DOI: 10.2478/pielxxiw-2024-0019
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Nurses' views and experiences during the COVID-19 pandemic

Poglądy i doświadczenia pielęgniarek w czasie pandemii COVID-19

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A – Development of the concept and methodology of the study/Opracowanie koncepcji i metodologii badań; B – Query - a review and analysis of the literature/Kwerenda – przegląd i analiza literatury przedmiotu; C – Submission of the application to the appropriate Bioethics Committee/Złożenie wniosku do właściwej Komisji Biotycznej; D – Collection of research material/Gromadzenie materiału badawczego; E – Analysis of the research material/Analiza materiału badawczego; F – Preparation of draft version of manuscript/Przygotowanie roboczej wersji artykułu; G – Critical analysis of manuscript draft version/Analiza krytyczna roboczej wersji artykułu; H – Statistical analysis of the research material/Analiza statystyczna materiału badawczego; I – Interpretation of the performed statistical analysis/Interpretacja dokonanej analizy statystycznej; K – Technical preparation of manuscript in accordance with the journal regulations/Opracowanie techniczne artykułu zgodne z regulaminem czasopisma; L – Supervision of the research and preparation of the manuscript/Nadzór nad przebiegiem badań i przygotowaniem artykułu

STRESZCZENIE

POGLĄDY I DOŚWIADCZENIA PIELĘGNIAREK W CZASIE PANDEMII COVID-19

Cel pracy. Podstawowym celem było zebranie opinii i doświadczeń pielęgniarek nabytych podczas pandemii COVID-19, zidentyfikowanie znaczących problemów, które należy rozwiązać przed kolejną pandemią oraz określenie prestiżu zawodu pielęgniarki przed i w trakcie pandemii COVID-19.

Materiał i metody. Badanie miało charakter opisowy i przekrojowy. Reprezentatywną próbę dobrano z wykorzystaniem socjologicznych metod badawczych i przy użyciu niestandaryzowanego kwestionariusza. Próba badawcza pielęgniarek została skonstruowana przy użyciu kwotowego doboru próby; jej struktura odpowiadała składowi całej populacji pielęgniarek pod względem wieku, płci i regionu. Próba badawcza składała się z 1197 pielęgniarek.

Wyniki. Najistotniejsze zmiany zgłaszane przez pielęgniarki w tym okresie obejmują zwiększone obciążenie pracą fizyczną (89,6%) oraz zmiany w życiu społecznym (88,4%) i osobistym (76,7%). Według respondentów prestiż ich zawodu wzrósł podczas pandemii w porównaniu z okresem przed pandemią COVID-19. Na podstawie dwustronnego testu t ustalono, że prestiż zawodu pielęgniarki wzrósł istotnie statystycznie podczas pandemii COVID-19 w porównaniu z okresem sprzed pandemii.

Wnioski. Podczas pandemii COVID-19 pielęgniarki doświadczyły zwiększonego stresu fizycznego oraz zmian w życiu społecznym i osobistym. Jednak prestiż zawodu pielęgniarki wzrósł ze względu na ich kluczową rolę w walce z pandemią.

Słowa kluczowe: SARS-CoV-2, pielęgniarki rodzinne, personel pielęgniarski szpitali, status społeczny

ABSTRACT

NURSES' VIEWS AND EXPERIENCES DURING THE COVID-19 PANDEMIC

Aim. The primary purpose was to map the opinions and experiences nurses acquired during the COVID-19 pandemic, identify significant problems that need to be addressed before the next pandemic, and determine the prestige of nurses before and during the COVID-19 pandemic.

Material and methods. The design was descriptive and cross-sectional. A representative sample using sociological research methods was conducted using a non-standardized questionnaire. The sample of nurses was constructed using quota sampling; its structure corresponded to the composition of the overall nursing population in terms of age, sex, and region. The sample consisted of 1197 nurses.

Results. The most significant changes reported by nurses during this period include increased physical workload (89.6%), changes in social (88.4%), and personal lives (76.7%). According to respondents, the prestige of their profession increased during the pandemic compared to the period before the COVID-19 pandemic. Based on the two-tailed t-test, the prestige of the nursing profession increased statistically significantly during the COVID-19 pandemic compared to the pre-pandemic period.

Conclusions. During the COVID-19 pandemic, nurses experienced increased physical stress and changes in their social and personal lives. However, the prestige of nurses increased due to their crucial role in the fight against the pandemic.

Key words: SARS-CoV-2, family nurse practitioners, hospital nursing staff, social status

INTRODUCTION

Nurses are the backbone of healthcare systems worldwide, and this has never been as evident as it is now. The nurse's role in healthcare has undergone significant change over the years, and this change continues today. Research into the profession's prestige is one of the basic topics of empirical research. Prestige is usually understood as a positive evaluation, appreciation, and respect shown to people, objects, social positions, etc. Evaluation and measurement of prestige are relative and depend, to some degree, on a person's social position. The assessment of the degree of prestige is often derived from the profession and occupation and is conducted by a person for whom the level of prestige is being determined [1].

Nursing is a scientific discipline that deserves respect and prestige, not only in peaceful times but also in extraordinary times such as period of wars, pandemics, natural disasters, etc. [2]. The positive perception of nurse profession has impact on care giving [3]. The first person who paid attention to the professionalism of nursing was Florence Nightingale. Her ideas were evident in forming a model of nursing education and the development of nursing as a science. Nowadays, nursing is a recognized scientific discipline, profession, and vocation in many countries [4]. Some authors, such as Freidson [5], however, argued that nursing has become too focused on education, with the sole intention of gaining a higher status in society. It is certain that nursing has increased its position as a profession and continues to do so. The effort to improve the prestige of nurses as a social group is closely related to the requirement for higher nurse qualifications. The public and health professionals do not realize that the need for better-educated nurses is stimulated primarily by the development of medicine and the emergence of new relationships that require restructuring the tasks of individual members of medical teams. As a result, nurses' professional activities, competencies, and responsibilities are changing. The nurse is becoming an increasingly independent professional and a critical and equal member of healthcare teams.

During the pandemic, nurses, in particular, were at the forefront of patient care. Nurses are frontline healthcare professionals in direct contact with patients and play critical roles in treating and preventing upward trends in disease [6]. Liu et al. reported that during the COVID-19 pandemic, nurses took initiative and responsibility, focused on their duties, and displayed professional dedication [7]. The work of nurses during the pandemic was very similar to their routine work. However, during this period, their work was more visible, and the public had greater awareness of it. The pandemic increased the need for team care, infection control, patient-centered care, and other skills that speak to nurses' strengths. During routine duties, nurses are at risk of infection or transmitting an infection to their loved ones or patients [8]. We also know that nurses found caring for their families particularly problematic during the pandemic. For example, providing child care, care for senior parents, and even pet care reduced nurses' ability to participate in emergencies during the pandemic.

The perception of the social prestige of one's profession is an essential indicator of the relationship they have with their profession. It can be assumed that the social evaluation of the nursing profession tracks changes in health care and change substantially over time. Equally important is how the nurses view their work in terms of prestige. For this reason, we were interested in how nurses perceive their profession before and after the COVID-19 pandemic.

METHODS

A non-standardized questionnaire was used to collect data; the primary purpose was to map the opinions and experiences nurses acquired during the COVID-19 pandemic and identify significant problems that need to be addressed before the next pandemic, and determine the prestige of nurses before and during the COVID-19 pandemic. Our field survey used standardized, controlled face-to-face interviews with the respondents. The final form of the interviewer's question sheet was determined based on our pilot research. The field survey was conducted throughout the Czech Republic from 16/09/2022 to 05/10/2022. The study was anonymous, participation was voluntary, and the survey did not contain any ethical issues. Data collection was provided by 210 professional INRES-SONES, v.o.s. interviewers.

Statistical data processing was performed using SASD 1.5.8 (Statistical Analysis of Social Data) and SPSS. The first level of sorting and contingency tables of selected indicators of 2nd level classifications was processed. The degree of dependence of the characters chosen was determined based on distribution normality. Based on this analysis, the data was interpreted, and the relevant tables and graphs were prepared.

Sample

The sample consisted of 1197 nurses. The respondents were selected by quota sampling. The parameters of the nurse sample were constructed based on data from the Institute of Health Information and Statistics at the Ministry of Health of the Czech Republic, valid as of 19 August 2021. The sample size corresponded to the 95% confidence level, and the error interval (Margin error – Confidence interval) was 3% (according to Raosoft).

The sample of nurses included nurses working in both outpatient and inpatient care. The parameters of this sample were derived from nurse demographics in the Czech Republic. The selection of nurses was constructed to correspond to the composition of the nurse population in terms of age, gender, and region. These characters were intended to be representative.

Regarding gender, the group consisted of 40 (3.3%) men and 1157 (96.7%) women. Compared to the breakdown of the population by gender, the deviation was < 0.3%, which means that the research results were representative of nurses in the Czech Republic in terms of gender.

Compared to the age breakdown of the population, the deviation was < 0.4%. The research sample reflects the age distribution of nurses in the Czech Republic.

When constructing the sample of nurses by region, the number of nurses in the individual areas of the Czech Republic was a primary indicator of representativeness. The provinces were defined based on an administrative division valid since 1 January 2001. As part of the research, nurses from all areas of the Czech Republic were included, and their representation corresponds to the structure of the population. The deviation from the people was < 0.3% and is representative of nurses of the Czech Republic in terms of individual regions.

RESULTS

Tab. 1. Composition of the sample of nurses by gender, age, marital status, education, type of medical facility, and length of work experience in healthcare

Sex	Total	%
Male	40	3.3
Female	1.157	96.7
Age	Total	%
Up to 34	248	21.6
35-44	291	24.3
45-54	367	30.7
55-64	222	18.5
65 and more	59	4.9
Marital status	Total	%
Single	212	17.7
Married, divorced, widow, cohabitation	633	52.9
Divorced	191	16.0
Widow	51	4.3
Cohabitation	110	9.2
Education	Total	%
Intermediate medical	462	38.6
Tertiary professional	315	26.3
Bachelor's education	277	23.1
Master's education	130	10.9
other	13	1.1
Type of medical facility	Total	%
Primary outpatient care	235	19.6
Specialized outpatient care	149	12.5
Inpatient care	813	67.9
Length of work experience in healthcare	Total	%
Up to 5 years	218	18.2
6-0 years	280	23.4
11 and more years	699	58.4

In our research, we focused on identifying significant problems that need to be addressed before the next pandemic and determining the prestige of nurses before and during the COVID-19 pandemic.

Tab. 2. During the epidemic/pandemic, most nurses worked in:

Facilities without a predominance of patients with COVID-19	563	47.0%
Facilities with a predominance of patients with COVID-19 disease	445	37.2%
Primary care facilities	189	15.8%
Total	1197	100%

During the COVID-19 pandemic, 47% of nurses worked in facilities without a preponderance of patients with the disease, 37.2% in facilities with a preponderance of patients with COVID-19, and only 15.8% in primary care.

Tab. 3. Relationships between factors influencing work during the COVID-19 pandemic and socio-demographic features

Factors influencing the work of nurses during the COVID-19 pandemic	X^2	df	p
Sex	3.305	11	0.986
Age	32.720	44	0.895
Marital status	30.920	44	0.932
Education	20.642	44	0.999
Specialization in intensive care	13.547	11	0.259
Number of years of experience in healthcare	29.973	22	0.119
Type of medical facility	35.360	22	< 0.05
Type of hospital	39.183	44	0.678
A place of work during a pandemic	53.197	22	< 0.001

X^2 - chi-squared; p - independence test; df - degrees of freedom

A statistically significant relationship was identified between factors influencing work during the COVID-19 pandemic and place of work/type of healthcare facility. Nurses working during the pandemic in facilities with a predominance of COVID-19 patients were significantly more likely to identify social isolation and increased workload as factors affecting their work and, to a significantly lesser extent, concerns about the effects of the pandemic. Nurses working in primary care during the pandemic were significantly more likely to identify their personal lives (impact on their families), stigmatization of health care workers and concerns about the effects of the pandemic, and to a significantly lesser extent, social isolation, the impact on family relationships, and increased workload.

The impacts of the COVID-19 pandemic on the personal, social, and working lives of nurses during this period were identified through a battery of projective questions. Respondents were presented with ten basic theses, on which they commented using a standardized scale of four possible answers, which expressed their degree of agreement with the presented thesis. The Cronbach alpha value for this battery of questions is 0.782, which meets the requirements for a reliable scale.

Tab. 4. Perceived changes in the personal and professional lives of nurses during the COVID-19 pandemic (N = 1197) presented as percent (%)

Changes felt	I completely agree	I tend to agree	I tend to disagree	I completely disagree
Increased burden on the individual	45.7	43.9	8.1	2.3
Changes in social life	47.5	40.9	9.8	1.8
Changes in personal life	34.3	42.4	19.0	4.3
Changes in family life	30.1	38.3	24.6	7.0
Physical changes in health	24.1	40.7	24.9	10.3
Changes in psychological health	27.7	41.1	21.8	9.4
Rethinking life's priorities	30.5	39.1	23.6	6.8
Thinking about leaving the healthcare	9.3	24.9	29.4	36.4
Quitting healthcare	3.3	6.8	12.2	77.7
Departures of co-workers	17.2	17.5	18.0	47.3

For more straightforward calculations, the answers "I completely agree" and "I rather agree" were combined and interpreted as expressing agreement with the perceived change.

We investigated the impact of the COVID-19 pandemic on nurses. Nurses reported increased physical burdens (89.6%), changes in social life (88.4%), changes in personal life (76.7%), reassessment of life priorities (69.6%), changes in family life (68.4%), changes in physical health (64.8%), changes in psychological health (68.8%), departure of co-workers from the profession (34.7%), had thoughts about leaving their workplace (34.4%), and ideas about quitting the job (10.1%).

The research also investigated how nurses perceived the prestige of their profession. Nurses were asked to indicate (on a ten-point scale) the prestige associated with their work before and during the COVID-19 pandemic. The number 1 indicated the lowest importance, and the number 10 showed the highest distinction. Nurses were interviewed only once during the survey, not before the COVID-19 pandemic.

From the relative frequencies expressed in the evaluation, it is clear that, in the opinion of the sampled nurses, the degree of prestige associated with their profession increased during the pandemic compared to the period before the pandemic. The statistical significance of this shift was assessed using the two-sample t-test (see Table 5); the p-value was set at 0.05.

Tab. 5. Prestige of the nursing profession before and during the COVID-19 pandemic based on a 10-point scale (1 = low prestige, 10 = high prestige)

	N	Average	s	Min score	Max score	Mo	p
Prestige before the COVID-19 pandemic	1197	6.16625	1.8271	1	10	5	0.0000
Prestige during the COVID-19 pandemic	1197	7.50961	1.8274	1	10	8	< 0.001

N = frequency of valid observations; s = standard deviation; Mo = mode; p = statistical significance

Based on the two-tailed t-test, the prestige of the nursing profession increased statistically significantly during the COVID-19 pandemic compared to the pre-pandemic period.

DISCUSSION

The COVID-19 pandemic has brought an old-new element to the Central European context of a relatively peaceful, high-quality life, i.e., there is an increased anxiety regarding health and vitality and an increased level of life insecurity. A statistically significant relationship was identified between factors influencing work during the COVID-19 pandemic and place of work/type of healthcare facility. Nurses working during the pandemic in facilities with a predominance of COVID-19 patients were significantly more likely to identify social isolation and increased workload as factors affecting their work and, to a significantly lesser extent, concerns about the effects of the pandemic. Nurses working in primary care during the pandemic were significantly more likely to identify their personal lives (impact on their families), stigmatization of health care workers and concerns about the effects of the pandemic, and to a significantly lesser extent, social isolation, the impact on family relationships, and increased workload. Moreover, this new threat occurred rapidly and in waves of varying intensity. Additionally, both mass media and social networks have shaped social consciousness – often contradictory and irrational [9, 10].

In the general discourse, the phrase „Heroes and heroines of the front line" often appeared, and heroism was one of the roles associated with frontline nurses [11]. This feature is often replaced in the professional literature by terms such as resilience and adaptation (referring to the ability of nurses to perform under challenging conditions). These terms are important because they contribute to forming a positive moral perspective for nurses. In addition, the "hero/heroine" narrative describes processes and events requiring significant strength and adaptation using images and metaphors (storytelling) that are understandable to most people, even those without professional psychological backgrounds [12].

During the pandemic, nurses certainly met the criteria of heroism by taking care of extremely ill patients, working under challenging conditions, working in new teams, working in protective equipment, putting themselves and their loved ones at risk of infection with a potentially fatal disease, being sometimes misunderstood by their non-medical family and friends, and at the end of their shift leaving their patients in better condition than when they started [13,14,15].

In the 2006 social prestige survey, nurses most often perceived the social prestige of nurses in the Czech Republic as average or less than average, although younger nurses with less than three years of experience perceived nursing prestige more positively. Except for adventure, no other statistically significant connections were found between the perception of social importance and nurses' social and professional characteristics [16]. Our 2022 survey found that the nursing profession's perceived

prestige had increased during the COVID-19 pandemic compared to the pre-pandemic period. Increasing the importance of nurses as a social group is closely related to (1) increased professionalization, (2) changes in the professional activities of nurses, and (3) changes in competencies and responsibilities. Research focusing on the role of nurses in dealing with pandemic situations shows that a nurse's willingness to engage and take on responsibilities increases with knowledge, practiced skills, and autonomy [17].

The rapid spread of the COVID-19 pandemic caught health systems unprepared, leading to increased physical and emotional exhaustion of nursing staff [18]. According to our research, the most marked changes for nurses during the COVID-19 period include increased physical strain (89.6%), changes in social life (88.4%), and changes in personal life (76.7%). Conversely, the least reported changes are the nurse's completed departure from the workplace, the departure of colleagues from the workplace, and the nurse's reflections on possible departure from the workplace. Based on the two-tailed t-test, the prestige of the nursing profession increased statistically significantly during the COVID-19 pandemic compared to the pre-pandemic period.

Research limitations

A limitation of the research is that the data presented is based on a condition only observed during the pandemic. In the period preceding the SARS-CoV-2 pandemic, these indicators were not monitored in our setting. Therefore, it is not possible to present a complete comparison. This is a challenge for future research in the event of a recurrence of the pandemic.

CONCLUSIONS

During the COVID-19 pandemic, nurses experienced increased physical stress and changes in their social and personal lives. However, the prestige of nurses increased. This was due to their key role on the frontline of the fight against the pandemic.

Source of financing:

The paper relates to the research project number NU21-09-00300, supported by the Ministry of Health of the Czech Republic.

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Manuscript received: 05.11.2023
Manuscript accepted: 08.02.2024