

## SATISFACTION OF EMPLOYEES AT COVID-19 DEPARTMENTS

Teodor Pevec

General Hospital Ptuj, Ptuj, University of Maribor, Faculty of Medicine, Maribor, Slovenia

## ZADOVOLJSTVO ZAPOSLENIH U ODELJENJIMA ZA KOVID 19

Teodor Pevec

Opšta bolnica Ptuj, Univerzitet u Mariboru, Medicinski fakultet, Maribor, Slovenija

### ABSTRACT

**Objective:** Working conditions for health professionals can be greatly affected by pandemic caused by COVID-19. The aims of the study were to identify the level of job satisfaction of hospital staff in COVID-19 pandemic.

**Methods:** This study was carried out in a convenience sample of nurses and medical doctors from four public regional hospitals in Slovenia. This was a cross-sectional survey study in which Short index of Job Satisfaction (SIJS) was used. The questionnaire was completed by 110 participants.

**Results:** The sample mean score was  $17.27 \pm 3.94$ . The item I feel fairly satisfied with my present job had the highest value (3.67). The regression model was not statistically significant ( $F = 1.46$ ,  $p = 0.2$ ), suggesting the independent variables (taken together) did not have a reliable level of explanatory power on job satisfaction. For the independent coefficients ( $\beta$ ), results indicated that job categories (medical doctor, nurse) had a statistically significant effect on job satisfaction.

**Conclusions:** There was no significant association between job satisfaction and gender, age, experience with COVID-19 patients, or work experiences. On most issues nurses have shown greater satisfaction than medical doctors.

**Key words:** COVID-19; job satisfaction; hospitals.

### INTRODUCTION

Health professionals are exposed to situational factors that can make their work difficult, which include the so-called psychosocial factors (1). Psychosocial risks have been related to health problems (2), work accidents (3) and low job satisfaction (1). Working conditions can be affected greatly by the economic and social context (4), such as, in this case, the pandemic caused by COVID-19. Between 31 December 2019 and the week 2021-47, 261,812,322 cases of COVID-19 (in accordance with the applied case definitions and testing strategies in the affected countries) have been reported, including 5,209,959 deaths (5).

Health care providers are vulnerable to emotional distress in the current pandemic, given their risk to exposure to the virus, concern about infecting and caring for their loved ones, working in Personal Protective Equipment, longer working hours, and involvement in emotionally and ethically fraught resource allocation decisions (1, 6). In a systematic review Domagala et al. (7)

### SAŽETAK

**Cilj.** Pandemija izazvana kovidom 19 može u velikoj mери uticati na uslove rada zdravstvenih radnika. Ciljevi studije bili su da se identifikuje nivo zadovoljstva poslom tokom pandemije kovid 19 kod bolničkog osoblja.

**Metode.** Ova studija je sprovedena na praktičnom uzorku medicinskih sestara i doktora medicine iz četiri javne regionalne bolnice u Sloveniji. Ovo je bila anketa studija preseka u kojoj je korišćen Kratki indeks zadovoljstva poslom (SIJS). Upitnik je popunilo 110 učesnika.

**Rezultati.** Prosečna ocena uzorka bila je  $17.27 \pm 3.94$ . Stavka – osećam se prilično zadovoljno svojim trenutnim poslom ima najveću vrednost (3,67). Regresioni model nije bio statistički značajan ( $F = 1.46$ ,  $p = 0.2$ ), što sugerise da nezavisne varijable (uzete zajedno) nisu imale pouzdan nivo objašnjavajuće moći za zadovoljstvo poslom. Za nezavisne koeficijente ( $\beta$ ) rezultati su pokazali da kategorije poslova (lekar, medicinska sestra) imaju statistički značajan uticaj na zadovoljstvo poslom.

**Zaključak.** Nije bilo značajne povezanosti između zadovoljstva poslom i pola, starosti, iskustva sa pacijentima sa kovidom 19, radnog iskustva. Povodom većine pitanja medicinske sestre pokazale su veće zadovoljstvo od lekara.

**Ključne reči:** kovid 19; zadovoljstvo poslom; bolnice.

revealed that the characteristics of a workplace, work conditions, professional development, team support and management quality were significant factors for job satisfaction. Health professionals' satisfaction is vital in improving the performance of health professionals, refining health care services, and increasing the level of patient satisfaction (8). Locke (9) conceptualizes job satisfaction as a positive emotional state that arises from an individual's job-related experiences. This definition emphasizes the subjective aspect of job satisfaction, focusing on how individuals perceive and feel about their work environment and experiences.

Job dissatisfaction is often associated with increased levels of work-related stress. When individuals are dissatisfied with their jobs, they may experience feelings of frustration, dissatisfaction, and disillusionment, which can contribute to elevated stress levels. This stress can manifest in various ways, including physical, emotional, and psychological symptoms, and can ultimately impact overall well-being and job performance (10).

The pandemic's influence on occupational satisfaction seems to be negative (11). In an extensive UK study, conducted in april 2020, 60% of nurses reported being professionally dissatisfied and demoralised (12). The pooled prevalence rates identified in the meta-analysis (13) were 22.8% for depression, 38.9% for insomnia, and 23.2% for anxiety.

We use psychometric scales to measure satisfaction, such as Short index of Job Satisfaction (SIJS). The advantages of using the SIJS as a measure in research:

**Freely Available:** The fact that the SIJS is freely available means that researchers can access and use it without incurring any costs. This accessibility can be beneficial, especially for researchers with limited budgets.

**Good Psychometric Properties:** Psychometric properties refer to the characteristics of a measurement instrument, such as reliability and validity. If the SIJS has demonstrated good psychometric properties, it suggests that it is a reliable and valid measure for assessing whatever construct it is designed to measure. This is crucial for ensuring the quality of the data collected in research studies.

**Used in Different Cultures:** The fact that the SIJS has been used in different cultures indicates its cross-cultural applicability and validity. This suggests that the scale is not limited to specific cultural contexts and can be used effectively across various populations.

In summary, the SIJS appears to be a favorable choice for researchers due to its availability, good psychometric properties, and cross-cultural utility. This makes it a potentially reliable and valid measure for assessing the desired construct in different populations (14).

Therefore, the aim of the present study was to evaluate the level of job satisfaction among healthcare workers and the existence of a potential association with the demographic characteristics of the participants.

## MATERIALS AND METHODS

### *Sample*

This study was carried out on a convenience sample of nurses and medical doctors from four public, regional hospitals in Slovenia. Their COVID-19 departments are very similar.

This study respected the Declaration of Helsinki (World Medical Association, 2013) with particular emphasis on the anonymisation of the data collected, confidentiality, and non-discrimination of participants. This study was authorised by the Research Ethical Committees of the hospitals (Nr.01/3-81/12-21).

The data were collected in December 2021 at the fourth peak of the Covid-19 pandemic in Slovenia. The

participants completed the questionnaires with a pen. The inclusion criteria were to work in a Covid department, and to provide their informed consent to participate. Finally, 110 participants completed the questionnaire with a response rate of around 76%.

### *Methods and variables*

This study was a cross-sectional one. We used the following instrument.

#### *Short index of Job Satisfaction (SIJS)*

The 5-item SIJS is a psychometric scale that includes five items about self-reported job satisfaction. The original 18-item Index of Job Satisfaction (IJS) was developed by Brayfield and Rothe (15). The shorter version of it, the so-called 5-item SIJS, has previously been proposed and validated as well (14).

The 5-item SIJS includes a series of five questions about self-reported states of self-satisfaction with a job, enthusiasm about the job, real enjoyment in work, feeling unpleasant in a job, and feeling that a day in work will never come to an end. The responses are scored on a 5-point Likert scale (from 1= strongly disagree to 5=strongly agree). The SIJS in our language items showed a good Cronbach's alpha: 0.68 and solid parameters for confirmatory factor analysis. All factor loadings from the retained seven items were significant and strong (0.6 to 0.8).

### *Data analysis*

The SPSS software, version 22 and JASP were used for the statistical analysis. The characteristics of the sample were described using descriptive statistics. The t test was used to determine the existence of a statistically significant difference between the means of two independent groups. Linear regression mode was used for analysis the job satisfaction among independent factors. The p values less than 0.05 were considered significant.

## RESULTS

Among the 110 healthcare workers who participated in the present study, the majority of the participants were female (n=90, 81.8%). The mean age of the 110 participants was 36.3 years. 84 (76.4%) participants were from the COVID 19 Acute Department. The mean value of previous work with covid-19 patients was 27.4 weeks and the mean value of work experience was 13.6 years. There were 95 (86.4%) nurses, and 15 (13.6%) medical doctors (Table 1).

The sample Mean score was  $17.27 \pm 3.94$  Table 2 shows mean values for all items. The item I feel fairly satisfied with my present job has the highest value (3.67).

Table 1. Characteristics of the study participants.

Characteristics	Participants n (%)
Age (mean, sd)	36.3 (9.5)
Gender	
male	20 (18.2)
female	90 (81.8)
Job categories	
nurses	95 (86.4)
medical doctors	15 (13.6)
Department	
COVID - 19 acute department	86 (76.4)
intensive care Covid unit	24 (23.6)
Years of experience (mean, sd)	13.6 (9.6)
Previous work with covid – 19 patients in weeks (mean, sd)	27.4 (23.4)

SD-standard deviation

professionals accustomed to working with the infected, but also by nurses and doctors of various professions. The work meant working in difficult circumstances, additional timing, and often bad endings in patient outcomes.

Table 3. Regression model for Job satisfaction

Factors	Beta	(p)
Gender	0.091	0.36
Job categories	-0.25	0.014
Department	0.025	0.8
Years of experience	-0.015	0.93
Previous work with covid – 19 patients in weeks	-0.063	0.53
Age	0.176	0.32

Model: F 1.459 (P=0.2); R Square 0.078

Table 2. Descriptive statistics for items.

Item	The mean (SD)
I feel fairly satisfied with my present job.	3.67 (0.9)
Most days I am enthusiastic about my work.	3.14 (0.9)
Each day at work seems like it will never end. <sup>R</sup>	3.25 (1.2)
I find real enjoyment in my work.	3.61(0.9)
I consider my job to be rather unpleasant. <sup>R</sup>	3.61(1.1)

R-Reversed items; the descriptive statistics of such items refer to the recoded scores.

Table 4. The mean values between job categories (medical doctor, nurses).

Item	The mean (SD)		p
	Medical doctor	Nurse	
I feel fairly satisfied with my present job.	3.13(1.12)	3.76 (0.88)	0.016
Most days I am enthusiastic about my work.	2.53(1.19)	3.23(0.87)	0.007
Each day at work seems like it will never end. <sup>R</sup>	3.40(0.91)	3.22(1.2)	0.51
I find real enjoyment in my work.	3.1(0.89)	3.69(0.85)	0.019
I consider my job to be rather unpleasant. <sup>R</sup>	3.27(1.39)	3.66(1.1)	0.021

R-reversed

Table 3 shows the regression model for job satisfaction. The regression model was not statistically significant ( $F = 1.46$ ,  $p = 0.2$ ), suggesting the independent variables (taken together) did not have a reliable level of explanatory power on job satisfaction. The adjusted R-squared was 0.025. This indicated the independent variables explained only 2.5% of the variance in job satisfaction. For the independent coefficients ( $\beta$ ) shown in Table 3 results indicated that job categories (doctor, nurse) had a statistically significant effect on job satisfaction. Table 4 shows statistically significant difference in Job satisfaction perception between Medical doctors and nurses almost in all items.

## DISCUSSION

The current study aimed to study occupational satisfaction during the pandemic among health professionals. The pandemic broke out in our country in 2020. The health care system was not prepared for that. This meant that COVID-19 was not only treated by health

The research took place during the fourth epidemic wave. Protective equipment was not lacking. Employees can be vaccinated if they wish. The issue of vaccination among employees is a very sensitive issue in our country, so we did not include it in the basic data. Unfortunately, we did not measure satisfaction on a similar sample before the epidemic, but this data may be useful in future comparisons between post-pandemic and post-epidemic satisfaction.

The sample mean score was  $17.27 \pm 3.94$ . Results in Sinval et al. (15) study were very similar (17.99, 18.28), but their study was not from COVID-19 time. The results in Alrawashdeh et al. (16) study were lower (15.4) than in my study.

In this study there we did not find any differences in job satisfaction among genders. The fact is that, in our country, the health activity is extremely feminised, and therefore the groups were not equal numerically. Some studies have not found statistically significant differences between men and women (17, 18), while others reported that men had higher job satisfaction than women (19).

Working in COVID ICU was not a significant predictor for a job satisfaction, which is not in line with Tuna et al. (17) and Savitsky et al. (20).

In 2020, researches in China (21) conducted a survey among 455 frontline healthcare workers and found that work experience resulted in higher level of job satisfaction. Results in our study was different.

The mean item's value to most questions were higher by registered nurses than medical doctors. This finding is similar to another study (22). These authors think that medical doctors have heavier workloads, worse physical health, more mental strain and more intense relationships with patients compared to nurses.

One limitation of the present study refers to the small number of participants and the short period in which the data were collected. Despite these limitations, I consider the information collected to be valuable. The data were collected a posteriori, where other variables can contaminate the data at that time, such as memory and change of situation. The sample may not be representative of all healthcare workers in Slovenia.

In conclusions, there was no significant association between job satisfaction and gender, age, experience with COVID-19 patients, or work experiences. Position (medical doctors, nurses) influenced the job satisfaction significantly, and partially influenced the job satisfaction.

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