

Analysis of current situation and attitudes on reorganization and optimization of staffing for efficient work processes management in health centers of Sarajevo Canton

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Summary

Introduction: Healthcare reengineering is a powerful methodology of change that helps organizations rearrange priorities, provide cost-effective treatment, and increase the quality of patient care. **Aim:** To determine the attitudes and opinions of healthcare professionals according to the needs for reorganization processes, evaluation of the profession and responsibilities for performing more complex jobs and tasks. **Material and methods:** The study is theoretical and empirical. An exploratory method and a descriptive analytical method for research using a questionnaire instrument were used to collect secondary data. The study was conducted among 108 healthcare professionals who completed one of the studies at the Faculties of Health Studies in Bosnia and Herzegovina and who are employed in the Public Healthcare Centers of Sarajevo Canton and

among 6 managers of regional Healthcare Centers in Sarajevo Canton. Two original author questionnaires created on the basis of practical experience were used as a study instrument. The study was conducted in the period from September 1st to November 30th, 2019. **Results:** Out of the total number, 87% of respondents believe that they are fully ready to take on new, more demanding tasks within their work, and 67% of them believe that they have enough education to perform more responsible jobs. In most cases, the heads of institutions expressed a positive attitude towards taking on greater obligations and responsibilities in the work process. Only 50% of the heads of institutions state that they have a strategic plan for reorganization and optimization of staff with a degree in healthcare. **Conclusion:** Healthcare professionals who have completed their studies at Faculties of Health Studies can competently perform more complex and responsible jobs and tasks in health centers with additional training, which is confirmed by their managers. It is necessary to adopt a Strategic Plan for the development, reorganization and optimization of health personnel at the level of primary healthcare, which would significantly improve the quality of work.

Keywords: reorganization, education, nurses, primary healthcare

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Introduction

Healthcare is a complex system that requires significant changes in line with the global development of healthcare in the world (1).

Continuous development of human resources and technological progress in healthcare is a key challenge for organizational changes in work processes focused on the quality and safety of health services. Organizational changes in healthcare are mainly aimed at improving working conditions and work processes, reducing costs, employee and end-user/patient satisfaction (2).

The development and application of accepted and appropriate cultural, ethical and professional standards is a key component of each of the main functions of healthcare professionals and a prerequisite for their responsibility for their own work (3).

Healthcare reengineering is a powerful change methodology that helps organizations rearrange priorities, provide cost-effective treatment, and increase the quality of patient care.

The most important business goals in today's global economy are speed, quality, flexibility and low cost (1,4).

Reengineering is the only way to improve work processes. Reengineering is a radical redesign of business processes to dramatically improve them.

Reengineering leads to more specified jobs that focus on the entire work process and provide people with much more responsibility and autonomy (5,6).

The literature cites positive examples in the reorganization of the work process performed by highly educated staff such as graduate nurses. For example, in the Netherlands, where the health system has recognized the importance of graduate nurses and their responsibilities in the field of primary healthcare, especially community work. Graduate nurses manage the process of community healthcare, independently supervise chronic patients, manage chronic therapy and administrative tasks. In that way, the scope of tasks for doctors, who have more time to dedicate to acute patients, was reduced, and satisfaction among employees and patients was increased (7).

We also find positive examples in other European Union countries, such as Germany, France, the United Kingdom and others (8).

In many countries, graduate healthcare professionals are autonomous in carrying out a number of tasks in the field of healthcare, such as engineers of radiology, laboratory technicians and physiotherapists (9).

All of this contributes to an increase in responsibilities in accordance with the competencies and level of education, a reduction in the workload for doctors, a good professional relationship among staff and patient satisfaction with the services provided (10).

In the process of reorganization, resistance may arise from individuals, specific groups, and most actors who are in the system (1).

To achieve success in healthcare reengineering it is important to be interdependent, provocative, start keeping the outcome in mind, put the first things first; to become independent: think win-win - everyone wins (11). Overcoming resistance in the process of reorganization of work processes should include all those who create resistance in order to understand the benefits for all. Also, the implementation of change requires the support of all structures that enact regulations for the establishment of good health policy, such as Ministries of Health, politicians and others (12).

This topic has not been explored in our country so we hope that the results of this study will be beneficial to professionals, managers and policy makers in improving efficiency and safety in healthcare centers of Sarajevo Canton and the country.

Aim

Determine the attitudes and opinions of healthcare professionals according to the needs for reorganization processes, evaluation of the profession and responsibilities for performing more complex jobs and tasks.

Materials and methods

The study was theoretical and empirical. An exploratory method and a descriptive analytical method for study using a questionnaire instrument were used to collect secondary data. In this study, methods of system-

atic data analysis were used, as well as other scientific methods of induction, deduction, concretization and compilation.

The study included 108 respondents/healthcare professionals who graduated from the Faculties of Health Studies in Bosnia and Herzegovina and working in primary healthcare centers or other medical institutions in Sarajevo Canton. The participants voluntarily completed the questionnaire online after receiving the e-mail invitation to participate in the study.

The study is an exploratory, reconnaissance and descriptive analysis of data. Within the reconnaissance study, primary problems and possible directions of activity in the process of organizational change were explored. An original self-created survey questionnaire was used for the research, and since no such research has been conducted so far it was determined that there is no standardized research instrument. The survey questionnaires for both groups were anonymous and the identity of the respondents could not be ascertained from the answers offered.

The results are presented in tables by the number of cases. To test possible differences between the examined groups of institutions, the chi-square test and Fisher's exact test were used. The level of statistical significance was set at 95% or $p < 0.05$. The analysis was conducted using the IBM Statistics SPSS v 23.0 software package for the social sciences.

The Ethical Committee of the Faculty of Health Studies, University of Vitez, gave permission for conducting this study. The participants completed the questionnaire in an online form using Google Forms, which did not contain any personal data, or the email addresses of the participants.

Results

By detailed insight into and reviewing the regulations and internal documents of the Primary Healthcare Center Sarajevo, more precisely the Human Resources Service, it was stated that the institution employs 67 graduate nurses in primary healthcare, and 17 in secondary healthcare. At the level of the entire institution, 11 graduate engineers of medical laboratory diagnos-

tics, 44 graduate engineers of medical radiology (ATD and radiology cabinets), and 31 graduate physiotherapists are employed. The job descriptions and tasks are harmonized with their competencies and tasks in the workplace, and a university degree is recognized. The total number of nurses in the institution is 711.

However, there are many nurses who, in addition to their work, acquired titles at the Faculties of Health Studies in Bosnia and Herzegovina, but still perform jobs and tasks as having only secondary education, since they have in most cases fulfilled the conditions for employment. But, the rules and regulations of the healthcare institutions are still not fully in line with the acquired competencies, so the job descriptions of the graduated nurses are not revised in order to provide them new opportunities to perform complex work tasks.

A review of the age, years of work experience and jobs of the surveyed staff show that the largest number of respondents was middle-aged ($N=77$ or 72.0%), i.e., had 11–20 years of work experience ($N=40$ or 37.4%). There are significantly more male respondents with shorter work experience ($p=0.014$).

The surveyed staff usually does not hold a managerial position, but they do their jobs in accordance with their education ($N=38$ or 35.2%) - the majority in the family medicine team ($N=30$ or 27.8%).

In order to better analyze the data, jobs were divided into 2 groups - jobs held by health professionals having secondary education and jobs that are usually related to higher education, such as management jobs (bosses, head nurses, etc.). There were no significant differences in jobs between respondents who completed the second cycle of studies and those who did not ($p=0.517$), as well as in the time that passed since completion of education at the Faculty of Health Studies ($p=0.250$).

The analysis of the results of the answers to the questions on competencies and knowledge depending on the studies of the Faculty of Health Studies that the respondents completed shows that the majority of respondents answered that they do not perform tasks that they fully consider themselves to be competent for ($N=44$ or 42%).

Also, most believe that they have enough education to perform more responsible jobs ($N=67$ or 64%). However, there were no significant differences between different studies ($p > 0.05$). The question „Do you think that you need additional education for more specific, more responsible tasks in the work process?“ examined

Table 1. Opinion of the surveyed graduates of the Faculty of Health Studies on their competencies and the need for additional education depending on the completed study

Nursing/Healthcare		Study at the Faculty of Health Studies				
		Nursing/Healthcare	Radiological technology	Physiotherapy	Sanitary-ecological study	Laboratory technology
Do you feel that you are not performing work tasks for which you are fully competent?	Yes	26 (41%)	4 (29%)	7 (41%)	5 (100%)	2 (50%)
	Partially	21 (33%)	6 (43%)	3 (18%)	0 (0%)	0 (0%)
	No	17 (27%)	4 (29%)	7 (41%)	0 (0%)	2 (50%)
Do you think that you have enough education to perform more responsible jobs and tasks?	Yes	42 (66%)	12 (86%)	8 (47%)	4 (80%)	1 (25%)
	Partially	18 (28%)	0 (0%)	7 (41%)	1 (20%)	3 (75%)
	No	4 (6%)	2 (14%)	2 (12%)	0 (0%)	0 (0%)
Do you think that you need additional education for more specific, more responsible tasks in the work process?	Yes	31 (48%)	2 (14%)	11 (65%)	1 (20%)	1 (25%)
	Partially	28 (44%)	6 (43%)	5 (29%)	4 (80%)	2 (50%)
	No	5 (8%)	6 (43%)	1 (6%)	0 (0%)	1 (25%)

the opinion of the interviewed staff as to whether they needed training for more specific tasks in the work process. The majority responded positively (N=46 or 44%) or partially (N=45 or 43%). However, significant differences between studies do exist ($p=0.007$).

The analysis of the answers to the question „Has your Rulebook on Job Systematization been revised in the job description with your title and education?“ showed that there are significant differences between different study fields at the Faculty of Health Studies. All students at the sanitary-ecological study is completely covered by the audit, as well as the half of the students who study radiological technologies (N=7 or 50% of the respondents). There is a significant difference between different study fields in the answers to the question „Do you think that a higher indebtedness of graduate health personnel contributed to the improvement of the health system and patient satisfaction?“ ($p=0.017$). Respondents with a completed study of Nursing/Healthcare believe to a greater extent that a higher indebtedness of graduate health personnel contributed to the improvement of the health system and patient satisfaction, 55 respondents or 86% of them, and a similar opinion is shared by graduates of the Study of Physiotherapy and Laboratory Technology.

The question „Would you be happy and satisfied if you could implement your acquired knowledge and work experience through greater engagement in more responsible tasks?“ provided insight into whether the

surveyed staff would be happy and satisfied that they could implement acquired knowledge and work experience through greater engagement in more responsible tasks.

There was no difference between the studies, and most responded positively (80 or 77%).

In this study, a total of 6 heads of healthcare institutions in the Sarajevo Canton were interviewed. Due to a small sample, it was not possible to make efficient inferential statistics of the offered answers.

Analysis of the results of managers' answers to the question of whether they have a strategic plan for human resources development at the level of the healthcare institution, shows that the most common answer was “partially” (50%), while 2 respondents reported having a strategic plan. In 4 institutions, achieved education level of the healthcare professionals at the Faculty of Health Studies is partially recognized, and in 2 not at all. Recognized staff were only partially given a new job description in accordance with their qualifications and competencies.

Respondents mostly believe that job descriptions for health professionals with a degree in healthcare are not sufficiently detailed and should be elaborated according to the level of education and acquired competencies, as well as the need to reorganize healthcare staff in the Sarajevo Canton healthcare centers and that doctors are burdened with additional health services that

Table 2. Opinion of the surveyed graduates of the Faculty of Health Studies on the reorganization depending on the completed study

		the Faculty of Health Studies				
		Nursing/ Healthcare	Radiological technology	Physiotherapy	Sanitary- ecological study	Laboratory technology
Has your Rulebook on Job Systematization been revised in the job description with your title and education?	Yes	18 (28%)	7 (50%)	4 (24%)	5 (100%)	1 (25%)
	Partially	25 (39%)	2 (14%)	9 (53%)	0 (0%)	3 (75%)
	No	21 (33%)	5 (36%)	4 (24%)	0 (0%)	0 (0%)
Do you think that a higher indebtedness of graduate health personnel contributed to the improvement of the health system and patient satisfaction?	Yes	55 (86%)	9 (64%)	14 (82%)	4 (80%)	1 (25%)
	Partially	8 (13%)	4 (29%)	2 (12%)	0 (0%)	3 (75%)
	No	1 (2%)	1 (7%)	1 (6%)	1 (20%)	0 (0%)
Would you be happy and satisfied if you could implement your acquired knowledge and work experience through greater engagement in more responsible tasks?	Yes	48 (75%)	12 (86%)	14 (82%)	4 (80%)	2 (50%)
	Partially	14 (22%)	2 (14%)	3 (18%)	1 (20%)	2 (50%)
	No	2 (3%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)

could be performed by other highly educated health personnel. Managers believe that health personnel with a degree from the Faculty of Health Studies are sufficiently educated to be able to perform more complex jobs and tasks in the field of health, but there is a need to change their job description in order to have greater opportunities and take more responsibilities in the work process.

Discussion

The study included a random sample of respondents who completed one of the studies at Faculties of Health Studies in Bosnia and Herzegovina, and who work in health centers and other institutions in the Sarajevo Canton. As expected, there were more female respondents, reflecting the usual difference in gender distribution in the jobs surveyed.

The largest number of respondents was middle-aged, with work experience from 11 to 20 years. It was noticed that there are disproportionately more male respondents in the group of employees with shorter work experience, which is an indicator of changing trends in

choosing a profession in the field of health, especially nursing (healthcare).

The majority of respondents, 4/5 of them, perform their duties in accordance with their education. These are rarely managerial positions, which is understandable given that the survey was available to all college graduates, regardless of their position. There are no significant differences either in gender or between different employers.

Secondary education jobs are more frequent among staff working in the family medicine team, which is the case with two-thirds of the respondents employed in these jobs.

It is interesting that additional education, most often a master's degree in the field of health studies, has no influence on which job the respondent does.

Many studies show that members of the nursing profession exist in the dual structure of two worlds - social (public) and nursing. According to Styles these two worlds interact with each other in a way that the nursing profession is only possible through their interaction and mutual influence (13).

Health professionals with a degree in healthcare should be professionals who have the appropriate knowledge, experience and competencies to do the job. Professionalism requires responsibility, accuracy, conscientiousness, dedication and continuous education. Although nurses who have successfully completed the educa-

tion prescribed by the law of their country, passed all the necessary exams to register and obtain approval for independently providing healthcare, they today do not have the support of strong interest groups, their work is undervalued, they are an insufficient advocate for themselves, which suits all the subjects in healthcare.

In his article „Ethics of Nursing“, Šegota states that modern medicine implies teamwork, more precisely, representatives of different medical professions who are in an equal relationship with each other as associates and colleagues, and the doctor is only *primus inter pares* among them (14-15).

In the study conducted by Marković in 2018, among 872 respondents in Croatia, regarding the public opinion on nurses in the healthcare system, it was found that 536 (61.5%) respondents stated that a nurse is a full member of a multidisciplinary team (16).

The above findings agree with our findings that the nurses express a wish for more teamwork and inclusion in the processes of decision-making in their institutions.

The study conducted by Čukljek S. among first-year nursing students at the University of Applied Health Sciences of Zagreb indicates that the development of professional identity and perception of nursing is significantly influenced by the media, the environment and education (18).

Given that education and the educational environment have a significant impact on the development of professional identity, it is important to choose clinical educational environments that will enable positive professional development.

In the EU countries, under the influence of various political, economic, social, demographic and cultural trends, there is a need for serious reform of the health system in which health personnel with a degree from the Faculty of Health Studies have one of the leading roles. Respecting the Directives of the European Council and the Parliament, which precisely define the processes and norms of health education, the member states have determined the competencies for the same (19).

A more detailed study related to this area has not been conducted. Advocacy for reorganization in the field of healthcare has been present in recent times and there is a tendency for highly educated non-medical health personnel as well as the need for a clear definition of the field of work in accordance with competencies.

It is evident that in the health institutions of the Federation of Bosnia and Herzegovina, there are more and more highly educated health personnel, but job descriptions and significant changes in the scope of work have not happened (20).

This study is conducted on a voluntary sample of respondents, so a more systematic and comprehensive study is needed to confirm or disprove our findings. Anyhow, this study can be used as a basis for further research in this field.

Conclusion

In our study, it was determined that about half of the respondents perform tasks assigned to them by the institution in accordance with their acquired educational qualifications and competencies.

The majority of respondents show that they have enough education, self-confidence and readiness to perform more responsible jobs and tasks at the primary healthcare level, while less than half of the respondents 47% believe that they need additional education to be able to successfully perform more specific tasks and jobs.

The paper also confirms that there are no clear strategies regarding the deployment and recognition of higher education staff with a degree in healthcare, because in the surveyed institutions there are no changes in the Rulebook on Job Systematization, or harmonized job descriptions according to education and job descriptions or regulations in EU directives.

Heads of healthcare institutions expressed a positive attitude towards reorganization and optimization of staff, and believe that employees with a degree in healthcare can competently perform more complex and responsible tasks in the scope of work in primary healthcare, emphasizing the need for additional education.

Healthcare professionals who have completed their studies at Health Faculties can competently perform more complex and responsible jobs and tasks in health centers with additional training, which is also confirmed by their managers. It is necessary to adopt a Strategic Plan for the development, reorganization and optimiza-

tion of health personnel at the level of primary health-care, which would significantly improve the quality of business.

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Analiza trenutnog stanja i stavova o reorganizaciji i optimizaciji kadrova u funkciji efikasnog upravljanja radnim procesima u domovima zdravlja kantona Sarajevo

Sažetak

Uvod: Zdravstveni reinženjering jest moćna metodologija promjena koja pomaže organizacijama preurediti prioritete, osigurati isplativo liječenje i povećati kvalitetu skrbi za pacijente.

Cilj: Utvrditi stavove i mišljenja radnika o potrebama za reorganizacijskim procesima, vrednovanju profesije i odgovornostima za obavljanje složenijih poslova i zadataka.

Materijal i metode: Istraživanje je teorijsko i empirijsko. Za prikupljanje sekundarnih podataka primijenjena je eksplorativna metoda te deskriptivna analitička metoda za istraživanje uz primjenu instrumenta – upitnika. Istraživanje je provedeno među 108 zdravstvenih radnika sa završenim jednim od zdravstvenih studija na zdravstvenim fakultetima u BiH koji su zaposleni u JU Domovi zdravlja Kantona Sarajevo i među šest rukovoditelja područnih domova zdravlja u Kantonu Sarajevo. Kao instrument za istraživanje primijenjena su dva originalna autorska upitnika kreirana na osnovi iskustava u praksi. Istraživanje je provedeno u periodu od 1. rujna do 30. studenoga 2019.

Rezultati: Od ukupnog broja, 87 % ispitanika smatra da je u potpunosti spremno preuzeti nove zahtjevnije zadatke u okviru svojeg rada, a 67 % smatra da ima dovoljno edukacije za obavljanje odgovornijih poslova.

Rukovoditelji ustanova u većini su slučajeva iskazali pozitivan stav prema preuzimanju većih obveza i odgovornosti u procesu rada. Samo 50 % rukovoditelja ustanova navodi da ima strategijski plan za reorganizaciju i optimizaciju kadrova sa završenim zdravstvenim fakultetom.

Zaključak: Zdravstveni radnici sa završenim studijem na zdravstvenim fakultetima mogu kompetentno obavljati složenije i odgovornije poslove i zadatke u domovima zdravlja uz dodatne edukacije, što potvrđuju i njihovi rukovoditelji. Nužno je donošenje strateškog plana za razvoj, reorganizaciju i optimizaciju zdravstvenih kadrova na razini primarne zdravstvene zaštite, što bi znatno unaprijedilo kvalitetu poslovanja.

Ključne riječi: reorganizacija, edukacija, medicinske sestre / medicinski tehničari, primarna zdravstvena zaštita
