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## MOTIVATION IN THE WORK OF NURSES-TECHNICIANS

### MOTIVACIJA U RADU MEDICINSKIH SESTARA - TEHNIČARA

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#### ABSTRACT

Motivation in healthcare involves factors that encourage people to do their jobs in the best manner possible. Employee motivation is one of the key tasks and managerial functions. The basic is that motivation must be based on what we want to achieve, that is, reward things that we want more to be present, that is, encourage those behaviors that lead to the achievement of the organization's goals. To nurses the key factors for work are motivation and satisfaction. Their satisfaction with work affects the quality of health care services provision, their availability and efficiency. The research are explorative and descriptive. The study used internal documents and regulations of the Human Resources Department of the University Clinical Center Sarajevo. The questionnaire survey was conducted among 301 nurses-technicians employed at the organizational units of the Clinical Center of the University of Sarajevo. The questionnaire survey was anonymous and the questionnaire was available in the electronic Google Forms platform. The survey was conducted in the period from July 01<sup>th</sup> 2019 to July 31<sup>st</sup> 2019. Non material compensation is a key motivator for nurses' productivity. The research findings should serve to create nursing development strategies and strategies that promote quality of work at all levels of nursing practice.

**Keywords:** motivation, nurses, motivational techniques, quality of work

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## SAŽETAK

Motivacija je ono što podstiče ljude da se u određenoj situaciji ponašaju na određeni način. Motivacija u zdravstvu podrazumjeva faktore koji podstiču ljude da rade svoj posao na najbolji mogući način. Motivacija zaposlenih je jedan od ključnih zadataka i funkcija menadžera. Osnovno je da se motivacija mora temeljiti na onome što se želi postići, tj. treba nagrađivati ono čega želimo da bude više, odnosno podsticati one oblike ponašanja koji vode ostvarivanju ciljeva organizacije. Medicinskim sestrama-tehničarima ključni faktori za rad su motivacijai zadovoljstvo. Njihovo zadovoljstvo radom utiče na kvalitetu zdravstvenih usluga, njihovu dostupnost i efikasnost. Istraživanje je eksplorativno i deskriptivno. U istraživanju su korišteni interni dokumenti i pravilnici Službe za ljudske resurse Kliničkog centra Univerziteta u Sarajevu. Ispitivanje putem anketnog upitnika provedeno je među 301 medicinskih sestara-tehničara zaposlenih u Organizacionim jedinicama Kliničkog centra Univerziteta u Sarajevu. Ispitivanje putem upitnika bilo je anonimno, a upitnik je bio dostupan u elektronskom programu „Google forms“. Istraživanje je provedeno u periodu od 01.07.2019-31.07.2019.g. Nematerijalne kompenzacije su ključni motivator radne produktivnosti medicinskih sestara. Rezultati istraživanja treba da posluže u svrhu kreiranja strategija za razvoj sestrinstva i strategija kojima se podstiče kvalitet rada na svim nivoima sestrinske prakse.

**Ključne riječi:** motivacija, medicinske sestre-tehničari, motivacione tehnike, kvalitet rada

## INTRODUCTION

Motivation, as a very complex and significant issue in psychology, refers to the totality of processes that initiate and maintain certain activities and behaviors in the direction of achieving set goals. In the definition of motivation, given by Raič A., the elements of this complex process are listed, defining motivation as "an internal state of mind and body - desires, aspirations, needs and incentives - that activates, moves individuals and causes their action/behavior of a certain type (Bajraktarević, 2013).

Contemporary psychology emphasizes three key elements as essential for the process of motivation, namely: a motive that represents a personality disposition, an activity - an individual's action that is initiated and maintained by motives, and a goal - every human activity is directed towards something that it wants to achieve (Čaušević, 2007; Skela – Savić Pagon, 2008).

Motivation is one of the most important topics in management. The reason is very simple: organizations achieve their goals by having their employees and managers achieve their work effects. Achieving the effects of employees and managers is the result of three key factors: abilities, chances, and the will or motivation of employees to achieve the effect. The ability of employees to achieve successful results is achieved through their education and training at work. The management of an organization needs to know the motivation profile of its employees. Work productivity depends directly on the level of employee motivation. To

achieve the maximum level of employee motivation, managers must know the needs and motives of the people they manage and know how to ensure their satisfaction (Buble, Belak and Sikavica, 2005).

The question of the identity of nursing has come to the fore in recent decades primarily due to the growing education of nurses. Doctors no longer have complete authority over other healthcare personnel. Two reasons led to such a situation. The first reason is that patients are increasingly aware of their rights, primarily the right to make a free choice. Another reason is the professionalization of nursing, and recently more and more people are thinking about dividing nursing into special areas (Matulić, 2007).

Nurses/technicians perform very stressful jobs. Every day, the lives of many people are in their hands. These professions require a lot of sacrifices, maximum concentration, and responsibility. The most common causes of stress among nurses are of an organizational and financial nature. Sources of stress for nurses/technicians are situations in which they are exposed to specific dangers and harmful environmental influences on their health. A very big cause of stress is the psychological pressure of patients on staff, due to poor communication and lack of information (Kalauz, 2011). Constant exposure to stress and demanding working conditions leads to presenteeism and absenteeism (Brbović and Mustajbegović, 2014).

Efficient management of a healthcare organization means efficient management of human resources in it. People play a key role in any organization, including healthcare organizations. The productivity and success of any organization depend on the knowledge, skills, and abilities of employees that need to be encouraged and rewarded (Weldegebriel et al., 2016). Managers must adequately motivate employees, take care of hiring quality personnel and provide employees with ideal working conditions, advancement, rewards, and professional development (Mićović, 2008). Managers in nursing in healthcare organizations must be good diagnosticians, they must recognize the needs of employees because they are variable and different from individual to individual.

Every nurse/technician has to work on himself because job satisfaction also comes from himself. Motivation for work depends on a positive attitude, learning, openness, participation in work, and love for work. Dissatisfaction and disappointment with work in healthcare organizations can be attributed to the fact that the workload of nurses increases daily (Kopačević and Protrkić, 2008). Nurses/technicians are motivated when they know that their activities will lead to the fulfillment of their goals and desired rewards. At the same time, the activities they undertake must be essential for the organization and the achievement of its goals. Employees need to be motivated, and organizations must have elaborate techniques and strategies to achieve this (Kalec, 2018). Healthcare organizations must meet the demands of employees, enable them to carry out work tasks, encourage them in their goals and allow them to be creative and innovative in their work.

## **1. MATERIAL AND METHODS**

The paper consists of a theoretical and an empirical part, therefore different approaches were used. The study is exploratory (based on collected secondary data) and descriptive analysis of data (obtained through a questionnaire). For the research,

documentation from the Human Resources Service of KCUS was used, which refers to personnel in nursing - staff development, professional training, etc. Other documents were also used that define work processes in nursing at the level of KCUS - Nursing Development Strategy, etc. An original, authorized, anonymous questionnaire was used as an instrument for examining motivational techniques among nurses. The questionnaire was created in the electronic application "Google forms" and was available to respondents via a link to their e-mail or the e-mail of the organizational unit where they work. The identity of the respondent cannot be ascertained from the answers received. 301 nurses who work in hospital organizational units KCUS participated in the research. The research included chief nurses of Organizational Units, chief nurses of departments, and nurses who work in the health care process.

The research was conducted in the period from July 1, 2019, to July 31, 2019. Nurses who actively participate in the process of health care in hospital units in KCUS are included in the research process. Nurses-technicians who do not actively participate in the health care process, nurses-technicians in administration, and nurses who work in diagnostic departments, as well as other health professionals who work in OJ, are excluded from the research process. The software system SPSS for Windows (version 13.0, SPSS Inc, Chicago, Illinois, USA) and Microsoft Excel (version 11, Microsoft Corporation, Redmond, WA, USA) were used for statistical analysis of the obtained data.

## 2. RESULTS

301 nurses of the Clinical Center of the University of Sarajevo (KCUS) were included in the survey, of which 61 men and 240 women (Table 1 and Figure 1) work in different organizational units and disciplines (Figure 2). Significantly more women participated in the survey. Table 2 shows the age, years of service, and professional qualifications of the surveyed staff and Table 4 shows the income and place of residence of the respondents included in the study.

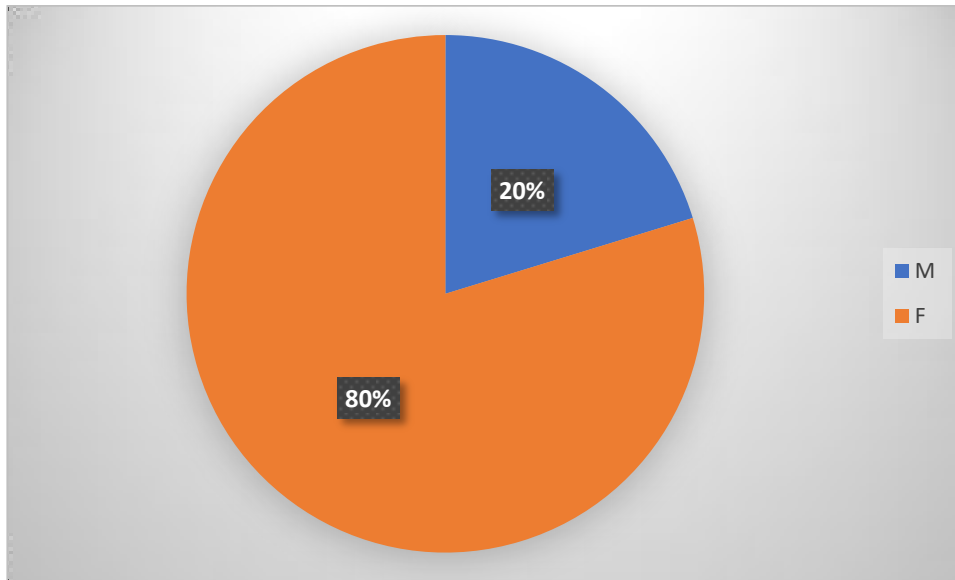
Table 1. The number of surveyed staff (n) employed in different disciplines and clinics of the Clinical Center of the University of Sarajevo, grouped by gender.

		Gender				$\Sigma$	
		M		F		n	%
Discipline	for Clinic	n	%	n	%		
Discipline for gynecology gin.i p. disciplines	for Clinic for gynecology	0	0,0%	1	100	1	100
					%		%
Discipline for Pediatric clinic child health	Pediatric clinic	0	0%	6	32%	6	32%
	Pediatric clinic 2	0	0%	13	68%	13	68%
	$\Sigma$	0	0%	19	100	19	100
					%		%
Surgical	Central sterilization	8	23%	8	8%	16	12%

	Clinic of emergency medicine	2	6%	2	2%	4	3%
	Clinic for diseases of the ear, nose and throat with hir. Ch. and the door	5	14%	13	13%	18	13%
	Clinic for Cardiovascular Surgery	1	3%	8	8%	9	7%
	Clinic for neurosurgery	5	14%	16	16%	21	15%
	Clinic for eye diseases	3	9%	24	24%	27	20%
	Clinic for general and abdominal surgery	1	3%	3	3%	4	3%
	Clinic for orthopedics and traumatology	4	11%	9	9%	13	10%
	Clinic for reconstructive and plastic surgery. surgery	4	11%	6	6%	10	7%
	Clinic for thoracic surgery	1	3%	4	4%	5	4%
	Clinic for urology	1	3%	8	8%	9	7%
	$\Sigma$	35		101		136	
			%		%		%
Internal medicine disciplines	Clinic for heart diseases, blood. veins and rheumatism	1	11%	25	42%	26	38%
	Clinic for physical medicine and rehabilitation	0	0%	3	5%	3	4%
	Hematology Clinic	0	0%	1	2%	1	1%
	Clinic for infectious diseases	1	11%	0	0%	1	1%
	Nephrology Clinic	1	11%	2	3%	3	4%
	Clinic for nuclear medicine and endocrinology	5	56%	21	36%	26	38%
	Oncology clinic	1	11%	7	12%	8	12%
	$\Sigma$	9		59		68	
			%		%		%
Neuropsychiatric disciplines	Neurological clinic	2	50%	5	71%	7	64%
	Psychiatric clinic	2	50%	2	29%	4	36%
	$\Sigma$	4		7		11	
			%		%		%
Unknown		13		53		66	
			%		%		%
$\Sigma$		61		240		301	
			%		%		%

Source: authors

Figure 1. Gender ratio of the surveyed staff of the Clinical Center of the University of Sarajevo. Significantly more women participated in the survey (binomial test,  $p < 0.001$ ).



Source: authors

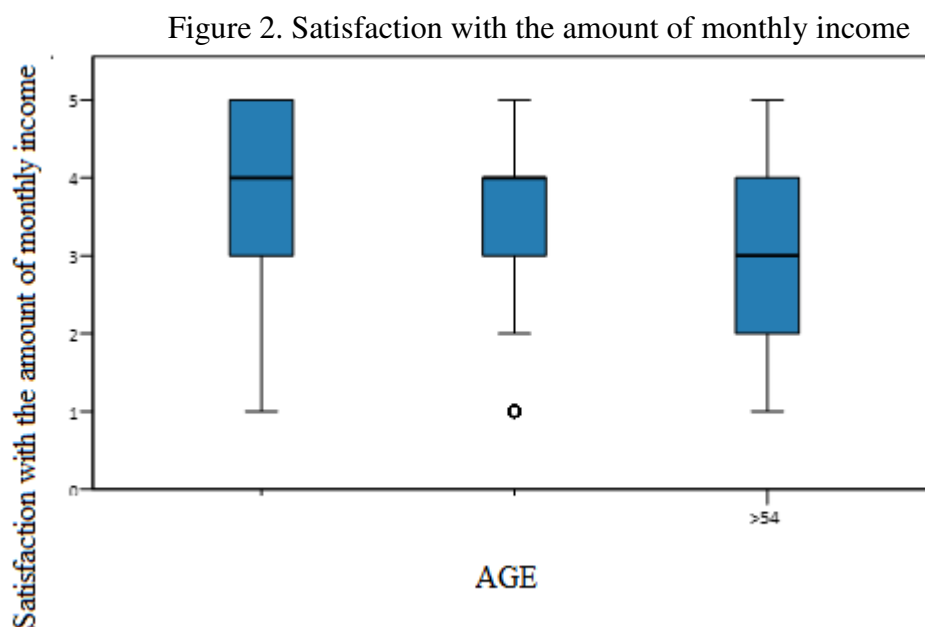
In the research were included 61 males (20%) and 240 females (80%) .

Table 2. Age, years of service and qualifications of the surveyed staff

		Gender				$\Sigma$	
		M		F			
		<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Age	18–34	22	36%	44	18%	66	22%
	35–54	38	62%	164	69%	202	67%
	>54	1	2%	31	13%	32	11%
	$\Sigma$	61	100%	239	100%	300	100%
Years of service	0–10	21	34%	34	14%	55	18%
	11–20	25	41%	71	30%	96	32%
	21–30	10	16%	90	38%	100	33%
	>30	5	8%	43	18%	48	16%
	$\Sigma$	61	100%	238	100%	299	100%
Qualifications <sup>a</sup>	SSS	51	85%	157	66%	208	70%
	VŠS	0	0%	9	4%	9	3%
	VSS	9	15%	61	26%	70	23%
	Master's or Doctor of Science	0	0%	12	5%	12	4%
	$\Sigma$	60	100%	239	100%	299	100%
Working place	Head nurse/technician of the organizational unit	2	3%	32	13%	34	11%
	Head nurse/ward	6	10%	31	13%	37	12%

technician						
Nurse in the health care process	53	87%	175	74%	228	76%
$\Sigma$	61	100%	238	100%	299	100%

Source: authors



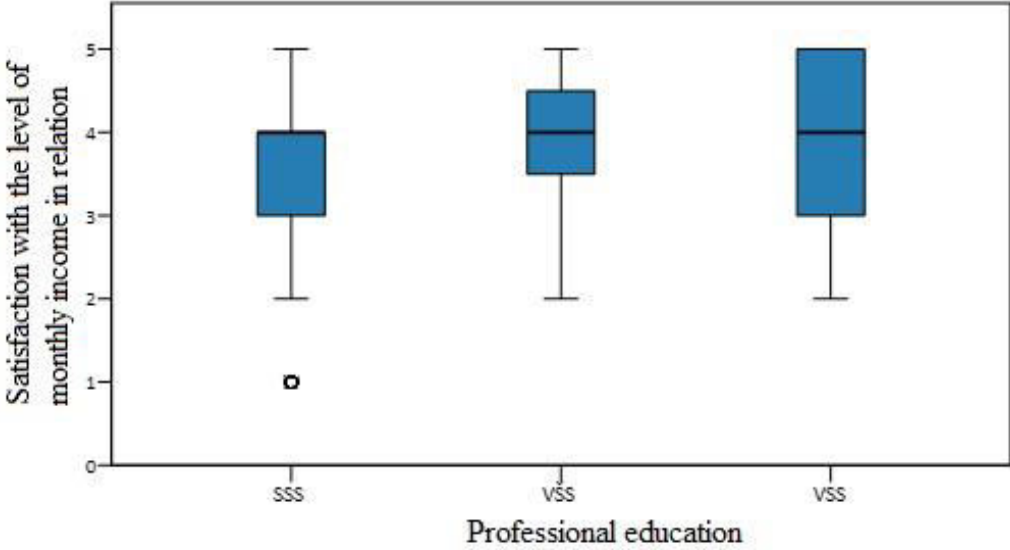
Source: authors

Table 3. Number of positive answers (n) to the multiple-choice question P07 "Specify

		Positive response		Percentage
		<i>n</i>	%	
P07. State what motivates you for daily work with a seriously ill patient?	Helping the sick	272	44,4%	91,0%
	Enthusiasm	57	9,3%	19,1%
	Good work organization	95	15,5%	31,8%
	Good interpersonal relations	94	15,4%	31,4%
	Finance	94	15,4%	31,4%
$\Sigma$		612	100,0%	204,7%

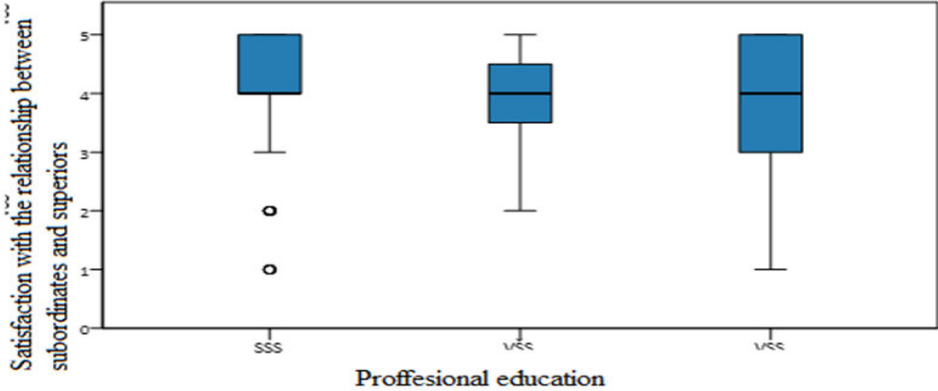
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Figure 3. Satisfaction with the level of monthly income in relation to professional education



Source: authors

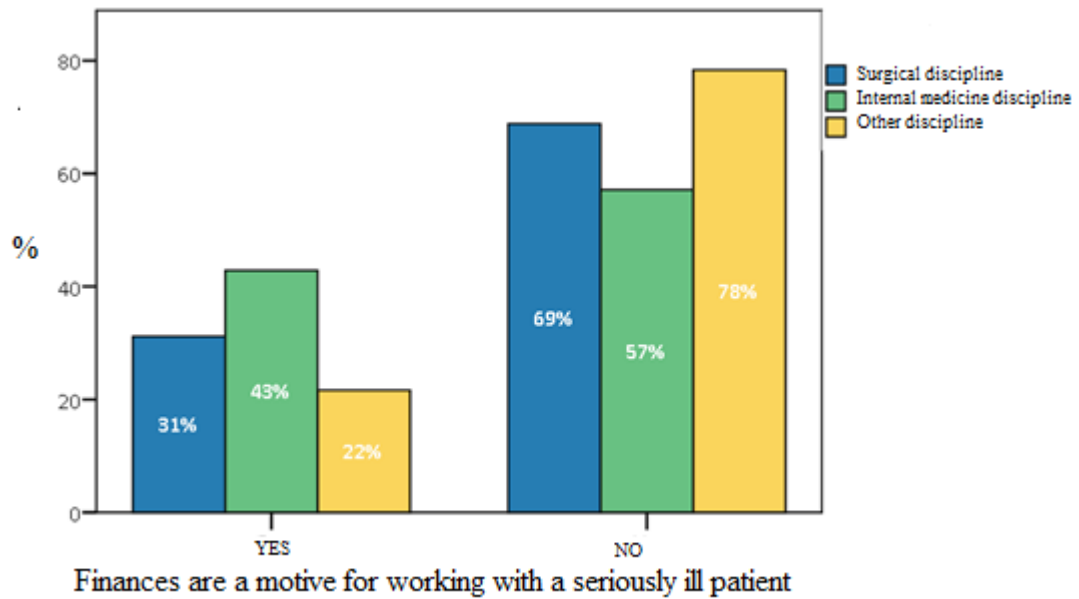
Figure 4. Satisfaction with the relationship between subordinates and superiors



Source: authors

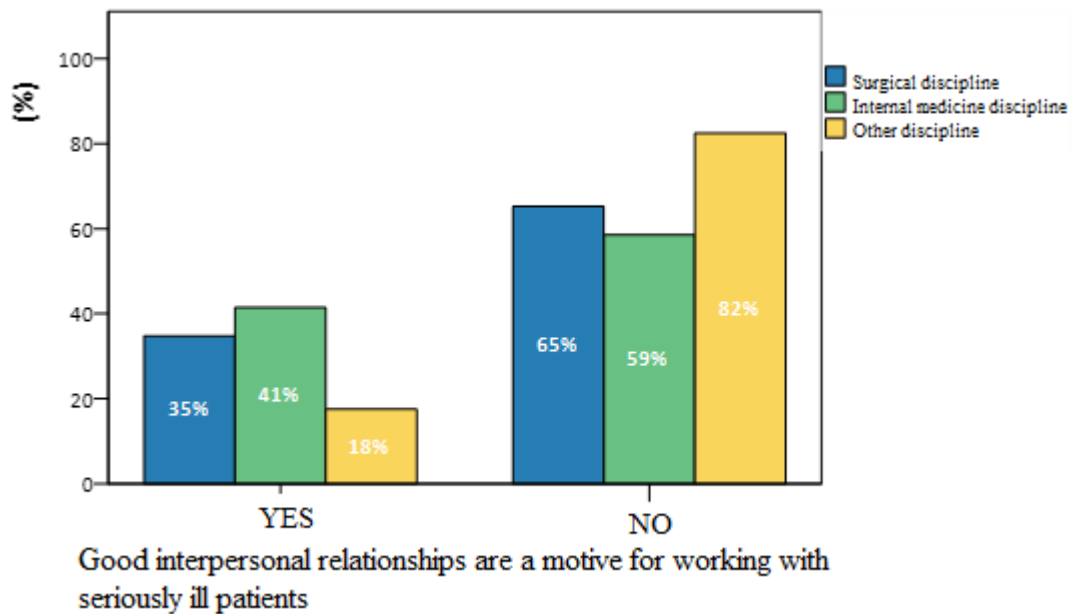


Figure 5. Presentation of respondents' responses by discipline as to whether finances are a motive for working with a seriously ill patient



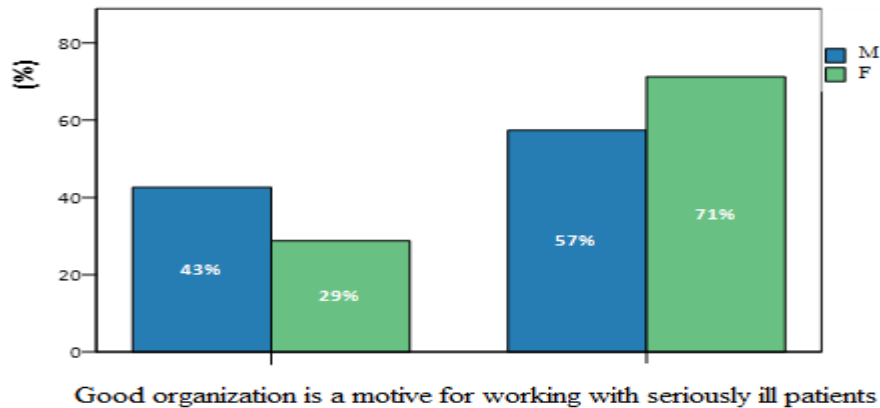
Source: authors

Figure 6. Presentation of respondents' responses by discipline as to whether good interpersonal relationships are a motive for working with seriously ill patients



Source: authors

Figure 7. Presentation of respondents' responses by discipline as to whether good organization is a motive for working with seriously ill patients



Source: authors

Table 4. The influence of criticism and improvement in work as a method of motivation in different disciplines at the Clinical Center of the University of Sarajevo.

	Disciplines	Surgical Disciplines		Internal medicine disciplines		The others		$\Sigma$	
		n	%	n	%	N	%	n	%
P08. Do your superiors' motivate you to improve your scope of work?	Yes	63	46%	33	47%	49	51%	145	48%
	Partially	54	39%	29	41%	32	33%	115	38%
	No	20	15%	8	11%	15	16%	43	14%
P09. Does promotion at work motivate you to improve your scope of work?	Yes	92	67%	57	81%	63	65%	212	70%
	Partially	43	31%	9	13%	25	26%	77	25%
	No	2	1%	4	6%	9	9%	15	5%

<sup>a</sup>There is significant differences between disciplines (Pearsonov  $\chi^2$  test,  $p < 0,001$ ).

Source: authors

Table 5. Number of positive answers (n) to the multiple choice question Q10. "Mark your respondents' suggestions for improving the motivation factor for performing daily business activities"

	Suggestions for improving the motivation factor for performing daily business activities	Postives answers		%
		n	%	
P10.	Appreciation opinions	187	25,4%	61,5%
	Better interpersonal	181	24,6%	59,5%

business activities	relationships			
	More money	124	16,8%	40,8%
	More educational trips	121	16,4%	39,8%
	More frequent rewards for work	124	16,8%	40,8%
Total		737	100,0%	242,4%

Source: authors

### 3. DISCUSSION

The surveyed personnel were nurses/technicians who work in one of the 5 disciplines of KCUS. The majority were women (80%), which is the expected result. The largest number of nurses/technicians in KCUS are female. Nevertheless, the number of men in this profession is increasing, and this is shown by the statistical data that a third of respondents aged 18-34 were male. The gender ratio in managerial positions (head nurses of departments or organizational units) does not differ significantly between the sexes, so it can be concluded that there is no gender inequality in the selection of managers in KCUS. Research that in 2011. carried out by Škoro I. et al. among 105 nurses-technicians at RMC "Dr. Safet Mujić Mostar", the following results were obtained: more than half of the respondents (52%) have more than 16 years of work experience. Only 34.6% of respondents were satisfied with interpersonal relationships, and only 31.7% with their relationship with their superiors. Only 51% of respondents are motivated by their work, a large number are reluctant to come to work and look forward to leaving work. One of the reasons for dissatisfaction is work overload, which is considered by 83.7%, and 71.2% believe that they cannot progress at work. It is good that a large number of respondents (85.6%) do not think about work problems outside of working hours, but still, only 38.5 respondents have a good night's sleep and 56.7% of them wake up tired. 58.7% of respondents would be happy to change their workplace (Ćesir-Škoro, Obradović and Smajkić, 2012).

In the framework of our research, it can be noted that the employees of the Internal Medicine discipline are less satisfied than their colleagues from the Surgical discipline. In certain aspects, this difference could be expected. Thus, for example, satisfaction with the technical equipment in Surgical disciplines is justifiably higher, because most respondents work in recently built departments that provide patients with comfort and staff with quality work. In the Internal medicine disciplines, a certain number of clinics work on older premises, which is why the respondents gave slightly lower marks.

Dissatisfaction with monetary income was expressed by older workers. Judging by the above, older staff, whose living costs are higher (education costs of older children, real estate, etc.) or who consider themselves worth more than what they earn, are less satisfied with the distribution of funds in KCUS. The research conducted among 482 respondents employed in the public and private health sector in the city of Varaždin showed the following results: a total of 411 (85.9%) respondents rated motivation for the work they do as very important and important, while only 7 (1.5%) gave a rating of 1, i.e. that motivation for work is not important to them at all. To what extent is the amount of monthly income a motivating

factor for employee satisfaction and the greater the motivation to work, the results showed that 411 workers consider the amount of salary very important, while only 10 (2.0%) consider the amount of salary unimportant (Štumerger, 2018).

Lower ratings of satisfaction with the subordinate-superior relationship were given by employees with higher professional qualifications. Staff with higher professional education are more often in a position to enter into a confrontation with their superiors because they bear greater responsibilities in the healthcare process. Greater responsibility also brings greater financial income, so employees with higher and higher education are more satisfied with their salary compared to their colleagues with secondary education. Head nurses are more satisfied with the relationship between subordinates and superiors and with the monthly income they receive. Thomas and colleagues analyzed twenty papers conducted on the topic of motivation in seventeen different countries in Africa and Asia and concluded that quality health care cannot be provided adequately until the question of the motivation of health workers is resolved. The most important motivation factors for the respondents in that research were higher incomes than they currently had, the possibility of career development and advancement in the profession, good health management, recognition of one's work by colleagues, superiors, and management, as well as adequate workplace equipment and continuous education within one's professions (Willis-Shattuck et al., 2008).

Satisfaction ratings are in (positive) correlation with each other, so material and non-material compensation (monthly income or subordinate-superior relationship) correlate with satisfaction with the quality of the working environment. Also interesting are the results of survey questions related to criticism of superiors and promotion in work. Half of the surveyed staff are motivated by criticism, and even more so by improvements in their work. Promotions are especially important for employees of Internal medicine disciplines. As far as criticism is concerned, there are gender differences. Men react more positively to criticism than their female colleagues. A similar conclusion can be made for staff with higher professional qualifications. The research on the motivation of healthcare workers in Croatia conducted by Bagat (2014) included 134 healthcare organizations. Six factors influencing employee motivation were examined, namely: salary increase, education, and professional training, direct and indirect material forms of motivation, better working conditions, promotion and recognition, autonomy in work, and other non-material forms of motivation. It was found that only 13% of respondents believe that employee motivation is implemented in organizations. Subsequently, it was determined that 91.1% of healthcare organizations implement at least one of the listed motivation factors. One factor is implemented in 19.8% of organizations, two factors are used in 44.6% of organizations, three factors are implemented in 17.8%, and four motivation factors are implemented in 8.9%. The most common form of employee motivation in healthcare organizations is a referral to education and professional training (Bagat, 2014).

The most frequent suggestion of respondents to improve motivation was to respect opinions, especially in Internal medicine disciplines. Also, it was chosen by all respondents with a higher professional degree, significantly more than the others. More money and trips to education are suggestions that more often come from Internal medicine disciplines. In developed countries of the world such as Spain, intrinsic or internal motivational factors such

as career advancement, recognition and autonomy at work are more important to nurses, while in developing countries salaries or material compensation are more important, and only then career advancement and relationship with managers (Berdud, Cabases and Nieto, 2016).

## CONCLUSION

The paper successfully analyzed the existing situation with human resources in nursing - the number of employees, level of education, competence, work ability, generic business strategies in nursing, current motivational techniques of nurses working in the health care process were examined, the quality of the working environment was assessed superior and subordinate relationships, the influence of self-esteem and self-affirmation on the motivation process of nurses was examined, the psychographic characteristics of the respondents and the influence on the level of motivation were examined.

It has been proven that the effects of the work of nurses/technicians are directly (positively) correlated with the material and non-material compensations of employers, which ultimately significantly determine the motivation to work and the satisfaction of the amount of monthly income or the relationship between subordinates and superiors correlates with satisfaction in the working environment.

It has been confirmed that non-material compensation is a key factor motivating the work productivity of nurses-technicians, and the most common source of motivation for work and satisfaction at the workplace is primarily help to the patient, followed by financial compensation, good work organization and good interpersonal relations. To a significant extent, the improvement is more motivated by the staff with a higher professional education, who have greater opportunities to achieve it.

Professional training affects the self-esteem and self-affirmation of nurse technicians in such a way that the desire for professional training (education) was expressed by 40% of the examined nurses/technicians, and the connection between professional training and self-esteem and self-affirmation could not be established because most respondents see as professional, responsible, communicative and conscientious persons.

Good organization and good interpersonal relations have an impact on the greater motivation of nurses-technicians to work with difficult patients in such a way that younger and middle-aged staff are more motivated by good work organization and that good interpersonal relations motivate older staff less.

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