
	Not violating but respecting others' rights	4.69 (0.58)	4.61 (0.83)	4.72 (0.59)	4.78 (0.60)	4.68 (0.64)
		KW=13.342 p=0.010*	KW=14.465 p=0.006*	KW=7.024 p=0.135	KW=13.879 p=0.008*	KW=7.706 p=0.103

CBI-24, caring behaviors inventory-24; SD, standard deviation

Discussion

The mean, minimum, and maximum IEVS scores showed that the nursing students had a moderate level of inclination towards ethical values (Table 2). A weak positive correlation was observed between the inclination of nursing students towards ethical values and family's attitude, the status of choosing the nursing profession to help people, and the status of taking the nursing ethics class (Table 5). A weak negative correlation was observed between the inclination to ethical values and gender (Table 5). In other words, inclination to ethical values was found to be higher in women than in men (Table 3).

To date, a study has included student nurses as the sample group and used IEVS (Kırca et al. 2020). The results of this study are similar to those of the studies by Kırca et al. (2020), Taş (2018), and Üzümlü and Özkurt Sivrikaya (2018) examining the inclination of nursing students and university students, respectively, towards ethical values. In addition, the results of this study are similar to those of the study by Koo (2016) conducted in nursing students using a different ethical value scale. Different from the scale used in this study, various tools were used to measure the ethical values. In addition on this scale, it consists of four subcategories including eight questionnaires on human–life area, seven on

Table 5 Relationship between variables (n = 466)

	1	2	3	4	5	6	7	8	9	10
1. Age	1.000									
2. Class	.594**	1.000								
3. Gender	.191**	.054	1.000							
4. Family's attitude	-.098*	-.082	-.125**	1.000						
5. Highest education level	.413**	.150**	.092*	-.041	1.000					
6. Chose the nursing profession to help people	.036	.067	.009	.130**	-.037	1.000				
7. Took the nursing ethics class	.379**	.398**	.008	.050	.120**	.039	1.000			
8. Provided their own definition of ethics	-.004	-.073	-.128*	.058	.082	.033	-.122*	1.000		
9. IEVS	.101*	.032	.091*	.097*	.031	.102*	.189**	.026	1.000	
10. CBI-24	.106*	-.036	-.047	.123**	.125**	.087	.141**	.100	.463**	1.000

*p < 0.05, **p < 0.01

IEVS, inclination to ethical values scale; CBI-24, caring behaviors inventory-24

nurse–client relationship area, six on nurse–nursing task relationship area, four on nurse–colleague relationship area to be twenty-five as a total (Koo 2016). Ethical values are guiding principles in nursing practice (Bah and Sey-Sawo 2018). Nursing students should have the ability to exercise ethical values and make morally appropriate decisions in a challenging situation while applying their nursing-related knowledge and skills (Koo et al. 2018). In this study, it has been interpreted as that nursing students have a moderate level of inclination towards ethical values that they can take a more active role in solving problems containing ethical values that students may encounter in their care practices. In a study, it was stated that the moral issues that nursing students experience during their clinical practice include ethically inappropriate treatment of patients by healthcare professionals, misinformation provided to patients, disregard for patient privacy, and discrimination against patients based on their socioeconomic status (Yeom et al. 2017).

Considering that the maximum score that can be obtained from the CBI-24 scale is six, the students' mean CBI-24 score (4.88 ± 0.74) is at a desired level (Table 2). The care behaviours of the nursing students showed a weak positive correlation with family's attitude, highest education level, and the status of taking the nursing ethics class (Table 5). Similarly, previous studies conducted using the CBI-24 scale showed high levels of care behaviour among nursing students (Labrague et al. 2016; Türk et al. 2018; Kılıç 2018; Jagoda et al. 2019) and nurses (Dursun Ergezen et al. 2020). Care giving is the essence of the nursing profession (Dursun Ergezen et al. 2020) and is one of the important characteristics for being a nurse (Fenizia et al. 2019). A previous study showed that quality-of-care behaviours significantly affected patient satisfaction (Jagoda et al. 2019). Nursing students can provide quality care if they develop positive care behaviours. Systematically evaluating care behaviours of nursing students and organizing different activities to improve these behaviours can be effective in increasing quality of care and thus patient satisfaction.

In this study, nursing students in the 23–28 years age group had significantly high levels of inclination to ethical values than the other two groups (Table 3). This difference was observed in the love–respect subscale. Students in the 29–34 years age group showed

a significantly high score on the connectedness subscale, indicating a high level of care behaviours (Table 4). Results of the correlation analysis revealed that the inclination to ethical values and care behaviours increased with an increase in age (Table 5). Kılıç (2018) reported that the age of the nursing students did not affect their care behaviours. However, the results of the study by Taş (2018) conducted with university students showed that students aged ≤ 19 years and ≥ 23 years had high levels of inclination to ethical values, and age did not affect the levels of inclination to ethical values. The high levels of inclination reported in this study compared with the study by Taş (2018) may be because this study included only nursing students. The main purpose of nursing education is to use ethical values to improve critical thinking and psychomotor skills for providing quality care (İbrahimoglu et al. 2019). Therefore, high levels of inclination to ethical values were expected in this study conducted with nursing students. The differences observed in the scores on the connectedness subscale may be because only five students were present in the 29–34 years age group.

The scores on the justice-honesty subscale indicated that female nursing students had significantly high levels of inclination to ethical values (Table 3). Additionally, while female nursing students had high levels of care behaviours, gender did not influence care behaviours (Table 4). Previous studies showed results similar to those reported in this study that females had significantly high levels of inclination to ethical values (Üzüm and Özkurt Sivrikaya (2018); Yıldırım et al. 2020). Kılıç (2018) found that male and female nursing students had similar levels of care behaviours, whereas Labrague et al. (2016) found that female nursing students had high levels of care behaviours. Similar to the results of this study, those of the studies by Kılıç (2018) and Labrague et al. (2015) showed that gender did not affect care behaviours. Previous studies have reported results different from those reported in this study. Kırca et al. (2020) and Taş (2018) found that female nursing students had high levels of inclination to ethical values, but gender did not affect the levels of inclination to ethical values. Moosavi et al. (2017) conducted a study using a different scale and showed that female nursing students had high levels of ethical attitudes, but age did not affect the levels of ethical attitudes. In terms of the scale used, different from this study,

ethical attitudes were discussed in six dimensions which are beneficence, autonomy, justice, morality, doctors' rights/interests/obligations, and unacceptable or reprehensible medical conduct (Moosavi et al. 2017). Türk et al. (2018) found that female nursing students had significantly high levels of care behaviours. Thus, these results may be interpreted to mean that females behave more fairly and honestly.

Nursing students who belonged to a family with an authoritarian attitude had significantly low levels of inclination to ethical values (Table 3) and care behaviours (Table 4). The nursing students from such families had significantly low levels of inclination to ethical values in the love–respect subscale (Table 3) and that of care behaviours in all subscales (Table 4). A family having a democratic attitude plays a key role in the social, cognitive, emotional, and moral development of a child (Sak et al. 2015). Values are affected by factors such as culture, familial and social experiences, political structures, and religion (Boozaripour et al. 2017). Family plays an important role in the development of ethical values. In a study, it is stated that living with the family increases the inclination to ethical values because it brings more responsibility and rules (Yıldırım et al. 2020). Therefore, the ethical approach of an individual in a particular situation is influenced by the cultural characteristics, moral approach, and attitudes of his or her family (Taş 2018). While the democratic attitude helps the child develop autonomy by providing emotional support to the child in healthy family communication, the authoritarian attitude has a strict understanding of discipline and children grow up in an environment where emotional support and attention are insufficient (Sak et al. 2015). Belonging to a family with an authoritarian attitude and an oppressive and strict discipline approach might negatively affect the inclination to ethical values and care behaviours of nursing students. The low scores observed on the love–respect subscale and the low inclination towards ethical values observed among nursing students from an authoritarian family may be attributed to the attitudes of an authoritarian family.

No statistical differences were observed between the ethical values of nursing students based on their highest education level (Table 3). Nursing students with an associate's degree had significantly higher levels of care behaviours (Table 4). The high school education that nursing students received before

university education did not affect the inclination to ethical values but did affect their care behaviours. This difference in care behaviour was observed in the scores of the knowledge and skill, assurance, and connectedness subscales. Türk et al. (2018) reported that levels of education did not affect care behaviours of nursing students but those who graduated from a medical vocational high school had higher levels of care behaviours. This difference may be because of the differences in geographical regions and student's individual characteristics of those who attended a medical vocational high school. Factors such as education and family play a role in the development of ethical values (Üzümlü and Özkurt Sivrikaya (2018)). Therefore, it is thought that all formal and non-formal education nursing students received from their families positively affected ethical values and caring behaviours.

The results of this study showed that nursing students who chose the nursing profession to help people had significantly higher levels of inclination to ethical values (Table 3). This difference was observed in scores on the love–respect subscale. Nursing students who chose the nursing profession to help people had significantly high scores on the respectful and connectedness subscales, indicating high levels of care behaviour (Table 4). Previous studies did not report findings similar to those in this study for the “helping people” independent variable (Kırca et al. 2020; Fenizia et al. 2020; Ferri et al. 2020). Values are used as a guide in efforts to help people who need help (Moosavi et al. 2017). Wiedenbach (1963) defines nursing as “*the helping art*” (Wiedenbach 1963 cited in Muslu and Altuğ Özsoy 2017). Helping other people is closely related to the variables of love and respect.

Further, nursing students who took the nursing ethics class had higher levels of ethical values (Table 3) and care behaviours (Table 4). Differences were observed in the scores of all subscales. These results indicate that a nursing ethics class should be included in the nursing curricula. Studies conducted with university students (Yıldırım et al. 2020) and nursing students (Kırca et al. 2020) showed that students who took the nursing ethics class had higher levels of inclination to ethical values, but the status of taking the nursing ethics class did not affect the inclination to ethical values. Moosavi et al. (2017) conducted a study using a different scale and found that nursing

students who took the nursing ethics class had higher levels of ethical attitudes, but the status of taking the nursing ethics class did not affect the ethical attitudes. Previous studies on care behaviours conducted to date have not included the independent variable of “status of taking the nursing ethics class” (Fenizia et al. 2020; Ferri et al. 2020; Fenizia et al. 2019; Kılıç 2018). Thus, this study may be considered to be the first study performed with this variable. A nursing ethics class was given to the junior nursing students in the university where this study was conducted. The nursing ethics class covered conceptual and theoretical subjects in the first seven weeks. Students took an exam on conceptual and theoretical subjects in line with the curriculum in the eighth week. Sample cases regarding ethical values and ethical dilemmas were analysed in the ninth and tenth weeks. Student groups that were created in the beginning of the term (semester) analysed and presented the assigned cases in the last four weeks. Students could consult with their lecturers when analysing the cases. Each group received feedback after their presentation. A structured form was used to give feedback. Students took a final exam in line with the curriculum after the fourteenth week. The final exam included cases about ethical values, principles, and dilemmas. Therefore, the difference observed in this study may be because of the differences in the method of instruction in the nursing ethics class.

The nursing students in this study had to answer an open-ended question of “please provide your own definition of ethics.” The answers were coded, categorized (moral principles, behaviours that are accepted as correct or appropriate, professional ethics, social rules, and not violating but respecting others’ rights), and then, analysed. The answers given by the nursing students were categorized as follows: moral principles (1), behaviours that are accepted as correct or appropriate (2), professional ethics (3), social rules (4), not violating but respecting others’ rights (5). The statements of the students regarding their own definition of ethics are as follows: Moral principles: Ethics is to comply with moral principles. It is to separate right from wrong and morally evaluation of good and bad. Behaviours that are accepted as correct or appropriate: Ethics is to behave in the light of correct principles. It is acceptable moral behaviours. It is the correct practice of a behaviour. Professional ethics: Ethics is to behave in accordance with

the requirements of the profession. It is practicing the profession within the framework of morality. It is helping people. It is a concept in nursing. It is to practice care based on professional ethics and values. It is to do the profession better. Social rules: Ethics is the rules that provide social order. It is a concept in need of moral values by society. It is the rules accepted by society. It is behaving in accordance with social rules. Not violating but respecting others’ rights: Ethics is to behave impartially and equally without discrimination any religion, language, race, idea, etc. It is not to violate another’s right. It is respecting people’s values. No statistical differences were observed between the ethical values of the nursing students depending on their status of providing their own definition of ethics (Table 3); however, the students who defined ethics as professional ethics had significantly higher levels of care behaviours (Table 4). The nursing students showed a marked difference in the scores on the knowledge and skill and respectful subscales in care behaviours. Professional ethics play a significant role in care behaviours.

Students who expressed higher levels of inclination to ethical values expressed higher levels of care behaviours. To date, none of the previous studies have analysed the relationship between the inclination of the nursing students to ethical values and care behaviours. Thus, results from this study are critical in filling this gap in the literature. Nursing students are expected to use ethical values when performing care behaviours. Thus, a positive relationship is expected between the inclination of the nursing students to ethical values and their care behaviours.

Conclusion

Results of this study showed that the nursing students who had higher levels of inclination to ethical values had higher levels of care behaviours. Nursing students had a moderate level of inclination to ethical values and care behaviours. Nursing students who took the nursing ethics class had higher levels of inclination to ethical values and care behaviours. Thus, these results indicate that nursing students should be taught the importance of ethics and care during their nursing education, a nursing ethics class should be included in the nursing curricula, cases regarding ethical values and ethical issues

should be covered in theory and in clinical practice, and students should evaluate and think about their own care behaviours during clinical practice to improve themselves.

Research Limitations

This study was conducted in a single faculty of health sciences. The questions in the data collection forms were based on the statements of nursing students.

The data of six students who accepted to participate in the study but filled in the questionnaire incompletely were not evaluated. The students were told that they could submit the questionnaire at any time. The students were told that there was no obligation to submit the questionnaire. It has been stated that the answers given to the students are important in contributing to the science of nursing. They were asked to mark the option that best expressed them. The students were told that the questionnaire form was not intended to evaluate them individually. No data was requested showing which student the questionnaire belonged to. It was stated that students who did not want to participate in the study would not adversely affect their academic achievement. For the reasons stated above, our study results are reliable for this sample group.

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Data Availability We declare data availability.

Declarations

Conflict of Interests The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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