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Research Article

PERCEPTIONS OF CONSCIENCE OF NURSING STUDENTS ACCORDING TO EMPATHY LEVELS

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Abstract: *Conscience and empathy are emotional factors affecting the caregiving levels of nurses. This research aims to determine perceptions of conscience of nursing students, according to their empathy levels. Descriptive, cross-sectional, and descriptive research designs are used in this research conducted on nursing students in third and fourth grades studying at nursing departments of two State Universities in the east of Turkey. 376 students studying in the third and fourth grades of nursing departments of the mentioned two universities, formed the population of the research. The study has been completed with 286 students accepting to participate in the research, without forming a sample group. Data have been gathered through the Student Identification Data Sheet, Empathy Quotient (EQ), and Perception of Conscience Questionnaire (PCQ). The research determined that the average age of the students was 22.43 ±1.96, 61,1% were female, 94,7% were single, 65,3% were living in cities, 50,6 %were attending a state university, 60,4% freely chose their profession and 42,8% made their choices because of family pressure. The average total EQ points of the participants are 2.76±0.66 and the average of total PCQ points is 62.52±12.87. The research determined that there is a medium-level meaningful correlation positively, between averages of total and subscale points (p<0.001) of EQ and PCQ. It also determined that there is a medium-level meaningful correlation positively, between averages of total and subscale points of social skills and cognitive empathy subscales, along with PCQ total and subscale points (p<0.05). A medium-level meaningful correlation in a positive way, between averages of emotional reaction subscales along with PCQ total and sensitivity subscale points, has also been determined (p<0.001). This research has put forward average of EQ and PCQ points of the students, were at medium level. The research has also determined that consciousness perception increased parallel to an increase in empathy levels.*

Keywords*: Empathy, Conscience, Nursing Students.*

1. Introduction

When nurses carry out caregiver roles, feelings, thoughts, problems, experiences, needs, and goals of patients and healthy individuals they establish relation with, are at the center of this relation. Empathy, being the fundamental component of the relationship between nurse and patient, also plays a significant role in interpersonal relations and communication skills [1, 2]. Nurses must have an empathic capacity to give care to patients and healthy individuals in a holistic and humanistic way. Carl Rogers described empathy in person-centered theory, as the perception of "the internal frame of reference of another with accuracy and with the emotional components and meanings which pertain thereto as if one were the person." Empathy consists of three subscales as cognitive, emotional, and behavioural scales; the emotional subscale remains to be the keystone. Additionally, the fourth subscale of empathy has been

described as the moral scale (conscience), which means the inner motivation to want to comprehend the patient [5-11].

Although health professionals aim to provide holistic, empathic, and person-centered care, their attitudes, and perceptions are affected when they face challenging situations [12]. In such challenging situations, conscience is one of the factors affecting nursing responses. Conscience is the inner voice warning ourselves about other persons. Conscience may also be described, as per professional intuition, as a source of awareness that helps to respond helplessness of humans. Nurses are the main guardians of moral, wellbeing, integrity, and caregiving ethics. It is important to emphasize part of conscience in nursing values and caregiving [13, 14]. Nurses may have negative feelings as guilt, sadness, despair, and inability if they feel a conscientious unease when fulfilling their duties. The work environment would be negatively affected if the relevant conscientious matter is not resolved. This situation may even cause the feeling of exhaustion, decreased self-esteem in nurses, moreover, may constitute a burden leading to quitting their profession [14, 15].

As nursing is a profession where much time is spent with patients, nurses must have optimal levels of conscience. Nurses to take care and watch over patients are also expected to have an improved sense of conscience. We have come across in literature, separate studies on empathy levels [3- 5, 11, 12, 16-20] and perception of conscience [14, 21, 22] of nurses or nursing students, but none examining the correlation of both. Therefore, this research is unique in this context. This research was carried out to determine the perception of conscience of the students according to their empathy levels.

Research Questions:

1. How is the empathy level of nursing students in third and fourth grade?

2. How is the perception of conscience in nursing students in third and fourth grade?

3. Is there a meaningful correlation between empathy levels and perception of conscience of nursing students in the third and fourth grades?

2. Materials and Methods

2.1. Type of the Research

The research was conducted in a cross-sectional, and descriptive design to determine the perception of conscience of nursing students according to their empathy levels.

2.2. Time and Place of the Research

The research has been carried out at the nursing departments of two state universities in the east of Turkey, between October 2019 and March 2020.

2.3. Population and Sample Group of the Research

376 students in third and fourth grades of nursing departments of the two-state universities where the research was conducted, formed the population of the research. To increase the power of the statistics, the research was completed without forming a sample group, with 286 students qualifying for being accepted to the research (76% of the population).

We can explain the reasons for including only students in the third and fourth grades in the research, as students at these grades had plenty of empathic relationship experiences with patients during their practice, and as they have taken ethics classes. Students who accepted to take part in the study, who had perfect attendance during the data gathering stage, and who responded to questions in whole and complete. Students who were absent at the specified dates and who were involuntary to participate in the research were excluded.

2.4. Data Collection Methods

Data have been collected by the researchers, by using EQ and PCQ, through "Introductory Information Form" prepared in line with literature where socio-demographic properties are demanded. Forms have been filled in by the students in class, by self-reporting in a 15-20 minute period. The students have been informed about the aim of the research before filling in the questionnaires and their oral and written consents have been obtained.

2.4.1 Introductory Information Form

Introductory information form prepared by the researchers in line with the literature, comprises eight questions on the students' age, sex, marital status, the university they attend if their professional choice was voluntary and if it was not, what the reason was [14, 15, 21, 23].

2.4.2 Perception of Conscience Quotient (PCQ)

Validation and reliability in the Turkish Language of the scale developed by Dahlqvist et al. (2007) [23], has been performed by Aksoy et al. (2019). The scale comprises 13 questions. Assessment of the scale is through a six-point Likert scale from "No, I strongly disagree" (1 point) to "Yes, I strongly agree" (6 points). The scale does not have reverse scoring. The scale consists of two factors as Factor 1: Sensitivity (items 1, 2, 3, 4, 5, 6, 7, 8, 10, 12, 13), Factor 2: Authority (items 9, 11). The lowest score available through the scale is 13, the highest is 78. The highest scores show the highest perception of conscience. The Cronbach Alpha coefficient of the scale is stated as 0.840 and this coefficient was found as 0.840 in this research.

2.4.3 The Empathy Quotient (EQ)

Validation and reliability in the Turkish Language of the scale developed by Lawrence et al. (2004) [24], has been performed by Kaya and Çolakoğlu (2015). The scale comprises three subscales and 13 questions. The scale is a five-point Likert type with subscales of social skills (items 1, 2, 3, and 5), emotional reactivity (items (6, 7, 8, and 10), and cognitive empathy (items 4, 9, 11, 12 and 13). The fifth item of the scale is reverse scored. Total average scores derived from the scale, have been determined as 1-2.33 low level, 2.34-3.67 medium level, and 3.68-5.0 high level [25]. Cronbach Alpha coefficient of the scale had been determined as 0.776. In this research, the coefficient was found as 0.883.

2.5. Data Analysis

Statistical Package for Social Sciences (SPSS) version 25.0 was used in the statistical analysis of the data obtained through the research. Number, percentage, average, and standard deviation were used in the assessment of socio-demographical properties. The accordance of continuous variables to normal distribution was measured by Kolmogorov-Smirnov test and as significance values were lower than 0.05, non-parametric tests were used. Mann-Whitney U, Kruskal-Wallis tests, and Bonferroni correction were used in assessing data unfit to normal distribution. Spearman correlation analysis was carried out to examine the relation between the average of total EQ points and the average of total PCQ points.

3. Results

The research determined that the average age of the students who took part in the research, was 22.43 ±1.96, 60,1% were female, 94,7% were single, 65,3% were living in cities, 50,6% were attending a state university, 60,4% freely chose their profession and 42,8% made their choices because of family pressure (Table 1).

Table 1. Socio-demographic properties of nursing students in the third and the fourth grade (N=286)

Variables	X̄± SD
Age	22.43 ±1.96
	n (%)
Gender	
Female	172 (60.1)
Male	114 (39.9)
Marital status	
Single	271 (94.7)
Married	15 (5.2)
Residence	
City	187 (65.3)
District	70 (24.4)
Village	29 (10.1)
University of study	
A state university	145 (50.6)
Another public university	141 (49.3)
Status of choosing the profession willingly	
Yes	173 (60.4)
No	112 (39.1)
The reason why I willingly choose the profession	
Family pressure	28 (25.0)
Assurance to be appointed	36 (32.1)
Economic reasons	48 (42.8)

The average total EQ points of students taking part in the research are 2.76±0.66 and the average of total PCQ points is 62.52±12.87 (Table 2).

Table 2. Averages of total and subscale points of nursing students in the third and the fourth grade

Scales	X̄± SD
The empathy quotient (EQ)	
Cognitive empathy	2.79±0.76
Emotional reactivity	3.02±0.82
Social skills	2.45±0.67
Total	2.76±0.66
Perception of conscience quotient (PCQ)	
Sensitivity	53.40±11.02
Authority	9.12±2.48
Total	62.52±12.87

The average of total PCQ points was 67.50 (26.00-78.00) in female students, was 59.00 (14.00-78.00) in male students, and the difference in between was statistically significant (z=-3.516, p=0.000). PCQ levels of female students are higher when compared to male students. The average of total points was 2.92 (1.00-5.00) in students who freely chose their profession and was 2.69 (1.85-4.62) in those who did not; the difference in between was found to be statistically significant (z=-2.130, p=0.033). The empathy levels of the students who freely chose their profession are higher when compared to others. A significant difference was determined between the reason the students took part in this research, for not freely choosing their profession, and the average of total EQ and PCQ (χ2= 2.227, p=0.441; χ2= =2.312, p=0.419). Corrected Bonferroni test was used to find the group that created the difference. As a result of this, the average of total EQ points of students, whose reason of not freely choosing their profession was economical, was found to be higher when compared to the reason of feeling secure about a quick appointment to a position (p=0.046). The average of total EQ points of students, whose reason for not freely choosing their profession was feeling secure about the appointment to a position, was found to be higher when compared to those, whose reason was family pressure (p=0.049). It has been determined that no significant difference existed between averages of total points of EQ and PCQ according to other socio-demographical properties of the students (p> 0.05) (Table 3).

Tablo 3. Comparison of averages of total EQ and PCQ points of the nursing students in the third and the fourth grade

Variables	EQ X̄ (Min±Max)	PCQ X̄ (Min±Max)
Gender		
Female	2.92 (1.77-4.69)	67.50 (26.00-78.00)
Male	2.76 (1.23-4.77)	59.00 (14.00-78.00)
Test value	z=-1.425[a], p=0.154	**z=-3.516 [a], p=0.000**
Marital status		
Single	2.84(1.23-5.00)	65.0(14.00-78.00)
Married	2.76(1.69-5.00)	62.00(37.00-78.00)
Test value	z=-0.813 [a] , p=0.947	z=-0.067 [a], p=0.947
Residence		
City	2.92(1.54-5.00)	65.00(22.00-78.00)
District	2.69(1.23-4.77)	62.00(14.00-78.00)
Village	2.76(2.00-4.62)	64.00(38.00-78.00)
Test value	χ2= 1.500[b], p=0.472	χ2= 4.194 [b], p=0.123
University of study		
A state university	2.76(1.54-5.00)	64.50(26.00-78.00)
Another public university	2.92(1.23-5.00)	65.00(14.00-78.00)
Test value	z=-0.780 [a], p=0.435	z=-0.034 [a], p=0.973
Status of choosing the profession willingly		
Yes	2.92 (1.00-5.00)	66.50 (28.00-78.00)
No	2.69 (1.85-4.62)	64.50 (22.00-78.00)
Test value	**z=-2.130 [a], p=0.033**	z=-1.200 [a], p=0.230

Table 3 Continued.

	EQ	PCQ
Variables	$\bar{\text{X}}$ (Min±Max)	$\bar{\text{X}}$ (Min±Max)
The reason why I willingly choose the profession		
Family pressure	2.61 (3.23-4.54)	54.00 (47.00-75.00)
Assurance to be appointed	2.50 (2.23-4.62)	67.00 (47.00-78.00)
Economic reasons	2.80 (2.08-4.23)	61.50 (50.00-72.00)
Test value	$\chi2= 2.227$ [b] , **p=0.041**	$\chi2= =2.312$ [b] , **p=0.049**

[a] Mann Whitney-U test z value, [b] Kruskal Wallis test Chi-square value, EQ=The empathy quotient, PCQ=Perception of conscience quotient

The research determined that there is a medium-level meaningful correlation in a positive way, between the average of total EQ points and averages of PCQ total and subscale points (p<0.001). A medium-level meaningful correlation in a positive way, between the averages of social skills and cognitive empathy subscales and PCQ total and subscale points (p<0.05). Also a medium-level meaningful correlation in a positive way, between the averages of emotional reactivity subscale and total and sensitivity subscale points of PCQ (p<0.001).
(Table 4).

Table 4. Correlation between averages of total and subscale EQ and PCQ points of nursing students in the third and the fourth grade

Scales	EQ		Social skills		Emotional reactivity		Cognitive empathy	
	r [c]	p	r [c]	p	r [c]	p	r [c]	p
PCQ	0.403	**0.000**	0.242	**0.003**	0.290	**0.000**	0.327	**0.000**
Sensitivity	0.404	**0.000**	0.242	**0.003**	0.336	**0.000**	0.317	**0.000**
Authority	0.345	**0.000**	0.233	**0.005**	0.139	0.101	0.305	**0.000**

[c] Spearman correlation analysis, EQ=The empathy quotient, PCQ=Perception of conscience quotient

When examining the significance level corresponding to the F value in the linear regression analysis, we see that the established model is statistically significant. Considering the beta coefficient value of the independent variable, t value, and significance level, it is seen that empathy levels have a statistically significant effect on the perception of conscience (t=6.010, p<0.01) and explaining 13% of the alteration on the perception of conscience. We found that the average perception of conscience, sensitivity and authority points increase, as the empathy levels of the students increase (Table 5).

Table 5. Linear regression findings between averages of total and subscale EQ and PCQ points of nursing students in the third and the fourth grade

Variables	B	t	p
Constant	2.410	12.046	0.000
PCQ	2.710	6.010	**0.000**
Sensitivity	0.264	5.975	**0.000**
Authority	0.213	5.828	**0.005**

R= 0.379, R^2 = 0.137, F= 23.428, p=0.000, EQ=The empathy quotient, PCQ=Perception of conscience quotient

4. Discussion

Nurses should have high levels of empathy to perform compassion, value, and conscience concepts in giving care to patients. Empathy level improved by theoretical and practical courses enhances caregiving abilities of nurses [7, 10,11, 26]. Lack of skills as communication, empathy, emotional intelligence, and traits as conscience, affect patient care quality. This research aimed to determine perceptions of conscience of nursing students, according to empathy levels.

An efficient and qualified nursing care is the fundamental need of patients. In this regard, determining conscience levels of nursing students and meeting the requirements by the support of education, is required. The average of total EQ points of the students who took part in this research was found to be at a medium level; this may be attributed to having taken ethics classes last year. In literature, we did not come across studies calculating total EQ points and subscale point average in nursing students but found studies on different sample groups. The average EQ point found in the research carried out by Gorbanzadeh et al., on 68 nurses was 72.74 ±7.48, which is high as compared to this research [14]. The average of PCQ total points in the research conducted by Lak et al. on 193 nurses was found as 68.19 ± 15.12; where averages of subscale points were as follows; an average of sensitivity subscale points 21.9 ± 2.6 and the average of authority subscale points 16.8 ± 2.4 [21]. The scale used in this research was adapted to the Turkish society and had two subscales; due to this reason, averages of subscale points were found higher than usual. We determined a significant difference between the average points of the PCQ items in the research by Kadioglu et al. on nursing students (n=300) versus dentistry students (n=264) [22]. The average of total PCQ points of female students who took part in the research was found to be higher than that of male students. The reason for this situation may be the number of female students being higher (60.1%) when compared to male students who participated in this research and women having protectionist instincts. A similar result to this research is the study by Kadioglu et al. carried out on 564 students, where averages of item points of female students were found higher than those of male students [22]. Different than this research, in the research by Gorbanzadeh et al. average perception of conscience points of male nurses (75.64± 3.77) was found higher when compared to the average perception of conscience points of female nurses (72.71± 7.56) constituting a statistically significant difference [14]. On the other hand, a significant difference was not determined in the study by Lak et al. between the average of total PCQ points concerning the gender of nurses [21]. The average of total EQ points of the students taking part in the research, who willingly chose their profession, was found to be higher according to that of those who did not, and there was a significant difference in between. The study by Ustundag et al. where similar results to this research were obtained, determined that, the average of total Empathy Tendency Scale points of participants who freely chose their profession was higher when compared to that of those who did not and that there was a significant difference in between [27]. Researches with different results also exist in literature; for instance, the research by Turan et al. carried out on a group of 290 nursing students, showed an average of total Empathic Skills Scale points of students who freely chose their profession was found lower than that of those who did not, and no significant difference was found [20]. Theoretical and applied classes are intensively given in nursing education. Students take over important responsibilities in succeeding at classes, professional practice, and communicating with patients, and these processes cause exhaustion and stress in students [20]. Exhaustion and stress may decrease a student's empathy level, destroying learning desire, enthusiasm, and curiosity. The majority of the students attending this research stated family pressure as the reason for not being able to freely decide their professional choice. In this regard, individuals must be enabled to make their decisions freely, to enhance dedication to their profession.

Integrating empathy and conscience, makes nurses feel their identity more meaningful and provide higher self-respect [28]. No discussions were made since we did not encounter any studies

examining the correlation between EQ and PCQ in nursing students. In a different context, a study by Schalkwijk et al. determined adolescent criminals had lower empathic capacity and conscience levels compared to victims [29].

This research is based on students' self-reports. This research is limited to 286 nursing students.

5. Conclusion

In this research, the average of EQ and PCQ points of nursing department students were found to be at a medium level. As empathy level affects the quality of care, classes aiming to equip nursing students with skills as interpersonal relationships, establishing empathy, and helping, may be given more intensely as part of optional classes, especially in the fourth grade where the stress level is high. Perception of conscience levels having not been examined before in literature, especially in nursing students, show new studies are required in this field. In the clinic, establishing interpersonal relationships including empathy and conscience between the caregiver and the one receiving healthcare service may affect the emotional dimension of caregiving. Educating prospective nurses by suggesting to be sensitive to the emotional dimension of caregiving, may help to prevent probable stress of conscience and emotional exhaustion.

Ethical Dimension of the Research: Ethics committee approval from the Dicle University non-Interventional Clinical Researches Ethics Committee (approval dd. 15.09.2019; No.276) and approvals from relevant institutions, have been obtained for the research to be carried out. Statement on the objective, the process of the research, and the questionnaire were made to the students. Oral and written consents have been obtained from students accepting to take part in the research. The research was carried out in accordance with the principles of the Helsinki Declaration.

The compliance to the Research and Publication Ethics: This study was carried out by the rules of research and publication ethics.

Declaration of Conflicting Interests: The authors declare that there is no conflict of interest.

Authors' Contributions: Hediye UTLİ (HU), Leyla ZENGİN AYDIN(LZA)

Study design: HU, LZA

Data collection and/or analysis: HU, LZA

Preparation of the article: HU, LZA

All authors read and approved the final manuscript.

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