

Job Satisfaction Among Nurses in the Republic of Croatia: A Cross-Sectional Study

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Abstract

Background: Job satisfaction can be defined as a feeling of fulfilment or happiness related to all or specific aspects of work. It is generally assessed through certain job characteristics such as compensation, benefits, interpersonal relationships, and work organization. Employee dissatisfaction can lead to burnout syndrome as well as other mental and physical illnesses that negatively affect their quality of life.

Aim: The aim of this study was to examine the degree of job satisfaction amongst nurses at primary, secondary and tertiary level of healthcare in the Republic of Croatia.

Methods: The study was conducted using an online survey distributed to respondents via social media and email. The Job Satisfaction Survey (JSS), with 36 items and nine facets created by Spector P.E., was used to assess job satisfaction amongst nurses. We added six sociodemographic items to this survey.

Results: A total of 372 nurses participated in this study. The highest score was obtained for the facet nature of work ($M = 16.4$; $SD = 3.3$) and lowest for pay ($M = 9.3$; $SD = 3.4$). Only 10% of respondents reported overall job satisfaction, 54% were ambivalent, and 36% expressed dissatisfaction. There was no statistical difference between job satisfaction and the level of education ($P > 0.05$). More than 50% of participants were dissatisfied with pay, promotion and fringe benefits ($P < 0.001$) while 56% of participants felt that their work was not adequately appreciated.

Conclusion: Considering the results obtained from this study, we conclude that many nurses in the Republic of Croatia are quite dissatisfied in some facets of their job such as pay, promotion and benefits and satisfied or ambivalent in others such as job characteristics or supervisors. It's important to conduct job satisfaction studies and investigate the causes of dissatisfaction at a national level, involving a larger number of healthcare nurses, to proactively influence and prevent the consequences of dissatisfaction.

Keywords: job satisfaction, nursing, work environment

Introduction

Job satisfaction is one of the most important factors that influence nurses' performance at their workplace. Workers who are appreciated in their profession show greater job satisfaction, trust in the work organization, self-confidence, lower job change intention and absence from work (1). Job satisfaction is positively associated with a worker's mental health. Job dissatisfaction can contribute to burnout, lower productivity and healthcare quality (2). Factors that contribute to job satisfaction are work environment, relationship with management, participation in decision making, adequate staffing, patient improvement and recovery, support of co-workers and supervisors and safety of care for patients (3). Job dissatisfaction can be caused by insufficient resources, poor safety and organization, work overload and lack of support from co-workers. Healthcare organizations are more prone to stressful situations and conflicts, which can negatively affect both interpersonal relationships among staff and interactions with patients (4). Leadership plays a key role in enhancing job satisfaction by fostering a positive work environment, encouraging healthy interpersonal relationships, and promoting excellence in healthcare delivery and patient safety (3).

Satisfaction as an attitude contains cognitive, affective, and evaluative components (5). The cognitive component refers to a set of specific beliefs and assumptions about the job, the affective consists of feelings towards the job and the evaluative provides the final assessment of the job. Moreover, job satisfaction is not just an attitude but also a reflection of a person's inner state and it is related to a sense of achievement. It is subjective and individual because one person can feel satisfied with a job overall and another with just a part of it even if working in the same workplace (6). Motivation, achievement and positive attitude greatly determine job satisfaction of individual workers (5). In the nursing profession job satisfaction arises from a series of employee interactions that are linked to specific attitudes toward work and external factors that influence the work environment (7).

There are two main aspects of job satisfaction: personal or intrinsic and organizational or extrinsic (8, 9). The personal aspect contains important factors such as: personal disposition, mood, emotions, personal interest and work balance, age and work experience, status and overall satisfaction with quality of life (8, 10). Factors reflecting the organizational aspect originate from the healthcare institution itself or the broader work environment. These include job characteristics, opportunities for promotion, relationships with colleagues and supervisors, salary, rewards and recognition, working conditions, and job security. (8, 10).

A worker's personality, the situation at work, organizational values and culture, social influence and social groups are also determinants of job satisfaction (11, 12). Behaviour, thoughts and emotions as well as work tasks can shape how a worker perceives his job. Social values and culture can influence organizational values and culture and can modify a person's job satisfaction.

Motivation and job satisfaction are inter-related and not synonymous. Motivation is described as the desire and strong effort to achieve a goal, while satisfaction is the sense of fulfilment that results from attaining that goal. Motivation suggests a strong effort for a result, and satisfaction is the consequence of that result. Based on this, it can be concluded that employees can be motivated but simultaneously dissatisfied with their job, and vice versa (13). The ideal would be to have workers that are both motivated and satisfied with their jobs. Therefore, it is important for managers to understand motivation and keep workers motivated and happy in the workplace. Workers who are satisfied with their job are more efficient and effective and that means that organizational goals are achieved more easily (14).

Methods

Study design

We conducted a cross-sectional study. The aim of this study was to examine the degree of job satisfaction among nurses at the primary, secondary and tertiary level

of healthcare in the Republic of Croatia and to determine whether there is a difference based on gender, age, education level, and work experience.

According to the aim of this study we constructed the following hypotheses:

H1: Participants with a higher level of education show greater job satisfaction.

H2: More than 50% of participants employed in primary, secondary and tertiary healthcare feel that their work is not sufficiently valued.

H3: A positive correlation between years of work experience and job satisfaction is assumed.

Ethics

Ethics Committee of the Catholic University of Croatia approved this study protocol (document number 498-15-06-02-002).

Participants and data collection

The participants were nurses employed at primary, secondary and tertiary healthcare level in the Republic of Croatia. Participation in the study was anonymous and voluntary. The survey was distributed, and data were collected between March 4, 2023, and March 31, 2023.

Data were collected by an online questionnaire that was hosted on the Google Form platform. The link to the questionnaire was distributed on social media (Facebook groups: Medicinske sestre/tehničari – Glas sestrinstva, Medicinske sestre i tehničari – međusobna pomoć (pretrage, naručivanje, ankete), Medicinske sestre/tehničari Zadarske županije, Medicinske sestre – medicinski tehničari, Medicinske sestre/tehničari zajedno – Split i Medicinske sestre i tehničari – Slavonski Brod) and by electronic mail to personal contacts of authors (convenience sampling). The first part of the questionnaire consisted of five socio-demographic questions (sex, age, level of education, work experience and workplace). The Job Satisfaction Survey (JSS) designed by Spector (15) was used as the second part of the questionnaire for assessing job satisfaction of participants. JSS was available to use free of

charge and contained 36 items. The original questionnaire was designed as a six-point Likert-based scale, but we changed it to a five-point scale where 1 meant *completely disagree* and 5 meant *completely agree*. Since survey scoring contains an ambivalent range of scores, we believe that it was important to allow participants to express their neutral opinion. That was only possible by changing an even-point to an odd-point Likert-based scale. Also, odd-point (five and seven) Likert based scales are more common in research (16) which makes it more comparable to other surveys (17). Finally, a five-point scale was preferred over a seven-point one because it was simpler and has less cognitive load. According to the scale change, we adapted the original scoring scale where 4 to 10 points meant dissatisfied, 10 to 13 points ambivalent and 13 to 20 points satisfied for single facets. For overall satisfaction, we adapted the original scoring scale so that 36 to 90 points meant a dissatisfied participant, 90 to 120 ambivalent and 120 to 180 satisfied.

Statistical analysis

Collected data were analysed with IBM SPSS Statistic 23.0. (SPSS, Chicago, IL, USA). For descriptive statistics, frequencies, percentages, means and standard deviations were used. Normality of data distribution was checked with Kolgomorov-Smirnov test. In case of numerical variables ANOVA was performed and Pearson correlation coefficient was calculated for testing correlation. Chi square test was performed where applicable (categorical variables).

Results

There were 372 participants in this survey which is very close to the calculated sample size of 380. Their socio-demographic data is presented in Table 1. Most of the participants were females (92%) and the largest age group was between 36 and 45 years old (37%). The largest group by work experience was between 11 and 20 years (33%) and more than 40% had a bachelor's degree. Groups formed by workplace healthcare level were almost equal in size.

Table 1. *The participants' sociodemographic data*

Variable		N (%)
Sex	Female	342 (92)
	Male	30 (9.1)
Age (years)	18-25	55 (15)
	26-35	117 (32)
	36-45	139 (37)
	46-55	41 (11)
	56-65	20 (5.4)
	<5	52 (14)
Work experience (years)	5-10	87 (23)
	11-20	121 (33)
	21-30	80 (22)
	31-40	25 (6.7)
	>40	7 (1.9)
	<5	52 (14)
Education level	High school	122 (33)
	Bachelor	156 (42)
	Master	90 (24)
	Doctorate	4 (1.1)
Workplace healthcare level	Primary	103 (28)
	Secondary	130 (35)
	Tertiary	139 (37)

Table 2 presents descriptive parameters for nine facets of job satisfaction as well as the overall job satisfaction. Mean score is the highest for *Nature of work* (16.4 ± 3.3) and lowest for *Pay* (9.3 ± 3.4). Overall job satisfaction is 115.6 ± 19.9 which means that participants are ambivalent about their job satisfaction on average. Although results of Kolgomorov-Smirnov test show significant differences from normal distribution we conducted our analysis with parametric statistical methods since they show robustness (18).

More than half of participants are ambivalent about job satisfaction (54%), 135 (36%) are dissatisfied and only 36 (10%) are satisfied. Table 3 shows a difference in the overall job satisfaction for different levels of education. ANOVA test results show that the difference is not significant ($P > 0.05$). A PhD level is excluded from this analysis since there were

only few participants with a PhD degree.

We tested the difference of nine facets of job satisfaction and overall job satisfaction between participants who were dissatisfied and those who were ambivalent or satisfied (Table 4). Results show that significantly more than 50% of participants are dissatisfied in three facets, namely *pay*, *promotion*, and *fringe benefits*.

More than half (56%) of participants think that their job isn't adequately appreciated, and that difference is significant ($P < 0.05$) compared to participants who do not agree with that statement. We also obtained results which show weak but significant negative correlation between job satisfaction and work experience ($r = -0.135$, $P < 0.05$). That means that participants with longer work experience are less satisfied with their jobs.

Table 2. *Descriptive parameters of job satisfaction*

Facet	Min	Max	M	SD	Skewness	Kurtosis	P*
Pay	6	20	9.3	3.4	0.9	0.0	< 0.001
Promotion	5	21	9.7	3.6	0.7	0.0	< 0.001
Supervision	6	22	15.4	4.1	-0.3	-0.7	< 0.001
Fringe benefits	6	19	10.2	3.2	0.4	-0.6	< 0.001
Contingent rewards	9	21	13.7	2.4	0.5	-0.3	< 0.001
Operating procedures	7	23	12.3	3.5	0.3	-0.6	< 0.001
Coworkers	6	22	14.0	3.3	0.1	-0.4	< 0.001
Nature of work	5	21	16.4	3.3	-0.7	0.2	< 0.001
Communication	7	23	14.6	3.5	0.0	-0.3	< 0.001
Overall job satisfaction	69	167	115	19	0.3	-0.3	< 0.05

* Kolmogorov-Smirnov test

Table 3. *Overall job satisfaction and level of education*

Education level	M	SD	F	Df	P*
High school	116	20.5	0.6	2	0.55
Bachelor	116.7	20.0			
Master	113.8	19.0			

*ANOVA

Table 4. *Difference between dissatisfied and ambivalent/satisfied*

Facet	Dissatisfied N (%)	Ambivalent/Satisfied N (%)	P*
Pay	307 (83)	65 (18)	< 0.001
Promotion	294 (79)	78 (21)	< 0.001
Supervision	89 (24)	283 (76)	< 0.001
Fringe benefits	283 (76)	89 (24)	< 0.001
Contingent rewards	124 (33)	248 (67)	< 0.001
Operating procedures	187 (50)	185 (50)	0.97
Coworkers	134 (36)	238 (64)	< 0.001
Nature of work	48 (13)	324 (87)	< 0.001
Communication	135 (36)	237 (64)	< 0.001
Overall job satisfaction	104 (28)	268 (62)	< 0.001

* Chi Square

Discussion

As anticipated, the sample was predominantly composed of female nurses, with the majority holding a bachelor's degree in nursing. Overall job satisfaction was reported by the smallest proportion of respondents, whereas the highest proportion expressed ambivalence. The analysis revealed no statistically significant differences in job satisfaction scores across the three levels

of education, and consequently, the first hypothesis (H1) could not be confirmed. The second hypothesis (H2) proposed that more than 50% of nurses employed in primary, secondary, and tertiary healthcare settings feel that their work is not sufficiently valued. As 56% of participants agreed with this statement, the hypothesis was confirmed. Furthermore, we hypothesized a positive correlation between work experience

and job satisfaction (H3); however, the results indicated a negative and very weak correlation, contrary to expectations. A significantly greater proportion than 50% of participants reported dissatisfaction with pay, opportunities for promotion, and fringe benefits.

The nursing shortage and increased turnover represent the current global problem that is directly related to job satisfaction (19, 20). Healthcare organizations and nursing managers should determine strategies to improve job satisfaction among nurses. Job satisfaction among nurses is correlated with job stress, collaboration with physicians and autonomy pointing out importance of improving work environment (20). Contrary to our findings, the Swiss acute care hospital nurses are very satisfied with their jobs (21). Independence at work, professional status and sick leave were highly scored in that survey. Pay is highly appreciated among Swiss nurses (65%) which is also opposite to our survey results. A survey conducted among nurses in Osijek in 2015 presented findings comparable to those of the present study. Participants reported dissatisfaction with pay, promotion opportunities, and fringe benefits, as well as with communication and recognition. The mean overall job satisfaction score indicated ambivalence, and no significant differences were observed across different workplace settings" (22). Another study conducted in Rijeka Clinical Hospital Centre demonstrated a positive correlation between the length of work experience and the perception of human relationship. It also revealed that nurses working in operating rooms reported higher levels of job satisfaction compared to those employed in surgical departments (23). Although we used similar but not the same variables, these results are opposite from ours. A study conducted in two Croatian clinical hospitals (7) found that nurses with less work experience reported higher levels of job satisfaction. Additionally, a statistically significant difference in satisfaction levels was observed between the two hospitals, with only 5% of participants expressing overall job satisfaction. A study conducted among nurses working in palliative care (24) showed that those with higher levels of

education reported greater job satisfaction. Overall job satisfaction in that study was also higher compared to the results of our research, although it was assessed using different measurement scales. Surgical nurses at Sestre milosrdnice University Hospital Centre reported dissatisfaction with work organization and, to some extent, with their assigned tasks (25). However, they expressed satisfaction with workplace safety and job security.

It can be observed that numerous surveys on job satisfaction have been conducted and published in the Republic of Croatia, with the majority indicating that nurses are generally dissatisfied with their jobs. While some of the reported correlations and differences are inconsistent with our findings, others support our results. However, it is important to note that the aforementioned surveys were conducted in one or, at most, two hospitals, and included a relatively small number of participants—often fewer than 70 and never exceeding 150–200. In contrast, our study included nearly 400 participants from various healthcare institutions across Croatia. Nonetheless, there remains significant potential for conducting a large-scale national study on job satisfaction among nurses, especially considering that there are over 30,000 nurses employed in the Republic of Croatia. We believe that our study provides valuable preliminary insights and serves as a useful screening tool for obtaining more representative national data.

It is important to acknowledge that the global context of nurses' job satisfaction may differ significantly from the results observed in our study. As we mentioned, Swiss nurses are more satisfied than Croatian ones (21). A Polish study (26) found that 26% of nurses reported being fully satisfied with their jobs, which is a considerably higher percentage than in our study. Another study conducted in Poland demonstrated a positive correlation between job satisfaction and work experience among family nurses (27). In Australia, among nurses working in rural hospitals, 28% reported full job satisfaction and 38% reported moderate satisfaction (28), indicating a relatively low

level of overall dissatisfaction, comparable to the situation in Switzerland. Findings from a study conducted in Brazil also contrast with the results of our research, as nearly 74% of participants reported being satisfied with their jobs, and their satisfaction was positively correlated with both education level and work experience (29). Finally, 44% of nurses in Ethiopia reported being satisfied with their jobs, with job satisfaction showing a positive correlation with perceived job security (30). Therefore, job satisfaction all over the world varies significantly between different countries and continents. The national economic strength, cultural context, and the social status of nurses may play a significant role in shaping job satisfaction. Additionally, differences in sample size and research methodology may account for the variations observed between studies. Still, it is important to continue exploring this topic and to find ways to improve job satisfaction among nurses.

This study has several limitations. Data collection was conducted over a period of approximately one month. The survey link was distributed through Facebook groups and personal email addresses, which limited our ability to verify that all respondents were Croatian nurses or that each individual completed the questionnaire only once. As the survey was conducted online, we could not entirely exclude the participation of nurses outside the Republic of Croatia. Nevertheless, this risk was minimized by the fact that the survey was written in Croatian. Furthermore, due to the anonymous nature of the survey, we did not collect any personal identifiers, which made it impossible to detect or prevent repeated participation by the same individual. Changing a six-point Likert scale into a five-point scale has some benefits but also some disadvantages such as lower scale sensitivity.

Conclusion

Job satisfaction is a complex yet an important issue for nurses in the Republic of Croatia. It should not be neglected by healthcare organizations and nursing managers. High

rate of dissatisfied and ambivalent nurses shows that there is large opportunity area for improvement. The government and society should engage in facets that contribute externally to job satisfaction such as pay or appreciation. Pay, promotion and fringe benefits got the highest dissatisfaction scores. Supervisors, healthcare organizations and the government should have that in focus when developing strategies for human resources in nursing. Since pay is mostly out of supervisors' control in the public health system, they could focus on employee's personal development and a fair treatment of members in the healthcare team. Future research could investigate possible relationships between dissatisfaction facets and job quitting intentions.

Declarations

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