

The Impact of COVID-19 Pandemic on Nursing Image in Society: A Cross-Sectional Study

COVID-19 Pandemisinin Toplumdaki Hemşirelik İmajına Etkisi: Kesitsel Bir Çalışma

¹ Ceyda Su GÜNDÜZ^a, ² Gamze BİLGİÇ^a, ³ Ayşenur DURMUŞ^a, ⁴ Abdulazim KILIÇ^a,
⁵ Hilal KARADENİZ^a, ⁶ Özlem CAN GÜRKAN^b

^aDepartment of Obstetrics and Gynecology Nursing, Marmara University Institute of Health Sciences, İstanbul, Türkiye

^bDepartment of Obstetrics and Gynecology Nursing, Marmara University Faculty of Health Science, İstanbul, Türkiye

ABSTRACT Objective: This study aims to evaluate the impact of the coronavirus disease-2019 (COVID-19) pandemic on the nursing image in society. **Material and Methods:** The study is a descriptive cross-sectional type research. The study data were obtained via social media between July 2020 and September 2020. The research inclusion criteria include individuals over the age of 18, voluntary participation in the study, and being literate. The research exclusion criteria include being a nurse/nursing student and incomplete data collection forms. The study data were obtained through an online survey using the "Introductory Information Form" and the "Nursing Image Scale". Data from a total of 903 people were analyzed. **Results:** Of the participants, 57.6% was found to have a positive change in their beliefs about the nursing profession during the pandemic. During the pandemic, it was found that the Nursing Image Scale scores of participants who started to think positively about the nursing profession were statistically significantly higher ($p<0.001$). During the pandemic, it was found that the Nursing Image Scale scores of the participants whose thoughts towards the nursing profession were positively affected by the circumstances and events related to the nursing profession were statistically higher compared to those who were not affected ($p<0.001$). **Conclusion:** The increased visibility of nurses during the COVID-19 pandemic had a positive impact on the nursing image of society.

ÖZET Amaç: Bu çalışma, koronavirüs hastalığı-2019 [coronavirus disease-2019 (COVID-19)] pandemisinin toplumdaki hemşirelik imajı üzerindeki etkisini değerlendirmeyi amaçlamaktadır. **Gereç ve Yöntemler:** Araştırma, tanımlayıcı kesitsel tipte bir araştırmadır. Araştırma verileri Temmuz 2020-Eylül 2020 tarihleri arasında sosyal medya üzerinden elde edilmiştir. Araştırmaya dâhil edilme kriterleri 18 yaşını doldurmuş, araştırmaya gönüllü olarak katılan ve okuryazar olmayı içermektedir. Araştırmadan dışlanma kriterleri hemşire/hemşirelik öğrencisi olma ve eksik veri toplama formlarını içermektedir. Çalışma verileri "Tanıtım Formu" ve "Hemşirelik İmaj Ölçeği" kullanılarak çevrim içi bir anket yoluyla elde edildi. Toplam 903 kişinin verileri analiz edildi. **Bulgular:** Katılımcıların %57,6'sının pandemi sürecinde hemşirelik mesleğine yönelik inançlarında olumlu bir değişim olduğu tespit edildi. Pandemi süresince hemşirelik mesleği hakkında olumlu düşünmeye başlayan katılımcıların Hemşirelik İmajı Ölçeği puanlarının istatistiksel olarak anlamlı derecede yüksek olduğu bulundu ($p<0,001$). Pandemi sırasında hemşirelik mesleğine yönelik düşünceleri hemşirelik mesleği ile ilgili durum ve olaylardan olumlu etkilenen katılımcıların Hemşirelik İmajı Ölçeği puanlarının etkilenmeyenlere göre istatistiksel olarak daha yüksek olduğu bulundu ($p<0,001$). **Sonuç:** COVID-19 pandemisi sırasında hemşirelerin görünürliğünün artması, toplumun hemşirelik imajını olumlu yönde etkiledi.

Keywords: COVID-19; nursing; nursing research; public image

Anahtar Kelimeler: COVID-19; hemşirelik; hemşirelik araştırması; toplumsal imaj

Coronavirus disease-2019 (COVID-19), which can lead to severe acute respiratory syndrome, is an infectious disease caused by the coronavirus (severe acute respiratory syndrome-coronavirus-2).¹ Among the professional groups most affected by the pandemic is undoubtedly the nursing profession. Nurses

around the world are at the forefront of this unique and extraordinary public health emergency. In many countries, nurses work in hospital services, intensive care and various units, despite lack of supplies, insufficient rest, and the challenges posed by COVID-19.^{2,3} In this health crisis environment, nurses provide

Correspondence: Ceyda Su GÜNDÜZ

Department of Obstetrics and Gynecology Nursing, Marmara University Institute of Health Sciences, İstanbul, Türkiye

E-mail: ceyda_su_gndz@hotmail.com



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the care needed at all stages of the disease's course, and encourage, inform and support people who want to stay healthy, scared and anxious.³ During the COVID-19 epidemic, which has become a major public health problem, the true value of nursing has become visible to politicians and the public, and nurses have been appreciated for their vital work.²

The nursing image is formed by a combination of views and attitudes of individuals in society towards the nursing profession.⁴ The image of nursing is an important factor in terms of increasing the prestige of nursing in society, ensuring that the nursing profession is preferred by students with a high level of success, improving the quality of nursing services, establishing trust-based relationships with patients and ensuring employee satisfaction.^{5,6} Community feedback towards the nursing profession and recognition of the nursing profession encourage individuals to choose this career and pursue this profession.⁷

In the fight against the pandemic crisis, the visibility of nurses, who are at the forefront at the expense of their own lives and their relatives, has increased. The impact of this visibility on the perceived image of the nursing profession is unknown in the society. Determining how the image of nursing, which is important for nurses' job satisfaction, changes during the pandemic and the effective factors may be important for making the necessary regulations on this issue. No studies were found in the literature to assess the impact of the COVID-19 pandemic on the nursing image in society. Sharing the findings of the study with the international reader may be important in terms of providing information on strategies that can be used to increase the perceived public image of the nursing profession.

The study was conducted to evaluate the impact of the COVID-19 pandemic on the perceived nursing image and the effective factors in this regard.

MATERIAL AND METHODS

The research was conducted in accordance with the principles of the Declaration of Helsinki. This study is conducted under ethical and professional standards. In order to conduct the study, written permission was obtained from the Ethics Committee Faculty of Health

Sciences of Marmara University (date: June 25, 2020, no: 49). Permission to use the Nursing Image Scale (NIS) was obtained from Şebnem Çınar Yücel via e-mail. Permission was obtained from Elif Uzunoğlu, the owner of the "https://instagram.com/eselmodagiyim" Instagram (Meta Platforms, Inc., USA) account, for the research. Participants were asked to read and approve the informed consent form.

RESEARCH DESIGN

The study is a descriptive cross-sectional type research. The study was obtained via social media between July 2020 and September 2020 in Türkiye.

PARTICIPANTS

The study population consisted of 10,000 participants who followed "https://instagram.com/eselmodagiyim" Instagram account. In our study, convenience sampling method was used. The sample size was calculated to be 313 using a sample calculation formula in universe-known situations (a type of error 0.05, the prevalence of change in individuals' perceptions of the nursing profession 30%). To increase reliability, more participants were needed. The research inclusion criteria include individuals over the age of 18, voluntary participation in the study, and being literate. The research exclusion criteria include being a nurse/nursing student and incomplete data collection forms. Data from a total of 903 people were analyzed.

DATA COLLECTION

The study data were obtained using the "The Questionnaire" and the "NIS". After being transferred to Google Drive (Alphabet Inc., USA), they were shared by the researchers on their personal Instagram account.

INTRODUCTORY INFORMATION FORM

The Introductory Information Form developed by the researchers in accordance with the literature; It consists of a total of 19 questions, eight questions including sociodemographic characteristics such as age, gender, educational status, marital status, and 11 questions including receiving nursing services during the COVID-19 process, satisfaction with the service, receiving inpatient treatment, and experiences and thoughts about nurses in this process.

NIS

There are 28 items on the scale developed by Çınar and Demir in order to evaluate the nursing image in society. The scale includes 7 items regarding the “Overall View” sub-dimension, 6 items regarding the “Communication” sub-dimension and 15 items regarding the “Vocational and Educational Qualifications” sub-dimension. The expressions used to determine the nursing image of people in society were scored as follows: “I agree” (3 points), “Partly agree” (2 points), “I disagree” (1 point). In the data coding and evaluation of the reverse structure items in this scale, the reverse method is followed and they are scored as “Agree” (1 point), “Partly Agree” (2 points), “Disagree” (3 points). The lowest score that can be obtained from this three-point Likert type scale is 28 and the highest score is 84. The increase in the score taken from the scale indicates a positive image towards the nursing profession. Cronbach’s alpha coefficient of the original scale is 0.81.⁸ Cronbach’s alpha coefficient of the scale was found to be 0.84 in the study.

DATA ANALYSIS

The data obtained from the research were transferred to the computer environment and analyzed using the SPSS 25 program (IBM Corp., Armonk, NY, USA). Descriptive data were evaluated with frequency, mean and standard deviation. The reliability of the scales was evaluated with Cronbach’s alpha test. The Kolmogorov-Smirnov test was used to evaluate whether the data obtained from age, NIS and sub-dimensions of the scale were suitable for normal distribution. Since the data did not comply with normal distribution, Mann-Whitney U test was used in the analysis of the data for comparisons between two groups; Kruskal-Wallis-H test for comparisons between more than two groups; Spearman’s Rho Correlation test was used for the relationship between two scores. When evaluating the data, the confidence interval was accepted as 95% and statistical significance was $p < 0.05$.

RESULTS

The average age of participants in the study, which included 903 people, was 30.2 ± 8.7 years.

Looking at the characteristics of the participants and changes in thoughts about the nursing profession

during the pandemic period, no statistically significant difference was found in the change in their thoughts about the nursing profession in terms of gender, marital status, educational status, employment status, income status, status of receiving/not receiving nursing care during the pandemic ($p > 0.05$) (Table 1).

The average score taken in the NIS was 67.3 ± 9.09 , the overall view subscale score was 15.9 ± 2.11 , the communication subscale score was 13.9 ± 3.13 , and the vocational and educational qualifications subscale score was 37.4 ± 4.94 . It was found that participants had a positive opinion about the general image, communication, professional and educational qualities of the nursing profession. The lowest score that can be obtained from this scale is 28 and the highest score is 84. An increase in the total score indicates that the nursing image is positive.

In our study, it was found that there was a positive relationship between age and overall view, vocational and educational qualifications sub-scale and NIS total scores, but this relationship was not statistically significant ($p > 0.05$) ($r_s = 0.38$, $r_s = 0.036$, $r_s = 0.030$, respectively). It was found that there was a negative relationship between age and the communication subscale of the scale, but this relationship was not statistically significant ($p > 0.05$) ($r_s = -0.006$).

It was found that the NIS score and all subscale score averages of the participants who started to think positively about the nursing profession during the COVID-19 pandemic were higher than those who think negatively or those who had no change in their thoughts, and a statistically significant difference was found between the scores ($p < 0.001$) (Table 2).

In the comparison of NIS scores of the participants according to their status of change in thoughts about the nursing profession in relation with the circumstances and events regarding the nursing profession during the pandemic, a statistically significant difference was found between the scores and the nursing image scores of those negatively affected or unaffected by the working of nurses risking their lives during the COVID-19 pandemic than those affected positively ($\chi^2 = 37.7$, $p < 0.001$). The total NIS score of those affected positively by other circumstances and events were found to be higher than those unaffected

TABLE 1: The distribution of changes in opinions of participants about the nursing profession during the COVID-19 pandemic according to characteristics of the participants (n=903).

Characteristics	No change		Started to think positively		Started to think negatively		χ^2^a	p value		
	$\bar{X}\pm SD$ /Median	n	$\bar{X}\pm SD$ /Median	n	$\bar{X}\pm SD$ /Median	n				
Age (years)	29.8±8.1	39	30.5±9.1	29	28.8±11.3	24.5	1.6	0.42		
							Total			
		n %	n %	n %	n %	n %	χ^2^b	p value		
Gender										
• Female	227	61.5	301	57.9	9	64.3	537	59.5	1.31	0.51*
• Male	142	38.5	219	42.1	5	35.7	366	40.5		
Marital status										
• Married	159	43.1	245	47.1	3	21.4	407	45.1	4.62	0.09*
• Single	210	56.9	275	52.9	11	78.6	496	54.9		
Educational status										
• Primary education	12	3.3	29	5.6	2	14.3	43	4.8	6.68	0.35*
• High school	38	10.3	61	11.7	2	14.3	101	11.2		
• Bachelor's degree	261	70.7	352	67.7	9	64.3	622	68.9		
• Master's degree	58	15.7	78	15	1	1	137	15.2		
Received nursing care during the pandemic										
• Yes	44	11.9	69	13.3	3	21.4	116	12.8	1.28	0.52*
• No	325	88.1	451	86.7	11	78.6	787	87.2		
Total	369	100	520	100	14	100	903	100		

*p>0.05; SD: Standard deviation; χ^2^a : Kruskal-Wallis H Test; χ^2^b : Chi-square test.

TABLE 2: The comparison of the Nursing Image Scale score averages of participants according to changes in their opinions about the nursing profession during the COVID-19 pandemic.

Characteristics	No change (n=369)		Started to think positively (n=520)		Started to think negatively (n=14)		χ^2	p value
	$\bar{X}\pm SD$	Median	$\bar{X}\pm SD$	Median	$\bar{X}\pm SD$	Median		
Overview Sub-Scale	15.4±2.1	15	16.2±2.03	16	15.6±2.6	16	25.5	0.00*
Communication Sub-Scale	12.9±3.1	12	14.7±2.8	15	13.3±4.5	16	65.6	0.00*
Vocational and Educational Qualifications Sub-Scale	35.9±5.3	36	38.5±4.2	39	34.5±7.5	36	61.1	0.00*
Nursing Image Scale	64.3±8.4	65	69.5±6.9	70	63.5±12.9	65.5	32.5	0.00*

*p<0.00; SD: Standard deviation; The data were analyzed using the Kruskal-Wallis H Test.

or negatively affected, and the difference between the scores was statistically significant (p<0.001) (Table 3).

DISCUSSION

In light of our knowledge, this study is the first to investigate how the image of the nursing profession in society is affected during the COVID-19 pandemic. COVID-19 has been referred to by the metaphor of “war” since the beginning of the pandemic. Across the globe, nurses are the health care professionals who are struggling at the forefront of this battle. Dur-

ing this period, nurses became visible in the media due to their difficult working conditions, the problems they experienced, and the fact that they were an indispensable link in the health chain.⁹ It is believed that the findings obtained from the study on the increase in the visibility of nurses, with a positive effect on the nursing during the pandemic will contribute to the current literature.

In our study, the total mean score of NIS in society during the COVID-19 pandemic period was found to be 67.3±9.09. In other studies conducted before the pandemic in Türkiye, Sis Çelik et al. found

TABLE 3: Comparison of the average score taken in the Nursing Image Scale according to the changes of participants' opinions on the nursing profession (n=903).

Nursing Image Scale scores							
Events experienced during the pandemic	Influence status	n	%	$\bar{X}\pm SD$	Median	χ^2	p value
Public applause of health care professionals in Türkiye at the beginning of the pandemic	Not affected	128	14.2	63.1±8.3	64	48.7	0.00*
	Affected positively	754	83.5	68.2±7.6	69		
	Affected negatively	21	2.3	61.1±10.9	60		
Health Minister's Statements in the press about nurses	Not affected	210	23.3	65.1±8.3	66	19.7	0.00*
	Affected positively	650	72	68±7.6	69		
	Affected negatively	43	4	67.6±11.4	69		
Announcement that 11,000 nurses will be hired	Not affected	227	25.1	65.3±7.8	66	19.5	0.00*
	Affected positively	637	70.5	68.1±7.8	69		
	Affected negatively	39	4.3	65.9±11.3	65		
Nurses continue to work in the COVID-19, despite they are risking their lives	Not affected	68	7.5	61.1±8.9	60.5	37.7	0.00*
	Affected positively	734	81.3	67.7±7.8	68.5		
	Affected negatively	101	11.2	68.3±7.3	68		
Informations about COVID-19 were shared by nurses in social media	Not affected	152	16.8	63.5±8.1	64	53.1	0.00*
	Affected positively	728	80.6	68.3±7.7	69		
	Affected negatively	23	2.5	61.3±9.6	62		
News about nurses' working conditions	Not affected	173	19.2	64.4±8.1	65	39.1	0.00*
	Affected positively	674	74.6	68.3±7.5	69		
	Affected negatively	56	6.2	63.5±10.4	65		
News about of nurses through discussion programs, news programs, etc.	Not affected	222	24.6	64.08±7.6	65	87.3	0.00*
	Affected positively	636	70.4	68.9±7.4	70		
	Affected negatively	45	5	60.4±10.2	62		
News about nurses in the World Press through social media	Not affected	175	19.4	63.1±7.8	63	74.4	0.00*
	Affected positively	691	76.5	68.6±7.6	70		
	Affected negatively	37	4	63.4±8.7	64		

*p<0.001; SD: Standard deviation; The data were analyzed using the Kruskal-Wallis H Test.

NIS total score average of the society as 48.57±8.51, and Özdelikara et al. found the total NIS score average of college students outside the field of health as 60.97±7.38. In our study, much higher average total score of NIS, compared to previous studies, supports that the COVID-19 pandemic may have had a positive impact on society's nursing image.^{10,11}

In a systematic review of the social image of the nursing profession, it has been reported that the nursing profession is perceived as a profession that has an important place in public health, with long working hours and low wages. In the same study, it was reported that nurses are perceived as auxiliary health workers who performed the medical treatment requested by physicians.¹² In a study conducted, the opinions of Polish medical students suggest that nursing therapeutic activities trump independent nursing practice activities.¹³ Yet, in another study, it was re-

ported that most participants stated the duties of nurses as “performing treatment” and “performing the doctor's orders without questioning”.¹⁴ In our study, unlike the other studies, it was found that most participants think that nursing is a respected, scientific profession that requires education. Unlike other studies, this finding we identified may be associated with frequent press coverage of the role of nurses during the pandemic.

In our study, there was no significant difference between the status of receiving nursing care during the pandemic and the status of changes in their thinking about the nursing profession. Participants receiving nursing care are likely to have a change in their beliefs about nurses. The reason for developing positive thoughts about the nursing profession, despite not receiving nursing care during the pandemic, may be due to the increased visibility of nurses, nursing

care received by relatives due to COVID-19, or may be their presence in hospital as a patient relative.

The nursing image is influenced by various factors, such as the economy, policy, and cultural changes of countries.¹⁵ Due to the increasing need for intensive care caused by the COVID-19 pandemic in recent days, the importance of the concept of “care” has come to the forefront, bringing the “nursing profession” to the agenda.³ The fact that most participants started to think positively about the nursing profession during the pandemic, and that the total and subscale scores of participants who started to think positively were significantly higher may indicate that the pandemic positively affected the social image of nursing.

Health care professionals perform their duties by risking their lives in difficult working conditions during the pandemic.^{2,3,16} For this reason, at the call of the Minister of Health in Türkiye, a large part of the society went out on balconies at the same time in the evening for 3 days and applauded the health workers for support, appreciation and thanks.¹⁶ In Italy, nurses constantly gave interviews to the press, stressing that they fought at the forefront and that this was the case before the pandemic. A 4,000-bed hospital in the UK has been called “Nightingale” and the value of nursing has been glorified. Every day in the United States, while applauding nurses, people also demanded administrators to pay nurses a risk bonus.¹⁷ In Türkiye, the Ministry of Health announced that 11,000 Nurses will be hired.¹⁸ For the whole world, there is a great, and indispensable need for nurses in the COVID-19 pandemic.^{2,3} In our study, we examined how such media coverage of the nursing profession along with the pandemic and these practices aimed at motivating nurses will affect the public image of the nursing profession.

As is known, it is necessary to increase the visibility of nurses to improve the social image of the nursing profession.¹⁹ The promotion of the profession through mass media has the biggest impact on the nursing image. The news that individuals see, hear, and read in the media affects their perceived nursing image.²⁰ As a result of the study, nursing perception of the society was found to be positively affected by the COVID-19 related shares made by nurses through

social media, the world news on the social media about nurses, the nurses’ working conditions seen in the press, the briefings by minister of health about nursing, and the press coverage of nurses in the news and social media. Similar to our findings, it has also been shown in the literature that the media positively affects the image of nursing.^{19,21,22} This indicates that the prestige of the nursing profession has increased in the society due to increased visibility of nurses in the social media, their presence in the agenda, their appreciated and admirable working in an important position and difficult conditions, and decrease in employment in nursing, despite the increased unemployment in many other professions. Many participants in our study spontaneously expressed their gratitude and respect for nurses for giving care in a self-sacrificing and qualified way.

LIMITATIONS OF THE STUDY

The results from this study are limited to the participants that the researchers reached through social media. It may be recommended to conduct comprehensive studies involving people living in different regions, with different age groups and different educational levels.

CONCLUSION

As a result of the study, it was found that participants had a positive opinion about the general image, communication, professional and educational qualities of the nursing profession. During the pandemic period, many of the participants’ thoughts about the nursing profession changed positively. During the COVID-19 pandemic, participants who had a positive change in their thinking about the nursing profession had a more positive view of the social nursing image compared to the participants who did not have a positive change in their thinking about the nursing profession. During the pandemic, participants whose thoughts about the nursing profession were positively affected by the situations and events related to the nursing profession in Türkiye and around the world have a more positive view of the nursing image.

In line with these findings, it is recommended to keep the nursing profession on the agenda for the im-

proved social image of nursing, to include shares related to the nursing profession on social media frequently, and to explain the nursing profession effectively in professional promotions. In addition, nurse managers can use the positive impact of the COVID-19 pandemic on the nursing image in society as an opportunity. Since nurses are on the agenda now more than ever, nurse managers should also demand and offer proposals to improve adverse working conditions for nurses and for regulations on their legal rights as needed.

The increased visibility of nurses during the COVID-19 pandemic had a positive impact on the nursing image of society. Having the real value of nurses visible during the pandemic process can be turned into an opportunity. Initiatives can be taken to improve the adverse working conditions of nurses and to regulate their legal rights as required.

Source of Finance

During this study, no financial or spiritual support was received neither from any pharmaceutical company that has a direct connection with the research subject, nor from a company that pro-

vides or produces medical instruments and materials which may negatively affect the evaluation process of this study.

Conflict of Interest

No conflicts of interest between the authors and / or family members of the scientific and medical committee members or members of the potential conflicts of interest, counseling, expertise, working conditions, share holding and similar situations in any firm.

Authorship Contributions

Idea/Concept: Ceyda Su Gündüz, Gamze Bilgiç, Ayşenur Durmuş, Abdülazim Kılıç, Hilal Karadeniz, Özlem Can Gürkan; **Design:** Ceyda Su Gündüz, Gamze Bilgiç, Ayşenur Durmuş, Abdülazim Kılıç, Hilal Karadeniz, Özlem Can Gürkan; **Control/Supervision:** Ceyda Su Gündüz, Gamze Bilgiç; **Data Collection and/or Processing:** Ceyda Su Gündüz, Gamze Bilgiç, Ayşenur Durmuş, Abdülazim Kılıç, Hilal Karadeniz, Özlem Can Gürkan; **Analysis and/or Interpretation:** Ceyda Su Gündüz, Gamze Bilgiç, Ayşenur Durmuş, Abdülazim Kılıç, Hilal Karadeniz, Özlem Can Gürkan; **Literature Review:** Ceyda Su Gündüz, Gamze Bilgiç, Ayşenur Durmuş; **Writing the Article:** Ceyda Su Gündüz, Gamze Bilgiç, Ayşenur Durmuş, Abdülazim Kılıç, Hilal Karadeniz; **Critical Review:** Ceyda Su Gündüz, Gamze Bilgiç, Ayşenur Durmuş, Abdülazim Kılıç, Hilal Karadeniz, Özlem Can Gürkan.

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