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## ORIGINAL PAPER

## JOB SATISFACTION OF NURSES IN CROATIA, SLOVENIA AND SERBIA: A CROSS-SECTIONAL STUDY

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**Abstract**

**Aim:** This study aimed to determine nurses' attitudes toward job satisfaction and to describe the variables that affect their job satisfaction. **Design:** A non-experimental, cross-sectional study. **Methods:** A total of 1,850 nurses working in clinical hospital centres in Croatia, Slovenia and Serbia were approached. Of those, 475 participated in the study, making a total response rate of 25.6%. Data were collected through the Survey of Nursing Satisfaction. The questionnaire is owned by the Croatian Agency for Quality and Accreditation in Health Care and Social Welfare. **Results:** The overall results for all three countries show that men and women differed in their perception of exposure to discrimination at work ( $t = 2.62$ ;  $df = 469$ ;  $p < 0.01$ ). Men, on average, were more satisfied at work ( $M = 3.47$ ;  $SD = 0.68$ ;  $p < 0.05$ ) than women ( $M = 3.29$ ;  $SD = 0.63$ ;  $p < 0.05$ ). Nurses in the Croatian hospital were the most satisfied with the amount of education they were exposed to ( $F_{2,470} = 18.09$ ;  $p < 0.001$ ) but felt more discriminated against at work than their counterparts from Slovenia and Serbia ( $F_{2,471} = 136.04$ ;  $p < 0.001$ ). Respondents rated their job satisfaction as good. **Conclusion:** In line with the findings, nurses should be able to move forward, improve communication and interpersonal relationships to be even more comfortable in the workplace. Each institution has quality indicators and it is very important to continuously conduct employee satisfaction surveys as these are beneficial for the staff, patients and healthcare quality.

**Keywords:** healthcare, job satisfaction, nurses, professional development, working conditions.**Introduction**

Croatia, Slovenia and Serbia were historically parts of the same country, Yugoslavia. In the early 1990s, the disintegration of Yugoslavia brought about a change in the political map of these countries that was reflected in the health care system. The former decentralized system with massive overstaffing and regional imbalances in funding and health care standards was transformed into a more centralized, better funded and generally more efficient system. Despite the changes, there are still numerous problems in the health systems of all three countries. Over years, the health care and educational systems in these independent countries have changed. It must be emphasized that Croatia and Slovenia are member states of the European Union and their nursing study programmes comply with Directive 2013/55/EU amending Directive 2005/36/EC on the recognition of professional qualifications, while Serbia still regulates its system as it has not yet become an EU member. In the past we had the same education and

health care systems; at present, some minor differences are expected. Therefore, we decided to explore job satisfaction among nurses today, when all three countries are independent, and to determine whether there are differences between the countries. Research conducted in Croatia shows that there is some correlation between age and work experience as a supervisor at work, as well as a positive correlation between work experience and overall satisfaction, but no association between job satisfaction and the level of education (Barać et al., 2015). In Slovenia, operational management must revitalize the work environment by ensuring proactive leadership and enabling participation in decision-making, while health organizations should support the professional development of nurses to achieve sustainable performance in job satisfaction (Prosen & Piskar, 2015). In a Serbian study, the lowest scores given by respondents are in the domains of salary, a reward for work well done and working conditions. The assumption is that the reason for this is the economic climate in which one lives and works, fixed and inadequate wages and minimal benefits combined with the nature of work (Joković et al., 2018). A study of job satisfaction in the past shows

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affective and cognitive attitudes that an employee has about various aspects of their work (Kalleberg, 1977). A review of the literature in the past 10 years reveals interesting facts about workplace satisfaction as a quality standard. By implementing a motivation program, job satisfaction would increase and certainly reduce the desire to quit nursing jobs, which may ultimately increase the quality of health care. Nurse Managers should practice customized management models for nurses. Nurses should participate in professional activities and decision-making to increase the sense of trust and belonging to the organization (Aiken et al., 2013; Flinkman et al., 2010). Considering the above, the employment of nurses can be increased by applying appropriate methods. Employers and management must inspire nurses and provide opportunities for professional development and participation in educational programs and congresses (Aiken et al., 2013; Asegid et al., 2014). Retaining nurses is a challenge in all organizations. To retain nurses, managers need to take the initiative to identify and evaluate job satisfaction factors. Managers should also routinely review job dissatisfaction indicators and conduct employee satisfaction surveys several times a year (Hayes et al., 2010). Job satisfaction is one of several psychological constructs used to understand workers' subjective experiences. Workplace satisfaction has become the most researched area, focusing mainly on the predictors and correlations of satisfaction, and how best to measure and present satisfaction with the highest quality, also on the formation of job satisfaction theories (Weiss & Merlo, 2015). It is necessary to increase nurses' job satisfaction as this also has the potential to improve patients' perceptions of the quality and safety and to ensure the appropriate nursing workforce. Indirect relationships and predictors of job satisfaction gain a better understanding of the complex phenomenon of job satisfaction, which in turn can help develop strategies used to address nursing shortages and increase the quality of patient care (Lu et al., 2019). An appropriate strategic plan for the professional development of nurses is needed to minimize the likelihood of leaving the institution as well as the nursing profession altogether. Institutional management guidelines are also needed to identify the positive and negative factors of job satisfaction. By identifying the positive factors of job satisfaction, the management should ensure that these factors are addressed, while identifying negative ones can make better decisions in health policy and hospital management and contribute to key steps to improve job satisfaction (Masum et al., 2016). Despite much research into nursing job satisfaction, the answers to

important methodological and conceptual questions remain under-examined.

## **Aim**

This study examined the concept of job satisfaction of nurses in three comparable clinical hospitals in Croatia, Slovenia and Serbia. The aim was to determine nurses' attitudes toward job satisfaction and which of the examined variables affected their job satisfaction. Accordingly, the following goals were set: to describe job satisfaction and the variables that affect it and to compare nurses' job satisfaction with the variables examined (salary, working conditions, education level, communication, discrimination, etc.).

## **Methods**

### **Design**

A non-experimental, cross-sectional design was used.

### **Sample**

The study performed according to quantitative methodology was based on a purposive sample of 1,850 nurses working in surgery departments of clinical hospital centres in Croatia, Slovenia and Serbia. Initially, the study was conducted in a Croatian hospital, where the surgery department employed 225 nurses. Therefore, 200 questionnaires were distributed in hospitals in Slovenia and Serbia to obtain similar numbers of respondents to better present the results. Although the numbers of nurses working in those departments were higher, we wanted to have the same numbers in all three countries. Out of the 225 nurses in the Croatian surgery department, 126 respondents joined the survey, a response rate of 56%. From a total of 1,346 nurses in the Slovenian hospital, 150 joined the survey (11.1%). In the Serbian hospital, 199 out of 279 nurses participated (71.3%). The overall response rate was 25.6%.

### **Data collection**

Data were collected using a job satisfaction survey questionnaire after approval to conduct the survey in all three institutions was obtained from ethics committees. The questionnaires were handed to nurse managers of the surgery departments for all nurses regardless of their qualifications and positions. The sample was selected randomly, provided that the research was conducted in clinical hospital centres. The clinical hospital centres were selected based on international collaboration of surgical nurses in these three institutions. The criterion for inclusion in the study sample was nurses working in the same department. The Clinical Hospital Centre

Rijeka is one of four clinical hospital centres in Croatia, the University Clinical Centre Ljubljana is one of two clinical centres in Slovenia and the Clinical Centre of Serbia is one of six clinical centres in Serbia. The collection of data from participants was conducted from October 2018 to May 2019. The questionnaires were sent to each health facility and distributed by nurse managers to the nursing staff meeting the above inclusion criterion. The participants were asked to complete the questionnaires anonymously and to return them in sealed envelopes. Confidentiality and anonymity of all information were guaranteed at all times. The Survey of Nursing Satisfaction was used in this study. The questionnaire, owned by the Croatian Agency for Quality and Accreditation in Health Care and Social Welfare, is used to test employee satisfaction at workplaces in Croatian hospitals as part of the quality control process. The questionnaire was translated into Slovenian and checked by language professionals using the reverse translation technique to ensure equivalence between the languages. It was not necessary to translate the questionnaire into Serbian because Croatian and Serbian are almost identical. They both belong to the South Slavic language and are very similar to each other. The biggest differences between Croatian and Serbian are the way of expressing proper nouns, specific syntactic constructions and lexical differences (Radovanović, 2000). The instructions for filling in were at the beginning of the questionnaire. The first part of the questionnaire includes demographic questions about the participants' age, gender, length of service, title and position in the workplace. The second part of the questionnaire includes questions concerning satisfaction (i.e. education, fairness, job security, salary). This variable was evaluated using two items answered with a Likert-type scale ranging from 1 = never to 4 = always. Higher scores indicate a higher level of job satisfaction in the workplace. The third part of the questionnaire includes descriptive questions (i.e. Do you know who you are responsible for your work?). Only standardized and validated items were used for this study to allow comparison. Questions from the scale of general job satisfaction which measure the general attitude of the individual towards the job they are engaged in were used. This scale is used and recommended as validated to measure overall job satisfaction and Cronbach's alpha coefficient of the questionnaires is  $\alpha = 0.90$  (Kabir et al., 2016).

### Data analysis

A Likert-type scale ranging from 1 to 4 was used to assess satisfaction. Standard descriptive statistics methods were used to describe the sociodemographic characteristics of respondents. To test for significance of differences between arithmetic means of samples, the arithmetic mean, standard error, standard deviation (SD) and median (M) were used. The significance of differences in the arithmetic means of the test sample was verified by the T-test. The significance level for accepting or rejecting significance was  $p < 0.05$ , and  $p < 0.01$ . Spearman correlation coefficient ( $r$ ) was used to test relationship between variables. Obtained results were subjected to one-way analysis of variance (ANOVA) and the post-hoc Tukey's test. All calculations and statistical analyses were done using Statistica 13. Image representations of the results were made in Microsoft Word.

### Results

Sociodemographic data show that 475 respondents participated in the research, namely 199 from Serbia (41.9%), 150 from Slovenia (31.6%) and 126 from Croatia (26.5%). The largest number of respondents had secondary education ( $n = 286$ ; 60.2%), followed by those with a bachelor's degree ( $n = 87$ ; 18.3%) and a master's degree ( $n = 102$ ; 21.5%). The largest age groups were 21–40 ( $n = 211$ ; 44.5%), and 41–60 ( $n = 212$ ; 44.7%). There were 60 (12.7%) respondents working in executive positions and 415 (87.3%) in non-executive position (Table 1).

**Table 1** Demographic data

Variables		n	%
<b>City, country</b>	Belgrade, Serbia	199	41.9
	Ljubljana, Slovenia	150	31.6
	Rijeka, Croatia	126	26.5
<b>Gender</b>	male	70	14.8
	female	405	85.2
<b>Age</b>	≤ 20 years	15	3.0
	21–40 years	211	44.5
	41–60 years	212	44.7
	> 60 years	37	7.8
<b>Qualification</b>	secondary education	286	60.2
	bachelor's degree	87	18.3
	master's degree	102	21.5
<b>Work position</b>	executive	60	12.7
	non- executive	415	87.3
<b>Length of service</b>	5–10 years	111	23.4
	10–20 years	118	24.8
	20–30 years	131	27.6
	30–40 years	115	24.2

Descriptive statistics was used to analyze respondents' answers to a question asking what they needed most to be more satisfied at work (Table 2).

**Table 2** Descriptive data

Questions	n	%
<b>Do you know who you are responsible to for your work?</b>		
yes	316	90.5
no	33	9.5
<b>How often do you attend educational lectures, seminars or congresses?</b>		
never	33	7.0
once every few years	59	12.4
once a year	104	21.9
several times a year	213	44.9
at least once a month	65	13.7
<b>For what reasons would you leave for another institution?</b>		
bad interpersonal relationships	67	14.2
job insecurity	58	12.3
poor working conditions	113	24.0
low salaries	205	43.5
the inability to fulfil my work potential	28	5.9
<b>What would motivate you to work better?</b>		
more interesting work	20	5.7
higher pay and more stimulating rewards	177	50.9
a good and considerate manager	6	1.7
possibility of education and training	8	2.3
advancement based on success at work so far	19	5.5
a more comfortable work environment	72	20.7
better work organization	20	5.7
it would be enough if someone praised me	26	7.5

*n* – number of responses, % – percentage

One-way ANOVA showed that men and women differed in their perception of exposure to discrimination at work ( $t = 2.62$ ;  $df = 469$ ;  $p < 0.01$ ). Women were more likely to be discriminated against at work ( $M = 1.86$ ;  $SD = 0.94$ ;  $p < 0.01$ ) than men ( $M = 1.54$ ;  $SD = 0.85$ ;  $p < 0.01$ ). Men and women also differed in job satisfaction ( $t = 2.19$ ;  $df = 470$ ;  $p < 0.05$ ). On average, men were more satisfied with their work ( $M = 3.47$ ;  $SD = 0.68$ ;  $p < 0.05$ ) than women ( $M = 3.29$ ;  $SD = 0.63$ ;  $p < 0.05$ ). Older respondents were more satisfied with the amount of education they were exposed to ( $F_{3,468} = 5.53$ ;  $p > 0.01$ ), experienced greater discrimination at work ( $F_{3,469} = 14.12$ ;  $p < 0.001$ ) and felt treated less fairly at work ( $F_{3,467} = 5.80$ ;  $p < 0.01$ ). However, respondents of all ages were equally satisfied with their job ( $F_{3,470} = 1.42$ ;  $p > 0.05$ ). Differences between countries were also studied. The results

showed significant differences in all variables tested. Employees in the Croatian hospital were the most satisfied with the amount of education they were exposed to ( $F_{2,470} = 18.09$ ;  $p < 0.001$ ) but experienced greater discrimination at work than their counterparts in Slovenia and Serbia ( $F_{2,471} = 136.04$ ;  $p < 0.001$ ). It is possible that this fact led to lower fairness perception ( $F_{2,469} = 11.59$ ;  $p < 0.001$ ) and generally less job satisfaction ( $F_{2,472} = 44.82$ ;  $p < 0.001$ ). Respondents from Serbia and Slovenia did not differ significantly in the amount of education they were exposed to and in the perception of fairness at work. Employees of the Ljubljana hospital perceived the least discrimination at work and were also the most satisfied with their work (Table 3). All interval variables were measured on a scale of 1–4 where 1 indicates disagreement with the question and 4 indicates agreement with the question. The only interval variable that is the sum of several questions is the variable “job satisfaction”. The variable is the average of respondents' answers to 19 questions concerning satisfaction with the work environment, from relationships with colleagues and superiors to satisfaction with salary. The reliability of the scale is  $\alpha = 0.92$ , which is high reliability. Respondents were more satisfied than dissatisfied with the amount of education they were exposed to, did not think they were discriminated against at work, were more satisfied than dissatisfied with the attitude towards them at work and rated their job satisfaction as good. A chi-squared test was used to check whether the numbers of people who would change the institution they worked in varied depending on their age and length of service. Although the sample of respondents was not divided according to the length of service, the time period was medium or long in the largest number of respondents. We noticed that the respondents did not differ in their desire to change the institution regardless of their length of service ( $\chi^2 = 11.17$ ;  $df = 9$ ;  $p > 0.05$ ) but differences were noted depending on their age ( $\chi^2 = 17.93$ ;  $df = 9$ ;  $p < 0.05$ ). Respondents over the age of 60 would have changed their job rather than they would have remained in their institution. Other age groups showed the same pattern of responses concerning job change regardless of age. The same pattern was observed when the respondents were asked why they would have left for another institution. Considering leaving for another institution was not influenced by the length of service ( $\chi^2 = 13.94$ ;  $df = 12$ ;  $p > 0.05$ ) but it was influenced by age ( $\chi^2 = 37.96$ ;  $df = 12$ ;  $p < 0.001$ ). For the youngest and oldest respondents, the main reason for changing their institution was job insecurity, while

for those aged 20–40, the biggest problem was low salary. Older respondents saw poor interpersonal relationships and low salary as the smallest problem, while younger respondents saw job insecurity as the smallest problem. We also analyzed differences between the respondents from different countries. There were differences in answers to both questions depending on the country. Respondents from Croatia mostly chose to change the institution, while respondents from Slovenia were the least likely to change it and Serbian respondents were mostly undecided ( $\chi^2 = 67.61$ ;  $df = 6$ ;  $p < 0.001$ ). Slovenian respondents stated poor interpersonal relationships,

poor working conditions and the impossibility of fulfilling their work potential as the main reason for changing the institution, while they saw job insecurity as the least prominent problem. In Croatia, respondents most often pointed out job insecurity, poor working conditions and low salary, being the least dissatisfied with the inability to fulfil their job potential. Employees of the Belgrade hospital (Serbia) were dissatisfied with low salary, rarely stating job insecurity and poor working conditions as reasons for leaving for another institution ( $\chi^2 = 140.89$ ;  $df = 8$ ;  $p < 0.001$ ).

**Table 3** Differences by gender, age and country

Variable	Gender	M	SD	p	Age	M	SD	p	City/Country	M	SD	p
<b>Education</b>	male	2.51	0.94	>0.05	< 20	2.43	0.76	<0.001	Belgrade/Serbia	2.29	0.98	<0.01
	female	2.51	0.93		21–40	2.34	0.95		Ljubljana/Slovenia	2.47	0.85	
					40–60	2.60	0.91		Rijeka/Croatia	2.90	0.83	
					> 60	2.92	0.83					
<b>Discrimination</b>	male	1.54	0.85	<0.01	< 20	1.71	0.61	<0.001	Belgrade/Serbia	1.61	0.74	<0.001
	female	1.86	0.94		21–40	1.59	0.81		Ljubljana/Slovenia	1.31	0.52	
					40–60	1.88	0.94		Rijeka/Croatia	2.73	0.95	
					> 60	2.73	1.02					
<b>Fairness</b>	male	2.74	0.76	>0.05	< 20	2.71	0.91	<0.01	Belgrade/Serbia	2.64	0.82	<0.001
	female	2.60	0.77		21–40	2.69	0.77		Ljubljana/Slovenia	2.80	0.59	
					40–60	2.62	0.75		Rijeka/Croatia	2.36	0.80	
					> 60	2.14	0.59					
<b>Job satisfaction</b>	male	3.47	0.68	<0.05	< 20	3.04	0.90	>0.05	Belgrade/Serbia	3.35	0.71	<0.001
	female	3.29	0.63		21–40	3.33	0.69		Ljubljana/Slovenia	3.59	0.53	
					40–60	3.34	0.60		Rijeka/Croatia	2.93	0.39	
					> 60	3.20	0.35					

SD – standard deviation; M – median; p – p-value

## Discussion

The aim of this research was to determine which of the variables examined had the most influence on the sense of satisfaction at work. The research examined the concept of job satisfaction for nurses and technicians in three institutions in Croatia, Slovenia and Serbia. As all three countries were parts of former Yugoslavia, we wanted to determine if there are differences today when the countries are independent. The role of nurses in Serbia is still not sufficiently recognized, so researchers from Serbia say the role of nurses in the region is underestimated. In the health system of Serbia, there is still no systematic approach defining the roles of nurses with different levels of education. This leads to animosity between graduate nurses and other members of the healthcare team. As a result of dissatisfaction of nurses in Serbia, large numbers of graduate nurses go to European Union countries every year, where their diploma is recognized and has an economic value (Jović et al., 2015). The present study results suggest that in all three countries, the nursing profession is dominated by the female gender.

The number of male nurses is still small, although it has grown over the years. Other authors have identified four main topics that describe men's motivation for choosing the nursing profession, namely "Early exposure to nurses and other healthcare professionals", "Random selection of nursing as a profession", "Choosing nursing due to external motivational factors" and "Choosing nursing due to intrinsic motivational factors". Also, to encourage more men to enter and stay in nursing, employment and retention strategies need to focus on addressing gender stereotypes associated with the nursing profession (Yi & Keogh, 2016). The results show that overall satisfaction is rated at 3, which means that in all three countries, nurses are moderately satisfied at their workplace. Nurses with higher education were more satisfied with their work than those with lower education. It was also found that nurse managers were more satisfied with their work than other nurses. The lowest satisfaction resulted from a lack of praise, low levels of trust and few opportunities for advancement. For nurses in Slovenian hospitals, the level of salary was

the second most important factor in job satisfaction (Lorber & Skela-Savič, 2012). A study conducted at the University Hospital of Port-Harcourt found that more than half (51%) of the respondents were satisfied with their job; low pay, poor working conditions and low motivation were the main causes of dissatisfaction (Asuquo et al., 2017). The results show that respondents did not differ in their desire to change their institution, regardless of their length of service, but there were differences with regard to their age. Those over the age of 60 would have changed their jobs rather than they would have remained in their institution. Other age groups showed the same pattern of responses concerning job change regardless of age. The European Commission estimated that there would be a shortage of 590,000 nurses by the year 2020 (Flinkman et al., 2010). Low pay was the biggest reason for moving to another institution, followed by poor working conditions and poor interpersonal relationships. For the youngest and oldest respondents, the main reason for changing their institution was job insecurity, while for those aged 20–40, the biggest problem was low salary. Workplace satisfaction is the level of “serenity” an employee feels about work; that feeling greatly affects work. Job dissatisfaction is one of the most important factors for leaving one’s job, increasing the need for more nurses as well as the workload of current nurses, leading to their dissatisfaction (Mousazadeh et al., 2018). A study conducted in Belgium shows a high level of communication and job satisfaction in a sample of nurses. The intention to leave and the frequency of burnout were low. To some extent, satisfaction with communication can be related to job satisfaction, intention to quit and burnout (Vermeir et al., 2018). Money incentives have been highlighted as a motivating factor for nurses/technicians, with a positive correlation between the achievement of motivation and pay results being confirmed (Sato et al., 2017). Stimulation such as a reward was also a motivating factor among healthcare professionals in a study conducted in Nigeria (Bhatnagar et al., 2017). An Indian study suggests that working with the necessary resources and working in a good working environment are the most important motivating factors (Purohit & Vasava, 2017). In the present study, respondents were more satisfied than dissatisfied with the amount of education they were exposed to, did not think they were discriminated against at work, were more satisfied than dissatisfied with the attitude towards them at work and rated their job satisfaction as good. Furthermore, among the factors that influence workplace satisfaction are career development and advancement in the

profession (Negarandeh et al., 2015). The perception of discrimination at work was negatively correlated with other variables. All other variables were little positively related. The results showed that men and women differed in their perceptions of exposure to discrimination at work. Women were more likely to be discriminated against at work. According to a study conducted at two US hospitals, discrimination against nurses in the workplace can create a hostile environment, which can affect patient care and increase the rate of nurses’ departures from work, that is, job change (Wheeler et al., 2014). The prevalence of discrimination against nurses in the workplace indicates that healthcare providers need to strengthen policies to effectively address this major problem. More research is needed on discrimination against nurses in the workplace, as the discrimination can have serious psychological effects that affect nurses’ quality of life, job change and poorer quality of patient care (Wheeler et al., 2014). Job satisfaction remains one of the practices constantly pursued to increase employment and association. Job satisfaction is a fundamental issue for private or public sector associations in developing countries. Job satisfaction influences the employee to improve their efficiency, organizational responsibility, intentions to leave the workplace and increase the level of enthusiasm of the employee for the job. In this respect, the support of the supervisor plays an important role in encouraging job satisfaction and reducing negative behaviour, that is, discrimination (Brohi et al., 2018). Men and women also differed in job satisfaction. On average, men are more satisfied with their job than women. Job satisfaction is the product of two basic factors, namely statistical factors (age, gender, education level) and the working status. Age and gender have the greatest influence on job performance and job satisfaction (Farrokhanian et al., 2016). Older nurses in managerial positions or with greater experience tend to have more incentives and recognition than younger nurses; if not, they are not satisfied (Toode et al., 2015). The results showed significant differences in all the variables tested. Croatian hospital staff was most satisfied with the amount of education they were exposed to, but felt more discriminated against at work than their counterparts in Slovenia and Serbia. It is possible that this fact also led to lower fairness perception and generally less job satisfaction. Respondents from Serbia and Slovenia did not differ significantly in the amount of education they were exposed to and in their perception of fairness at work. Respondents from Slovenia perceived the least discrimination at work and were also the most satisfied with their work.



Respondents from Croatia mostly chose to change the institution, while respondents from Slovenia were the least likely to change it. Serbian respondents were mostly undecided. Slovenian respondents stated poor interpersonal relationships, poor working conditions and the impossibility of fulfilling their work potential as the main reason for changing the institution, while they saw job insecurity as the least stressing issue. In Croatia, respondents most often pointed out job insecurity, poor working conditions and low salary, being the least dissatisfied with the inability to fulfil their job potential. Respondents from Serbia were dissatisfied with low salaries, while they rarely highlighted job insecurity and poor working conditions as reasons for leaving for another institution. In a study conducted in Zagreb, Croatia, nurses with the shortest work experience were significantly more satisfied, while those with longer work experience were significantly less satisfied. It was also significant that only 5% of nurses were satisfied at work. Most respondents felt that they were not progressing as fast as in other occupations and were not satisfied with their opportunities to advance (Knezić, 2019). Nursing job satisfaction is closely related to the work environment, structural empowerment, organizational commitment, professional commitment, job stress, patient satisfaction, patient-nurse ratios, evidence-based practice, and ethnic background. Various mediating or moderating pathways have been identified, with nurses' job satisfaction being mediated by various factors (Esmael et al., 2019).

### **Limitation of study**

The study has some limitations; for example, the sample was limited to three hospitals and was not stratified by age, gender and length of service. Another limitation was the fact that respondents' physical and emotional fatigue when completing the questionnaires could affect the results. Generally speaking, results obtained through the use of any qualitative research instrument assessing quality depend on the condition of subjects at the time of questioning as well as on working conditions and non-resentment policies. A psychometric analysis is planned for further research.

### **Conclusion**

Job satisfaction is crucial for the provision of appropriate care in health care institutions as well as for the quality of nurses' lives. This research explored important factors of job satisfaction in nurses working in the surgical wards of three clinical hospital centres in Croatia, Slovenia and Serbia. Nursing is considered a noble profession from

which society has high expectations, which is why nurses must be satisfied in their job. At the same time, numerous studies have shown the association of burnout with sociodemographic factors as well as the working conditions of nurses. As expected, the study has found differences in job satisfaction of surgical nurses concerning sociodemographic characteristics such as gender, age and length of service. Male nurses experience higher levels of satisfaction than female nurses, although due to the small number of male respondents, the results obtained should be considered with caution. An interesting finding is that nurses with longer work experience want to change their job, probably because they have experienced higher levels of emotional exhaustion over the years. Only few studies related to this topic have been conducted in Croatia. There is a need for further research into the relationship of some demographic characteristics of respondents with the occurrence of dissatisfaction in the workplace. Interestingly, a significant number of nurses reported being moderately satisfied in their job. It is important to explore the factors of job satisfaction of nurses so that they can do their job as efficiently as possible and to develop a sense of personal satisfaction. This would lead to better functioning of the health care system, and thus to the creation of a better future for the entire society and health care.

### **Ethical aspects and conflict of interest**

Approval for conducting the research was obtained from ethics committees of all three institutions. Respondents were made aware of the importance of the research, and that it was completely anonymous and that they could withdraw at any time. Respondents were also assured that the results would be presented in bulk, not individually. The survey was conducted according to GDPR guidelines. Conflict of interest; none declared.

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### **Author contributions**

Conceived of the presented idea (MS), developed the theory and performed the computations (MS, AK, SB). Verified the analytical methods (MS, SB), encouraged to investigate and supervised the findings of this work (MS, SB). All authors discussed the



results and contributed to the final manuscript (MS, AK, SB).

## References

- Aiken, L. H., Sloane, D. M., Bruyneel, L., Van den Heede, K., Sermeus, W., & for the RN4CAST Consortium. (2013). Nurses' reports of working conditions and hospital quality of care in 12 countries in Europe. *International Journal of Nursing Studies*, 50(2), 143–153. <https://doi.org/10.1016/j.ijnurstu.2012.11.009>
- Asegid, A., Belachew, T., & Yimam, E. (2014). Factors influencing job satisfaction and anticipated turnover among nurses in Sidama zone public health facilities, South Ethiopia. *Nursing Research and Practice*, Article ID 909768. <https://doi.org/10.1155/2014/909768>
- Asuquo, E. O., Imaledo, J. A., Thomp-Onyekwelu, C., Abara, N. L., & Agugua, C. C. (2017). Job satisfaction among nurses at the University of Port-Harcourt Teaching Hospital, Port-Harcourt, Nigeria. *Central African Journal of Public Health*, 3(1), 1–7. <https://doi.org/10.11648/j.cajph.20170301.11>
- Barać, I., Plužarić, J., Kanisek, S., & Dubac Nemet, L. (2015). Zadovoljstvo poslom kod medicinskih sestara i tehničara u odnosu na mjesto rada [Job satisfaction of nurses in relation to workplace]. *Sestrinski glasnik*, 20(1), 27–32. <https://doi.org/10.11608/sgnj.2015.20.006>
- Bhatnagar, A., Gupta, S., Alonge, O., & George, A. S. (2017). Primary health care workers' views of motivating factors at the individual, community, and organizational levels: a qualitative study from Nasarawa and Ondo states, Nigeria. *The International Journal of Health Planning and Management*, 32(2), 217–233. <https://doi.org/10.1002/hpm.2342>
- Brohi, N. A., Abdullah, M. M. B., Khan, A. M., Dahri, A. S., Ali, R., & Markhand, K. H. (2018). Communication quality, job clarity, supervisor support, and job satisfaction among nurses in Pakistan: The moderating influence of fairness perception. *International Journal of Academic Research in Business and Social Sciences*, 8(5), 1–7. <http://dx.doi.org/10.6007/IJARBS/v8-i5/4078>
- Esmael, Z. A., Al-Tawil, N. G., & Piro, T. J. (2019). Job satisfaction among nurses working at three teaching hospitals in Erbil City. *Global Proceedings Repository American Research Foundation*, 231–241. <https://doi.org/10.24897/acn.64.68.411>
- Farrokhian, A. R., Motaghi, M., & Sharif, M. R. (2016). Quality of life in nurses; case study of Shahid Beheshti Hospital of Kashan City, Iran. *International Archives of Health Sciences*, 3(3), 93–99.
- Flinkman, M., Leino-Kilpi, H., & Salanterä, S. (2010). Nurses' intention to leave the profession: integrative review. *Journal of Advanced Nursing*, 66(7), 1422–1434. <https://doi.org/10.1111/j.1365-2648.2010.05322.x>
- Hayes, B., Bonner, A., & Pryor, J. (2010). Factors contributing to nurse job satisfaction in the acute hospital setting: a review of recent literature. *Journal of Nursing Management*, 18(7), 804–814. <https://doi.org/10.1111/j.1365-2834.2010.01131.x>
- Joković, S., Kekuš, D., Despotović, M., Pavlović, J., & Hadživuković, N. (2018). Zadovoljstvo poslom medicinskih sestara [Satisfaction with the work of nurses]. *Sestrinska Reč*, 21(76), 20–24. <https://doi.org/10.5937/SestRec1876020J>
- Jović, D., Knežević, D., & Egeljić-Mihailović, N. (2015). Problemi diplomiranih medicinskih sestara u svakodnevnoj praksi [Problems of graduate nurses in everyday practice]. *Sestrinski Žurnal*, 2(1), 5–10. <http://dx.doi.org/10.7251/SEZ0215005J>
- Kabir, M. J., Heidari, A., Etemad, K., Gashti, A. B., Jafari, N., Honarvar, M. R., Ariaee, M., & Lotfi, M. (2016). Job burnout, job satisfaction, and related factors among health care workers in Golestan Province, Iran. *Electronic Physician*, 8(9), 2924–2930. <https://dx.doi.org/10.19082%2F2924>
- Kalleberg, A. L. (1977). Work values and job rewards: a theory of job satisfaction. *American Sociological Review*, 42(1), 124–143. <https://doi.org/10.2307/2117735>
- Knežić, K. (2019). Usporedba zadovoljstva poslom medicinskih sestara/tehničara u Kliničkom bolničkom centru Zagreb i Kliničkoj bolnici Merkur Nurses job satisfaction in Clinical Hospital Center Zagreb and Clinical Hospital Merkur [Nurses job satisfaction in Clinical Hospital Center Zagreb and Clinical Hospital Merkur]. *Sestrinski Glasnik*, 24(2), 73–81.
- Lorber, M., & Skela Savič, B. (2012). Job satisfaction of nurses and identifying factors of job satisfaction in Slovenian hospitals. *Croatian Medical Journal*, 53(3), 263–270. <http://dx.doi.org/10.3325/cmj.2012.53.263>
- Lu, H., Zhao, Y., & While, A. (2019). Job satisfaction among hospital nurses: a literature review. *International Journal of Nursing Studies*, 94, 21–31. <https://doi.org/10.1016/j.ijnurstu.2019.01.011>
- Masum, A. K. M., Azad, M. A. K., Hoque, K. E., Beh, L.-S., Wanke, P., & Arslan, Ö. (2016). Job satisfaction and intention to quit: an empirical analysis of nurses in Turkey. *PeerJ*, 4, e1896. <https://doi.org/10.7717/peerj.1896>
- Mousazadeh, S., Yektatalab, S., Momennasab, M., & Parvizy, S. (2018). Job satisfaction and related factors among Iranian intensive care unit nurses. *BMC Research Notes*, 11, 823. <https://doi.org/10.1186/s13104-018-3913-5>
- Negarandeh, R., Dehghan-Nayeri, N., & Ghasemi, E. (2015). Motivating factors among Iranian nurses. *Iranian Journal of Nursing and Midwifery Research*, 20(4), 436–441. <https://dx.doi.org/10.4103%2F1735-9066.161011>
- Prosen, M., & Piskar, F. (2015). Job satisfaction of Slovenian hospital nursing workforce. *Journal of Nursing Management*, 23(2), 242–251. <https://doi.org/10.1111/jonm.12121>
- Purohit, B., & Vasava, P. (2017). Role stress among auxiliary nurse midwives in Gujarat, India. *BMC Health Services Research*, 17(1), 69. <https://doi.org/10.1186/s12913-017-2033-6>
- Radovanović, M. (2000). From Serbo-Croatian to Serbian. *Multilingua*, 19(1/2), 21–35. <https://doi.org/10.1515/mult.2000.19.1-2.21>
- Sato, M., Maufi, D., Mwingira, U. J., Leshabari, M. T., Ohnishi, M., & Honda, S. (2017). Measuring three aspects of motivation among health workers at primary level health facilities in rural Tanzania. *PLOS ONE*, 12(5), e0176973. <https://doi.org/10.1371/journal.pone.0176973>
- Toode, K., Routasalo, P., Helminen, M., & Suominen, T. (2015). Hospital nurses' work motivation. *Scandinavian Journal of Caring Sciences*, 29(2), 248–257. <https://doi.org/10.1111/scs.12155>
- Vermeir, P., Blot, S., Degroote, S., Vandijck, D., Mariman, A., Vanacker, T., Peleman, R., Varhaeghe, R., & Vogelaers, D. (2018). Communication satisfaction and job satisfaction

- among critical care nurses and their impact on burnout and intention to leave: a questionnaire study. *Intensive and Critical Care Nursing*, 48, 21–27. <https://doi.org/10.1016/j.iccn.2018.07.001>
- Weiss, H. M., & Merlo, K. L. (2015). Job satisfaction. *International Encyclopedia of the Social & Behavioral Sciences*, 833–838. <http://dx.doi.org/10.1016/B978-0-08-097086-8.22029-1>
- Wheeler, R. M., Foster, J. W., & Hepburn, K. W. (2014). The experience of discrimination by US and Internationally educated nurses in hospital practice in the USA: a qualitative study. *Journal of Advanced Nursing*, 70(2), 350–359. <https://doi.org/10.1111/jan.12197>
- Yi, M., & Keogh, B. (2016). What motivates men to choose nursing as a profession? A systematic review of qualitative studies. *Contemporary Nurse*, 52(1), 95–105. <https://doi.org/10.1080/10376178.2016.1192952>