Nursing Students' Professional Image Perceptions during the COVID-19 Pandemic

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Abstract

Purpose: This study aimed to identify nursing students' professional image perceptions towards the nursing profession during the COVID-19 pandemic.

Methods: This descriptive cross-sectional study was conducted with 304 students between February-June 2021 with the participation of 1st and 4th year nursing students studying at the nursing faculty of a state university in Turkey. The data were collected through 1st and 4th year nursing students' Whatsapp groups using the "Personal Information Form" and the "The Scale for the Image of Nursing Profession" with the help of Google forms. The data were analyzed using the SPSS 22.0 package program.

Findings: The overall total mean scale score was found to be 152.2 ±11.4. Scores obtained for the sub-dimensions were as follows: 48.1 ± 4.3 (min 15 - max 61) for professional qualities, 26.5 ±3 (min 20 - max 42) for working conditions, 28,1 ±5,6 (min 12 - max 39) for gender, 20,4 ±2,1 (min 7 - max 27) for education, 16,6 ±5,1 (min 5 – max 25) for professional status and 12,3 ±2,5 (min 3 - max 15) for appearance. The Cronbach's Alpha value was found to be 0.914 in the study.

Conclusion: Based on the result of this research, it was determined that the image perception of nursing students towards the nursing profession was at a good level during the COVID-19 pandemic.

Keywords: Nursing, Image, Nursing Image

Introduction

Coronavirus Disease 2019 (COVID-19) is an infectious disease caused by a recently discovered coronavirus (SARS-CoV-2) that emerged in Wuhan, China at the end of December 2019 (T.R. Ministry of Health,2020). Since the epidemic spread among the continents rapidly, it was declared a "pandemic" by the World Health Organization on March 11, 2020 (WHO, 2020). COVID-19 is a crisis that threatens public health and affects all nations due to its high rate of transmission, high prevalence in the world population, high morbidity and mortality rates (Bayraktaroglu and Fidan, 2020; WHO, 2020).

Nurses are at the forefront in preventing and controlling infections, reducing mortality rates, and providing health care services during the COVID-19 pandemic, as they have always been throughout the history, in wars, disasters and epidemics that negatively affected society in many ways (Gocmen Baykara and Eyupoglu, 2020). A good example for this is Florence Nightingale who reduced the death rate from 42% to 2.2% with the nursing care and practices she provided in the Crimean War in 1854 when many soldiers lost their lives due to dysentery and cholera epidemics and poor patient care (Senol Celik et al., 2020).

During the pandemic, nurses have worked for long hours without permission/breaks by wearing protective equipment such as masks, visors, aprons, under a high risk of contamination and under the obligation of staying away from family members due to the fear of infecting them. They have experienced many hardships and risks such as occupational burnout, fatigue, physical and psychological violence, lack of protective equipment, shortage of health personnel and increased workload. However, despite all the difficulties they have experienced, they have worked with great sacrifice in the delivery of health care services (Hicdurmaz and Uzar Ozcetin, 2020; Guçmen Baykara and Eyupoglu,2020). The statement of the International Council of Nurses (ICN), dated 03.06.2020, confirms that at least 600 nurses died due to COVID-19 in the world, but it was not possible to access all information due to lack of systematic and standardized records (ICN, 2020).

Professional image is the perception of a profession in the society as a result of assessing the members of the profession in question and accepting this assessment by a large part of the society (Cinar and Demir, 2008). Accordingly, nursing image is composed of common perceptions and attitudes in the society regarding the nursing profession (Kizilcik Ozkan et al., 2017). Nursing image also plays a dominant role in students' selecting nursing as a profession (Ozsoy, 2000). Karaoz (2002) and Ertem et al. (2010) conducted studies with nursing students and reported that the nursing image in the society was the reason why students had a negative view of the nursing profession before training. In their study conducted with senior high school students, Koc and Saglam (2009) determined that 67.3% of the students defined the nursing profession as assisting doctors and 77.4% of the students did not consider choosing nursing as a profession.

There are studies in the literature in which report positive and negative nursing image (Celik et al. 2013; Yilmaz et al. 2019; Kizilcik Ozkan et al., 2017; Kizgut and Ergol 2011; Sirin et al. 2008). These studies were carried out with different sample groups before the COVID-19 pandemic. In order for nursing students to develop a positive professional attitude, they must first have a positive professional image perception (Seval and Sonmez, 2020). In this context, this study was conducted to determine the image perceptions of nursing students towards the nursing profession during the COVID-19 pandemic.

Material and Methods

Study Design and Sample: This descriptive study was conducted with the participation of 304 1st and 4th year nursing students studying at the nursing faculty of a state university in Turkey between February-June 2021 to identify the image perceptions of nursing students regarding the nursing profession within their socio-demographic framework during the COVID-19 pandemic.The universe of the research consisted of 560 1st and 4th year nursing students at the nursing faculty of a state university in Turkey. The study sample consisted of a total of 304 students who agreed to participate in the research (177 students in their 1st year and 127 students in their 4th year). The size of the sample was calculated using the Epi Info Statcalc program and found to be 304 students at the 95% confidence interval. The study was completed with 304 nursing students who met the sampling inclusion criteria and agreed to participate in the study.For data collection, 10-item "Personal Information Form" developed by the researchers in line with the literature and 42-item "The Scale for the Image of Nursing Profession" were used to measure the image perception towards the nursing profession.

Personal Information Form: A total of 10 questions (age, gender, school year, type of high school the nurses graduated from, status of willingly selecting the profession of nursing, the reason for preferring this profession, the order of preference for the nursing faculty in the university exam, state of wanting to do the nursing profession after graduation, perspective on the nursing profession before and after the COVID-19 pandemic) were developed by the researchers in line with the literature (Yilmaz et al. 2019; Kizilcik Ozkan et al., 2017 Karaman et al., 2020) to determine the socio-demographic characteristics of nursing students.

The Scale for the Image of Nursing Profession (SINP): The 5-point Likert type scale with 42 items was developed by Dost and Bahcecik (2015). The scale includes a total of 6 sub-dimensions: professional qualities (11 items), working conditions (10 items), gender (8 items), education (5 items), professional status (5 items), and appearance (3 items). The scale is scored between "5" strongly agree and "1" strongly disagree. Negative items in the scale are reverse coded. The Cronbach Alpha

coefficient was found to be 0.88 in the validity and reliability study of the scale. The perception of professional image increases positively when the score obtained from the scale increases. The minimum score that can be obtained from the scale is 42 and the maximum score is 210. The Scale for the Image of Nursing Profession scores are as follows: very poor image perception if the total score is between 42-75, poor image perception if the total score is between 76-109, moderate image perception if the total score is between 110-143, good image perception if the total score is between 144-177 and very high image perception if the total score is between 178-210.

Data Collection: The research was conducted online to prevent cross infection. Trusted online survey creation links were reviewed by researchers. It was decided to create the questionnaire sent to the nurses via the "Google Survey" URL to protect the confidentiality of the data. The data were collected through the online survey link created by the researchers using the 'Google Survey' URL address sent via the Whatsapp groups of 1st and 4th year students.

Ethical Issues: The study was approved by the Non-Interventional Clinical Research Ethics Committee (decision no: 2021/152) at a university in Turkey and was conducted in accordance with the Declaration of Helsinki (E-10342988-302.08.81-21466). Necessary permission was obtained via e-mail from the authors of "The Scale for the Image of Nursing Profession" used in the research. Participants first read the informed consent text explaining the purpose and rationale of the study in the link posted online. After getting information about the study, they answered the question "Would you like to participate in the study voluntarily?" found at the bottom of the text by clicking "Yes" or "No" options. This way, only the voluntary participants who answered "yes" to the question completed the questionnaire. They were informed that they could withdraw from the study at any time without giving any reason.

Statistical Data Analysis: The data were analyzed with the SPSS 22.0 package program. Mean, standard deviation, frequency, percentage, mean rank, minimum and maximum values were used in the descriptive statistics of the data. Kolmogorov Smirnov test was used to determine whether the data showed normal distribution. Independent *t*-test, one-way analysis of variance (ANOVA), Kruskal-wallis test and Man-Whitney U test were used in the analysis of quantitative data. Obtained data were evaluated at 95% confidence interval and at $p<0.05$ significance level.

Validity, reliability and rigour: A previously validated and reliable scale was used in the present study. This scale was checked using a pretest to determine whether the questions were correctly worded and clear enough to be understood by the student nurses. Before starting the study, the form was pre-administered to a group of seven people who were not included in the study. Since every question was found to be clear during the pre-application, no changes were made to the form. The data of the students who were administered the pretest were not included in the sample.

Results

Table 1 presents the distribution of the socio-demographic characteristics of the students participating in the research. It was identified that 84.5% of the students participating in the research were female, 58.2% were first year students, 81.6% had graduated from Anatolian high schools and the mean age was 21.07 ± 1.99 years. It was found that 73% of the students willingly chose the nursing profession, 59.9% preferred the nursing profession in the first place, 42.4% of the students chose the nursing profession because it was easy to find employment, 34.2% chose the nursing profession because they wanted to help people and 10.9% chose the nursing profession as a result of their parents' guidance. The number of students who preferred the nursing profession because they regarded it as the ideal profession (9.2%) and because they were influenced by the nurses in their immediate vicinity (2.3%) was rather low. It was identified that 88.2% of the students desired to work as nurses after graduation. While 69.1% of the students reported that they had a positive view of the nursing profession before the COVID-19 pandemic, 11.5% of them were found to have negative viewpoints and 19.4% were undecided. It was determined that 30.6% of the students changed their perspective towards the nursing profession positively after the COVID-19 pandemic, while 19.7% of them experienced negative changes in their outlook and 47.9% of the students did not change their perspective.

There was no statistically significant difference between students' school year, age group, type of high school they graduated from and their SINP mean scores (p>0.05). A statistically significant difference was found between the students' gender and their SINP mean scores (p<0.05). It was observed that the female students' SINP mean score (x̄=152.7 ±11.2) was higher than that of male students (x̄=148.9 ±12.1). There was no statistically significant difference between order of preference and SINP mean rank (p>0.05). A statistically significant difference was observed between the SINP mean rank of the students based on their reasons for selecting the nursing profession (p<0.05).). Adjusted Bonferroni was used to identify the group that caused the difference. As a result, it was determined that the SINP mean rank of the students who chose the nursing profession because they wanted to help people (175.37) were higher than the SINP mean rank of the students who chose the nursing profession because it was easy to find employment (130.49). A statistically significant difference was found between the students' willingness to choose the nursing profession and their SINP mean rank (p<0.05). It was determined that the SINP mean rank (164.79) of the students who "willingly" chose the nursing profession was higher than the mean rank (119.24) of the students who had to choose the nursing profession unwillingly/with guidance from parents. A statistically significant difference was found between the students' desire to work as nurses after graduation and their SINP mean rank (p<0.05). The SINP mean rank of students who wanted to do the nursing profession after graduation (161.49) was found to be higher than the mean rank of students who did not plan to work as nurses after graduation (85.60).

Table 1 presents the Distribution of Students' Socio-Demographical Characteristics and Their Image of Nursing Profession Scale Scores (n=304). Table 2 presents participating nursing students' mean scores for The Scale for the Image of Nursing Profession (SINP) and its sub-dimensions and Cronbach's Alpha values.The overall total mean scale score for the nursing students was found to be 152.2 ±11.4. The scores obtained for the sub-dimensions are as follows: 48.1 ±4.3 for professional qualities sub-dimension, 26.5 ±3 for working conditions sub-dimension, 28.1 ±5.6 for gender sub-dimension, 20.4 ±2.1 for education sub-dimension, 16.6 ±5.1 for professional status sub-dimension and 12.3 ±2.5 for the appearance sub-dimension. In the study, the Cronbach's Alpha value of the scale was found to be 0.914. The Cronbach's Alpha values of the sub-dimensions of the scale were found to be 0.913 for professional qualities sub-dimension, 0.825 for working conditions sub-dimension, 0.823 for gender sub-dimension, 0.844 for education sub-dimension, 0.866 for professional status sub-dimension and 0.945 for appearance sub-dimension.

Table 3 shows the distribution of the SINP mean scores of the students participating in the research based on their perspective of the nursing profession before and after the COVID-19 pandemic. A statistically significant difference was found between the students' SINP mean scores and their perspective on the nursing profession before COVID-19 (p<0.05). Bonferroni test, a Post Hoc pairwise comparison method, was used to identify the group that caused a difference. According to the Bonferroni result, it was observed that the SINP mean scores of the students who had a positive view of the nursing profession before the COVID-19 pandemic were higher than the SINP mean scores of the students who had negative outlook or undecided regarding the issue. There was no statistically significant difference between the students' perspectives on the nursing profession after the COVID-19 pandemic and their SINP mean scores (p>0.05).

Table 1: Distribution of Students' Socio-Demographical Characteristics and Their Image of Nursing Profession Scale Scores (n=304)

	Variables	n	%	SINP Mean±SD	Test*	p
Gender	Female	257	84.5	152.7±11,2	t =2.124	p =0.034
	Male	47	15.5	148.9±12.1		
Year	1.Year	177	58.2	152,9±11,8	U =9897.500	p =0.076
	4. Year	127	41.8	151.1±10.8		
Age Group	18-19 years old	70	23	152.3±13.1	KW= 2.164	p = 0.706
	20-21 years old	110	36.2	152.7±10.8		
	22-23 years old	106	34.9	151.3±10.7		
	24-25 years old	8	2.6	153.6±8.1		
	26 and older	10	3.3	153.0±15.4		
High School	Science High School	32	10.5	148.9±12.3	KW= 3.612	p = 0,307
	Anatolian High School	248	81.6	152.4±10.9		
	Vocational School of Health	9	3	153.4±13.7		
	General Education/Technical High School	15	4.9	154.0±15.9		
Reason for Selecting the Profession	Easy to find employment(1)	129	42.4	149.4±12.3	KW=18.562 5>1	p = 0.002
	Ideal profession (2)	28	9.2	155.4±8.8		
	Family guidance (3)	33	10.9	150.9±9.9		
	Influence from nurses in the immediate vicinity (4)	7	2.3	155.4±14.1		
	Desire to help people (5)	104	34.2	154.9±10.4		
	Being the department that can be selected based on university entrance exam scores (6)	3	1	150.6±14.4		
Order of preference	1. preference	182	59.9	152.6±12.1	KW=2.279	p = 0.685
	Between 2-5	65	21.4	151.7±9.6		
	Between 6-9	23	7.6	150.3±8.6		
	10 or higher	21	6.9	152.5±13.5		
	I don't remember	13	4.3	151.1±12.7		

Selecting the profession willingly	Yes	222	73	153.6±11.3	U= 6374.500	p = 0.000
	No	82	27	148.3±11.0		
Willingness to work as a nurse after graduation	Yes, I would like to	268	88.2	153.2±11.2	U=2415.500	p = 0.000
	No I don't want to	36	11.8	144.1±9.4		

*KW= Kruskal Wallis test, U= Mann Whitney U test, t = Independent *t*-test, n : frequency , % : percentage

Table 2: Statistical Findings for The Scale for the Image of Nursing Profession (SINP) and Its Sub-dimensions (n= 304)

	Mean	Standard Deviation	Minimum	Maximum	Cronbach's Alpha
The Scale for the Image of Nursing Profession General Score	152.2	11.4	102	180	0.914
Professional Qualities	48.1	4,3	15	61	0.913
Working Conditions	26.5	3	20	42	0.825
Gender	28.1	5.6	12	39	0.823
Education	20.4	2.1	7	27	0.844
Professional Status	16.6	5.1	5	25	0.866
Appearance	12.3	2.5	3	15	0.945

Table 3: Distribution of SINP Mean Score by Perceptions on the Nursing Profession Before and After the COVID-19 Pandemic (n=304)

	Variables	n	%	Mean ±SD	Test*	p	Bonferroni
Perceptions on the Nursing Profession Before the COVID-19 Pandemic	Positive(1)	210	69.1	154.1±10.9	F= 12.058	p = 0.000	1>2 1>3
	Negative(2)	35	11.5	145.3±12.4			
	Undecided(3)	59	19.4	149.2±10.6			
Perceptions on the	Have changed for the positive	93	30.6	153.1±9.6	Welch = 1.060	p = 0.349	

Nursing Profession After the COVID-19 Pandemic	Have not changed	15 1	49.7	152.4±11.2
	Have changed for the negative	60	19.7	150,1±14.1

F= One-way analysis of variance (ANOVA)

Discussion

The success of the individuals in their selected professions is closely related to selecting their profession knowingly and willfully (Seval and Sonmez, 2020). This study aimed to determine the relationship between nursing students' attitudes of towards the nursing profession and their image perceptions in relation to nursing students' socio-demographic framework during the COVID-19 pandemic.

According to the findings of this research, the mean SINP score was found to be 152.2 ± 11.4 which indicates good image perception. In their study with nursing students, Karaman et al. (2020) found moderate level professional image perception (140,88±9,46). Similarly, Kizilcik Ozkan et al. (2017) found nursing students' professional image perception at moderate level (142.2±10.4). Examination of the studies in the literature about the image perceptions of nursing students towards the nursing profession shows that there are differences in the nursing students' perceptions regarding the image of nursing. There are studies in which the image of nursing is perceived positively or negatively by students. However, the number of studies in which the image of nursing is perceived negatively by the society, healthcare professionals and nursing students is much higher (Karaman et al.,2020; Taskiran et al., 2020; Kizilcik Ozkan et al., 2017; Yilmaz et al., 2019; Celik et al., 2013; Kaya et al.,2004; Ozsoy, 2000). In this study, the image perception of nursing students towards the nursing profession was found to be at a good level. This result may be related to the standardization of nursing education in the historical process, the delivery of nursing education at the undergraduate level, the prevalence of postgraduate education in nursing, the development of legal regulations and the increase in the participation of male nurses in the profession which eradicated the perception that

nursing is a profession only for females. In addition, this study was carried out during the COVID-19 pandemic, which still affects the whole world. From the beginning of the COVID-19 pandemic to the present day, nurses have been working with great devotion in the delivery of health care services despite all the difficulties playing a key role in the fight against COVID-19 (Gocmen & Eyupoglu, 2020; Kiyat et al., 2020). Throughout the COVID-19 pandemic, nurses are imprinted on the memory of the public as the heroes/heroines and saviors of the people (Bassett & Stanley, 2020). This may have positively changed the image perception of nursing students, who are nurse candidates after graduation.

The study concluded that the SINP mean scores of the female students were higher than those of the male students with a statistically significant difference (t =2,124, p =0,034). Although the number of male students (47 people) participating in this study was quite low compared to the number of female students (127 people), male students' SINP mean scores were close to female students' SINP mean scores and they had good image perception accordingly. In their study conducted with male nursing students, Curcani et al., (2014) found that 72.2% of male students were satisfied with studying the nursing profession.

In a study conducted with nursing students at a state university, Andsoy et al. (2012) found that 72% of the students preferred the profession because it was easy to find a job. In this study, 42.4% of the students were found to prefer the nursing profession because of the ease of employment and this rate constituted the largest percentage among the reasons why they opted for the profession. There were also nursing students who selected the nursing profession because it was their ideal profession or because they wanted to help people. These students are expected to have higher level of image perception. Similarly, it is also an expected result

that the students who voluntarily selected the nursing profession and wanted to become nurses after graduation had higher SINP mean scores compared to the students who had to choose the nursing profession for other reasons and did not want to be nurses after graduation. When the SINP sub-dimension mean scores were examined, it was observed that the students had the highest mean score in the "Professional Qualities" sub-dimension. It was found that 86.8% of the students definitely agreed with the statement "Nurses are indispensable members of the health team" in this sub-dimension. In their study with nursing students, Kızılcık Özkan et al. (2017) found this rate to be 46.1%. The fact that the present study was conducted during the COVID-19 pandemic in which nurses played a key role in the delivery of health care services and that they worked with devotion and self-sacrifice (Hicdurmaz & Uzar Ozcetin, 2020) may be the reason why the results were different between the two studies. It was determined that 77.9% of the students definitely agreed with the statement "The working conditions of nurses are heavy" included in the "Working Conditions" sub-dimension. Ozsoy (2000) found this rate to be 73% in his study. The study conducted by Koc and Saglam (2009) with high school senior students found that 67.4% of the students did not choose the nursing profession because of difficult working conditions. The nursing profession is negatively affected by factors such as heavy working conditions, long working hours, the presence of a shift system, risky working environment, problems within the team, and lack of communication (Mollaoglu et al., 2010).

The present study also found that students had negative thoughts about nurses' working environment and working conditions. Comparison of students' gender and their SINP sub-dimension scores showed that the "Gender" sub-dimension score was lower in male students. The reason why the gender sub-score was lower in male students may be related to the fact that that nursing profession has been regarded as a "female profession" for many years. It was determined that the mean score of the "Education" sub-dimension was close to the maximum value that can be obtained ale. In the light of the items included in the Education sub-dimension, it was determined that the students valued and gave priority to undergraduate degree, scientific knowledge, evidence-based

practices and continuous education in nursing education. The "Appearance" sub-dimension determined how the physical and characteristic features of the nurses are regarded from the outside. According to the statements in this sub-dimension, we can argue that being positive, constructive, and courteous in interpersonal communication, displaying a cheery attitude by smiling and taking care of individual and environmental hygiene while fulfilling their roles and responsibilities will positively affect nurses' professional image.

Conclusion and Suggestıons: Based on the results obtained from this research, it was determined that nursing students' image perception towards the nursing profession was at a good level during the COVID-19 pandemic. Active nurses and academicians need to guide students and create good role models to develop a positive image of nursing and to reveal the value, status and contribution of nurses and the nursing profession to the society. It is recommended that more research be conducted with different sample groups during the pandemic to evaluate the impact of the COVID-19 pandemic on the image of nursing.

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