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Intuition and emotional intelligence: A study in nursing students

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Abstract: This study was designed to determine the relationship between the ability of nursing students to use intuition in nursing care and their emotional intelligence levels. The population of this descriptive and cross-sectional research consisted of students who were studying at a Nursing Faculty of a university, and the sampling consisted of 295 students who were determined by the stratified random sampling method. Data were collected using the Student Information Form, The Use of Intuition by Nursing Students Scale (UINSS), and the Emotional Intelligence Level Assessment Scale (EILAS). It was observed that the level of emotional intelligence was at a normal level, although the ability to use intuition was low in nursing students. There was a positive relation between intuition usage and emotional intelligence sub-scales. It was determined that the use of intuition, emotional awareness, being aware of emotions, and empathy skills of female students were high compared to male students, and that the emotional intelligence scores of those who voluntarily chose the profession were higher.

Subjects: Interpersonal Communication; Listening; Nonverbal Communication; Environmental Communication; Group Communication; Health Communication

Keywords: Intuition; emotional intelligence; nursing; nursing students; nursing care



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PUBLIC INTEREST STATEMENT

Intuition shows both the scientific and arts aspects of nursing. As in the same intuition as the emotional intelligence in the human brain, the signal is first analyzed by reaching the cortex after the thalamus and an appropriate response occurs. Nursing students need to integrate intuition and emotional intelligence skills with nursing curriculum in clinical decision-making and scientific problem-solving processes. In the study, it was determined that the use of intuition, emotional awareness, being aware of emotions, and empathy skills of female students were high compared to male students, and that the emotional intelligence scores of those who voluntarily chose the profession were higher. It shows that the use of intuition of students was low but their emotional intelligence levels were normal, and that the gender factor of some individual characteristics was effective in the use of intuition. The emotional intelligence levels of the students who voluntarily chose the nursing profession and who chose nursing because they loved were observed to be higher.

1. Introduction and review of the literature

The use of intuition and emotional intelligence in nursing directly affects the results and the quality of care which is provided by the nurse, and also reveals both the scientific and artistic aspects of nursing. (Smith, Thurkettle, & Cruz, 2004; Turan, Kaya, Özsaban, & Aydın, 2016).

According to the Turkish Dictionary, intuition is defined as “having an idea about something that already happened or will happen without any clear evidence, or understanding a concept, a generalization without experimenting or applying to reason” (Turkish Language Association (TLA), 2016). Also, the Merriam-Webster Online Dictionary (2014) describes intuition as “the feeling that guides the individual to move without understanding the exact cause of something”. In other definitions in the literature, intuition is defined as “readiness”, “visibility”, “clearness”, “insight”, “foresight”, “sixth sense” (Saadati & Kenari, 2012; Thompson, 2014). However, explaining intuition as just insight or sixth sense is insufficient to explain the true functions of intuition. (Aflague & Ferszt, 2010). There are several theories about the use of intuition in nursing (Payne, 2015). In Domasi’s Somatic Marker Hypothesis and Benner’s process of “from novice to expert”, it is reported that in emotional cases, the external and internal receptors of amygdala and orbitofrontal cortex process sensory information (Benner, Tanner, & Chesla, 1992). These regulatory mechanisms are used consciously and unconsciously in decision-making (Payne, 2015).

In recent years, important experimental research have been made on the physiology of the intuition (Petrides et al., 2016; Pretz & Folse, 2011). In many studies, the concept of intuitive perception is explained as forgotten, a function of the subconscious that reaches previous experiences and reaching the individual’s inner information. (Mc Craty, Atkinson, & Bradley, 2004; Woodward & Allman, 2007). In scientific studies, it has been found that subcortical structures such as insular, cingulate, orbito-frontal cortex, basal ganglion and amygdala have an active role in intuition (Mayer, Salovey, & Caruso, 2008; Woodward & Allman, 2007). In the process of processing information for intuition, the basal ganglion has an important role (Lieberman, 2000). In the study of Horr, Braun, and Volz (2014) of the role of orbitofrontal cortex in intuitive decisions, electromagnetic brain responses have been recorded of the participants by magnetoencephalography (MEG) during a visual adaption and decision-making process. The physical stimulus’ character of the activation of the orbitofrontal cortex is independent to task responses and clear recognition of the stimuli by participants. It is remarked that when the participants perceived the adaption, the orbitofrontal cortex was activated. As a result; the orbitofrontal cortex has been found to play a major role in the early stages of intuitive decree/decision making (Petrides, Pérez-González, & Furnham, 2007; Turan et al., 2016).

The center of emotional intelligence in the human brain is the amygdala that gives meaning to the individual’s life. In emotional intelligence, as in the same intuition, first the visual signal reaches the thalamus from the retina, the meaning of the signal is analyzed, and an appropriate response is generated in the visual cortex. If the response is emotional, the sensory centers become active and send signals to the amygdala. However, a smaller portion of the first signal is transferred from the thalamus directly to the amygdala with a faster transfer and immediately transforms into a response. Thus, before the cortical centers understand what is happening, the amygdala becomes active and emotional responses arise (Goleman, 1999, 2005; Mayer et al., 2008). It is observed that intuition and emotional intelligence work in almost the same way.

When we observe the main elements of emotional intelligence, it includes concepts such as consciousness, self-awareness, perception of emotions, understanding, managing, controlling, empathy, social skills, interpersonal relationship, awareness, harmony (Duman, 2010; Goleman, 2000; Kaya & Keçeci, 2004; Ünsar, Fındık, Sadırlı, & Ünsar, 2008; Duman & Acaroğlu, 2014). Emotional intelligence is an important element that complements cognitive skills (Petrides et al., 2007).

Nurses offer qualified care by responding to the expectations and needs of the developing and changing society. For this reason, nurses are needed in the health-care system, who are highly specialized, qualified, knowledgeable, self-aware, and able to manage in every sense (Akerjordet & Severinsson, 2004). Nursing is a profession that treats individual as a whole with holistic perspective,

uses scientific problem-solving methods and helps people. The nurse interacts with the individual, and they are not only the solution of the bio-physiological health problems but also the psychological and socio-cultural responses to this health problem. Nurses use their emotional intelligence of themselves in diagnosing the individual from a humanistic and holistic perspective, which are the basic philosophy of nursing. With the realization that emotional intelligence is effective in the nursing process, nurses are expected to have and use emotional intelligence skills in addition to their existing abilities. Nurses who have high emotional intelligence also have high interpersonal communication skills and should be able to maintain effective communication with their colleagues and other health professionals as well as with the individual they care for. The nurse can effectively diagnose, evaluate and determine the needs of healthy/patient person with effective communication skills (Deshpande & Joseph, 2009).

In the literature, that intuition is used in clinical decision-making process in nursing field (Pretz & Folse, 2011; Thompson & Dowding, 2002). However, it is also stated that research are related to experience and that intuition ability emerges as a response to knowledge (Pretz & Folse, 2011; Traynor, Boland, & Buus, 2010). In this context, the high level of emotional intelligence ability, or vice versa, the high level of intuition ability facilitates the scientific decision-making process (Nagel, San Juan, & Mar, 2013; Petrides et al., 2016; Rovithis et al., 2015).

Emotional intelligence consists of skills that can be learned and developed. The development of emotional intelligence, which is a long and laborious process, is first of all possible with the willingness of the individual (Baltaş, 2006; Petrides et al., 2007). The neocortex, which is known as the thinking brain, is used for learning psychomotor skills and cognitive abilities, can learn the information very quickly. However, the emotional brain cannot do this. To achieve success in a new behavior, emotional brain needs to repeat that behavior (Goleman, 1999, 2005). In this context, both emotional and intuition skills of students can be improved.

In the literature, it is observed that studies on intuition ability are carried out mostly with experienced nurses, but few studies on intuition have been conducted in student nurses (Mc Cutcheon & Pincombe, 2001; Smith et al., 2004). Considering the pathophysiology of emotional intelligence and intuitive information, it can be predicted that individuals with high emotional intelligence levels have higher perception, comprehension, emotion control and motivation, higher social and empathic skills, therefore they are more inclined to use intuition. Nursing students need to integrate intuition and emotional intelligence skills with nursing curriculum in clinical decision-making and scientific problem-solving processes. For this reason, measuring the intuition and emotional intelligence skills of nursing students and evaluating their results will contribute to the improvement of nursing education quality by enabling the development of affective skills of nursing. In this context, research was planned to determine the relationship between nursing students' intuition in care and emotional intelligence levels.

2. Research questions

- (1) What are the individual characteristics of the students?
- (2) What is the situation of students about using intuition during care practices?
- (3) What are the students' emotional intelligence levels?
- (4) Is there a relationship between the level of emotional intelligence and intuition?

3. Method

3.1. Aim

To determine the relationship between nursing students' intuition in care and emotional intelligence levels.

3.2. Participants

The population consisted of 2nd, 3rd, and 4th year students who are studying in 2016–2017 academic year in a nursing faculty of a university in Istanbul. The sample size was to be 285

students with the aim of avoiding lost data. Students were selected with stratified random sampling method (classes used as stratified criterion). The criteria of included volunteering for participation and at least one year of clinical experience. The exclusion criteria included the lack of voluntary participation and the 1st year students without clinical experience.

3.3. Measures and procedure

Informed consent was obtained from the students before the administration of the measures.

Student Information Form are prepared by researchers in accordance with the literature (Pretz & Folse, 2011; Traynor et al., 2010), consisted of 16 questions about the individual characteristics of the students, how they preferred the profession, and the liking of the profession.

Intuition Usage Scale in Nursing Students was developed by Smith et al. (2004) and adapted to Turkey by Demir, Denat, Khorshid, and Eser (2012). The scale is a 5-point Likert-type scale consisting of 25 items; it is evaluated as 1—never (1 point), 2—rarely (2 points), 3—occasionally (3 points), 4—frequently (4 points), 5—always (5 points). The scale has no cut-off score, however with the increase of the score, the students become more aware of role and ability of intuition and are more able to use these abilities. There is no reverse coded score. As a result of the factor analysis conducted for the adaptation of the scale to Turkish culture, it was determined that it consisted of four sub-scale. These sub-scales are emotional awareness, physical awareness, spiritual connection, and physical connection. In addition, the item-total score correlation of the scale was between 0.30 and 0.56 and the total Cronbach's Alpha coefficient was 0.86 (Demir et al., 2012). The internal consistency coefficient (Cronbach's Alpha) of the UINSS was found to be 0.899 for this study.

The Emotional Intelligence Evaluation Scale was developed by NickHall in 1999 in order to evaluate the level of emotional intelligence and adapted to Turkish society by Ergin (2000). After adaption, it was used in many studies in our country, the number of alpha was found to be .84 (Kaya & Keçeci, 2004; Yılmaz, 2007). The scale consisted of 30 items; and have five sub-dimensions: "Awareness of Emotions" (item 1–2–4–17–19–25), "Managing Emotions" (item 3–7–8–10–18–30), "Self-motivation" (item 5–6–13–14–16–22), "Empathy" (item 9–11–20–21–23–28), and "Social Skills" (item 12–15–24–26–27–29) (Ergin, 2000). Item scoring was formed in the Likert-type scale, and scores were formed as "totally disagree" (1 point), "partially disagree" (2 points), "little disagree" (3 points), "agree very little" (4 points), "partially agree" (5 points), "totally agree" (6 points). There is no reversed expression in the evaluation. High scores on the scale indicate that the level of emotional intelligence is high. In this study, the internal consistency coefficient of the Emotional Intelligence Evaluation Scale (EIES) is found to be 0.938.

3.4. Collecting data

In order to be able to carry out the study, the necessary approval and ethics committee approval were obtained (Date: 01.02.2017, Number: 155). After explaining the purpose, content, scope and what is expected from students who accepted to become a participant, data were collected by the researchers personally by using face to face interview method. Study was applied to students who were willing to participate in the study in the rest areas, canteen, and library. The data collection time was 10–15 minutes. The data collection time was 10–15 minutes.

3.5. Statistical analysis

When evaluating the findings which were obtained in this study, IBM SPSS Statistics 22 for statistical analysis (SPSS IBM, Turkey) programs were used. The Shapiro Wilks test was used to determine the normal distribution of the variables, and it is found that the data match with normal distribution. While evaluating the research data, in addition to descriptive statistical methods (mean, standard deviation, frequency), Student's t-test was used for two-group evaluations and One-Way ANOVA test for more than two groups. The Tukey HSD test was used to determine which group was the cause of the difference. Pearson Correlation Analysis was used to evaluate the relationship between scale scores. Significance was evaluated at $p < 0.05$.

4. Results

86.1% of the students were female, and the mean age was 20.94 ± 1.36 years. It was found that 36.3% were second-grade students, 87.1% of the students have an elementary family type, 42.4% ($n = 125$) of them are two brothers/sisters, 86.4% of them has an income which covers their expenses, and 31.9% of them lived in the dormitory. 11.2% of the students were currently employed at work, 10.2% were working part-time in a hospital, 52.2% of them chose willingly the nursing profession and 69.8% of them made decisions about themselves in consultation with their family.

Sixty percent of the students preferred because they were interested in health, 52.5% of them preferred the nursing department by effect of their family such as family's desire, as 60.5% of them preferred the profession because of high chance to find a job (Table 1).

Emotional Awareness sub-scale mean score was 30.29 ± 4.59 , Physical Awareness sub-scale mean score was 17.26 ± 6.39 ; the average of the Physical Connection sub-scale mean score was 23.41 ± 4.76 , the Physical Connection sub-scale mean score was 7.14 ± 1.60 , and the mean total score was 78.10 ± 13.17 (Table 2). Students' Emotion Awareness sub-scale mean score was 28.72 ± 5.39 ; Managing Emotions sub-scale mean score was 24.46 ± 6.07 ; Self-Motivation mean score 26.41 ± 5.65 , Empathy sub-scale score was 27.98 ± 5.20 , Social Skills sub-scale mean score was 26.84 ± 5.15 , and the mean total score was 134.41 ± 23.29 (Table 2).

A positive and statistically significant correlation was found between Emotional Awareness sub-scale scores and Emotional Awareness, Empathy, Social Skills sub-scale scores and EILAS total scores ($p < 0.05$; $p < 0.01$). A significant and statistically significant correlation was found between the Physical Awareness sub-scale and the Managing Feelings sub-scale scores ($p < 0.01$). A positive and statistically significant relationship was found between Spiritual Connection sub-scale scores and Emotional Awareness, Self-Motivation, Empathy, Social Skills sub-scale scores and EILAS total scores ($p < 0.01$). A positive and statistically significant correlation was found between the Physical Connection sub-scale scores and all sub-scale and total score of EILAS ($p < 0.01$). A positive and statistically significant correlation was found between UINSS total scores and Emotional Awareness, Empathy, Social Skills sub-scale scores and EILAS total scores ($p < 0.05$; $p < 0.01$) (Table 3).

When the individual characteristics of the students are examined; there was a statistically significant correlation between the ages of nursing students and Emotional Awareness, Physical Awareness, Spiritual Connection sub-scales and UINSS total scores ($p < 0.01$). Emotional Awareness subscale, UINSS total score, Emotional Awareness sub-scale and Empathic sub-scale mean scores of females were found to be significantly higher than males ($p < 0.05$). There was a statistically significant difference between classes in terms of mean scores of Physical Awareness sub-scale ($p < 0.05$). The average score of the 2nd grade was significantly higher than the 4th grade ($p: 0.011$; $p < 0.05$). A statistically significant difference was found in terms of mean scores of Managing Emotion between classes ($p < 0.05$). The mean score of the second grade was significantly lower than the third grade ($p: 0.016$; $p < 0.05$). Emotional Awareness, Emotion Management, Self-Motivating, Empathy, Social Skills sub-scale and EILAS total score averages of student who preferred willingly this profession were found to be significantly higher than those who preferred the nursing profession with lack of willingness ($p < 0.05$; $p < 0.01$). The mean score of empathy sub-scale of the ones who chose the nursing profession with the request of family was found to be statistically significantly higher than those who did not ($p < 0.05$). Self-Motivation sub-scale score of the ones who was not successful to prefer another profession, was statistically and significantly low ($p < 0.05$). The Managing Emotion sub-scale was found of the ones who are independent about self-decision subscale to be statistically significantly higher than the decision-makers in consultation with the family ($p < 0.05$).

Table 1. The individual characteristics of student nurses (n = 295)

		Min.-Max.	Avg.±SD
Age (year)		19-29	20.94 ± 1.36
		n	%
Gender	Female	254	86.1
	Male	41	13.9
Marital status	Married	5	1.7
	Bachelor	290	98.3
Grade	2 nd Grade	110	37.3
	3 rd Grade	91	30.8
	4 th Grade	94	31.9
Family type	Elementary family	257	87.1
	Extended family	31	10.5
	Broken family	7	2.4
Number of siblings	Single child	15	5.1
	2 Siblings	125	42.4
	3 Siblings	82	27.8
	4 Siblings	73	24.7
Income state	Income compensates expenses	255	86.4
	Income doesn't compensates expenses	40	13.6
Living place state	Alone on rent	10	3.4
	With family	140	47.5
	With friends on rent	34	11.5
	Dormitory	94	31.9
	With relative	11	3.7
	Other	6	2.0
Employment status	Yes	33	11.2
	No	262	88.8
Part time working in hospital	Yes	30	10.2
	No	265	89.8
Preferring nursing profession willingly	Yes	154	52.2
	No	141	47.8
*Reasons of preferring nursing profession	Because for interest	79	26.8
	Family request	155	52.5
	His/her success is enough to study in this profession	78	26.4
	To become employed in short time	96	32.5
	Because profession direct relation about health	177	60.0
	Because easy to become employee	177	60.0
	Was not successful enough to prefer another profession	80	27.1
	Lack of willingness about preferring this profession	22	7.5
	Other	5	1.7

(Continued)

		Min.-Max.	Avg.±SD
General situation of self-deciding	Independent decision making	87	29.5
	Deciding in consultation with the family	206	69.8
	Family decides	2	0.7

*There is more than one reason.

Min.-Max.: Minimum.Maximum;

Avg.: Average;

SD: Standard deviation.

Table 2. Students' UINSS and EILAS Average Scores (n = 295)

Scales	Sub-scales	Potential Deviation	Min.-Max.	Avg.±SD.	Median
UINSS	Emotional Awareness	9-45	17-45	30.29 ± 4.59	30
	Physical Awareness	7-35	7-35	17.26 ± 6.39	17
	Spiritual Connection	7-35	9-35	23.41 ± 4.76	23
	Physical Connection	2-10	2-10	7.14 ± 1.60	7
	Total	25-125	40-125	78.10 ± 13.17	77
EILAS	Awareness of Emotions	6-36	6-36	28.72 ± 5.39	30
	Managing Emotions	6-36	7-36	24.46 ± 6.07	25
	Self-Motivation	6-36	6-36	26.41 ± 5.65	27
	Empathy	6-36	6-36	27.98 ± 5.20	29
	Social Skills	6-36	7-36	26.84 ± 5.15	28
	Total	30-180	38-180	134.41 ± 23.29	138

Table 3. Comparison of Students' Average Scores on UINSS and EILAS (N = 295)

EILAS	UINSS				
	Emotional Awareness	Physical Awareness	Spiritual Connection	Physical Connection	Total
	r; p	r; p	r; p	r; p	r; p
Awareness of Emotions	0.145; 0.013*	-0.020; 0.732	0.203; 0.001**	0.238; 0.001**	0.143; 0.014*
Managing Emotions	0.047; 0.419	-0.153; 0.009**	0.076; 0.192	0.192; 0.001**	-0.007; 0.908
Self-Motivation	0.069; 0.237	-0.076; 0.194	0.189; 0.001**	0.307; 0.001**	0.093; 0.111
Empathy	0.213; 0.001**	0.009; 0.874	0.243; 0.001**	0.260; 0.001**	0.198; 0.001**
Social Skills	0.162; 0.005**	0.007; 0.906	0.253; 0.001**	0.296; 0.001**	0.187; 0.001**
Total	0.146; 0.012*	-0.059; 0.310	0.223; 0.001**	0.303; 0.001**	0.139; 0.017*

Pearson Correlation Analysis *p < 0.05, **p < 0.01.

5. Discussion

Emotional intelligence is very important in the development of cognitive, affective and psychomotor skills of nursing students. In order to maintain nursing as science and art, these skills need to be gained within the process of nursing education. Only nurses who receive this training can offer humanistic and holistic nursing care to the individual. In this context, the use of intuition and emotional intelligence skills of nursing students should be evaluated.

It is seen that the mean scores of the students' The Use of Intuition by Nursing Students Scale were low. Nurses use intuition as decision-making skill and the number of studies with nursing students about the use of intuition in nursing care is quite low (Cork, 2014; Hassani, Abdi, Jalali, & Salari, 2017; Lyneham, Parkinson, & Denholm, 2008; Nektaria, Michael, Despoina, & Manolis, 2015; Price, Zulkosky, White, & Pretz, 2017). This finding suggests that intuition contributes positively to nurses' decision-making process as the study year and experience increase. This situation was also stated by Banner (Lyneham et al., 2008). In the study of Dikmen, Orak, Gürkan, Aslan, Demir (2017), it is seen that with the increase of the duration of clinical experience, the intuition ability of the students increases. In the study, the short duration of clinical practice of nursing students, lack of opportunity in clinical practice training may lead to the failure to implement the critical points related to the maintenance applications in laboratory applications.

Intuition Usage Scale in Nursing Students; It consists of four sub-scale and examines the perception of all aspects of the individual. It also assesses the ability of the individual to take action in the light of knowledge skills from his/her past and background. In this context, it was seen that the students got the highest score from the average score of emotional awareness subscale. Emotional awareness is considered as the awareness that arises from the use of sensible feeling and empathy. In fact, emotional awareness includes both positive and negative feelings in the diagnosis and care of the patient (Dikmen et al., 2017). According to this information, it can be seen that nursing students are able to develop empathy in the assessment of the individual but not enough.

The highest score average after emotional awareness is the spiritual connection. Human is an entity with emotional, social, cultural, spiritual and intellectual needs. In order for the individual to be healthy, the needs for all dimensions must be met. Spiritual connection is referred to communicating with the individual spiritually, feeling that relationship, sincerity, the desire to help the individual in a different way than the verbal communication, feeling a spiritual connection, understanding the individual (Dikmen et al., 2017; Nektaria et al., 2015). The reason why this dimension is higher than other sub-scales indicates that they are able to perceive the psycho-social aspect of the individual and that they can perceive the verbal and non-verbal body language in evaluating the health data of the individual.

The physical awareness level of the students is low, however the physical connection sub-scale score which has the ability to understand the verbal and nonverbal signs and symptoms related to the individual was found to be high. Physical awareness can be felt on the body by five senses and can be used to evaluate the individual. It is the feeling that the nurse feels the symptoms on his/her own body regarding the negative situations such as discomfort in the gastrointestinal tract that may occur in the individual (Smith et al., 2004; Smith, 2006; Dikmen et al., 2017). The reason why students did not have high scores related to this sub-dimension was related to the limited time spent with the patient and their clinical practice. Because the more time they spend with the patient, it means the better the diagnosis, understanding easier the needs of the individual, increase in the empathy skills. The high physical connection shows that students can use effective communication skills with the patient. In addition, it means that the skills of evaluating the verbal and non-verbal interactions of the individual are high. This was evaluated as a consequence of the fact that case studies in the pre-clinical period had seen similar cases under simulated laboratory conditions.

Students' emotional intelligence was found as normal. At the same time, it was seen that the mean scores of the subscales of the scale remained within the normal limits that could be taken from the scale, only the sub-dimension of managing emotions was low. It was seen that some of the nursing studies in the literature have normal level of emotional intelligence (Cerit, 2012; Çulha, 2018; Okumuş & Uğur, 2017), some of them has mean and low level (Büyükbayram, Baysan Arabacı, Taş, & Varol, 2016; Duman & Acaroğlu, 2014).

When UINSS and EILAS total score and some subscale mean scores of nursing students were examined, it was seen that there was a positive meaning. With these findings obtained from the research, it can be seen that as the students' emotional intelligence skills increase, the intuition ability that facilitates the assessment of the individual in nursing increases.

When UINSS and EILAS total score and some sub-scale mean scores of nursing students were examined, it was seen that there was a positive significance. With these findings obtained from the research, it was understood that with increase of the emotional intelligence skills of the students, the intuition ability that facilitates the assessment of the individual in nursing increased.

A positive correlation was found between the awareness of the feelings of the EILAS sub-scales and the UINSS emotional awareness sub-scales, spiritual connection, physical connection sub-scales, and total score. Increasing the level of emotional intelligence means the increase of intuition ability. There was a positive relation between emotion management which is a sub-scale of EILAS and physical awareness, physical connection. There was a positive correlation between self-motivation which is another sub-scale and spiritual, physical connection. Also, it was seen that there was a positive relationship between empathy and social skills and emotional awareness, spiritual connection, total score. It was seen that individuals who were aware of their own feelings and who were aware of the emotions of the other person increased the usage of spiritual connection, physical connection and intuition. At the same time, with the increase of empathic and social skills of students, it was determined that emotional awareness about other individual, their spiritual and physical connections and their use of intuition increased. In this context, students who know themselves, and their emotions well are a key element in nursing care.

It is seen that some individual characteristics of students affected their ability to use intuition and emotional intelligence levels. According to the research results, the ability to use intuition is influenced by some individual characteristics such as age, gender, and class, however the emotional intelligence is affected by preferring willingly the profession, loving what student prefers, etc. Although there is a significant difference between age and intuition use in the study, this situation is negative. As the average age of the students increases, the ability to use intuition decreases. This shows that the theoretical knowledge of the students does not yet complete the clinic application skills. This finding is not similar to the studies supporting the finding that the use of intuition increases as the experience increases (Dikmen et al., 2017; Smith et al., 2004; Smith, 2006). The total score of both the emotional awareness sub-scale and intuition use is higher in female students. This finding is consistent with the findings which shows that social relations, communication, empathy skills were more advanced in girls (Özdemir & Kaya, 2013). When examined according to grade; The sub-scale of physical awareness was higher in the second grade. This finding is related to the students having internal and surgical sciences nursing courses in the second year, the intensity of the clinical application areas, the higher number of clinical practice days and the more frequent relationship with the patients.

Female students' awareness of emotion, empathy subscale scores were higher than males, second-grade students' emotion management sub-scale score was low, the nursing students

who willingly chose their profession, all sub-dimensions and EIES total scores were higher. These findings were similar to other studies in nursing students (Çulha, 2018; Girgin, 2009).

The students who get a request from the family when they choose this profession had higher empathic scores. Also, the students who prefer this profession because they have no other chance to study have lower self-motivation score. It was seen that the students who gave their decisions independently had higher mean scores on managing emotions. These results are consistent with other literature information (Girgin, 2009; Keskin, 2010; Ünsar et al., 2008). This finding was considered as an indication that nursing students have positive feelings towards the profession and that these students will be more successful in the future in nursing because their autonomy will be high because they can make their own decisions independently.

6. Conclusion and implications

As a result of the research, it was observed that the level of emotional intelligence was at a normal level, although the ability to use intuition was low in nursing students. There was a positive relation between intuition usage and emotional intelligence sub-scales.

Nursing students need to integrate intuition and emotional intelligence skills with nursing curriculum in clinical decision-making and scientific problem-solving processes. For this reason, measuring the intuition and emotional intelligence skills of nursing students and evaluating their results will contribute to the improvement of nursing education quality by enabling the development of affective skills of nursing. In this direction, it is necessary to increase case studies about the use of intuition in students, to make case discussions to increase the level of emotional intelligence, and to include these issues in educational programs. It should be kept in mind that all interventions in this context will contribute to the increase of professional commitment, motivation, and quality of patient care.

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