



THE EFFECTS ON THE PROFESSION CHOICE OF NURSING STUDENTS OF THE REFLECTIONS OF NURSES WORKING IN THE COVID-19 PANDEMIC

COVID-19 SÜRECİNDE ÇALIŞAN HEMŞİRELERİN YANSIMALARININ HEMŞİRELİK ÖĞRENCİLERİNİN MESLEK SEÇİMİ ÜZERİNE ETKİLERİ

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Abstract

Objective: The aim of the study is determine the effects of working of nurses in the COVID-19 pandemic process, with a reflections on the visual and written media, on the choices of nursing profession of nursing students.

Methods: The sample of this descriptive study consists of 80 first-year nursing students from Kocaeli University Faculty of Health Sciences Department of Nursing, who accepted to participate in the study in the 2020-2021 academic year. "Nursing Student Personal Information Form", "Nursing Image Scale (NIS)" and "Scale of Vocational Choice in Nursing (SVCN)" were used to collect the research data.

Results: The Median and Q1-Q3 SVCN score of the nursing students was found to be 91.5, (73.5-118). Professional fitness sub-dimension median and Q1-Q3 score was 63.5, (49-82) and vital causes sub-dimension median and Q1-Q3 score was determined as 27.5, (19,5-34,5). NIS median and Q1-Q3 score 73.0, (68-76), general appearance sub-dimension median and Q1-Q3 score was 15.0, (14-16), communication sub-dimension median and Q1-Q3 score was 16.0, (14-17), professional and physical qualities sub-dimension median and Q1-Q3 score were found to be 42.0, (40-43). During the COVID-19 pandemic, the median scores of the professional and physical qualities sub-dimension of those affecting the choice of profession were found to be significantly lower ($p=0.033$).

Conclusion: It was concluded that the first-year nursing students' thoughts about the nursing impression were positive and they chose nursing willingly and the media reflections of nurses during the pandemic process increased their sense of helping people.

Keywords: Nursing student, career choice, nursing impression, COVID-19 pandemic.

Öz

Amaç: Bu araştırma COVID-19 pandemi sürecinde çalışan hemşirelerin, görsel ve yazılı medyaya yansımalarının, hemşirelik öğrencilerinin hemşirelik mesleğini seçimleri üzerine etkilerinin belirlenmesi amacıyla yapılmıştır.

Yöntem: Tanımlayıcı tipteki bu araştırmanın örneklemini, 2020-2021 eğitim-öğretim yılında Kocaeli Üniversitesi Sağlık Bilimleri Fakültesi Hemşirelik Bölümü 1. Sınıfta öğrenim gören öğrencilerden araştırmaya katılmayı kabul eden 80 öğrenci oluşturmaktadır. Araştırma verilerinin toplanmasında "Hemşirelik Öğrencisi Kişisel Bilgi Formu", "Hemşirelik İmajı Ölçeği (HİÖ)" ve "Hemşirelikte Meslek Seçimi Ölçeği Türkçe Formu (HMSÖ)" kullanılmıştır.

Bulgular: Hemşirelik öğrencilerinin HMSÖ medyan ve Q1-Q3 değerleri 91.5, (73,5-118) olarak bulundu. Mesleki uygunluk alt boyut medyan ve Q1-Q3 63.5, (49-82) ve Yaşamsal nedenler alt boyut medyan ve Q1-Q3 27.5, (19,5-34,5) olarak belirlendi. HİÖ medyan ve Q1-Q3 puanı 73.0, 68-76, Genel görünüm alt boyut medyan ve Q1-Q3 değerleri 15.0, 14-16, İletişim alt boyut medyan ve Q1-Q3, 16.0, (14-17), Mesleki ve fiziksel nitelikler alt boyut medyan ve Q1-Q3, 42.0, (40-43) olarak bulundu. COVID-19 pandemi sürecinde hemşirelik öğrencilerinin meslek seçimi ile ilgili özelliklerine göre HİÖ karşılaştırıldığında meslek seçimini etkileyen Mesleki ve fiziksel nitelikler alt boyut puan ortalaması anlamlı derecede düşük bulundu ($p=0,033$).

Sonuç: Hemşirelik bölümü birinci sınıf öğrencilerinin hemşirelik imajı ile ilgili düşüncelerinin pozitif olduğu ve hemşireliği isteyerek seçtikleri, ve pandemi sürecinde hemşirelerin medyadaki yansımalarının insanlara yardım etme duygularını artırdığı sonucuna varılmıştır.

Anahtar Kelimeler: Hemşirelik öğrencisi, meslek seçimi, hemşirelik imajı, COVID-19 pandemisi.

Introduction

The image that professions create within society is an essential factor affecting people's vocational choices and how they maintain their careers. In the modern sense, nursing is one of the professions that has been serving humanity for more than a hundred years. While the nursing profession creates its professionalism with changing and developing characteristics, the impression of the profession has also contributed to its professionalization during this process.¹⁻³ In 1975, the International Council of Nurses declared that nursing is a professional occupation, defining a nurse as "a member of professional occupation who has gained qualifications and authority in their field by completing an educational training program, and whose authority has been approved."^{4,5} Nurses need to use their professionalism in order to show themselves well in strategic positions of the profession. Nurses who perform their occupation professionally also positively change the nursing profession's impression. A positive professional impression provides self-confidence and job satisfaction to nurses while imparting competence and reliability to the nursing profession.⁶ Although the nursing profession is an indispensable profession for the individual and society, it has not yet fully gained the status and prestige it deserves around the world.⁷ Today, nurses are seen by society as doctors' assistants who draw blood from the patient and measure blood pressure. Social values, attitudes, and beliefs affect the lifestyle of individuals as well as their vocational choices.² In addition, studies have determined that the professional identities of nurses are not acknowledged in our country due to the negative nursing impression within the society.^{8,9} On the other hand, the studies conducted with nursing students have reported that the nursing impression is affected by society's view regarding the profession.⁹⁻¹¹

As it is one of the most crucial turning points in determining one's future life, when making a vocational choice, the individual must make the right and appropriate decision in accordance with their personality and skills. The quality of working life and the activities carried out for the sake of professional life are known to affect individual peace and happiness directly.¹² Therefore, it is vital for the individual to make a decision in accordance with their wishes and expectations to choose the right profession, adapt to the profession, and maintain a quality working life. Today, due to technological developments, professions are increasing in number, and it is becoming more difficult for individuals to choose the profession that best fits them and their skills.¹³ The literature reports that most of the young people in our country leave determining their profession to chance after finishing primary education due to economic or familial reasons, or sometimes for reasons such as the score received from the university entrance exam.^{14,15} Nursing is one of the professions whose selection must not be left to chance as it involves loving the human, helping individuals in need, and being able to touch lives.¹⁶

Nurses have assumed vital roles and responsibilities and have always worked at the forefront in preventing and controlling infections, reducing mortality, and increasing recovery during many epidemics throughout history. Nurses have been working with great dedication in providing healthcare services during the COVID-19 pandemic that emerged in 2009 and spread worldwide. In combat against COVID-19, nurses are involved in the holistic and personalized care of patients diagnosed with COVID-19. During the pandemic, it is of great importance to determine the needs of patients

diagnosed with COVID-19 and provide them with individual-oriented, holistic, and personalized nursing care.^{17, 18, 19} The year 2020, designated as the "International Year of Nurses and Midwives" by the World Health Organization (WHO), gained more significance with the attentive and selfless work of nurses during the COVID-19 pandemic. The nurses working at the forefront during this challenging process have fulfilled their duties without self-interest. Although the importance of the nursing profession has been told for centuries, one may claim that its importance has not been realized this much until today.²⁰

In light of all this information, it is evident that the reflections of the working life, level of taking responsibility, and "warrior" appearance of nurses working in this challenging COVID-19 pandemic process in the written, visual and social media have affected the image of the nursing profession. This study was conducted to determine the relationship between nursing students' perceptions regarding the nursing image during the COVID-19 pandemic and their reasons for choosing the nursing profession.

Methods

Research Type

This research is of cross-sectional, observational descriptive type.

Sample

Eighty of 109 students studying at Kocaeli University Faculty of Health Sciences Nursing Department between November and December 2020 were included in the study. The students voluntarily filled in the data collection forms after giving their written and verbal consents. The maximum diversity sampling method, one of the purposeful sampling methods, was used in determining the sample as it provides the possibility of reflecting the diversity of individuals likely to partake in the research to the maximum extent. For this reason, nursing students of different ages, coming from various places, and with different types of high school education were included in the sample.

Ethical Considerations

Ethics Committee approval numbered 2020/303 and dated 26/10/2020 was received from the Kocaeli University Non-Interventional Clinical Trials Ethics Committee. Then written permission was obtained from the institution where the research would be conducted. Before the research, the participants were informed about the research, and a signed informed consent form was obtained from the participants who agreed to participate in the research. An application was submitted to the COVID-19 Scientific Research Evaluation Commission regarding the research. The Commission considered the study appropriate.

Data Collection Instruments Used in the Research

As data collection instruments, the Nursing Student Personal Information Form, prepared by the researchers to determine the nursing students' socio-demographic characteristics and opinions regarding the pandemic, as well as Turkish adaptations of the Scale of Vocational Choice in Nursing and the Nursing Image Scale, whose validity and reliability studies were conducted, were used after the researchers received necessary permissions from their creators.

Nursing Student Personal Information Form: The Nursing Student Personal Information Form used in the research was

prepared by the researchers and consists of 17 questions on the students' sociodemographic characteristics and their experiences related to the COVID-19 pandemic.

Scale of Vocational Choice in Nursing: The scale was developed by Zysberg and Berry in 2005 to determine the reasons affecting the vocational choice of nursing students.²¹ Öncel and Saraçoğlu adapted the Scale of Vocational Choice in Nursing to Turkish in 2010 and conducted its validity and reliability analyses.²² The Likert-type scale is scored between 0% to 100% and consists of 17 items and two sub-scales: Factor 1: Congruence (Questions: 1, 2, 3, 4, 5, 7, 9, 14, 15, 16, 17) and Factor 2: Survival/Need (Questions; 6, 8, 10, 11, 12, 13). The overall and sub-scale scores are calculated by dividing the sum of the scores given by the participants to the scale items by the number of items. Since the scale does not have an identification purpose, the score ranges of the participants have no meaning. The reasons affecting the nursing students' vocational choice are compared in the context of independent variables, according to the scores obtained from the scale. The Cronbach's alpha values of the original scale are 0.86 and 0.78 for the factors of Congruence and Survival/Need. In our study, Cronbach's alpha values were found to be 0.93, 0.91, and 0.69 for the overall scale, Congruence factor, and Survival/Need factor, respectively.

Nursing Image Scale: The scale was developed by Özsoy (2000) in a questionnaire form.²³ Çınar and Demir (2009) conducted the validity and reliability study of the scale² and found its Cronbach's alpha reliability coefficient as 0.81. The 3-point Likert-type scale aiming at measuring the nursing image within society consists of 28 items regarding the opinions of individuals about the nursing profession. There are seven items in the "General Appearance" sub-dimension, six items in the "Communication" sub-dimension, and 15 articles in the "Professional and Physical Qualifications" sub-dimension. The lowest score that can be obtained from the scale is 28, and the highest is 84. As for the sub-dimension score ranges, they are 7-21 for the "General Appearance" sub-dimension, 6-18 for the "Communication" sub-dimension, and 15-45 for the "Professional and Physical Qualifications" sub-dimension. The increased total score indicates a positive nursing image.

Procedure

To collect the data, the data forms were created in the Google Forms application, and the link was shared with the students via e-mail. Eighty of 109 first-year students enrolled in the Nursing department completed the forms.

Statistical Analysis

For the statistical assessment, the data were analyzed through descriptive analysis methods using the SPSS 21.0 software package. Continuous variables were calculated in mean +/- standard deviation terms, and categorical variables in frequency and percentage terms. The median and IQR were calculated according to the sociodemographic characteristics of the nursing students. The Kolmogorov-Smirnov test was used to determine whether the scores obtained from the scales were distributed normally. The relationship between repeated measurements was assessed using the Mann-Whitney U and Kruskal Wallis Tests from non-parametric tests. *P* values less than 0.05 were considered statistically significant.

Results

When the data obtained from the study were assessed, it was found that 53 (66.3%) of the students participating in the study were female, 27 (33.8%) were male, and 96.3% were between the ages of 18 and 25. When the maternal education levels of the students were viewed, 11.3% reported that their mothers were illiterate, 45% stated that they were primary school graduates, and only 8.8% reported a bachelor's or above degree. When the paternal education levels were viewed, it was seen that there were no illiterate fathers, and the distributions were close to each other. The fathers of 28.8% of the students were primary school graduates, and the fathers of 21.3% had a bachelor's or above degree. When the family income status of the students were examined, the percentage of those with an income of 2300 Liras and below was 26.3%, between 2301 and 4000 Liras was 35%, and 4001 Liras and above was 38.8%. The percentage of nursing students who graduated from Anatolian High School was 65%, and the percentage of those who did not have a healthcare professional in their family was 78.8%.

Of the students, 67.5% stated that they chose the nursing profession willingly, and 68.8% indicated that nursing ranked first to fifth in their university preference list. When the reasons shown by those who did not choose the nursing profession willingly were viewed, 46.2% of them stated that they wanted engineering departments, but their score did not suffice. The percentage of those who have previously received nursing service was 40%, and the percentage of those who have stayed in a hospital as a patient companion was 41.3%. When the influence of family on choosing the nursing profession was examined, 61.3% of the students stated that their families reacted positively and supported their decision. Of the students, 31.3% stated that they chose the profession as helping people made them feel happy, which was the most common reason for the vocational choice. The percentage of those who stated that the COVID-19 pandemic affected their vocational choice was 32.5%. Of the students, 30.8% indicated that they saw the importance of a nurse in a healthcare team, and 30.8% stated that they realized the need for a healthcare professional.

Table 1. Median scores of the Scale of Vocational Choice in Nursing (SVCN)* and Nursing Image Scale (NIS) (n=80)

	Median	Q1-Q3	Min	Max
SVCN	91.5	(73.5-118)	13.0	154.0
Congruence	63.5	(49-82)	7.0	108.0
Survival/Need	27.5	(19.5-34.5)	4.0	54.0
NIS	73.0	(68-76)	42.0	80.0
General Appearance	15.0	(14-16)	11.0	21.0
Communication	16.0	(14-17)	9.0	18.0
Professional and Physical Qualifications	42.0	(40-43)	16.0	45.0

The Scale of Vocational Choice in Nursing median and Q1-Q3 scores of the first-year nursing students were determined as 91.5 and 73.5-118, the Congruence sub-dimension median and Q1-Q3 scores were determined as 63.5 and 49-82, and Survival/Need sub-dimension median and Q1-Q3 scores were determined as 25.5 and 19.5-34.5. The Cronbach's alpha value of the Nursing Image Scale (NIS) was calculated as 0.83. The NIS median and Q1-Q3 scores were found to be

73.0 and 68-76, the General Appearance sub-dimension median and Q1-Q3 scores 15.0 and 14-16, the Communication sub-dimension median and Q1-Q3 scores 16.0 and 14-17, the Professional and Physical Qualifications sub-dimension median and Q1-Q3 scores 42.0 and 40-43 (Table 1).

When the scores received by the students from the Scale of Vocational Choice in Nursing were examined according to gender, the scores that female students received from the Survival/Need sub-dimension were found to be high at a significant level: 31 (22-36) ($p=0.044$). Considering the family income level, last graduated school, and having a

family member who is a healthcare professional, no significant difference was found in the Scale of Vocational Choice in Nursing ($p>0.05$) (Table 2).

The Scale of Vocational Choice in Nursing (SVCN) and Congruence sub-dimension median values of those who willingly chose the nursing department were significantly high ($p<0.05$). No significant difference was observed in SVCN results according to the rank of the nursing department in the university preference list, the status of previously receiving nursing service, the status of previously staying in the hospital as a patient companion, and the family influence on the vocational choice ($p>0.05$) (Table 3).

Table 2. Comparison of the results of the Scale of Vocational Choice in Nursing (SVCN) according to the descriptive characteristics of the nursing students

	SVCN	Congruence	Survival/Need
Gender			
Female	96 (82-118)	65 (49-81)	31 (22-36)
Male	90 (69-107)	61 (49-85)	25 (19-30)
Z	-1.074	-0.494	-2.016
p	0.283	0.622	0.044
Family income level			
2300 Liras and below	90 (69-108)	59 (50-74)	31 (22-34)
2301-4000 Liras	89 (60.5-105.5)	61.5 (42-79)	27 (10-34)
4001 Liras and above	102 (82-121)	74 (53-85)	29 (20-36)
χ^2	2.852	3.582	0.582
p	0.240	0.167	0.747
Last graduated school			
Health vocational high school	95 (47-117)	74 (41-89)	18 (6-29)
Anatolian high school	90.5 (65.5-116.5)	63 (46-80)	29 (18-36)
Other	93.5 (87-121)	64.5 (59-85)	26.5 (25-33)
χ^2	0.003	0.511	2.932
p	0.959	0.475	0.087
Having a family member who is a healthcare professional			
Yes	74 (52-99)	50 (43-74)	22 (9-29)
No	95 (82-119)	65 (51-84)	30 (22-36)
Z	-1.776	-1.582	-1.736
p	0.076	0.114	0.083

Z: Mann-Whitney U, χ^2 : Kruskal Wallis

When the effect of the COVID-19 pandemic on the students' vocational choice was compared with SVCN and Congruence sub-dimension median scores, a significant difference was found ($p<0.05$). Accordingly, in the dual comparisons carried out, the SVCN and Congruence sub-dimension median scores of those who pointed out the need for healthcare professionals were found to be significantly lower than those who said, "The pandemic increased my desire to help people," or those who stated, "Nursing is a valuable profession." The SVCN median scores did not differ significantly according to the reasons for choosing nursing ($p>0.05$) (Table 4).

When the Nursing Image Scale (NIS) was examined according to the status of having a family member who is a healthcare professional, the Communication sub-dimension median values were found to be significantly high in those with no healthcare professional in their family ($p=0.027$). It was observed that NIS did not show a significant difference according to gender and the last graduated school. The NIS, Communication sub-dimension, and Professional and Physical Qualifications sub-dimensions median values of those who had willingly chosen the nursing department were significantly higher than others ($p<0.05$). No significant difference was observed in NIS according to the rank of the nursing department in the university preference list, the status of previously receiving nursing service, the status of

previously staying in a hospital as a patient companion, and the family influence on the vocational choice (Table 5).

The Professional and Physical Qualifications sub-dimension median scores of those whose vocational choice was affected by the COVID-19 pandemic were found to be significantly low ($p=0.033$). When the NIS was compared with the reason for choosing the nursing profession and the way COVID-19 affected the vocational choice, no significant difference was found ($p>0.05$) (Table 6).

Discussion

The SVCN median and Q1-Q3 scores of the students participating in the study were 91.5 and 73.5-118. When the SVCN scores of the students were compared according to the reasons for choosing the profession, the expression with the highest median and Q1-Q3 scores [115 (69-122)] was "I have always wanted to help people." The most common reasons shown for choosing the nursing profession were the desire to help people, being told by the people around that they could be a good nurse, the thought that they would not be unemployed if they chose nursing, the desire to do a job where they can express themselves, and the fact that it is a suitable profession for them and their family. Similarly, in the study by Türk et al., it was found that the students' desire to help people was high.²⁴ In their study, Andsoy et al. posed the

question "What is nursing?" to the students, and 60% of the students answered, "it is a necessary profession that helps the individual, family, and society."²⁵ In addition, in the study by Kavuran et al., 95% of the students stated that they chose the nursing profession because it was easy for nurses to find a

job,²⁶ this percentage was 53% in the study by Özpancar et al.²⁷, and 46.6% in the study by Bozkır et al.²⁸ In this regard, different studies have also shown that students prefer the nursing profession because of their desire to help people or to find a job easily.

Table 3. Comparison of the scores of the Scale of Vocational Choice in Nursing (SVCN) according to the characteristics of nursing students regarding vocational choice

	SVCN	Congruence	Survival/Need
Choosing the nursing department willingly			
Yes	100 (83-121)	73 (56-88)	27.5 (22-35)
No	86.5 (52-98)	50.5 (43-64)	28 (11-34)
Z	-2.646	-3.606	-0.190
p	0.008	0.000	0.849
The rank of the nursing department in the university preference list			
1-5	92 (75-118)	64 (51-81)	27 (19-34)
6-10	119 (90-127)	83 (63-91)	36 (36-37)
11-15	73 (41-86)	43 (21-56)	26 (22-29)
16-20	90 (21-115)	61 (16-88)	27 (5-29)
21-24	108 (73.5-121.5)	75 (54.5-87.5)	30.5 (19-34)
Other	61.5 (21-102)	44 (12-76)	17.5 (9-26)
χ^2	8.639	8.434	7.888
p	0.124	0.134	0.163
The status of previously receiving nursing services			
Yes	98.5 (86.5-118)	70.5 (50.5-88)	28.5 (14-34.5)
No	89 (71-116)	62.5 (47-79)	27 (21-34.5)
Z	-1.046	-1.272	-0.064
p	0.295	0.203	0.949
The status of previously staying in a hospital as a patient companion			
Yes	94 (74-119)	67 (49-87)	27 (22-32)
No	90 (73-114)	63 (49-79)	30 (19-36)
Z	-0.264	-0.787	-0.959
p	0.792	0.431	0.338
Family influence on the vocational choice			
Reacted positively - Supported	90 (69-118)	63 (49-81)	28 (22-35)
They wanted me to choose the nursing profession and directed me	90 (52-119)	61 (44-85)	27 (11-34)
They did not have any influence	100 (90-100)	70 (63-81)	30 (20-37)
They didn't want me to choose the nursing profession - they did not react positively	99 (87-111)	70.5 (62-79)	28.5 (25-32)
I have a family member who is a healthcare professional	96 (91-102)	74 (67-76)	26 (17-29)
χ^2	1.175	2.023	1.112
p	0.882	0.731	0.892

Z: Mann-Whitney U, χ^2 : Kruskal Wallis

The NIS General Appearance sub-dimension median and Q1-Q3 scores of the students participating in the study were 15.0 and 14-16, the Communication sub-dimension median and Q1-Q3 scores were 16.0 and 14-17, the Professional and Physical Qualifications sub-dimension median and Q1-Q3 scores were 42.0 and 40-43, and the overall NIS median and Q1-Q3 scores were 73.0 and 68-76. The fact that the scores of NIS were high shows that the nursing image was positive. When the highest and lowest overall and sub-dimension scores that can be obtained from the NIS are viewed, it can be

said that the nursing image of the students participating in the study is quite positive. When the literature was reviewed, it was found that society's opinions toward nurses were generally positive.^{9,27, 29, 30} This situation is thought to be associated with the fact the nursing profession has started to be regarded as a respectable profession by society due to the increase in education quality and its reflections in nursing care, thanks to giving nursing education at the undergraduate level and the spread of graduate education.

Table 4. Comparison of the scores of the Scale of Vocational Choice in Nursing (SVCN) according to the characteristics of nursing students regarding vocational choice

	SVCN	Congruence	Survival/Need
The reason for choosing the nursing profession			
Preference for the health field	89 (74-109)	63 (52-77)	25 (19-32)
It was appropriate for my preference list ranking - I had to choose	118 (107-123)	84 (63-88)	39 (37-43)
It is easy to be appointed or to find a job	92 (83-100)	62 (59-67)	30 (27-32)
It was my family's wish	69 (41-90)	50 (19-51)	22 (19-29)
Helping people makes me happy	115 (69-122)	81 (49-90)	26 (12-33)
Because I believe I can do nursing	91 (86-99)	64 (50-74)	35 (17-36)
Academic progress	71 (49.5-104.5)	50 (42.5-71.5)	20 (7-33)
Other	99 (67.5-129)	64 (48.5-88.5)	32 (19-40.5)
χ^2	8.372	9.703	9.038
<i>p</i>	0.301	0.206	0.250
The fact that COVID-19 affected the vocational choice			
Yes	92.5 (73-121)	60.5 (49-87)	30 (22-35)
No	91.5 (75-118)	64.5 (49-81)	27 (19-34)
Z	-0.303	-0.077	-0.463
<i>p</i>	0.762	0.939	0.644
The way COVID-19 affected the vocational choice			
Because of the need for healthcare professionals	78.5 (25.5-90)	54 (19-58.5)	23 (6.5-29.5)
The importance of the nurse within a healthcare team	101.5 (81-124.5)	69.5 (52.5-89)	32 (28.5-35.5)
It increased my desire to help people	121 (99-135)	96 (64-98)	35 (25-37)
It is a valuable profession	122 (109-129)	79 (77-89)	33 (32-50)
Other	73.5 (50.5-92.5)	50 (34-56.5)	23.5 (16.5-36)
χ^2	10.957	10.681	7.554
<i>p</i>	0.027	0.030	0.109

Z: Mann-Whitney U, χ^2 : Kruskal Wallis

When the scores received by the students from the SVCN and its sub-dimensions were examined according to gender, it was found that the scores of female students were higher in the Survival/Need sub-dimension. Similarly to our results, Özyürek et al.³¹ and Özdelikara et al.³² found that the median score of female students was higher than male students, and they found a statistically significant difference in the SVCN scores according to the gender variable. Today, the nursing profession is increasingly preferred by males. The lack of a long history of male nurses, the fact that nursing is considered a female profession in our society, and the fact that male nurses are still not shown in the media as role models have prevented nursing from being a widespread profession for men.³¹⁻³³ The studies by Meadus and Twomey³⁴ and Lou et al.³⁵ have also determined that men do not prefer nursing because it is perceived as a female profession. These results suggest that the first-year nursing students' images regarding the nursing profession had yet to be sufficiently formed and therefore echoed society's views regarding nursing.

The SVCN and Congruence sub-dimension median scores of the students who willingly chose the nursing department were found to be significantly high. Choosing their profession is one of the important turning points for individuals. Making the vocational choice consciously and willingly is very important in terms of causing individuals to perform the profession wholeheartedly, to love their workplace and colleagues, to have quality professional relationships and high professional satisfaction, and to have a positive perception of the environment in which they work.³⁶ The Congruence sub-dimension ($p=0.030$) and overall scale ($p=0.027$) scores were found to be high in the students who stated that they believed that they could do nursing and that they chose nursing as helping people makes them feel happy. Likewise, a previous study determined that the self-realization scores of the nurses who loved their profession were higher than others, and another study revealed that the

professionalism levels of nurses who loved their profession were better than others.^{37,38}

When the effect of the COVID-19 pandemic on the students' vocational choices was compared with the students' overall SVCN and Congruence sub-dimension scores, a significant difference was found ($p<0.05$). It is thought that the desire to choose the nursing profession has increased due to factors such as the increased need for healthcare professionals who work at the forefront, the understanding of the importance of the nursing profession, and the positive development in its social image. It was determined that the nursing students obtained the highest scores in the Congruence sub-dimension among the sub-dimensions of the scale. This result suggests that as the positive, negative, and difficult aspects of the profession were seen more clearly during the challenging COVID-19 pandemic conditions, the students had a better grasp of the roles and responsibilities of the nursing profession, and their nursing image perception was affected positively. A study investigating the reasons for the students choosing the nursing profession determined that 37.1% of them preferred nursing due to the possibility of finding a job easily.³⁹ Another study found that 45% of the students preferred nursing to acquire a profession.⁴⁰ Furthermore, according to the research conducted by Law and Arthur, 67.9% of the students considered the nursing profession a good source of income.⁴¹

When the NIS was examined according to the status of having a family member who is a healthcare professional, surprisingly, the Communication sub-dimension median scores were found to be significantly high in those with no healthcare professional in their family. This situation can be said to arise from the fact that the students who had a nurse in their family or circle knew the profession well and that their health professional relatives shared several negative experiences they had in the past regarding the qualities of the nursing profession. When the results of our study are viewed, they show that the students chose the nursing profession of

their own free will, without being under the influence of their family or circle. In our research, 21.3% of the students had a healthcare professional in their family or circle (Table 2). According to the study by Çelik et al., 36% of the students who had a nurse relative preferred the nursing profession.³⁰ In the study by Eskimez et al., the students with a nurse relative had a higher rate of preferring the nursing

profession⁴². Moreover, in the study by Bulut et al., the majority of the students (67.3%) stated that they chose the nursing profession because of the presence of a nurse in their family or circle.³⁹ These findings suggest that having a healthcare professional acquaintance enables the students to get to know the nursing profession more closely and therefore is an effective factor in their vocational choice.

Table 5. Comparison of the Nursing Image Scale (NIS) Scores of the nursing students according to their descriptive and vocational choice-related characteristics

	NIS	General Appearance	Communication	Professional and Physical Qualifications
Having a family member who is a healthcare professional				
Yes	68 (66-74)	15 (13-16)	15 (13-17)	41 (40-42)
No	73 (68-76)	15 (14-16)	17 (14-18)	42 (40-43)
Z	-1.320	-0.519	-2.206	-0.937
p	0.187	0.604	0.027	0.349
Choosing the nursing department willingly				
Yes	73.5 (70-77)	15 (14-16)	17 (15-18)	42 (41-44)
No	68 (65-74)	14.5 (13-17)	15 (13-17)	40 (39-42)
Z	-2.764	-0.094	-2.631	-3.277
p	0.006	0.925	0.009	0.001
The status of previously staying in a hospital as a patient companion				
Yes	73 (66-76)	15 (14-16)	16 (13-17)	42 (40-44)
No	73 (68-76)	15 (13-16)	17 (15-17)	41 (40-43)
Z	-0.196	-0.263	-1.028	-0.606
p	0.845	0.793	0.304	0.545
Family influence on the vocational choice				
Reacted positively - Supported	74 (68-76)	15 (14-16)	17 (14-17)	42 (40-43)
They wanted me to choose the nursing profession and directed me	69 (65-74)	14 (13-16)	16 (15-18)	40 (39-42)
They did not have any influence	76 (70-77)	15 (14-15)	17 (17-17)	43 (43-44)
They didn't want me to choose the nursing profession - they did not react positively	73 (70-76)	15 (15-15)	15 (12-18)	43 (43-43)
I have a family member who is a healthcare professional	66 (66-72)	15 (11-15)	13 (9-16)	42 (41-42)
χ^2	5.917	3.288	3.951	6.343
p	0.205	0.511	0.413	0.175

Z: Mann-Whitney U, χ^2 : Kruskal Wallis

The NIS, Communication sub-dimension, and Professional and Physical Qualifications sub-dimensions median scores of those who had willingly chosen the nursing department were found to be significantly high. It was determined that the expressions "The nursing education must be given at the university level," "The health education of individual and society is important in nursing services," and "Nursing care is vital in the healing of patients" in the Professional and Physical Qualifications sub-dimension, and the expressions "Nurses offer solutions for the issues of patients" and "Nurses are guiding counsels" in the Communication sub-dimension were approved by most of the students. The literature also reports that giving nursing education at the undergraduate level improves students' perception regarding the professional image of nursing.⁴³ In order for the nursing profession to have a positive image, there is a need for individuals who love and embrace their profession, are qualified in their professional skills and practices, are aware of their professional consciousness, and fulfill their professional roles, duties, and responsibilities. These characteristics also include having scientific knowledge and

skills, being a guide to patients, being patient, and always being open to communication.

In terms of the effect of the COVID-19 pandemic on the vocational choices of the students, the median scores of the NIS Professional and Physical Qualifications sub-dimension were found to be significant compared to the NIS. The fact that the nursing profession is much in the news due to the COVID-19 pandemic and the importance of the profession is often mentioned and emphasized in the combat against the pandemic is thought to affect the vocational choices of nursing students.⁴⁴ In their study, Nielsen and Dieperink reported that during the COVID-19 pandemic, nurses were willing to provide care for patients at risk of death and were highly motivated to acquire new skills and save people's lives.⁴⁵ The increased importance attached to the nursing profession during the pandemic seems to have arisen from the fact that it has been understood how valuable the nursing profession is in terms of saving human lives, nurses are indispensable members of the healthcare team, and nursing has been introduced to a broader audience via media organs and social media.

Table 6. Comparison of the Nursing Image Scale (NIS) scores of the nursing students according to their characteristics related to vocational choice

	NIS	General Appearance	Communication	Professional and Physical Qualifications
The reason for choosing the nursing profession				
Preference for the health field	74 (72-76)	15 (14-16)	16 (15-17)	43 (41-44)
It was appropriate for my preference list ranking - I had to choose	76 (65-76)	16 (12-16)	18 (14-18)	41 (39-42)
It is easy to be appointed or to find a job	71 (69-75)	15 (14-15)	16 (13-17)	42 (40-43)
It was my family's wish	66 (61-70)	16 (14-17)	13 (12-17)	37 (35-39)
Helping people makes me happy	73 (68-77)	14 (14-16)	16 (15-18)	42 (39-43)
Because I believe I can do nursing	72 (68-79)	15 (15-16)	16 (13-18)	41 (40-45)
Academic progress	70.5 (68.5-72)	14 (12-15)	15.5 (13-17.5)	41 (40-43)
Other	73 (68-78)	15.5 (13-19.5)	16.5 (15-17)	40.5 (40-41.5)
χ^2	4.253	3.916	2.63	9.651
<i>p</i>	0.750	0.789	0.917	0.209
The fact that COVID-19 affected the vocational choice				
Yes	70 (65-75)	15 (13-16)	16.5 (13-17)	40 (39-43)
No	73 (68-76)	15 (14-16)	16 (14-18)	42 (40-43)
<i>Z</i>	-1.312	-0.036	-1.107	-2.133
<i>p</i>	0.189	0.971	0.268	0.033
The way COVID-19 affected the vocational choice				
Because of the need for healthcare professionals	67 (61-78.5)	14.5 (13-16.5)	14.5 (12-17.5)	40.5 (35-43.5)
The importance of the nurse within a healthcare team	70 (68.5-73.5)	13 (12.5-16)	16.5 (15.5-17)	41.5 (40-43)
It has increased my desire to help people	74 (68-79)	15 (15-21)	17 (13-17)	41 (40-42)
It is a valuable profession	75 (72-77)	16 (15-18)	17 (17-18)	41 (40-42)
Other	63 (60.5-66)	14 (13.5-15.5)	12.5 (11.5-13.5)	36.5 (33.5-39)
χ^2	7.386	4.410	7.020	5.028
<i>p</i>	0.117	0.353	0.135	0.284

Z: Mann-Whitney U, χ^2 : Kruskal Wallis

Conclusion

As a result, the fact that the nursing profession has been shared and become visible in all written, visual and social media during the COVID-19 pandemic has led to an increase in the profession's reputation and a positive change in its image. On the other hand, although it did not seem to affect the vocational choices of the students too much, it was concluded that the COVID-19 pandemic was reflected in the students' vocational choices by increasing their sense of helping others and creating positive feelings in them about the profession. It is thought that making the vocational choice consciously, willingly, and as aware of professional facts will also have positive outcomes in presenting nursing professionally and getting professional satisfaction.

Limitations

The research data are limited to the university where the study is conducted due to the pandemic conditions.

Recommendations

1. Written and visual media should be used more to promote the nursing profession, and public service advertisements should be prepared on the national level in this regard.
2. Opportunities should be provided for nurses to participate in joint scientific studies in the health field, and the ministry should offer support packages.
3. In order to better promote the nursing profession to society, non-governmental organizations, associations, and unions should develop projects.
4. Interprofessional training programs mentioning the importance of nursing should be added to the trainings of all health professionals and other professional groups.

5. Nurses should carry out joint scientific studies in the field of health and support packages should be presented by the ministry.
6. Non-governmental organizations, associations and unions should develop projects in order to better introduce the nursing profession to the society.
7. Interprofessional education programs that emphasize the importance of the nursing profession should be added to the curriculum among the education of all health professionals and other occupational groups.

Conflict of Interest

The authors have no conflict of interest.

Compliance with Ethical Statement

The research protocol was approved by Kocaeli University Non-Interventional Clinical Research Ethics Committee KOÜ GOKAEK 2020/303 Project number on 26.10.2020.

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