

ORIGINAL PAPER

WORK MOTIVATION, JOB SATISFACTION, AND NURSING RECORD-KEEPING: DO THEY DIFFER IN SURGERY AND INTERNAL DISEASE DEPARTMENTS?

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Abstract

Aim: The aim of this study was to determine the level of work motivation, job satisfaction, and nursing record-keeping, and to analyse differences in job satisfaction, work motivation, and level of nursing record-keeping in two wards. **Design:** A cross-sectional study was conducted. **Methods:** The study involved nurses employed in the Department of Surgery and the Department of Internal Medicine. The nurses voluntarily and anonymously completed the Multidimensional Work Motivation Scale and a questionnaire that included job satisfaction and demographic information. Nursing records were taken from the health institution computer database. **Results:** A significant difference in motivation was observed in favor of Surgery nurses ($p = 0.005$), and a significant difference in job satisfaction was observed in favor of Internal Diseases Department nurses ($p = 0.039$). Surgery employees were significantly better at keeping nursing records ($p < 0.00001$). **Conclusion:** The level of job satisfaction and work motivation are not proportional to the level of nursing record-keeping.

Keywords: department, documentation, job satisfaction, nurses, work motivation.

Introduction

Human resources is a key element in improving the performance of the healthcare system (Ayalew et al., 2019). Of all healthcare workers, hospital nurses are the largest group of carers, and have close and personal contact with patients. Hospital nurses directly influence the quality and safety of healthcare (Toode et al., 2015). There is a need to investigate their work motivation, which has a direct effect on nursing workforce preservation, nursing performance, and, consequently, patient outcomes (Alhakami & Baker, 2018). The profession of nurse is often not simply a job to those who practice it, but rather a vocation, providing special feelings of fulfilment and pleasure. Matulić (2007) states that nursing evokes images of health, diseases, treatment and care. However, in some transition countries, nursing is still not recognized as an independent and autonomous profession (Zelić et al., 2018). Opinions that nurses are dependent on doctors (Mousazadeh et al., 2018) and that nursing is an “inferior” profession persist in a portion of the general public (Milutinović et al., 2018).

Nursing is based on autonomous competencies and a humanistic-altruistic value system, recognition, and consistency (Guo et al., 2017). Nursing records represent a reflection of nurses’ independence, and are an integral part of the nursing process (Hariyati et al., 2016). Moreover, nursing documentation is a significant indicator of the quality of patient care delivery (Akhu-Zaheya et al., 2018), but documentation is also one of the most disputed and problematic nursing roles (Kamil et al., 2018). Since 2011, nursing documentation has become mandatory in the hospital healthcare system in Croatia, and it is legally regulated and prescribed by competent institutions (Croatian Ministry of Health, 2011). The importance and independence of the nursing profession and autonomous competences of nurses have meant that the central question of nurse motivation has been an important issue for numerous executives and theorists for many years (Toode et al., 2011). Kamil et al. (2018) state that nurses do not always complete documentation, due to lack of motivation (among other factors). Mediarti et al., (2018) emphasize that a strong connection exists between work motivation and the level of nursing documentation. Work motivation is a process directing and maintaining execution of workflow and helping workers perform the work assignments they are given (Sohail et al., 2014). Researchers have

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stated that nurses' work motivation is affected positively or negatively by a number of factors, such as encouragement, personal and organizational factors (Alhakami & Baker, 2018), and global empowerment (de Almeida et al., 2017). Despite a lack of research in the area of work motivation of nurses, and the absence of this concept in nursing literature, nurses do appear to be motivated in their work (Toode et al., 2011). In their review study, Toode et al. (2011) state that nurses are generally satisfied with their jobs, and that there is no significant difference in work motivation between nurses regardless of their workplace. The intrinsic motivation of nurses is particularly pronounced (Alhakami & Baker, 2018), which is a powerful factor in increasing job satisfaction (Ayalew et al., 2019). Another research study conducted on 259 nurses in the culturally different nation of Ethiopia also supports the idea that nurses are motivated; however, it also confirms that they can be demotivated by inadequate remuneration for the work they provide (Negussie, 2012).

Job satisfaction of nurses is an important research topic (Barać et al., 2018), being closely connected to work motivation in the literature. It is defined as a state of emotional contentment and sense of achievement employees experience after fulfilling their duties in an organization (Sohail et al., 2014). Previous research has associated job satisfaction with working conditions and available work resources (Leineweber et al., 2016), meaning a lower level of job satisfaction among nurses in developing countries (Ayalew et al., 2019), including Croatia. Job satisfaction directly correlates with one's own feelings and values connected with work, opportunities for advancement, and features of the job (Ayalew et al., 2019). According to a research study conducted in Croatia last year, the importance of job satisfaction for nurses not only pertained to their perception of the quality of care and safety of patients, but also, in terms of their retention in the profession (Smokrović et al. 2019). Similar results have been presented by other authors around the world (Gurková et al., 2013; Masum et al., 2016; Toode et al., 2015). A key challenge for every organization is to maintain the satisfaction of employees and increase their motivation (Ayalew et al., 2019), factors which may also affect the level of nursing record-keeping (Mediarti et al., 2018).

Aim

The aim of this study was to investigate the level of work motivation and job satisfaction in the nursing profession, to establish the level of nursing record-

keeping, and, finally, to analyze differences in work motivation, job satisfaction, and the level of nursing record-keeping. The specific aim of this research was to examine the differences between nurses working in two different nursing fields. Due to differences in the nature of diseases, and thus in the nature of the nurses work, the two largest health departments in a general hospital were selected.

Methods

Design

A cross-sectional study was conducted.

Sample

The study involved all nurses employed in the Department of Surgery and the Department of Internal Medicine. Of the 98 nurses employed in the Department of Surgery, 55 (56.1%) volunteered to participate in the study; and of the 84 nurses employed in the Department of Internal Medicine, 54 (64.3%) agreed to participate in the study. Some employees at the time of the study were not at work due to annual leave or sick leave, while others did not wish to participate in the research. The total sample consisted of 109 nurses employed at the Surgery Department and Internal Diseases Department, with an average age of 37.48 years (SD = 10.88). Of the total number of respondents, 98 were female nurses (89.9%) and 11 were male nurses (10.1%). The research did not include nurses employed at workplaces that do not require the keeping of complete nursing records.

Data collection

The research was conducted in the period between 1 April and 1 June 2019 in the departments of Surgery and Internal Disease at a General Hospital, by means of an anonymous survey questionnaire.

The questionnaire included a demographic section, with questions on gender, age, education level, workplace, and years of service; and a self-assessment of motivation and job satisfaction, featuring questions from the Multidimensional work motivation scale (MWMS). In the self-assessment, job satisfaction and motivation were ranked by respondents on a scale from 1 to 5, with 1 representing very low motivation or complete dissatisfaction, and 5 representing very high motivation or satisfaction. The MWMS scale was developed by Gagné et al. (2015), and a Croatian version has been validated (Smokrović et al., 2018). At the beginning of the study, the purpose of the research was explained to the nurses. They were then instructed how to complete the questionnaire, and

informed that participation in the study was anonymous and voluntary. The MWMS contains nineteen statements comprised of six factors: amotivation, extrinsic social motivation, extrinsic material motivation, introjected regulation, identified regulation, and intrinsic motivation. The respondents were asked the question: What makes you put effort into, or what would make you put effort into your current job? Nineteen statements were offered as possible responses to this question (Smokrović et al., 2018). The responses were selected from a 7-point Likert Scale, with values ranging from “strongly disagree” with the given statement (1) to “strongly agree” with the given statement (7) (Smokrović et al., 2018).

Reliability of the study, measured by Cronbach alpha coefficient, ranged from 0.65 to 0.77 (amotivation 0.77, extrinsic social motivation 0.74, extrinsic material motivation 0.73, introjected motivation 0.65, identified regulation 0.71, and intrinsic motivation 0.71).

To gain an insight into the level of nursing record-keeping at the Surgery Department and the Internal Diseases Department, reports on nursing record-keeping were gathered from the computer database of the General Hospital for the same period.

Data analysis

Descriptive statistics methods were used in data processing and for the purposes of results distribution (normality was determined by the Kolomogorov-Smirnov test, with reability of $p < 0.05$). The non-parametric Mann-Whitney U-test was used to test differences in work motivation and job satisfaction regarding workplace. For testing the differences in nursing record-keeping in different departments, we used the Chi-square test. Statistical data processing was performed using the Statistica 13 computer application (TIBCO Software Inc.), with $p < 0.05$ as the level of significance.

Results

Table 1 shows general information on respondents relating to their workplace, gender, level of education, type of work they carry out, and their years of service.

In terms of workplace, the number of respondents was almost equally distributed, with 55 (50.5%) respondents working at the Surgery Department, and 54 (49.5%) working at the Internal Diseases Department. Female respondents predominated (89.9%). The majority of respondents had secondary medical education [77 (70.6%)], and 89 respondents

(81.7%) worked shifts. Forty-four respondents (40.4%) had over 20 years of service.

Table 1 The general characteristics of respondensts (n = 109)

		n	%
Department	surgery	55	50.5
	internal diseases	54	49.5
Total		109	100
Gender	male	11	10.1
	female	98	89.9
Total		109	100
Level of education	medical secondary school	77	70.6
	undergraduate education	27	24.8
	graduate education	3	2.8
	on-going studies	2	1.8
Total		109	100
Type of work	shift work	89	81.7
	morning work	20	18.3
Total		109	100
Years of service	< 5 years	27	24.8
	6–10 years	10	9.2
	10–20 years	28	25.7
	> 20 years	44	40.4

After analyzing the respondents' general characteristics, we examined their responses to the self-assessment questions regarding level of motivation and job satisfaction. A total of 52.3% (n = 57) of respondents assessed their level of motivation as medium, and over 54% (n = 59) of respondents were satisfied with their jobs. See results in Table 2.

Further data processing involved testing differences in MWMS motivation self-assessments, and job satisfaction factors relating to the workplace of the nurses. A statistically significant difference was observed in amotivation and job satisfaction, while no difference was found in extrinsic social and material motivation, introjected motivation, identified regulation, and intrinsic motivation, or in self-assessment of motivation. See Table 3.

Table 4 shows data collected from the reports on nursing record-keeping at the Surgery and Internal Diseases Departments. By analyzing the data, it became apparent that the number and percentage of anamneses and discharge letters issued by nurses was higher in the Surgery Department compared to the Internal Diseases Department.

The values of Chi-square test ($\chi^2 = 805.214$; $p < 0.00001$) indicate the existence of statistically significant difference in nursing record-keeping between the Surgery and Internal Diseases Departments. The results are shown in Table 4.

Table 2 The level of work motivation and job satisfaction (n = 109)

		Surgery Department		Internal Department		Total	
		n	%	n	%	n	%
Level of motivation	very low	3	5.45	3	5.55	6	5.5
	low	2	3.63	4	7.4	6	5.5
	medium	31	56.3	26	48.14	57	52.3
	high	16	29.09	17	31.48	33	30.3
	very high	3	5.45	4	7.4	7	6.4
Total		55	100	54	100	109	100
Job satisfaction	very dissatisfied	2	3.63	1	1.85	3	2.8
	dissatisfied	3	5.45	2	3.70	5	4.6
	neither satisfied nor dissatisfied	19	34.54	10	18.51	29	26.6
	satisfied	26	47.27	33	61.11	59	54.1
	very satisfied	5	9.09	8	14.81	13	11.9
Total		55	100	54	100	109	100

Table 3 Differences in work motivation and job satisfaction regarding the workplace (n = 109)

	Surgery (n = 55)			Internal diseases (n = 54)			U	Z	p
	rank sum	median	range	rank sum	median	range			
Amotivation	3355.0	3	3–12	2640.0	3	3–8	1155.0	1.996	0.005*
Extrinsic social	3071.0	3	3–21	2924.0	3	3–18	1439.0	0.275	0.754
Extrinsic material	2785.5	4	3–17	3209.5	6	3–17	1245.5	-1.448	0.137
Introjected	2790.0	19	4–28	3205.0	21	4–28	1250.0	-1.421	0.154
Identified	3011.5	20	3–21	2983.5	20	3–21	1471.5	-0.078	0.933
Intrinsic	2920.5	15	3–21	3074.5	18	3–21	1380.5	-0.630	0.525
Motivation self-assessment	2994.5	4	1–5	3000.5	3	1–5	1454.5	-0.181	0.841
Job satisfaction	2716.0	4	1–5	3279.0	4	1–5	1176.0	-1.869	0.039*

*Mann-Whitney U Test; $p < 0.05$; U – Mann-Whitney U-test result; Z – z-value

Table 4 The number and percentage of Surgery and Internal Diseases Department documentation lists and testing differences

Department	Number of admissions	Number of discharges	Number of nursing anamneses	%	Number of discharge letters	%	χ^2 test	p
Surgery	1,800	1,846	1,682	93.44	810	43.87	805.241	< 0.00001
Internal diseases	2,805	2,761	1,976	70.44	453	16.40		

Discussion

Bearing in mind the importance of work motivation and job satisfaction to job performance and quality of nursing documentation, this research aimed to analyze the work motivation and job satisfaction of nurses, to establish the quality of nursing record-keeping, and then to analyze the relationship between work motivation, job satisfaction, and nursing record-keeping among employees from two different hospital departments. Since this research involved a respondent sample from just one health institution, it is necessary to look back at the sample characteristics to draw conclusions regarding the global representativeness of the results. The research sample was characterised by a greater representation of women (89.9%) compared to men

(10.1%), indicating that men are still underrepresented in nursing (Alhakami & Baker, 2018). The average age of the respondents was 37.48 years, and the majority of respondents had completed secondary medical education (70.6%), worked in shifts (81.7%), and had completed more than 20 years of service (40.4%). Similar population results for employed nurses have been published in other Croatian studies (Smokrović et al., 2019; Spevan et al., 2017). Therefore, we can say that in terms of the basic demographic characteristics of the sample, our respondents represent the nursing population of Croatia relatively well.

In the general part of the questionnaire, 57 respondents, the largest number (52.3%), self-assessed their motivation at a medium level.

The same result has been presented in other studies (Abu Yahya, et.al., 2019; Toode et al., 2015). Data relating to job satisfaction indicated that most employees, [72 (66%)], were satisfied with their job; with only eight respondents (7.4%) expressing dissatisfaction. Research conducted at the University Hospital of Croatia, where 126 nurses worked in operating rooms or the surgery department, found similar results for job satisfaction (Spevan et al., 2017), as did another study conducted at the Croatian University Hospital (Barać et al., 2018). Smokrović et al. (2019) noted that besides personal traits and working environment, the factor that influenced job satisfaction in nurses was their work motivation. In addition, research conducted within the Surgery departments of the University Hospital indicated that nurses involved in educational programs were significantly more satisfied with their jobs (Spevan et al., 2017). This is confirmed by Maqbali (2015) in research conducted at a Regional Hospital in Oman on 227 nurses, in which he notes a medium level of satisfaction, and points out that, besides material income, a significant factor that influences nurse job satisfaction is involvement in professional development through research and publishing. Similar results were also reported by Toode et al., (2015) in a more culturally similar environment, who conclude that professional development and training should be supported whenever possible. Hoonakker et al., (2013) demonstrated that nurses who were involved in training for the implementation of new practices also developed increased levels of motivation over time. It can be assumed that more frequent and active inclusion in educational programs, which represent a significant portion of work scope, would contribute to an increase in motivation, since participants would be better able to appreciate the purpose of their work and their contribution to the profession.

After statistical data analysis, a statistically significant difference was observed for the factor of amotivation – lack of motivation (Ryan & Deci, 2000), and/or lack of intention to act (Toode et al., 2015) – with higher levels of amotivation in Surgery Department nurses; and, also, a statistically significant difference in job satisfaction, with greater satisfaction in Internal Diseases Department nurses. Hence, based on these results, we can conclude that greater job satisfaction and a lower level of amotivation can be noted among the Internal Diseases Department nurses compared to nurses working in the Surgery Department. Our results contradicted those of research in Estonia which found that nurses in a Surgery Department were more satisfied with their work compared to those in other

departments, including the Department of Internal Medicine (Toode et al., 2015). We can assume that the job satisfaction and motivation of the respondents are closely related, as confirmed by previous studies (Ayalew et al., 2019; Smokrović et al., 2019; Sohail et al., 2014). There are considerable differences between departments, including workplace characteristics and working conditions (Toode et al., 2011), i.e., different work schedules, patient fluctuation, the nature of patients' conditions, and different work assignments and working patterns (Kivimäki et al., 1995), which contribute to job satisfaction and motivation. A research study conducted in several hospitals in Slovenia also found medium levels of job satisfaction and motivation in nurses, and suggested that lower levels of satisfaction were the result of inadequate salary, low levels of trust, lack of inclusion in the process of decision-making, insufficient care for employees' welfare, and the impossibility of professional advancement (Lorber & Skela Savič, 2012). Motivation may be influenced by management style, professional development, and interpersonal relations (Ayalew et al., 2019; Lorber & Skela Savič, 2012). Flexibility of working hours and the possibility of changing shifts can also positively influence work motivation among nurses (Alhakami & Baker, 2018). An extensive research study conducted on a sample of 23,076 RNs from ten countries, reported that 9.5% of RNs had expressed their intention of leaving the nursing profession due to dissatisfaction (Leineweber et al., 2016). Thus, we can assume there are different types of work schedule in different workplaces, as well as different management styles and interpersonal relations conditioned by the dynamics and nature of everyday work assignments, which can influence the motivation level of nurses.

Data gathered from the computer database of the General Hospital indicate an insufficient level of nursing record-keeping. This finding concurs with the results of a recently published study which found that nurses make nursing diagnoses in only 20.8% of cases (Asmirajanti et al., 2019), and that nursing records are completed for only 47.8% of patients (Tasew et al., 2019). The reasons for this lie mostly in a lack of time and specific knowledge (Akhu-Zaheya et al., 2018; Kamil, et al., 2018; Tasew et al., 2019; Vabo et al., 2017), as was probably also the case with our respondents. However, our results are contrary to the results of a study conducted in China in 2019, which stated that documenting nursing care is the second most frequent activity performed by nurses (Yu et al., 2019). This is most likely due to different levels of development between the two healthcare systems.

Despite the larger number of patient admissions within the Internal Diseases Department, the number of nurse anamneses continues to be significantly lower, and a significantly lower number of discharge letters are issued by nurses, despite increasing numbers of discharged patients.

From comparing the level of job satisfaction and work motivation, on one hand, to the level of nursing record-keeping, it can be observed that these factors are not related. The level of job satisfaction and work motivation do not correlate with the level of nursing record-keeping. A significantly lower level of motivation and job satisfaction can be noted among the Surgery Department nurses compared to that among nurses working at the Internal Diseases Department. However, despite this, nurses in the Surgery Department keep nursing records more conscientiously than nurses in the Internal Diseases Department. Although respondents working in the Internal Diseases Department have lower levels of amotivation, i.e., their motivation is higher (as is their job satisfaction), their level of nursing record-keeping is significantly lower. In contrast, Mediarti et al. (2018) found a connection between motivation and nursing documentation. Results such as ours potentially suggest that nurses in Croatia are overworked and do not perceive nursing record-keeping to be in their scope of work. Similar results were published in a qualitative study conducted in Indonesia, which stated that nurses do not take nursing record-keeping seriously enough and, due to lack of motivation, fail to complete the documentation (Kamil et al., 2018). The same occurrence is mentioned in a study conducted by Asmirajanti et al. (2019), which found that nursing records were not kept in a timely or adequate manner. Meanwhile, qualitative research conducted in Norway suggests that nurses want to implement healthcare plans but, at the same time, complain that completing the documentation is time-consuming and keeps them from their patients (Vabo et al., 2017). Nurses expect to spend little time on documentation (Kamil et al., 2018). We can assume that, in terms of work motivation, our respondents think exclusively of work assignments involving patients and direct healthcare, rather than nursing record-keeping, which was not compulsory until 2011 (Croatian Ministry of Health, 2011). Regarding workload and the demographic structure of the respondents, a large proportion of the nurses had received a secondary education (Croatian Nursing Council, 2020), and it may be assumed that they did not have time and opportunity for the complete implementation of the nursing care process (Akhu-Zaheya et al., 2018; Kamil et al., 2018; Tasew et al.,

2019), or that there was a low ratio of nurses to patients and a lack of nurses with higher education who managed to perform all tasks, including nursing record-keeping (Kamil et al., 2018; Tasew et al., 2019). It seems that lack of time and nurses' excessive workload could be major reasons for incomplete nursing documentation, as stated by other authors (Kamil et al., 2018; Macková & Zeleníková, 2012; Mediarti et al., 2018; Tasew et al., 2019; Vabo et al., 2017).

It is necessary (as evident in the available literature) that nurses' perception of the difficulties they face concerning record-keeping be investigated (Brown, et al., 2020).

Our results suggest the need for further research to determine the accuracy and justification of our assumptions, and to identify other predictors that might influence nursing record-keeping. It is also necessary to investigate the activities nurses perceive to be part of their scope of work, as well as their attitudes towards legally-regulated nursing records. The study findings and assumptions clearly indicate the need for further research to detail nurses' self-perception of their scope of work in more detail, and to identify the factors that prevent nurses from keeping more thorough records.

Limitation of study

A limiting factor to generalizing the obtained results is the convenient, but relatively small, sample size and response rate of respondents. In addition, job satisfaction was measured with only one item scale, which could also have an influence on other results. Finally, our research involved a quantitative approach; if this were paired with a qualitative approach, it would provide deeper insight into this research topic.

We plan to conduct further research that will include more participants from different hospitals, and involve qualitative methods, which would provide interviews, revealing, in more detail, the specifics and (in)direct causes of nurses' work motivation and job satisfaction. A planned study like this would provide more objective and comprehensive results.

Conclusion

The results of this research show that respondents are mostly satisfied with their jobs and that they possess a medium level of work motivation, whereas nursing record-keeping is incomplete. The level of job satisfaction and work motivation are not proportional to nursing record-keeping, i.e., job satisfaction and work motivation were not found to contribute to the level of nursing record-keeping.

Ethical aspects and conflict of interest

All nurses were informed about the purpose of the study. The proposed research was voluntary and anonymous. The study was conducted in accordance with ethical principles of research involving human subjects based on the Helsinki Declaration and in accordance with all applicable guidelines of the code of ethics of the profession. The Ethics Committee of the hospital gave approval for the research at a regular meeting held 27 March 2019, (number 02-2428/19-7/19).

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All authors meet the criteria for authorship, have approved the final article, and are listed as authors.

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Author contributions

Concept and design (IG, AL), data collection (IG, AL), analysis and interpretation of data (IG, MK), manuscript draft (IG, AL, MK), critical revision of the manuscript (IG, MK), final approval of the manuscript (IG, AL, MK).

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