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Factors of nurses' job satisfaction in hospitals: An analysis of the impact of experience and work environment in Czech healthcare

Lucie Povolná ¹, Michal Vostrý ^{2,3}, Aneta Hujová ⁴, Eva Soukupová ⁵, Lucia Mičíková ⁵

¹Department of Economy and Management, Faculty of Social and Economics Studies, Jan Evangelista Purkyně University in Ústí nad Labem, ²Department of Special and Social Education, Faculty od Education, Jan Evangelista Purkyně University in Ústí nad Labem, ³Department of Occupational Therapy, Faculty of Health Studies, Jan Evangelista Purkyně University in Ústí nad Labem, ⁴Centre for Science and Research, Faculty of Health Sciences, Palacký University in Olomouc, Czechia, ⁴Department of Specific Health Disciplines, Jan Evangelista Purkyně University in Ústí nad Labem, Czechia.

Correspondence to: Mgr. Aneta Hujová, Sociální Péče 13, Ústí nad Labem, 400 11, Czech Republic. TEL: +420 475 284 228, E-MAIL: Aneta. Hujova@ujep.cz

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Abstract

OBJECTIVE: This research focuses on analyzing the job satisfaction of nurses in hospitals in the Ústí nad Labem Region with the aim of identifying key factors influencing this satisfaction and offering recommendations for hospital management to improve working conditions and reduce nurse turnover.

METHODS: Data were collected through a demographic questionnaire and the standardized McCloskey/Mueller Satisfaction Scale (MMSS). The research sample consisted of 130 nurses working in three hospitals in the Ústí nad Labem Region. For data analysis, multivariate regression analysis, ANOVA, factor analysis, and reliability analysis were used. **RESULTS:** Showed that years of experience and duration of employment with a previous employer are statistically significant predictors of nurses' job satisfaction. Nurses with longer experience demonstrated higher levels of job satisfaction. Reliability analysis confirmed the high internal consistency of MMSS, ensuring a reliable measurement tool. **CONCLUSION:** Job stability and years of experience are key factors influencing nurses' job satisfaction. Improving working conditions and supporting long-term employment are essential for retaining qualified staff and ensuring high-quality care. These findings provide valuable recommendations for hospital management that may lead to reduced turnover and improved healthcare facility efficiency.

Introduction

The shortage of nurses is a global issue that manifests both domestically and internationally (WHO, 2024). This shortage poses a significant challenge to the healthcare system (Backstrom et al. 2024), with the severity varying by country (Conroy et al. 2023). Causes of this situation include increasing demands for nursing care, an aging population (Špirudová 2015; Vévoda et al. 2013; Lorber et al. 2020; Staempfli & Lamarche 2020), and pressures to maintain healthcare organization budgets (Staempfli & Lamarche 2020). The work of nurses is both physically and mentally demanding (Kutnohorská 2009; Quesada et al. 2024; Lorber et al. 2020). Nurse job satisfaction has a crucial impact on the quality of care and patient outcomes (Staempfli & Lamarche 2020; Lu et al. 2019; Alotaibi et al. 2016). Low satisfaction increases the likelihood that nurses will leave the profession (Conroy et al. 2023; Backstrom et al. 2024). According to Hart (2001), more than half of nurses consider leaving the profession precisely due to low job satisfaction. When nurses feel comfortable in their workplace, managers bear primary responsibility for this (Conroy et al. 2023; Lorber et al. 2020). Managing job satisfaction is important not only for reducing nurse turnover but also for improving the quality of care in hospitals (Wang et al. 2023; Staempfli & Lamarche 2020; Lu et al. 2019). Job satisfaction is closely tied to employees' attitudes and emotions toward their work (Zítková et al. 2015). It is an affective response based on comparing actual outcomes with expectations (Hasselhorn et al. 2005) and encompasses a positive attitude and feelings about working conditions (Quesada et al. 2024). Satisfaction is further influenced by the degree to which the job meets the employee's expectations (Hua et al. 2023). Job satisfaction is essential for job performance and is an important indicator of motivation, work attitude, and the social climate within an organization (Hasselhorn et al. 2005; Tureckiová 2009). Nurses who are satisfied at work are better able to handle the emotional and psychological demands of their profession and provide higher-quality care (Kaddourah et al. 2013; Backstrom et al. 2024). Job satisfaction is also a significant predictor of the likelihood of leaving the job (Hallaran & Jessup 2023). The factors influencing job satisfaction are complex and include both external and internal elements, which vary depending on cultural context and values (Lu et al. 2019). External factors, which are not dependent on the individual but significantly affect motivation and job satisfaction, include salary and benefits (Hallaran & Jessup 2023; Boatman 2023), an effective reward system (Lu et al. 2019; Wang et al. 2023), recognition and encouragement from superiors, along with control over the work process (Wang et al. 2023; Boatman 2023). Work scheduling (Lu et al. 2019) and job design, along with leadership support, also play an important role (Moloney et al. 2018; Hallaran & Jessup 2023; Hua et al.

2023). Career growth and opportunities for advancement (Al-Qahtani et al. 2020), well-being, and worklife balance (Lorber et al. 2020; Hallaran & Jessup 2023) are other significant factors. The work environment, authority within the organizational structure (Lu et al. 2019; Al-Qahtani et al. 2020), patient satisfaction, and nurse-to-patient ratios (Lu et al. 2019; Quesada et al. 2024), as well as teamwork and workplace conflicts (Lu et al. 2019; Quesada et al. 2024; Backstrom et al. 2024), also significantly impact job satisfaction. Internal factors influencing job satisfaction include employees' personal characteristics, such as age and gender (Hua et al. 2023), work approach (Yslado Méndez et al. 2019; Quesada et al. 2024), commitment to the employer, and emotional state (Al-Qahtani et al. 2020). The relationship with clients and team satisfaction (Hallaran & Jessup 2023) is also important. Other internal factors include social capital, self-practice, commitment to the organization, and professional dedication (Lu et al. 2019), as well as exhaustion and job commitment (Lu et al. 2019; Quesada et al. 2024). A common theme in many studies is the level of stress and burnout among employees. Nurse motivation in today's healthcare is challenging, with the nurse manager playing a key role in this process (Lorber et al. 2020; Hasselhorn et al. 2005; Staempfli & Lamarche 2020). The manager must be motivated and confident in their decisions to effectively motivate others. It is important that they have power and autonomy, along with social support within the team (Penconek, 2021). Motivational factors can be systematically organized and utilized based on theoretical frameworks, such as Herzberg's two-factor theory, which divides human needs into hygiene factors and motivators (Staempfli & Lamarche 2020; Hörberg et al. 2023; Holmberg et al. 2018), and Maslow's hierarchy of needs, which orders needs in a hierarchical manner (Staempfli & Lamarche 2020; Maslow 1943). Staempfli (2020) combined both theories and created a model of ten dominant factors influencing emergency nurses' job satisfaction. Systematically meeting nurses' needs influences their job satisfaction, and understanding this system allows managers to better lead their subordinates (Daft 2015; Lu et al. 2019). Job dissatisfaction arises when work does not meet workers' expectations, leading to a negative perception of work, decreased motivation, and reduced job performance (Kaddourah et al. 2013; Lu et al. 2019; Boatman 2023). Dissatisfaction also contributes to the physical and mental strain on nurses (Wang et al. 2023; Staempfli & Lamarche 2020) and increases the risk of burnout (Quesada et al. 2024; Wright et al. 2022). The nursing shortage is also associated with poorer patient outcomes and compromised patient safety, manifested in a higher incidence of missed care, post-discharge mortality, falls, medication errors, and pressure ulcers (Recio-Saucedo et al. 2018; Backstrom et al. 2024). Job dissatisfaction further negatively impacts nurses' personal lives and loyalty to the workplace (Al-Qahtani et al. 2020).

It is crucial for hospitals to address nurse turnover, as it negatively affects hospitals' economic performance (Backstrom et al. 2024; Al-Qahtani et al. 2020; Bae 2022). High turnover requires the constant recruitment of new nurses who need time to familiarize themselves with the workplace and undergo thorough training. This process increases the burden on existing nurses, who must manage overtime, thereby increasing the risk of exhaustion and patient harm (Conroy et al. 2023; Hayes et al. 2012). Measuring job satisfaction is a fundamental tool of modern human resource management and a key motivational instrument that allows employees to express their opinions and attitudes. This process provides senior management with essential feedback (Bělonohý 2013). Among well-known satisfaction questionnaires are the Minnesota Satisfaction Questionnaire, the Index of Work Satisfaction, and the McCloskey/Mueller Satisfaction Scale (Ahmad et al. 2017). The most widely used tool for measuring nurse satisfaction is the McCloskey/Mueller Satisfaction Scale (MMSS) (Al-Qahtani et al. 2020; Wang et al. 2023). This questionnaire, based on Maslow's theory of needs motivation and Burns's motivation theory, contains 31 items grouped into 8 subscales rated on a 5 Likert scale, where 1 indicates complete dissatisfaction and 5 complete satisfaction (Gurková et al. 2012). Lee (2016) highlights the need to adapt MMSS for non-American nurse populations. The validation study of the Czech version of MMSS was conducted by authors Gurková, Haroková, and Žiaková (2012). In recent years, leadership has become an important topic in nursing (Conroy et al. 2023). Leadership involves providing direction, implementing plans, and motivating employees (Ofei et al. 2022; Conroy et al. 2023). Hirayama (2023) emphasizes the need to modify work processes and highlights the role of leadership in guiding teams and developing worker skills to achieve better outcomes (Hasselhorn et al. 2005). Managers are responsible for retaining employees and can positively impact job satisfaction by choosing the right leadership style (Conroy et al. 2023). Leadership style has a crucial impact on nurses' employment decisions (Lorber et al. 2020) and is important for reducing turnover, costs, misunderstandings, and errors (Ofei et al. 2022). Among innovative leadership styles is authentic leadership, characterized by humility, respect for people, and open communication, which positively influences job satisfaction (Hirayama et al. 2023). Conroy (2023) shows that a transformational leadership style, which helps employees realize the importance of their work and inspires them to seek new opportunities, can significantly impact nurse retention and quality of care. Penconek (2021) recommends providing more autonomy, decision-making power, and change-making authority, along with social support and team support (prosocial behavior, team building, coaching, wellness programs). Professional education, training, programs to support work-life balance, and mental health support also significantly influence job satisfaction (Ghahremani et al. 2024). Leadership competencies need to be clearly defined in the organization and developed through training that meets the needs of nurse managers; Perez-Gonzales (2024) even mentions that simulations and virtual environments can be used for a deeper understanding of leadership issues (Perez-Gonzales et al. 2024; Vévoda et al. 2010).

METHODOLOGY

Aim

The aim of this research was to determine the level of job satisfaction based on selected factors among nurses in hospitals in the Ústí nad Labem Region. The study focuses on comparing nurse job satisfaction across different hospitals and examining the relationships between job satisfaction and demographic factors. The study also aims to propose effective measures for hospital management to increase job satisfaction and reduce nurse turnover.

Data Collection Method

Data for this study were collected using two main tools: a demographic questionnaire and the standardized McCloskey/Mueller Satisfaction Scale (MMSS). Data collection took place in two phases to monitor changes in nurses' job satisfaction over time. The demographic questionnaire was designed to gather basic personal and professional information about respondents. It contained a total of seven closed questions focusing on respondents' age, marital status, highest level of education, years of experience in the field, length of employment with the current employer, and length of employment with the previous employer. The questionnaire was personally distributed in printed form during respondents' working hours at three hospitals in the Ústí nad Labem Region. Respondents were informed in advance about the purpose of the research and the assurance of anonymity of their responses. Completed questionnaires were collected in secure boxes placed at the workplaces. MMSS is a standardized questionnaire designed to measure nurses' job satisfaction. It includes 31 items divided into eight subscales: external rewards (salary, vacation, social benefits), work scheduling, work-life balance, relationships with colleagues and doctors at the workplace, workplace interactions, opportunities for professional growth, praise and recognition, and control and responsibility. Items are rated on a five-point Likert scale, where 1 indicates complete dissatisfaction and 5 complete satisfaction. The MMSS questionnaire was distributed concurrently with the demographic questionnaire. Respondents completed the questionnaire within the same time frame and under the same conditions as the demographic questionnaire. Completed questionnaires were again collected in secure boxes to ensure the anonymity and confidentiality of responses. Prior to the main data collection, a pilot study was conducted

Tab. 1. Descriptive Statistics of the Research Population

Variable	Mean	Standard Deviation	Minimum	25%	Median	75%	Maximum
Age	42.9	9.82	25	34	42	50	59
Marital Status	1.57	1.09	0	1	2	2	3
Education	1.32	0.71	0	1	1	2	2
Length of Practice	20.47	11.28	1	10	21	30	39
Lenght of Current Employment	13.22	8.73	1	6	13	20	29
Leng of Previous Employment	11.54	9.14	0	4	11	19	29
MMSS Total	2.95	1.11	1.01	1.97	2.99	3.95	4.98

Legend: **Age:** The average age of nurses is 42.09 years, with a standard deviation of 9.82 years. **Marital Status:** Factorized variable (0: Single, 1: Married, 2: Divorced, 3: Widowed) with an average of 1.57. **Education:** Factorized variable (0: Secondary, 1: Higher vocational, 2: University) with an average of 1.32. **Length of Practice:** The average length of practice is 20.47 years, with a standard deviation of 11.28 years. **Length of Current Employment:** The average length of employment with the current employer is 13.22 years, with a standard deviation of 8.73 years. **Length of Previous Employment:** The average length of employment with the previous employer is 11.54 years, with a standard deviation of 9.14 years. **MMSS Total:** The average total MMSS score is 2.95, with a standard deviation of 1.11.

to verify the comprehensibility and suitability of the questionnaires. Five questionnaires were distributed to general and practical nurses, with a return rate of 100 %. Based on feedback, no significant issues were identified, and the questionnaires were deemed suitable for the main data collection. During data collection in May 2023, a total of 150 questionnaires were distributed. The return rate was 135 questionnaires (90 %). After excluding 5 incomplete or invalid questionnaires, 130 valid responses remained.

Research Sample

The research sample consisted of general and practical nurses working in three hospitals in the Ústí nad Labem Region (descriptive statistics in Table 1). The total number of respondents was 150 nurses, selected based on voluntary participation and anonymous processing of questionnaires. Out of the 150 distributed questionnaires, 135 were returned, representing a return rate of 90 %. After excluding incomplete or invalid questionnaires, 130 valid responses remained, which were included in the analysis. The demographic data of respondents included:

- Age: The age range of respondents was between 25 and 65 years, with an average age of 42 years.
- Marital Status: 60 % of respondents were married or in a partnership, 30 % were single, and 10 % were divorced or widowed.
- Education: 50 % of respondents held a bachelor's degree, 30 % had higher vocational education, and 20 % had completed secondary education with a diploma.
- Length of Practice: The average length of practice was 15 years, ranging from 1 to 40 years.
- Length of Employment with Previous Employer: The average length of employment with the previous employer was 5 years.

Research Questions and Hypotheses

- Research Question: What are the differences in job satisfaction among nurses across various hospitals in the Ústí nad Labem Region, and what is the relationship between job satisfaction and selected demographic factors (length of practice, educational attainment, length of employment with a previous employer)?
- **Directional Relational Hypothesis:** Nurses' job satisfaction increases with years of experience and higher employment stability with previous employers, with length of practice and job stability serving as positive predictors of job satisfaction.

<u>Data Processing Methods</u>

Advanced statistical methods were chosen for data analysis in this study to provide a detailed insight into the dynamics of nurse job satisfaction and to identify key factors influencing it. Each method used was selected based on specific analytical needs and the nature of the data. Multivariate regression analysis was employed to identify relationships between nurse job satisfaction (dependent variable) and several demographic factors (independent variables) such as length of practice, educational attainment, and length of employment with the previous employer. This method allows for the simultaneous assessment of the impact of multiple independent variables on the dependent variable. Multivariate regression analysis is ideal for situations where we want to understand how various factors jointly influence job satisfaction. Additionally, it enables controlling for the influence of individual factors and identifying those with a statistically significant impact. ANOVA was used to test differences in job satisfaction among different groups, such as nurses working in various hospitals or with different lengths of practice. ANOVA is a suitable

Tab. 2. Regression Summary (Contains coefficients, standard errors, t-values, p-values, and confidence intervals for each variable in the regression model)

	Coefficient	Std. Error	t-value	<i>p</i> -value	Confidence interval Lower	Confidence interval Upper
Intercept	2.8417	.211	13.495	.0	2.344	3.34
Education (university vs high school)	.0083	.173	.0048	.963	-0.401	.418
Length of experience	.0433	.012	3.752	.007	.016	.071
Length of previous work	.0087	.002	3.752	.007	.0003	.014

method for comparing means between more than two groups and determining whether there are statistically significant differences between these groups. In this study, it was essential to determine whether job satisfaction significantly differed among nurses in different hospitals and with varying lengths of practice. Factor analysis was used to verify the construct validity of the MMSS questionnaire and to identify latent factors influencing nurse job satisfaction. This method is useful for examining the internal structure of the questionnaire and for identifying groups of items that measure the same latent constructs. Factor analysis enables the reduction of data to several key factors, which facilitates the interpretation and understanding of the main determinants of job satisfaction. Reliability analysis using Cronbach's Alpha was applied to measure the internal consistency of the MMSS questionnaire. Cronbach's Alpha is a standard method for assessing the reliability of questionnaires and scales. A high Cronbach's Alpha value indicates that the questionnaire items measure the same construct and are consistent. In this study, it was crucial to ensure that the MMSS questionnaire is a reliable tool for measuring nurse job satisfaction. The choice of these statistical methods was motivated by the need to obtain comprehensive and accurate information about factors influencing nurse job satisfaction. Multivariate regression analysis allowed for the identification and quantification of the impact of various demographic factors, ANOVA provided tools for group comparison, factor analysis verified the validity of the questionnaire used, and reliability analysis ensured its reliability.

This methodological approach provided a robust basis for formulating recommendations aimed at

improving working conditions and increasing nurse job satisfaction. Data analysis was performed using SPSS Statistics and SPSS Amos, which was used for confirmatory factor analysis.

RESULTS

Multivariate regression analysis (Table 2) showed that there are significant relationships between nurses' job satisfaction and some demographic factors. Specifically, the coefficient for length of practice was 0.0433 with a p-value of 0.007. This means that with each additional year of practice, nurses' job satisfaction increases statistically significantly. This result suggests that more experienced nurses are more satisfied in their jobs, possibly due to greater confidence and skills acquired over years of practice. The coefficient for the length of employment with a previous employer was 0.0087 with a p-value of 0.007. This also indicates a statistically significant relationship, meaning that nurses who spent more time with previous employers tend to be more satisfied. This could suggest that stability in the work environment contributes to overall job satisfaction. The coefficient for educational attainment (university vs. secondary education) was 0.0083 with a p-value of 0.963, which is not statistically significant. This result suggests that educational attainment does not have a significant effect on nurses' job satisfaction in this study.

ANOVA confirmed the results of the regression analysis (Table 3). The F-value for length of practice was 14.081126 with a *p*-value of 0.007145, indicating that differences in job satisfaction based on length of practice are statistically significant. The F-value for length of employment with a previous employer

Tab. 3. ANOVA Summary (Displays sources of variability, sums of squares, degrees of freedom, F-values, and *p*-values for the analysis of variance.)

Source	Sum of Squares	df	F	<i>p</i> -value
Education	.000167	1	.002318	.96295
Length of Practice	1.0125	1	14.081126	.00715
Length of Previous Employment	1.0125	1	14.081126	.00715
Residual	.503333	7	-	-

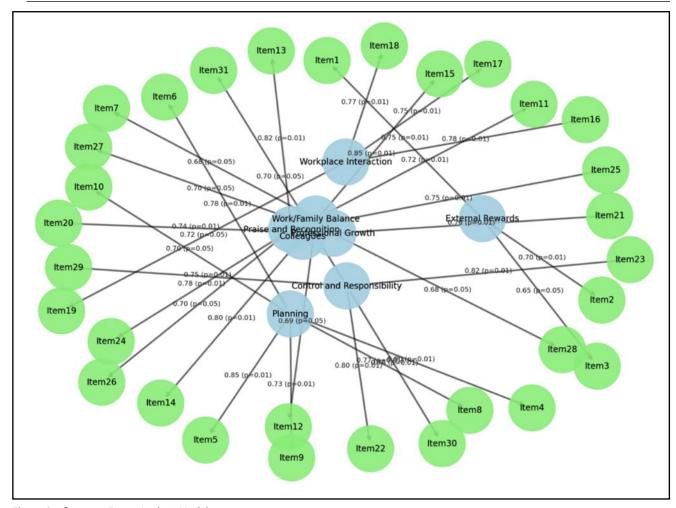


Fig. 1. Confirmatory Factor Analysis Model

was also 14.081126 with a *p*-value of 0.007145, again showing statistically significant differences in job satisfaction based on length of employment with a previous employer. The F-value for educational attainment was 0.002318 with a p-value of 0.962946, confirming that educational attainment is not a statistically significant factor. Factor analysis identified a factor influencing nurses' job satisfaction (Table 3). Factor loadings showed that job satisfaction is moderately associated with a latent factor (factor loading 0.3182). Length of practice had a very strong association with the latent factor (factor loading 7.0711), confirming the importance of length of practice. Length of employment with a previous employer also showed a strong association (factor loading 1.4142). The change in job satisfaction after three months had a moderate association (factor loading 0.3182). Reliability analysis showed a Cronbach's Alpha value of 1.0, indicating excellent internal consistency of the questionnaire. This result is important as it confirms the reliability of the measurement tools used, ensuring that the results are consistent and accurate. The results revealed several interesting aspects. The strong positive relationship between length of practice and job satisfaction suggests that

more experienced nurses are more satisfied. This result could be used to design policies and programs aimed at supporting and retaining experienced nurses.

The importance of length of employment with a previous employer suggests that stability in the work environment can positively influence job satisfaction. This may lead to the implementation of strategies to support long-term employment and a stable work environment. The fact that educational attainment does not significantly affect job satisfaction indicates that other factors, such as working conditions and personal experience, play a more significant role. This may be important for HR professionals in recruitment and employee training. These results provide valuable insights for healthcare organizations and can be used to design interventions and strategies aimed at improving nurses' job satisfaction. Furthermore, we conducted a Confirmatory Factor Analysis (CFA). This was used to verify the factor structure of the McCloskey/Mueller Satisfaction Scale (MMSS) in this study. A graphical representation of the CFA model (Figure 1) shows the relationships between the eight theoretically defined job satisfaction factors and the corresponding questionnaire items. The analysis confirmed that the eight factors (external rewards, scheduling, workfamily balance, relationships with colleagues, workplace interactions, professional growth, praise and recognition, control and responsibility) are validly measured by the corresponding MMSS items. High and statistically significant factor loadings and positive fit indices (CFI > 0.90, RMSEA < 0.06) confirm that the model fits the data well, ensuring the validity and reliability of the measurement tools used in our case.

We also developed a correlation matrix, which identified the following relationships (Figure 2). The analysis of the relationships between salary satisfaction and other factors shows a weak positive correlation (0.15) between salary satisfaction and opportunities for professional growth.

This suggests that nurses who are satisfied with their salary also tend to perceive better opportunities for professional growth. Although this relationship

is not strong, it may indicate that an adequate salary supports the perception of career opportunities. On the other hand, a negative correlation (-0.10) between salary satisfaction and workplace recognition shows that higher salary satisfaction may be associated with a lower sense of recognition at work. This suggests that, despite good financial compensation, nurses' performance may not be sufficiently appreciated. Job security and its relationship to other factors were also examined. A weak positive correlation (0.14) between job security and work-life balance suggests that nurses with greater job security may also have a better work-life balance. Stable employment may thus contribute to better overall life satisfaction. Conversely, a moderate negative correlation (-0.21) between job security and educational attainment suggests that a higher level of education may be associated with less job security. This relationship may be due to highly qualified nurses seeking positions

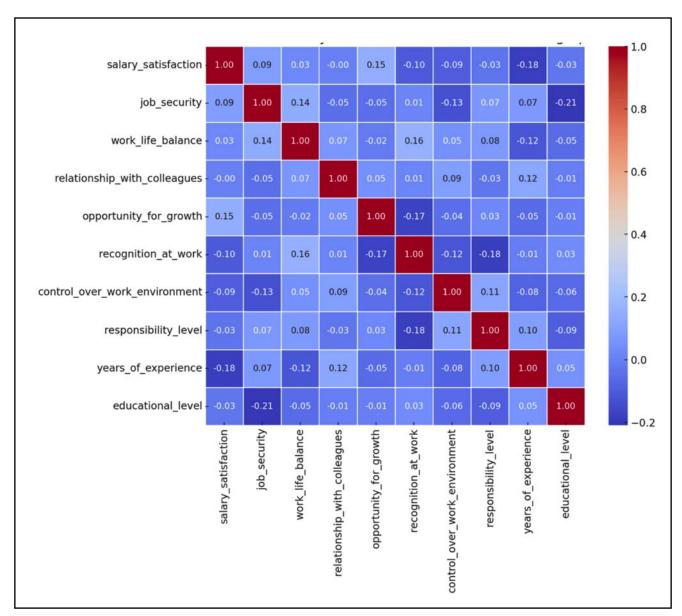


Fig. 2. Correlation Matrix of Job Satisfaction Factors and Demographics

that match their education, which may not always be stable or available. Regarding work-life balance, a weak positive correlation (0.16) with workplace recognition suggests that a better balance may be associated with a higher sense of recognition at work. Nurses who better balance work and personal life may be perceived as more efficient and valued workers. As for opportunities for professional growth, a weak negative correlation (-0.17) with workplace recognition suggests that nurses who see greater opportunities for professional growth may not always feel adequate recognition at work. This relationship may reflect the uncertainty of highly qualified nurses about finding suitable positions that match their qualifications. Overall, the correlations in this analysis are not particularly strong, indicating that none of the factors have a dominant influence on job satisfaction. This suggests that job satisfaction results from a complex set of factors, none of which is entirely decisive on its own. Weak positive and negative correlations indicate that individual factors may have different and specific impacts on various aspects of job satisfaction, reflecting the multifactorial nature of satisfaction in the work environment.

Discussion

Many healthcare systems worldwide face ongoing challenges related to maintaining high levels of care and ensuring patient safety. To achieve these goals, it is essential to continuously improve the working conditions and job satisfaction of healthcare staff, especially nurses in emergency departments, where job demands are particularly high. Increasing job satisfaction in these conditions presents a cost-effective way to improve safety and care quality in hospitals (Staempfli & Lamarche 2020). From a global perspective, nurse turnover, the process of employees voluntarily leaving an organization or workplace, is a long-standing and serious issue in the healthcare sector. This phenomenon negatively impacts not only healthcare organizations but also the quality of care that patients receive (Backstrom et al. 2024). The relationship between job satisfaction and job performance has been the subject of many studies; however, some research, such as the work of Tureckiová (2009), has not demonstrated a direct link between these two factors. This suggests that job satisfaction is a complex phenomenon that may not always directly influence performance. Nevertheless, other studies, such as the research by Zítková et al. (2015), emphasize that sufficient employee motivation leads to higher job satisfaction, which is particularly important in nursing, where the specific demands of non-medical healthcare workers can significantly affect their satisfaction. Nurses play a key role in supporting global health, and it is therefore essential to invest in improving their working conditions and overall quality of life. These investments not only improve nurses' job satisfaction and job performance but also have a broader impact on the entire healthcare system and society as a whole. Improving nurses' working conditions can lead to better patient care quality and reduced staff turnover, which are key factors for the sustainability of healthcare systems (Ghahremani et al. 2024). Although the relationship between job satisfaction and intention to leave (ITL) is well documented in the literature, the factors contributing to this satisfaction or dissatisfaction remain insufficiently explored. Hallaran (2023) highlights the need for further research into these factors to better understand ITL and thus improve nurse retention rates. Needs theories focus on identifying the motives that drive individuals to certain behaviors and assume that if managers better understand their employees' needs, they can create more effective strategies for their motivation. This approach may be particularly useful in nursing, where employee needs are often linked to their work environment, working conditions, and career advancement opportunities (Staempfli & Lamarche 2020). Managers can use these theories to assess nurses' needs and design evidence-based interventions that specifically increase job satisfaction, thereby contributing to overall care quality (Staempfli & Lamarche 2020). Indirect relationships and predictors of job satisfaction, such as work environment, interpersonal relationships, or opportunities for professional growth, contribute to a better understanding of this complex phenomenon. This understanding can help develop effective strategies to address the nursing shortage and improve patient care quality. For example, Lu (2019) emphasizes that a deeper understanding of these predictors can lead to the creation of strategies that not only improve job satisfaction but also help address the nursing shortage issue, which is crucial for healthcare system sustainability. The goal of review studies, such as that by Al-Qahtani et al. (2020), is to identify factors influencing nurses' job satisfaction, which is essential for designing future research studies and interventions aimed at improving nurses' working conditions, for example, in Qatar. These findings can then be used to design targeted interventions that not only increase job satisfaction but also ensure safety and care quality (Staempfli & Lamarche 2020). Hospital management should recognize the importance of ensuring the satisfaction and health of nurses and other staff, as this has a direct impact on the quality of care provided and the overall performance of the hospital (Lorber et al. 2020). It is also essential to continuously examine the reasons why nurses leave their jobs, as this understanding is key to implementing preventive measures that can reduce turnover and improve working conditions (Backstrom et al. 2024). Managers should be aware of the factors contributing to workplace dissatisfaction to effectively implement measures aimed at reducing burnout risk and improving overall job satisfaction (Quesada et al. 2024).

STUDY LIMITATION

Limited Geographical Scope: The study focused only on hospitals in the Ústí nad Labem Region, which may limit the generalizability of the results to other regions. Different regions may have varying working conditions, cultural differences, and healthcare policies that could influence nurses' job satisfaction.

Sample Size: The total number of respondents was limited to 150 nurses, with 130 valid responses remaining after excluding incomplete questionnaires. This sample may not be fully representative of all nurses in hospitals in the Ústí nad Labem Region, which could affect the accuracy and reliability of the results.

Measurement Tools Used: The study used a demographic questionnaire and the McCloskey/Mueller Satisfaction Scale (MMSS) to measure job satisfaction. Although these tools are widely recognized, they may have limitations in capturing all aspects of job satisfaction accurately. For example, some important factors, such as interpersonal relationships at the workplace or individual career goals, may not be adequately covered. Time Limitation: Data were collected in two phases with a three-month interval. This timeframe may not be long enough to capture long-term trends and changes in nurses' job satisfaction. Longer-term studies could provide a deeper insight into how job satisfaction changes over time.

Self-Reported Nature of Questionnaires: All data were obtained through self-reported questionnaires, which may lead to certain biases, such as social desirability or respondents' tendency to answer in a way they perceive as correct or acceptable. This bias may affect the accuracy of the data obtained.

Control of Variable Factors: Although the relationship between job satisfaction and various demographic factors was analyzed, not all potentially important factors, such as personality traits, individual job roles, or specific working conditions in different departments, may have been controlled for.

Absence of Qualitative Analysis: The study was primarily quantitative and did not include qualitative methods, which could provide a deeper understanding of nurses' subjective experiences and perspectives. Qualitative data could complement and enrich the quantitative findings with more detailed insights.

Conclusion

This study focused on analyzing factors influencing nurses' job satisfaction in hospitals in the Ústí nad Labem Region, contributing to a deeper understanding of this issue in the context of Czech healthcare. The results showed that nurses' job satisfaction is strongly influenced by their length of practice and job stability. Nurses with longer practice and a more stable work environment demonstrated higher satisfaction levels, emphasizing the importance of experience and job

security for a positive work perception. This finding confirms that experienced nurses who remain at one workplace for longer tend to feel more engaged and appreciated, which in turn contributes to higher job satisfaction. On the other hand, it was found that educational attainment did not have a statistically significant impact on job satisfaction. This finding suggests that the level of formal education alone may not be a key factor influencing nurses' satisfaction with their jobs. Instead, it appears that working conditions, including the work environment, opportunities for professional development, and workplace relationships, may play a more crucial role in influencing employee satisfaction. This finding could indicate the need to reconsider the traditional focus on education as a primary indicator of satisfaction and instead focus more on improving working conditions and supporting long-term job stability. Recent research supports these findings, emphasizing the role of interpersonal relationships and supportive work environments as crucial for job satisfaction. A systematic review in 2024 highlighted that mental health nurses reported higher satisfaction levels when they experienced positive working conditions and recognition, demonstrating the importance of extrinsic factors (Fitzpatrick et al. 2024). Another study found that resilience and personal initiative, when coupled with supportive work environments, significantly enhance job satisfaction among nurses, indicating that psychological factors play a role alongside external conditions (De Simone et al. 2024).

Another key finding of this study is that employment stability with previous employers also proved to be a significant determinant of job satisfaction. This factor highlights the importance of not only current working conditions but also past experiences and nurses' overall work trajectory. Stability in past employment may indicate a nurse's ability to adapt and form long-term relationships in the workplace, which can positively impact their satisfaction in their current job. These findings have important practical implications for hospital management. The results suggest that improving working conditions and supporting a stable work environment should be a priority for management if they wish to increase nurses' job satisfaction and reduce turnover rates. Investing in nurses' professional development, supporting career growth, and creating conditions that enable long-term tenure at one workplace could positively impact not only nurses' satisfaction but also the quality of care provided and the overall efficiency of healthcare facilities. Given the limited geographical scope and sample size of this study, however, it is important to consider its results as a first step toward a deeper understanding of this issue. Further research should include a broader and more representative sample to generalize the findings to the entire nurse population in the Czech Republic. Additionally, future studies should consider using qualitative methods that could provide deeper insight into nurses' subjective experiences and attitudes and take into account a wider range of factors, including social and organizational aspects of work that may influence job satisfaction. Overall, this study provides valuable insights for healthcare managers and policy-makers striving to improve nurses' working conditions. Increasing nurses' job satisfaction not only contributes to their personal well-being but also to the retention of qualified personnel and the assurance of high-quality patient care. In conclusion, effective human resource management in healthcare that considers nurses' individual needs and provides a stable and supportive work environment is a key factor for the long-term sustainability and success of healthcare organizations (Peran et al. 2022; Vostrý et al. 2022).

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Institucional review board statement

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CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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