



# Relationship Between Emotional Intelligence and Ethical Sensitivity in Turkish Nursing Students

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**Abstract** Providing effective care to patients and making the right decisions in difficult working environments depend on moral sensitivity. Emotional intelligence and ethical sensitivity affect nursing care. This study aimed to investigate the relationship between nursing students' emotional intelligence and ethical sensitivity levels. The research employed a descriptive-correlational design, 201 nursing students studying at a university in the Central Anatolia region, Turkey, participated in the study. Students' ethical sensitivity was found to be significant. The nursing students received the highest score in the "Interpersonal Orientation" sub-dimension of the Moral Sensitivity Scale, while their lowest score was observed in the "Experiencing ethical dilemma" sub-dimension. The SSREIT and MMSQSN total scores of the students who willingly chose the nursing department and loved their field were found to be higher. It was found that the ethical sensitivity of nursing students was at a significant level and gender, family

type, having sibling(s) and perception of economic status affected the level of ethical sensitivity.

**Keywords** Emotional intelligence · Ethics · Ethical sensitivity · Nursing student · Turkey

## Introduction

The term emotional intelligence was first used by Salovey and Mayer in 1990. It is defined as the ability to observe one's own and others' emotions and use emotions to guide thought and action (Salovey and Mayer 1990). Emotional intelligence helps the individual to successfully manage the demands from his environment and cope with difficulties in his daily and work life. In this way, the individual can offer flexible, realistic, and effective solutions in problematic situations by establishing positive relationships with the skills he has gained in managing processes (Bar-On et al. 2000; Acar 2002; Büyükbayram and Gürkan 2014). Individuals with developed emotional intelligence can communicate in a healthy way because they can control their emotions and exhibit appropriate behaviours. As a result, it is stated that they are more successful in professional and social life and they enjoy life more (Reisoğlu, Gedik, and Göktaş 2013; Diken and Aydoğdu 2018).

It is known that advanced emotional intelligence reduces individuals' mistakes, supports them in managing their emotions, and is effective in their making more accurate decisions (Çankaya and Çiftçi 2019; Çankaya and Eriş 2020). It is of great importance that nurses who

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provide healthcare by physically, mentally, and socially evaluating individuals (Altrok et al. 2016), who are at the centre of healthcare and who are constantly interacting with their environment, have emotional intelligence skills (Cerit and Öz 2019). It has been emphasized that the emotional intelligence skills of nursing students should be determined and the trainings for the development of emotional intelligence should be integrated into the nursing curriculum (Turan et al. 2019). At this point, educational institutions have important duties to develop ethical sensitivity in nursing students and update the curriculum in this direction, especially in parallel with the increasing ethical challenges in the health system recently. In this way, nurses who provide high quality care with contemporary nursing philosophy and who improve the status of their profession will be trained (Kılıç Akça et al. 2017; Shayestehfard et al. 2020; Tural Büyük and Baydın 2020).

While providing healthcare, nurses may encounter healthy or unhealthy individuals with whom they have conflicts in terms of beliefs, attitudes, and values, and may face many ethical dilemmas or ethical decision-making processes (Cerit 2010; Basalan İz and Altuğ Özsoy 2013). In order to provide effective care to patients, to make the right decisions in stressful work environments, to understand the patient and his family, it is necessary to have high levels of ethical sensitivity in ethical decision-making processes and to respect patient rights. Making ethically appropriate decisions depends on moral sensitivity and level (Ahn and Yeom 2014; Milliken 2018). Making ethical decisions in nursing is possible with the development of ethical sensitivity (Sabancıoğulları et al. 2018).

In their study, Taylan, Özkan, and Şahin (2020) reported that nursing care behaviour is related to emotional intelligence and ethical sensitivity levels, the quality of care can be increased by nurses with high emotional intelligence levels, and more positive coping strategies can be developed. At the same time, the literature shows that emotional intelligence and ethical sensitivity affect nursing care (Taylan, Özkan, and Şahin 2020; Kong et al. 2016; Gürdoğan, Aksoy, and Kınıcı 2018; Doğan, Tarhan, and Kürklü 2019).

Some studies evaluating the emotional intelligence level of nurses and related factors were examined. In their study with nursing students, Kong et al. (2016) found a positive relationship between the capacity to communicate in a clinical setting and emotional intelligence and stated that a high level of emotional

intelligence facilitates empathy and understanding the patient's point of view. In a qualitative study evaluating the emotional intelligence, understanding, and experiences of nursing and midwifery students, it was determined that understanding emotions affect theoretical learning and clinical practices. In addition, it was revealed that students feel helpless when they encounter unhealthy individuals and their descriptive skills are insufficient (Dooley, East, and Nagle 2019).

In the study conducted by Salar, Zare, and Sharifzadeh (2016) the ethical sensitivity level of nurses was determined as moderate, and it was emphasized that this situation should be improved by conducting workshops. Similarly, Tural Büyük and Ünalı Baydın (2020) emphasized in their study that the ethical sensitivity of nursing students is moderate and that studies with different methods should be conducted in schools with different curricula. In studies aiming to determine moral sensitivity, the level of ethical sensitivity was found to be neutral or rather moderate (Yeom, Ahn, and Kim 2017; Kızılırmak and Calpbınici 2018; Hañcerliođlu, Toygar, and Gül 2020).

When the national and international literature is examined, it is seen that there are a limited number of studies examining the emotional intelligence and ethical sensitivities of nursing students (Kong et al. 2016; Dooley, East, and Nagle 2019; Tural Büyük and Ünalı Baydın 2020). In particular, it is important to determine the ability of students who will be in the health system as nurses in the future to manage their emotions in line with ethical principles. In addition, it is thought that the study will contribute to the studies to be conducted in this field. In this context, determining the emotional intelligence levels and ethical sensitivities of third- and fourth-year students close to graduation and determining how the two concepts affect each other will be useful for future nurses to provide better quality care. In this context, this research was planned as a descriptive-relational study in order to find answers to the following questions. As a result of this study, it is expected to develop recommendations for nursing curricula in the long term.

The research questions to be addressed within the scope of the study are as follows:

1. What is the emotional intelligence level of nursing students?
2. What is the ethical sensitivity level of nursing students?

3. Is there a relationship between the socio-demographic characteristics of nursing students and their emotional intelligence levels?
4. Is there a relationship between the socio-demographic characteristics of nursing students and their ethical sensitivity levels?
5. Is there a relationship between emotional intelligence and ethical sensitivity levels of nursing students?

### Purpose of Study

This study aimed to investigate the relationship between third- and fourth-year nursing students' emotional intelligence and ethical sensitivity levels.

## Methodology

### Design

This study is a descriptive and correlational study conducted to evaluate the relationship between emotional intelligence and ethical sensitivity levels of third- and fourth-year nursing students.

### Sample and Setting

This study was carried out between March and May 2021 in a nursing faculty located in the Central Anatolia region of Turkey. The target population of the study consisted of third- and fourth-year nursing students ( $n=378$ ) enrolled in the Department of Nursing in 2020-2021. According to Cohen's sample size calculation formula for known target populations, the minimum number of participants was calculated to be 191 within 95% confidence interval limits ( $\alpha=0.05$  table value 1.96), at  $d=0.05$  sampling error,  $p=0.50$  and  $q=0.5$  (Given 2008; Daniel and Cross 2018). The inclusion criteria are students must have completed at least one semester of professional practice (being a third- or fourth-year student) and they volunteer to take part in the study. First and second year nursing students were not included in the study because they could not perform their professional practices in the hospital environment due to the COVID-19 pandemic. Two hundred and one students who met the inclusion criteria voluntarily participated in the study. Data were collected through an

online survey due to the COVID-19 pandemic. Nursing students were informed about the study, and the informed consent form was filled in by the participants. The data were collected online in two months through the administration of the "Personal Information Form," "SSREIT," and "MMSQSN."

### Instruments

Personal Information Form, Schutte Self Report Emotional Intelligence Test (SSREIT), and the Turkish version of the Modified Moral Sensitivity Questionnaire for Student Nurses (MMSQSN) were used to collect data.

### Personal Information Form

The form was developed by the researchers in line with the current literature. It includes eight questions regarding the sociodemographic characteristics of the participants (age, gender, marital status, family type, siblings, perception of economic status, choosing the nursing department willingly, being happy about studying nursing, education on ethics and emotional intelligence, having ethical dilemmas) (Kong et al. 2016; Gürdoğan, Aksoy, and Kınıcı 2018; Doğan, Tarhan, and Kürklü 2019; Taylan, Özkan, and Şahin 2020).

### SSREIT

The scale was developed by Schutte et al. (1998) for the unidimensional evaluation of emotional intelligence. It consists of thirty-three items on a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). Three items are reverse-coded. The Turkish translation study of the scale was carried out by Tatar et al. (2017) and its internal consistency was found to be 0.86. The results of two separate test-retest reliability tests conducted with fifteen-day and thirty-day intervals were found to be 0.81 and 0.78, respectively.

### MMSQSN

The questionnaire was developed by Rhonda W. Comrie in (2012) through the adaptation of Lutzen's moral sensitivity questionnaire. It consists of thirty items on a seven-point Likert scale. The statements in the scale are evaluated between 1 point (I do not agree at all) and 7 points (I completely agree). The scale consists of six sub-dimensions: interpersonal orientation, modified

autonomy, beneficence, creating ethical meaning, experiencing ethical dilemmas, and getting expert opinion. The mean score of the scale is obtained by dividing the total score of the scale by the number of items, and 7–5.9 is evaluated as very important, while 5.8–5, 4.9–3.1, and below 3.1 are evaluated as important, neutral, and unimportant, respectively. The validity and reliability of the scale for the Turkish society was carried out by Yılmaz Şahin, İyigün, and Acikel (2015). The Cronbach Alpha value was reported as 0.64 in the development of the scale, and 0.73 in the Turkish version.

### Data Analysis

The data were analysed using the SPSS 22.0 (Statistical Package for the Social Science) programme (IBM Corp. 2016). Mean and standard deviation calculations were made for sociodemographic variables, and frequency and percentage values were calculated for categorical variables. Nonparametric tests (Mann Whitney U, Kruskal Wallis) were performed according to the distribution of the data. The Spearman correlation analysis was used to analyse the relationship between the emotional intelligence level and ethical sensitivity level of nursing students. The results were interpreted at 95% confidence interval and  $p < 0.05$  significance level.

### Ethical Consideration

Ethical committee approval (approval # 2021/13, dated February 2021) and institutional permission were obtained before conducting the study. The students were informed about the aim of the research and their consent was obtained to participate in the research.

### Results

The mean age of the nursing students in the research is  $22 \pm 1.9$  (Min 20–Max 30). Of the students, 81.6 per cent are women, and 61.7 per cent are senior students; 92.5 per cent have a nuclear family structure, and 96 per cent have at least one sibling; 82.5 per cent perceive their economic situation as medium; 54.7 per cent stated that they have lived in a city for most of their life; 73.1 per cent of the students willingly chose to study nursing, and 84.1 per cent are happy with their field (Table 1).

The mean SSREIT score of the students was found to be  $126.19 \pm 20.53$ , and the mean MMSQSN total score

**Table 1** Sociodemographic characteristics of the participants (n=201)

Sociodemographic Characteristics		n	%
Gender	Female	164	81.6
	Male	37	18.4
Family type	Nuclear family	186	92.5
	Extended family	15	7.5
Have a sibling	Yes	193	96.0
	No	8	4.0
Economic status	Good	29	14.4
	Moderate	163	81.1
	Poor	9	4.5
Willingly chose to study nursing	Yes	147	73.1
	No	54	26.9
Happy about studying nursing	Yes	169	84.1
	No	32	15.9

was  $5.18 \pm 0.48$ . The ethical sensitivity levels of the students were found to be significant. The sub-dimension with the highest score in the Modified Moral Sensitivity Questionnaire was “Interpersonal Orientation,” while the sub-dimension with the lowest score was “Experiencing Ethical Dilemmas” (Table 2).

The results revealed that the SSREIT and MMSQSN total scores of the female students and those who had siblings are higher. While the SSREIT scores of the students with a nuclear family are higher, the students with an extended family have a higher MMSQSN total score. There is a statistically significant difference between SSREIT, MMSQSN total, Interpersonal Orientation, Creating Ethical Meaning, Modified Autonomy, and Getting Expert Opinion sub-dimension scores according to gender ( $p < 0.05$ ). A statistically significant difference was found between the SSREIT, MMSQSN total, and Experiencing Ethical Dilemmas and Modified Autonomy sub-dimension scores of the nursing students according to family type ( $p < 0.05$ ). A statistically significant correlation was found between SSREIT, MMSQSN total, and Interpersonal Orientation and Beneficence sub-dimension scores according to having siblings ( $p < 0.05$ ).

The students who perceived their economic situation as moderate were found to have a high SSREIT score, while the students who perceived their economic situation as poor had the highest MMSQSN total score. There is a statistically significant difference between the MMSQSN total mean score and Interpersonal

**Table 2** SSREIT, MMSQSN total and subdimension mean scores of the nursing students (n=201)

Scales	$\bar{x}\pm SD$	Median (Q1-Q3)	Min-Max
SSREIT	126.19±20.53	129 (120-136)	44-158
MMSQSN total	5.18±0.48	5.16 (4.93-5.50)	2-6.40
Interpersonal orientation	6.20±0.73	6.25 (6-6.75)	1.75-7
Experiencing ethical dilemmas	3.76±1.18	3.66 (3-4.66)	1.33-7
Beneficence	4.88±0.67	4.87 (4.5-5.37)	1.5-7
Creating ethical meaning	5.26±0.65	5.16 (4.83-5.66)	2.17-6.83
Modified autonomy	4.99±0.737	5 (4.6-5.4)	2-7
Getting expert opinion	5.34±0.85	5.33 (4.66-6)	2.67-7

Orientation and Beneficence sub-dimension scores according to economic status ( $p<0.05$ ). The difference in the MMSQSN total score results from the students who perceived their economic situation as poor. The difference in the Interpersonal Orientation sub-dimension scores results from the students who perceived their economic situation as good or poor. The SSREIT and MMSQSN total scores of the students who chose to study nursing willingly and who were happy about studying nursing are higher. There is a statistically significant difference between the SSREIT scores and the scores of the sub-dimensions of Modified Autonomy and Getting Expert Opinion in the MMSQSN according to students' choosing to study nursing willingly ( $p<0.05$ ). There is a significant relationship between being happy about studying nursing and the SSREIT scores and the scores of the sub-dimensions of Interpersonal Orientation and Beneficence in the MMSQSN ( $p<0.05$ ) (Table 3).

A weak significant relationship was found between the SSREIT scores, the MMSQSN total score, and the scores for the sub-dimensions of Interpersonal Orientation, Experiencing Ethical Dilemmas, and Creating Ethical Meaning ( $p<0.05$ ). There is a negative relationship only in the Experiencing Ethical Dilemmas sub-dimension. A weak relationship was observed between the SSREIT and the sub-dimensions of Beneficence and Getting Expert Opinion in the MMSQSN ( $p<0.05$ ) (Table 4).

## Discussion

The findings of the study revealed that the mean emotional intelligence score of the nursing students was

high. Similarly, Barkhordari and Rostambeygi (2013) stated that the emotional intelligence level of the nursing students was satisfactory. Benson, Ploeg, and Brown (2010) reported that students had sufficient emotional intelligence and social capacity, which was effective in problem solving. Since nurses with high levels of emotional intelligence can be more understanding and sensitive towards themselves and their patients, it is likely that they will be successful in solving and coping with the problems that may occur within the healthcare system. Some studies in the literature posit that the mean emotional intelligence score of nursing students is low (Mahmoud and Mousa 2013; Tambağ et al. 2014). Since emotional intelligence can be developed and training programs are effective at this point, it can be stated that especially the nursing curriculum should be reviewed in this respect.

When the effect of the sociodemographic characteristics of the nursing students on their emotional intelligence mean scores was examined, it was seen that the mean emotional intelligence score of female students was higher than that of male students, and the difference was statistically significant. This suggests that women are more comfortable in expressing their emotions and more successful in understanding the emotions of others than men. While this finding is consistent with the findings of some studies conducted with nursing students (Snowden et al. 2015; Stiglic et al. 2018; Ceylantekin and Öcalan, 2020), it also differs from the findings of some studies (Barkhordari and Rostambeygi 2013; Çankaya and Eriş 2020).

A noteworthy finding of the study is that the mean emotional intelligence score of nursing students with nuclear families is significantly higher than the others. Similarly, in their study with nursing students, Kuzu and

**Table 3** SSREIT, MMSQSN total and subdimension mean scores of the nursing students according to their sociodemographic characteristics (n=201)

Basic characteristics	SSREIT $\bar{x} \pm SS$		MMSQSN		Experiencing ethical dilemmas $\bar{x} \pm SS$	Beneficence $\bar{x} \pm SS$	Creating ethical meaning $\bar{x} \pm SS$	Modified autonomy $\bar{x} \pm SS$	Getting expert opinion $\bar{x} \pm SS$
	$\bar{x} \pm SS$	$Z$	$\bar{x} \pm SS$	$p$					
Gender									
Female	128.04±19.32		5.24±0.42		6.31±0.58	4.92±0.64	5.32±0.61	5.05±0.68	5.43±0.83
Male	118±23.83		4.91±0.64		5.71±1.08	4.67±0.75	5.01±0.78	4.70±0.88	4.92±0.82
School year									
3	Z = 2098.5		Z = 1945.5		Z = 1811.50	Z = 2504.5	Z = 2301	Z = 2383.5	Z = 2107.5
4	p = 0.03		p = 0.001		p = 0.000	p = 0.097	p = 0.021	p = 0.041	p = 0.003
Family type									
Nuclear family	127.79±19.99		5.19±0.41		6.36±0.53	4.8±0.66	5.28±0.65	4.96±0.65	5.37±0.89
Extended family	125.20±20.88		5.16±0.52		6.10±0.82	4.87±0.67	5.26±0.65	5.01±0.78	5.32±0.83
Have a sibling									
Yes	Z = 4226		Z = 4519		Z = 3873.5	Z = 4708	Z = 4821	Z = 5132	Z = 4755
No	p = 0.171		p = 0.911		p = 0.023	p = 0.869	p = 0.906	p = 0.370	p = 0.962
Economic status									
Good	126.30±21.06		5.15±0.48		6.19±0.74	4.86±0.67	5.24±0.65	4.95±0.73	5.34±0.86
Moderate	124.86±12.62		5.47±0.41		6.30±0.64	5.11±0.66	5.55±0.60	5.44±0.63	5.35±0.69
Bad	Z = 387.5		Z = 1917		Z = 1472	Z = 1706.5	Z = 1901.5	Z = 1888	Z = 1520
Longest lived place	p = 0.017		p = 0.016		p = 0.719	p = 0.150	p = 0.073	p = 0.022	p = 0.981
Willingly choose the nursing department									
Yes	127.53±18.10		5.19±0.48		6.23±0.72	4.89±0.66	5.28±0.65	4.99±0.74	5.34±0.84
No	93.87±42.59		4.86±0.44		5.56±0.67	4.48±0.65	4.89±0.66	4.87±0.48	5.16±1.22
Like the nursing department									
Yes	Z = 387.5		Z = 411.5		Z = 301.5	Z = 438	Z = 546	Z = 685.5	Z = 627.5
No	p = 0.017		p = 0.025		p = 0.003	p = 0.038	p = 0.159	p = 0.590	p = 0.366
Getting expert opinion									
Good	119±24.63		5.03±0.53		5.82±1.04*	4.70±0.52	5.18±0.68	4.93±0.87	5.27±0.82
Moderate	127.44±19.74		5.18±0.46		6.25±0.65	4.86±0.66	5.26±0.65	4.95±0.70	5.34±0.86
Bad	126.77±17.44		5.64±0.44*		6.55±0.48*	5.65±0.72*	5.62±0.51	5.26±0.81	5.55±0.74
Willingly choose the nursing department									
Yes	KW = 2.919		KW = 11.403		KW = 7305	KW = 11.476	KW = 3.69	KW = 0.621	KW = 0.613
No	p = 0.232		p = 0.003		p = 0.026	p = 0.003	p = 0.157	p = 0.733	p = 0.736
Like the nursing department									
Yes	125.55±22.98		5.13±0.83		5.97±1.22	4.97±0.94	5.03±0.96	4.95±1.09	5.13±1.01
No	119.96±26.18		5.04±0.33*		6.01±0.67*	4.65±0.55*	5.18±0.47	4.97±0.58	5.16±0.77*
Getting expert opinion									
Rural	129.98±14.63		5.27±0.43		6.37±0.54*	4.98±0.62	5.37±0.63	5.01±0.71	5.49±0.83*
District	KW = 7.227		KW = 17.314		KW = 15.216	KW = 13.273	KW = 5.277	KW = 0.762	KW = 8.083
Province	p = 0.027		p = 0.000		p = 0.000	p = 0.001	p = 0.071	p = 0.683	p = 0.018
Willingly choose the nursing department									
Yes	128.74±18.80		5.22±0.39		6.29±0.58	4.92±0.63	5.31±0.51	5.08±0.69	5.28±0.76
No	119.27±23.45		5.04±0.66		5.96±1.01	4.75±0.75	5.15±0.92	4.75±0.80	5.50±1.05
Like the nursing department									
Yes	Z = 2870		Z = 3529		Z = 3313	Z = 3650.5	Z = 3794.5	Z = 3043.5	Z = 4596.5
No	p = 0.003		p = 0.228		p = 0.069	p = 0.383	p = 0.632	p = 0.011	p = 0.083
Getting expert opinion									
Yes	128.39±17.85		5.22±0.42		6.28±0.62	4.94±0.62	5.30±0.59	5.02±0.69	5.32±0.82
No	114.62±28.78		4.95±0.69		5.78±1.07	4.53±0.81	5.07±0.88	4.80±0.92	5.42±1.02
Like the nursing department									
Yes	Z = 1719		Z = 2156		Z = 1798	Z = 1953	Z = 2587	Z = 2452.5	Z = 2978
No	p = 0.001		p = 0.069		p = 0.002	p = 0.013	p = 0.697	p = 0.402	p = 0.360

**Table 4** Correlation between the SSREIT and the MMSQSN total and sub-dimensions

	SSREIT
MMSQSN total	r = 0.263 p = 0.000
Interpersonal orientation	r = 0.480 p = 0.000
Experiencing ethical dilemmas	r = -0.362 p = 0.000
Beneficence	r = 0.142 p = 0.044
Creating ethical meaning	r = 0.255 p = 0.000
Modified autonomy	r = 0.081 p = 0.254
Getting expert opinion	r = 0.179 p = 0.011

Eker (2010) found that students with nuclear families have high emotional intelligence scores. Contrary to our study finding, Karakaş and Küçüköğlü (2011) stated that there is no significant relationship between family type and emotional intelligence mean score.

It was further revealed that the mean emotional intelligence score of the nursing students with siblings was higher than those without siblings and the difference was significant. This finding can be explained by the fact that the interaction of siblings with each other contributes to the sharing and development of emotions. It was also found that the mean emotional intelligence score of the nursing students who perceived their economic situation as moderate was higher than those who perceived their economic situation as good or poor, and the difference between the perception of the economic situation and the mean emotional intelligence score is statistically significant. Similarly, some studies in the literature showed that the difference between income perception and emotional intelligence level is significant. However, there are also studies reporting that there is no significant relationship between the perception of economic situation and the mean emotional intelligence score (Harrod and Scheer 2005; Karakaş and Küçüköğlü 2011; Çankaya and Eriş 2020). Income is an important factor for students to meet their needs such as accommodation and nutrition, to maintain their lives, and to direct all their energy to their education. For this reason, it is believed that poor economic well-being and economic

situation perception positively affect the development of emotional intelligence.

Another significant finding of the study is that the mean emotional intelligence score of the students who chose the nursing profession willingly and who were happy about their decision is higher than the others and the difference is significant. This finding is in line with other studies emphasizing that the mean score of those who love the profession and choose it willingly is high (Ceylantekin and Öcalan 2020; Çulha and Acaroglu 2019). It is thought that choosing the nursing profession willingly and the love for the profession affect professional satisfaction and performance and strengthen individuals' problem solving and coping capacities, which is related to emotional intelligence.

This study revealed that the ethical sensitivity of nursing students was at a significant level. Gürdoğan, Aksoy, and Kınıcı (2018) and Dalcalı and Şendir (2016) also found that nursing students have high ethical sensitivity. Contrary to the findings of this study, Basar and Çilingir (2019) found that nurses have moderate levels of ethical sensitivity. In a study conducted with nursing students in Iran (Borhani, Abbaszadeh, and Hoseinabadi-Farahani 2016) and similarly in a study conducted in Sweden (Tuveson and Lutzen 2017), students' ethical sensitivities were found to be moderate. The study conducted by Ahn and Yeom (2014) with Korean nursing students revealed low levels of ethical sensitivity. These different findings in the literature may be attributed to sociodemographic characteristics, the status of taking courses related to ethics, and the grade level of the students participating in the study. These differences show that more studies should be conducted on the personal and professional factors that affect the ethical sensitivity of nursing students. They also indicate that the existence of courses related to ethics in nursing education and the evaluation of students' ethical sensitivity are important. This study was conducted with third- and fourth-year students and these students have more professional practice and experience compared to the first- and second-year students, and thus are more likely to experience ethical dilemmas, which might have affected their ethical sensitivity levels. The mean score for the interpersonal orientation sub-dimension of the Moral Sensitivity Questionnaire was found to be highly significant. Hançerlioğlu, Toygar, and Gül (2020) reached a similar finding in their study.

When some sociodemographic characteristics of the nursing students in the study and their ethical sensitivity

mean scores were examined, a statistically significant difference was found between gender and the total mean score of the Moral Sensitivity Questionnaire and the mean scores of the sub-dimensions of interpersonal orientation, creating ethical meaning, modified autonomy, and getting expert opinion. Male students' total Moral Sensitivity Questionnaire mean score and interpersonal orientation, creating ethical meaning, modified autonomy and getting expert opinion mean scores were found to be lower than the mean scores of the female students. In their study conducted with healthcare personnel, Aydoğan and Ceyhan (2019) also found that women had higher ethical sensitivity levels than men. Büyük and Baydın (2020) similarly found that female nursing students had a higher ethical sensitivity mean score than males. In a meta-analysis study, it was reported that women have higher ethical sensitivity than men (You, Maeda, and Bebeau 2011). When the literature is examined, there are also studies maintaining that there is no significant difference between gender and ethical sensitivity (Gürdoğan, Aksoy, and Kınıcı 2018; Alan et al. 2019). It is thought that these differences in the literature may be due to the number of male and female participants in the study groups.

Our study further revealed a statistically significant difference between the family type of nursing students and the total Moral Sensitivity Questionnaire mean score and the mean scores for the experiencing ethical dilemmas and modified autonomy sub-dimensions. The difference may be attributed to the nursing students with extended families. On the other hand, in their study with midwifery and nursing students, Alan et al. (2019) stated that there was no significant difference between family type and ethical sensitivity.

A statistically significant difference was found between the sibling status of the nursing students in the study and the total Moral Sensitivity Questionnaire mean score and the mean scores for the interpersonal orientation and beneficence sub-dimensions. The nursing students who have siblings were found to have higher mean scores than those who do not. No previous studies focused on the relationship between these variables before.

Moreover, a statistically significant difference was found between the perceived economic situation of nursing students and the total Moral Sensitivity Questionnaire mean score and the mean scores for the interpersonal orientation and beneficence sub-dimensions. Those who perceived their economic situation as poor

were found to have higher mean scores than the others. It was determined that while the interpersonal orientation sub-dimension mean score of the students who perceived their economic situation as poor was high, the mean score of the students who perceived their economic situation as good was lower. Contrary to the results of this study, Alan et al. (2019) stated that there was no significant difference between income level and ethical sensitivity.

In addition, the students who willingly chose to study nursing were found to have a higher modified autonomy sub-dimension mean score than those who did not choose the department willingly. A statistically significant difference was found between choosing the department willingly and the modified autonomy sub-dimension mean score. In addition, a statistically significant difference was found between the state of being happy about studying nursing and the mean scores of the sub-dimensions of interpersonal orientation and beneficence. It was determined that this difference was due to the students who liked to study nursing. Akca et al. (2017) found that the ethical sensitivities of individuals who willingly choose nursing as a career and love the profession are high. Similarly, the study conducted by Caner et al. (2019) with intern nurses revealed that students who willingly chose to study nursing had higher ethical sensitivity scores, although the difference was not significant. The same study also reported that those who love their profession have higher ethical sensitivities. Contrary to these two studies, Gürdoğan, Aksoy, and Kınıcı (2018) found that there was no significant difference between ethical sensitivity scores in terms of choosing the profession willingly. They reported that those who willingly and unwillingly chose to study nursing both had high mean scores. Students who chose to study nursing willingly and love their profession are likely to internalize professional values and professional ethical codes.

Our study revealed a weak positive relationship between the emotional intelligence mean score of nursing students and their ethical sensitivity mean score. In other words, as students' emotional intelligence improves, their ethical sensitivity increases. Bulmer Smith, Profetto-McGrath, and Cummings (2009) stated in their study that emotional intelligence is an important variable in ethical decision



making. Similarly, Şen et al. (2013) reported that there is a strong positive correlation between the emotional intelligence of the head nurses and their ethical reasoning abilities. According to the literature, emotional intelligence and ethical sensitivity affect nursing care, and nurses with advanced emotional intelligence can develop effective coping strategies in solving problems (Kong et al. 2016; Gürdoğan, Aksoy, and Kınıcı 2018; Doğan, Tarhan, and Kürklü 2019; Taylan, Özkan, and Şahin 2020).

## Conclusions

This study revealed that the mean emotional intelligence score of the nursing students was high, and the students' gender, family type, the status of having sibling(s), perception of economic situation, choosing the profession willingly, and being happy with the department affected the emotional intelligence level.

It was found that the ethical sensitivity of the nursing students was at a significant level, and gender, family type, having siblings or not, and perception of economic status affected the level of ethical sensitivity. A weak positive relationship was revealed between the emotional intelligence level of nursing students and their ethical sensitivity level.

In line with these findings, it can be said that emotional intelligence is relatively important in terms of ethical sensitivity. It can be said that a nursing student with a developed emotional intelligence will be aware of emotions and how emotions affect ethical decision-making. For this reason, it is recommended to update the nursing education curriculum in order to improve students' emotional intelligence and ethical sensitivity. The fact that students have taken a course that supports the development of ethical sensitivity and emotional intelligence will contribute to making a connection between emotional intelligence and ethical sensitivity and making ethical decisions. In addition, it is recommended that descriptive studies on the personal and professional factors affecting the ethical sensitivity and emotional intelligence of nursing students should be done in different cultures and sample groups. It is considered that these studies will contribute to the understanding of the details of the subject.

## Declarations

**Conflict of Interests** The authors declare that there are no conflicts of interest.

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