

JOB SATISFACTION AMONG NURSES WORKING IN HOSPITALS DURING THE COVID-19 PANDEMIC

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ABSTRACT

Background: Job satisfaction is one of the key factors related to the work efficiency of nursing staff. Its level may affect the degree of the professional's commitment to work and effectiveness in performing their professional tasks. For a modern organisation, job satisfaction is associated with a number of benefits for both the employee and the employer. Job satisfaction of nurses is extremely important due to their professional tasks being related to the care of patients. Nurses with low levels of job satisfaction may have less capabilities to provide high quality care and thus maintain a high level of patient satisfaction. **Material and Methods:** This was a cross-sectional observational study which included 302 people practising the profession of a nurse and employed in a hospital during the COVID-19 pandemic. The level of job satisfaction was assessed using the *Minnesota Satisfaction Questionnaire* (MSQ), which was preceded by questions characterising the research group. The questionnaire was delivered to the respondents in electronic form. **Results:** The respondents obtained an average result in terms of the level of job satisfaction ($M \pm SD$ 58.53 \pm 11.42). The highest rated area was the chance to do something good for other people ($M \pm SD$ 3.85 \pm 0.87), and the lowest rated areas included: the method of work evaluation and the remuneration system ($M \pm SD$ 2.24 \pm 0.74), the chances for advancement ($M \pm SD$ 2.38 \pm 0.94) and the chance to take up senior positions ($M \pm SD$ 2.39 \pm 0.88) as well as the number of tasks to be performed during the working day ($M \pm SD$ 2.40 \pm 0.86). **Conclusions:** In this study, average values of the level of job satisfaction were obtained. A higher level of job satisfaction was shown by those employed in a non-infectious hospital and those with higher monthly earnings. Employers' policy should focus on improving working conditions, the remuneration system and promotion opportunities. *Med Pr Work Health Saf.* 2023;74(4):271–8.

Key words: job satisfaction, nurses, hospital, COVID-19, MSQ, satisfaction level

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Received: February 3, 2023, accepted: August 4, 2023

INTRODUCTION

Many definitions of job satisfaction may be found in literature. The commonly quoted model that refers to health care workers is focused on the individual's feelings towards work, i.e., the employee's affective response to the situation at work [1].

It is considered positive if the employee is satisfied with the entrusted tasks and working conditions, or negative if the employee's expectations are not fulfilled [2]. The appropriate level of job satisfaction has an impact on the employee's commitment and is a measure of work efficiency. Striving to achieve the highest possible level of job satisfaction is associated with double benefits – both for the employee as well as the employer and the company [3]. However, it is the employer who can provide the employee with an appropriate working environment, ensuring optimal working conditions

and proper professional development [4]. A positive relationship was observed between employees' job satisfaction and the level of involvement in performing their professional tasks. Maintaining this relationship results in greater efficiency in the scope of professional tasks performed, which entails an increase in the quality of services, personal development of the employee, and higher resilience of the company [5,6].

Globally, nurses account for approx. 60% of all healthcare professionals. The contribution they make to improving patients' health is unquestionable; investing in increasing their job satisfaction can therefore benefit society as a whole. The improvement of working conditions results in an increase in work efficiency, and thus, in greater efficiency of the healthcare system [7]. The lack or insufficient level of job satisfaction may be of particular importance in the case of medical personnel due to the fact that their work involves

direct care of patients. Meanwhile, nurses mention experiencing excessive workload and frequently having to work in a forced, static position. In addition, they complain about the physical burden associated with patient care, especially in the absence of an adequate number of medical cards, which certainly reduces the time they are able to devote to patients, and thus lowers the quality of care. It should also be emphasised that work under time pressure, in the face of suffering and death, is associated with a large mental burden for nurses and a high level of perceived stress, which may also affect the level of job satisfaction [8]. Another factor contributing to the lack of job satisfaction indicated by nursing staff is also dissatisfaction with remuneration, which is described as low [4].

Since the beginning of the pandemic, the profession of a nurse has played a significant role in the healthcare system. Healthcare professionals, being on the front line, took up the fight against the progressing pandemic. The International Council of Nurses stressed the importance of the key role that nurses play in emergencies and catastrophic situations. During the pandemic, nurses were faced with various additional challenges, such as the increased number of patients under the care of one nurse or working in difficult and stressful conditions. This situation has become a disrupting factor, intensifying the already existing problem of shortage of nurses [9]. Due to the increased risk of SARS-CoV-2 infection posed by working with the sick, healthcare professionals feared for their own health. The fear of infecting their loved ones was another reason for concern. The cause of physical and mental fatigue was long-term use of protective equipment, which entailed difficulties in normal functioning and limited access to the toilet and water. Disruption of routine clinical practice, a sense of lack of control, and fear of destabilisation of health services – all this aroused anxiety among healthcare professionals [10]. Some studies indicate a deterioration in the job satisfaction of healthcare workers during the pandemic. In a study conducted in the USA before the pandemic and again during the pandemic, the frequency with which nurses reported their willingness to change jobs doubled to 60% compared to that before the pandemic (30%). In another study, conducted in UK, 60% of nurses indicated dissatisfaction with their work [11].

Conditions occurring in the working environment against the backdrop of a dynamically changing labour market is a multifaceted area that requires a lot of research. Maintaining a high level of job satisfaction in

this environment is extremely important for the provision of high-quality patient care [12]. One way to improve job satisfaction is to obtain information from employees in advance about their level of job satisfaction. The results obtained in this study allow for assessing the level of job satisfaction among nursing staff during the COVID-19 pandemic.

Aim of the study

The aim of the study was to assess the level of job satisfaction of nurses employed in hospitals during the COVID-19 pandemic.

MATERIAL AND METHODS

This was a cross-sectional observational study. Convenience sampling was used. The survey questionnaire in Polish was created using Google Forms. The questionnaire was delivered to the respondents in electronic form via social media such as Facebook and on various groups that associated nurses who worked in healthcare facilities. A total of 243 questionnaires were returned. Nurses were also asked to further disseminate the questionnaire by sending it to other working nurses in order to reach the widest possible group of respondents.. A total of 59 questionnaires were sent to the nurses on the contact list and all were returned. A total of 302 questionnaires were received and included in the study. Prior to taking part in the study, the research subjects consented to participate in it. They could withdraw from it without giving a reason at any stage. The criteria for inclusion in the study were: being employed in a hospital as a nurse and providing informed consent to participate in the study. Data was collected from January to March 2022. The data collected was confidential and was used specifically for this study. In total, 302 nurses participated in the study. The survey questionnaire consisted of 2 parts. In the first part, the research group was characterised by specifying socio-demographic variables, which included: sex, age, place of residence, level of education, number of years worked in nursing, place of work, current monthly earnings and whether the respondent had contact with patients suspected of being infected or actually infected with the SARS-CoV-2 virus

In the other part of the questionnaire, a shortened version of the *Minnesota Satisfaction Questionnaire* (MSQ) by Weiss et al. [13], in the Polish adaptation by Ingram and Głód [14], was used to assess job satisfaction. Translation into Polish was made by forward-back translation [15] by Strykowska [16]. In the original

version, the questionnaire consists of 100 statements. For the purposes of this study, a shortened version of the questionnaire was used, which consisted of 20 questions, where the respondents provided answers on a 5-point Likert scale, from: "very satisfied" – 5 pts, "satisfied" – 4 pts, "neither satisfied nor dissatisfied" – 3 pts, "dissatisfied" – 2 pts, to "very dissatisfied" – 1 pt [17]. The total score is calculated by summing all the answers to the 20 questions and ranges 20–100 pts, with higher scores indicating higher job satisfaction. For the internal satisfaction scale, the scoring range is 12–60 pts, and for the external satisfaction scale, the respondents can obtain 8–40 pts. The MSQ is used in many industries, including healthcare units [15,18,19].

In the study, the internal consistency of the MSQ using Cronbach's α was 0.90, which indicates high reliability of the questionnaire in this study.

The sample size for this study, calculated for 95% confidence interval and 0.5 fraction size with a maximum estimation error of 5%, was 384.

The results were subjected to statistical analysis. The values of descriptive statistics were calculated. The distribution of the examined variables and the assumptions of the statistical tests were verified. The normality of the distributions was tested with the Shapiro-Wilk test. The Mann-Whitney U test and the Kruskal-Wallis test were used to compare 2 means. The significance level of statistical inference was set at $p < 0.05$. Calculations were made via the STATISTICA 13 program by StatSoft.

The study was approved by the Bioethics Committee of the Medical University of Warsaw (AKBE/43). Research has been performed in accordance with the Declaration of Helsinki. Participants gave informed consent to participate in the study before taking part. It was voluntary for the respondents to answer the questionnaire, and they had the right to withdraw their undertaking of participation at any time. The collected data were analyzed on condition of anonymity.

RESULTS

The study included 302 participants. Women constituted 93.0% of the research group and men constituted 7.0%. Most of the respondents (31.1%) were aged 41–50 and came from cities with >100 000 inhabitants (46.4%). The most common level of education was a bachelor's degree (59.3%). The majority of the research subjects had professional experience of 21–30 years (28.5%), for 23.2% of them it was 11–20 years, and for 22.8% –

<5 years. More than half of the respondents (52.3%) were employed in a hospital (non-isolation ward), and 27.8% worked in a hospital converted into an isolation hospital. The monthly earnings of the majority of the participants (41.4%) were PLN 4000–5000. The vast majority (92.1%) had contact with patients suspected of being infected with SARS-CoV-2 and patients actually infected with the virus (91.1%). A significantly higher level of job satisfaction was reported by women ($p = 0.005$), although this result should be interpreted with caution due to large discrepancies in the number of surveyed women and men. Furthermore, a higher level of job satisfaction was observed in people with a bachelor's degree in nursing ($p = 0.008$), employed in a non-isolation hospital ($p = 0.041$), with a monthly income of PLN >7000 ($p = 0.001$) and having no contact with patients infected with SARS-CoV-2 ($p = 0.005$) (Table 1).

When analysing individual questions, the highest values were obtained for the chance to do something good for other people ($M \pm SD$ 3.85 \pm 0.87), and the lowest rated areas included: the method of work evaluation and the remuneration system ($M \pm SD$ 2.24 \pm 0.74), the chances for advancement ($M \pm SD$ 2.38 \pm 0.94) and the chance to take up senior positions ($M \pm SD$ 2.39 \pm 0.88) as well as the number of tasks to be performed during the working day ($M \pm SD$ 2.40 \pm 0.86). The level of job satisfaction in the research group was at an average level. The subjects scored 32–87 pts ($M \pm SD$ 58.53 \pm 11.42) (Table 2).

DISCUSSION

Job satisfaction is a very important aspect in work organization as it directly affects work efficiency. This is especially true for medical personnel who care for and treat patients. In order for nurses to be able to practice their profession with full commitment, job satisfaction is an absolute requisite. A study by Tarcan et al. demonstrated a relationship between the level of job satisfaction and occupational burnout of healthcare professionals. Lowered levels of job satisfaction in this group may lead to an increased number of medical errors, which will undoubtedly contribute to the deterioration of work efficiency and the quality of medical services [20]. Maintaining a high level of job satisfaction is of great importance for the provision of high-quality patient care [12]. Lu et al. indicated that a high level of job satisfaction among nurses was directly related to a higher level of patient safety and high-quality nursing care [21].

Table 1. Job satisfaction among nurses (via social media, January–March 2022, Poland)

Variable	Participants (N = 302)				U	H	p
	n	%	M	SD			
Sex					1866.500*		0.005
female	281	93.0	59.00	11.37			
male	21	7.0	52.23	10.54			
Age						6.119	0.106
20–30 years	62	20.5	59.72	12.28			
31–40 years	86	28.5	58.77	12.76			
41–50 years	94	31.1	59.34	10.28			
51–60 years	60	19.9	55.68	9.90			
Place of residence						3.887	0.274
village	54	17.9	60.89	8.01			
city							
<51 000 inhabitants	39	12.9	57.94	8.32			
51 000–100 000 inhabitants	69	22.8	56.52	12.26			
>100 000 inhabitants	140	46.4	58.95	11.94			
Education						9.601*	0.008
medical secondary school/nursing school	36	12.0	54.58	8.76			
bachelor's degree in nursing	179	59.3	59.59	10.97			
master's degree in nursing	87	28.8	57.98	12.93			
Years worked in nursing						6.358	0.174
<5 years	69	22.8	60.83	11.53			
5–10 years	31	10.3	61.03	8.63			
11–20 years	70	23.2	57.39	13.90			
21–30 years	86	28.5	57.40	10.30			
>30 years	46	15.2	57.28	10.37			
Place of work						9.965*	0.041
non-isolation hospital	158	52.3	67.17	10.78			
hospital converted into an isolation hospital	84	27.8	58.63	8.23			
isolation hospital	12	4.0	57.92	13.57			
temporary hospital	18	6.0	57.76	11.87			
private hospital	30	9.9	57.40	11.46			
Current monthly earnings						17.813*	0.001
3000–4000 PLN	99	32.8	57.30	11.26			
4000–5000 PLN	125	41.4	58.58	11.10			
5000–6000 PLN	51	16.9	56.16	9.20			
6000–7000 PLN	6	2.0	64.50	6.02			
>7000 PLN	21	7.0	68.14	15.14			

Table 1. Job satisfaction among nurses (via social media, January–March 2022, Poland) – cont.

Variable	Participants (N = 302)				U	H	p
	n	%	M	SD			
Contact with patients							
suspected of SARS-CoV-2 infection					2768.00		-0.166
yes	278	92.1	58.44	11.79			
no	24	7.9	59.58	5.74			
infected with SARS-CoV-2					2499.500*		0.005
yes	275	91.1	57.97	11.45			
no	27	8.9	65.26	9.56			

H – Kruskal-Wallis test; U – Mann-Whitney U test.

Bolded values are statistically significant.

* Tests were shown to be statistically significant.

Table 2. The *Minnesota Satisfaction Questionnaire* (MSQ) – descriptive statistics [16]

MSQ	M	SD	Me	Min.	Max
1. The number of tasks you have to complete in a typical working day	2.40	0.86	2.00	1.00	5.00
2. The chance to make independent decisions on the job	3.12	0.91	3.00	1.00	5.00
3. The chance to do different things from time to time	3.17	1.00	3.00	1.00	5.00
4. The social position that your job gives you	2.74	1.05	2.00	1.00	5.00
5. The professional skills of your direct supervisor	3.09	1.05	3.00	1.00	5.00
6. The chance to do something that makes use of all your abilities	3.10	0.89	3.00	1.00	5.00
7. The chance to do something good for other people	3.85	0.87	4.00	2.00	5.00
8. The chance to continue taking up senior management positions	2.39	0.88	2.00	1.00	5.00
9. The chances for advancement on this job	2.38	0.94	2.00	1.00	5.00
10. The way your co-workers get along with each other	2.93	1.10	3.00	1.00	5.00
11. The way of assessing work and the work remuneration system used in your workplace	2.24	0.74	2.00	1.00	4.00
12. The chance to try your own methods of doing the job	2.84	0.95	3.00	1.00	5.00
13. The feeling of accomplishment you get from the job	3.09	0.99	3.00	1.00	5.00
14. The level of difficulty of your job tasks	3.20	0.83	3.00	1.00	5.00
15. The way your boss handles his/her workers	2.67	1.10	3.00	1.00	5.00
16. The importance of the work you do	3.32	0.98	3.00	1.00	5.00
17. Physical environment conditions in the workplace	2.64	1.14	2.00	1.00	5.00
18. The chances for personal development through work	3.11	0.98	3.00	1.00	5.00
19. Considering all aspects of your job, how satisfied you are with it	2.87	0.90	3.00	1.00	4.00
20. Overall, how satisfied you are with your current life	3.37	1.00	4.00	1.00	5.00
MSQ total	58.53	11.42	56.00	32.00	87.00

This study focused on assessing the level of job satisfaction of nurses employed in hospitals during the COVID-19 pandemic. The results obtained in this study indicate an average level of job satisfaction

among the surveyed nursing staff ($M \pm SD$ 58.53 \pm 11.42). Higher results were obtained by Zikusooka et al., where the level of job satisfaction in a group of nurses was ($M \pm SD$ 74.7 \pm 11.0) [22]. According to Barmanpek et al.,

52.1% of nurses declared to be satisfied in their job, while 26.2% and 16.4% were dissatisfied and very dissatisfied, respectively [23]. In one of the Polish studies evaluating job satisfaction in a group of oncology nurses before the pandemic, an average value according to MSQ ($M = 67.10$ pts) [24] was recorded, which is also a higher result than that recorded in this study. However, in a multicentre study carried out in 5 European countries, including Poland, a significant decrease in job satisfaction was shown, which was due to the need to perform work during the pandemic caused by the SARS-CoV-2 virus. In most of the assessed areas, 9/10 indicated a deterioration in job satisfaction [25].

In this study, the lowest rated areas included the remuneration system, the chances for advancement and taking up senior positions, as well as the number of tasks to be performed during the working day. Those of the participants who achieved the highest monthly income showed higher levels of job satisfaction. This is further proof of the persistent problem in Poland, in consistence with the reports of other authors who came to similar conclusions [24,26,27]. Another aspect to emphasise is the fact that the highest values were obtained in the area of the chance to do something good for other people, which was predictable and is consistent with the results obtained in the study by Piotrowska et al. [24]. Makowicz et al., in their study conducted among nurses during the COVID-19 pandemic, observed the highest score in terms of the feeling that practising the profession is of great significance due to its importance to the general public [25]. These findings confirm the paramount importance of “the chance to do something good for other people,” which was rated highly by nurses in this study. Nevertheless, a sudden increase in workload in the face of a significant increase in the number of people infected with SARS-CoV-2 could have reduced the levels of job satisfaction [28–30]. This study confirms the occurrence of lower job satisfaction among nurses having contact with infected patients and those employed in hospitals converted into isolation hospitals. This may be related to the fact that the physical environment conditions in the workplace and the way people are managed by the supervisor were rated quite low in this study. Meanwhile, the quality of management in hospitals, preparation of staff for new working conditions, appropriate relationships, and mutual understanding [31,32] are extremely important elements for ensuring the best possible assistance to patients, especially during the pandemic [33]. It thus is

a multifactorial and complex phenomenon, and cooperation between individual nurses, their managers and other employees is a prerequisite for maintaining high levels of job satisfaction [34].

Limitations

This study has several limitations. These include a small sample size, which does not allow for data generalization and using an online questionnaire, which could have influenced the number of responses sent. On the other hand, online surveys have higher data reliability, probably due to lesser concerns of respondents about their privacy [35]. Furthermore, the study had a cross-sectional design, which eliminated the possibility to assess the job satisfaction of respondents over time. Also, the vast majority of respondents had contact with patients either infected with or suspected of SARS-CoV-2. Therefore, it is important to conduct prospective studies in the future to assess the level of job satisfaction among nurses over time.

This study also has some strengths. Assessment of job satisfaction among nursing staff is particularly important to provide patients with the best possible care. This study provides new data on job satisfaction during the pandemic, when nursing personnel faced additional, difficult challenges. The discussed findings should prompt the management to modify factors responsible for the lowest level of job satisfaction, with measures focused on improving job satisfaction in dimensions indicating its decline. The study may help develop a strategy for professional support for nurses.

Employers and relevant professional organisations should take responsibility for providing support to nurses in terms of improving working conditions. It should be the duty of employers to provide them with an attractive working environment, an appropriate level of employment, adequate remuneration and opportunities for professional development.

CONCLUSIONS

The level of job satisfaction among the surveyed nurses employed in hospitals during the COVID-19 pandemic reached average values. A higher level of job satisfaction was shown by those employed in a non-infectious hospital and those with higher monthly earnings. The lowest rated dimensions among the respondents turned out to be the possibility of promotion, the chance to take up higher positions and the number of tasks to be performed during the working day.

Contact with patients infected with SARS CoV-2 negatively affected the level of job satisfaction. Therefore, it is employers' policy should focus on improving working conditions, the remuneration system and promotion opportunities.

Author contributions

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