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# EFFICIENCY OF MANAGEMENT COMPETENCIES OF DIRECTORS DURING THE COVID-19 PANDEMIC

## ABSTRACT

**Purpose:** At global and national level, the COVID-19 pandemic is influencing the public to increasingly speak of and recognize the importance of preserving the healthcare system. In addition to the solutions found in the formation of new healthcare policies, legal regulations, the role of the director is increasingly recognized, which is important for achieving goals and success as well as for preserving the healthcare system.

**Methodology:** The study involved 27 respondents, i.e. directors of healthcare institutions at the primary level in the Republic of Croatia. All collected data were processed using the IBM SPSS Statistics statistical software.

**Results:** Research results and the theoretical framework of the paper will present the factors influencing the management process of directors in the health system and the importance of the need to revise legislation and the education system aimed at ensuring the sustainability of public health.

**Conclusion:** The paper will present which competencies of directors of healthcare institutions are crucial for crisis management during the COVID-19 pandemic.

**Keywords:** Directors of healthcare institutions, system management during the COVID-19 pandemic, management competencies

## 1. Introduction

Today, under the influence of the COVID-19 pandemic, we are witnessing numerous changes in all spheres of human activity. Change has become inevitable, and change management has become a key instrument in any organization and represents one

of the most important aspects for its functioning (Žibert & Starc, 2018). At the heart of this organizational process is teamwork and management of individuals who possess managerial competencies to make an institution or organization successful and recognizable, but also to remain sustainable. Although organizational success largely depends

on leadership, there is no universally accepted and unique definition of leadership in the literature (Grabovac, 2021). According to Northouse (2011), there are four components that appear in almost all definitions of leadership: 1) leadership is a process; 2) leadership involves influence; 3) leadership appears in a group context; 4) leadership involves achieving goals (Northouse, 2011). However, some researchers also look at leadership from a relational, data processing, or trait-based perspective (Požega et al., 2012). A simpler definition of leadership is explained as a process in which one person influences others to achieve a specific goal (Mayer, 2003). According to this definition, leadership is a transactional event between a leader and a follower and occurs in the context of groups, i.e., it involves influencing a group of individuals who share a common goal, either in a small working group, a community group, or a large group encompassing the entire organization (Gotal, 2013). Therefore, in the process of managing a healthcare institution, the role of the director is important, who is recognized both as a leader through business communication and as a manager through his/her achievements.

The healthcare sector represents a long-standing challenge for leadership, i.e., healthcare management (Dubovečak et al., 2019). Healthcare management encompasses a set of knowledge and skills in the areas of planning, decision-making, management, and supervision within the healthcare system. In the Republic of Croatia, healthcare management is not defined by the existing Healthcare Act, but only the concept of narrow administration is described (Dubovečak et al., 2019). Accordingly, it can be seen that healthcare management in the Republic of Croatia, as well as in many other countries, is in the initial stage of development. This is also confirmed by the fact that there is very little research on this topic (Dubovečak et al., 2019). Nevertheless, this does not belittle the thesis that management capacity is an important prerequisite for the efficient and effective functioning of the healthcare system. Namely, it is necessary to establish systematic training and strengthen the competencies of management staff of healthcare institutions, especially staff dealing with human resources management. Indeed, a quality management system includes a motivational climate, interdisciplinary cooperation, organizational trust, and value-based management with trust building and communication among employees (Ministry of

Health, 2015). According to the Strategic Plan for Human Resources in Healthcare 2015-2020 (Ministry of Health, 2015), a quality management system implies:

- a management system with qualified and high-quality system managers who have acquired skills and knowledge through post-graduate or specialist study programs,
- selection and appointment of managers as well as leading experts according to the criteria of excellence, continuous additional training in leading domestic and international business schools and centers,
- re-election based on work results and efficiency (Ministry of Health, 2015).

Furthermore, the execution of management duties and responsibilities requires specific knowledge and competencies and full-time management (Ministry of Health of the Republic of Croatia, 2012). According to the National Strategy for Health Development, organizational-financial and medical management are different. Namely, organizational and financial managers work full-time to perform their management tasks, they do not primarily require medical training, but have specific expertise (economic, legal, managerial) that qualifies them for this job, while for medical management, it is not appropriate or realistic for physicians who take on managerial responsibilities to quit their clinical practice (Ministry of Health of the Republic of Croatia, 2012). Many healthcare professionals are not adequately trained to manage institutions, which has been reflected in inadequate leadership and inadequate managerial competencies (Townsend, 2012). Indeed, quality management must be autonomous, efficient and well-trained (Dubovečak et al., 2019). Numerous studies confirm that, in addition to medical knowledge, healthcare competencies should include personal competencies, interpersonal skills, critical thinking, planning, communication, initiating change, motivation, knowledge of the healthcare system, and developed management and business skills (Kovačić, 2015). According to Rogers (2012), physicians' management potential should therefore be developed in the early stages of their careers, i.e., as early as during their education. Namely, an early investment in physicians' management knowledge would ensure that they

acquire the necessary skills to act as open-minded and collaborative leaders (Rogers, 2012). According to Lee (2010), it is not easy for physicians to accept teamwork, but team building is a key management function in all types of healthcare providers (Lee, 2010). The most successful healthcare leaders are those who are able to continuously study internal and external factors and effectively combine their strategy with the necessary readiness and sense to respond to change (Sabbag, 2021).

### 1.1 *Directors in the management process affected by the COVID-19 pandemic*

Crisis leadership is a skill (Shingler-Nace, 2020). In 2020 and further in 2021, the whole world was under the influence of the COVID-19 pandemic, which is the biggest burden on the healthcare system from the very beginning. Every crisis and unforeseen situation produces leaders. Good leaders are characterized by the fact that they believe that their skills and characteristics are not fixed and that they are able to change and adapt (Popović, 2021). During a crisis, the first important implication for healthcare management is to become familiar with the conditions necessary for effective employee performance. These include job satisfaction under difficult crisis conditions, creating a safe working environment and working conditions, providing support and reducing stress (Jankelová et al., 2021). Another important implication is the indication that employee performance in times of crisis is directly influenced by management skills related to communication, leadership, and decision-making. Employees demand honesty and openness, credible and transparent explanations, guidelines for managing the spread of the virus, but also empathy, encouragement, and hope. An important aspect of leadership is creating a sense of control, trust and stability (Jankelová et al., 2021). The key competencies of leaders in a crisis relate to the ability to respond appropriately, quickly, and thoughtfully (Myer, 2007), and for teams to be effective, they must make quick decisions based on the ability to perceive and critically evaluate information in context (Jankelová et al., 2021). In addition, many respondents from different countries noted that the strength and quality of leadership, the effectiveness of communication strategies, and a degree of population support in adherence to guidelines

influence outcomes and the achievement of goals (Goodyear-Smith et al., 2021). The importance of communication is also highlighted in a research study conducted by Boin et al. (2016), who cite reliable explanations of what is happening, providing guidance on how to prevent the spread of viruses, communicating hope, emphasizing positivity and positively portraying success in problem solving, and expressing empathy for their patients, their families, healthcare workers, and other health system staff as key features of directors' communication during the crisis. In addition, directors must constantly signal that they are in control of the situation; they must accept their own responsibility and take appropriate steps to overcome the crisis (Boin et al., 2016). This points to the recognized role of the director and his/her indispensable competencies that are important in crisis management during the COVID-19 pandemic.

Aiming at a more comprehensive approach, this research sought to integrate the existing theoretical and empirical knowledge of the importance of quality leadership in healthcare institutions. Consequently, the purpose of this scientific research is to show the importance of competencies of directors contributing to healthcare management during the COVID-19 pandemic.

H1: Management competencies of healthcare system directors contribute to successful crisis management during the COVID-19 pandemic.

H2: Management competencies of healthcare system directors contribute to timely solutions for maintaining the healthcare system and employee discipline during the COVID-19 pandemic.

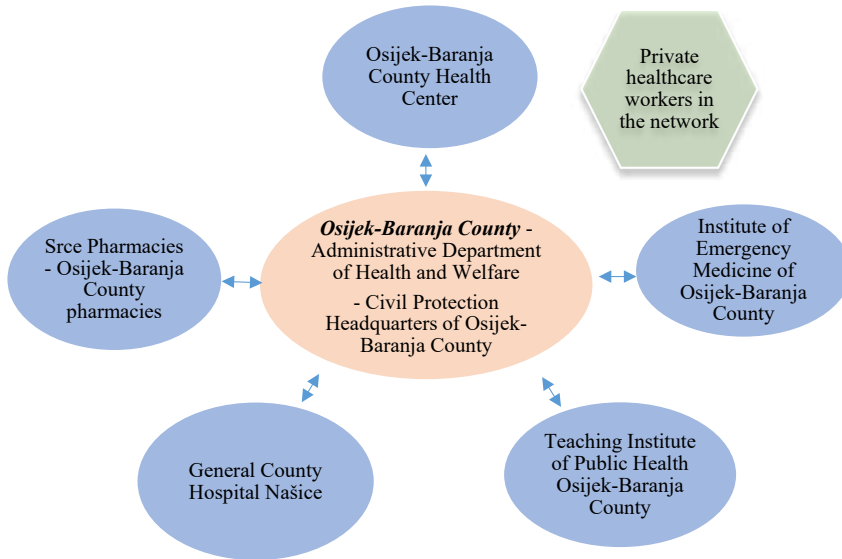
#### 1.1.1 *The organization of work of healthcare institutions founded by Osijek-Baranja County during the COVID-19 pandemic*

Responses to the COVID-19 pandemic, and, in particular, considerations of its impact on healthcare workers, point to the importance of different political and healthcare systems and cultural approaches to creating and allocating overburdened capacities. Namely, systems with central government coordination, led by policy makers open to recommendations based on scientific evidence, point to the need for better coordination. At the same time, they point to the need to avoid administrative proce-

dures that make it difficult to make decisions about changes in healthcare delivery that are needed immediately. There is a delicate balance between a model with a central command and control system and one that allows for more local authority and decision-making (Bourgeault et al., 2020). The limited economic resources of the public sector, combined with citizen demands for quality healthcare during the COVID-19 pandemic, force the government to introduce innovations in management, which must be more effective (Martínez-Córdoba et al., 2021). However, in order to analyze health management, it is necessary to include exogenous factors that can strongly affect its effectiveness (Cordero-Ferrera, 2011). In order to better understand public health decisions and health management, the following four multidisciplinary hypotheses are identified that influence decision-making related to healthcare systems: *social policy*, which is important for crisis management and its recovery, the *type of regime*, where it is noted that democratic regimes, as opposed to authoritarian regimes, provide better information flow and public trust, *formal political institutions*, which are divided into federalism and the presidency depending on which decisions are made that shape health and social outcomes, and the *capacity of the state*, which includes control over healthcare systems, is essential for all response elements and shapes what policymakers perceive as available options (Greer et al., 2020). A survey conducted by Martínez-Córdoba (2021) aimed to assess health management implemented to date and the levels of efficiency of health resource management. The results showed that countries that use more resources in the healthcare system perform worse in pandemic management. Accordingly, European and American countries are less efficient than Asian and African countries. Furthermore, effective management has proven to be a fundamental element in resolving the health crisis, whereas the use of more resources does not imply better management. Accordingly, policy makers need to pay attention to the appropriate use of resources, taking into account public sector budget constraints. Finally, a very important aspect of effectiveness is learning from the past, with countries that have had similar crisis management situations in the past and achieved the best economic and social results (Martínez-Córdoba et al., 2021).

The Civil Protection Headquarters of Osijek-Baranja County has been actively involved since the very beginning of the pandemic. Through the aforementioned headquarters, each director offers constructive solutions in his or her area of activity, communication is immediate, and any observed problem is solved at daily meetings at headquarters. Osijek-Baranja County Health Center has established the COVID clinic, which engages employees who work in institutions and private practices, organizes work of mobile teams responsible for collecting samples, and participates in the work of vaccination points. "Srce" Pharmacies procure disinfectants and issue certificates to vaccinated citizens. The Teaching Institute of Public Health of Osijek-Baranja County, as a coordinator, organizes the work of vaccination points, procures and distributes vaccines, conducts antigen testing and PCR testing, monitors the vaccination status, but also provides guidelines for the implementation of measures. General County Hospital Našice became a COVID Center that admits some of the patients in order to relieve the burden on the Osijek University Hospital system, which is becoming overburdened in its attempts to maintain the healthcare system. In addition, relief was needed because of a shortage of staff who become sick themselves or are quarantined because they have been in contact with sick people. The Institute of Emergency Medicine of Osijek-Baranja County participates not only in the transport of a potentially infected patient, but also in the implementation of vaccinations. The Administrative Department of Health and Social Welfare and Croatian War Veterans monitors the work of healthcare institutions on a daily basis and provides guidelines for further solutions imposed daily as the healthcare system is confronted with the COVID-19 pandemic for the first time. This well-rounded unit demonstrates the importance of a coordinated management process in times of crisis, but also yields results in reducing the number of patients and the implementation of measures. The role of the director during the pandemic has become highly emphasized as daily decisions must be made due to new, unpredictable situations and changes that require consideration of a broader context aimed at preserving the health of all patients and protecting the healthcare system and all its employees.

**Figure 1 Coordination of the healthcare system in Osijek-Baranja County**



Source: Authors

For this reason, it is important to see self-assessment of professional and personal competencies of directors of healthcare institutions which they believe they have acquired through education. This will provide an insight into the need to create new study programs and lifelong learning and training programs, as well as the need to diversify existing programs with the aim of acquiring knowledge and skills in the process of healthcare management that will contribute to more successful management of healthcare institutions, which bear the biggest burden in the midst of the COVID-19 pandemic. In accordance with the speed of changes surrounding us and the demands that these changes place on organizations in a dynamic environment, a successful leader must be aware of the importance of lifelong learning and strive for continuous improvement (Gotal, 2013). All of this supports the confirmation of hypothesis H1 that the competencies of directors in the healthcare system contribute to successful crisis management during the COVID-19 pandemic. Furthermore, this paper further presents the results of research conducted by the authors that indicate the importance of competencies possessed by directors who contribute to healthcare management during the COVID-19 pandemic.

## 2. Methodology

Data collection was performed via an anonymous questionnaire developed by the authors to determine the advantages and disadvantages of management competencies of directors of healthcare institutions at the primary level in the Republic of Croatia, which is an integral part of healthcare management during the COVID-19 pandemic. The time frame of the survey was from April 6 to June 6, 2021. The research was conducted on a convenient sample of 27 directors of healthcare institutions at the primary level in the Republic of Croatia. The questionnaire was sent to 45 primary level health institutions (health centers) founded by regional self-government units in the Republic of Croatia. A total of 45 questionnaires were sent. We received 27 questionnaires from directors of the institutions mentioned above. The response rate was 60%. All collected data were processed using the IBM SPSS Statistics statistical software. In addition to socio-demographic characteristics, the questionnaire also contained 21 closed-ended Likert scale items that represented the dependent variables. The research was conducted online via a Google Forms survey during the COVID-19 pandemic. For the purpose of this research, the analysis method was

used, which in this case analyzed the attitudes of directors of healthcare institutions and pointed out the importance of acquiring competencies. Furthermore, the synthesis method was used to draw new conclusions regarding indicators important for crisis management of the healthcare system during the COVID-19 pandemic, the proving method was used in this research to try to prove the truth of the hypotheses, the survey method was used that was based on the written collection of attitudes and opinions using a questionnaire, and the statistical method was used to statistically process and graphically display the data collected by the questionnaire, which also confirmed the hypotheses.

### 3. Results and discussion

The study included 27 respondents, directors of primary level healthcare institutions in the Republic of Croatia. The analysis of socio-demographic data revealed that out of the total number of respondents (N = 27), 13 (48.1%) were women and 14 (51.9%) were men. Regarding age, two respondents (7.4%) were aged 30 to 39 years, 9 respondents (33.3%) were aged 40 to 49 years, 10 (37%) were aged 50 to 59 years, and six respondents (22.2%) were aged 60 to 65 years. The level of education indicates that 16 respondents (59.3%) have a university degree, three respondents (11.1%) have a master's degree, two respondents (7.4%) have a PhD degree, three respondents (11.1%) are senior lecturers with a PhD, two respondents (7.4%) are associate professors with a PhD and one respondent (3.7%) is a professor with a PhD. Furthermore, regarding work experience in

the position of director of a healthcare institution, the analysis showed that eight respondents (29.6%) have held that position for up to 5 years, 11 respondents (40.7%) have been directors for 6 to 10 years, four respondents (14.8%) have been directors for 11 to 15 years, two respondents (7.4%) have been directors for 16 to 20 years, and two respondents (7.4%) have been directors of a healthcare institution for over 25 years. In addition, 10 respondents (37%) stated that this was their first term of office as director, seven respondents (25.9%) were in their second term, six respondents (22.2%) were in their third term, and four respondents (14.8%) have served for more than three terms.

Furthermore, in Table 1 and Table 2, directors of healthcare institutions rated their personal and professional competencies acquired through education on a Likert scale from 1 (completely disagree) to 5 (completely agree). Table 1 shows professional competencies in terms of administrative skills, leadership skills, communication skills, organizational skills, team leadership skills, and time management skills. Data analysis shows that the average score of the participants in professional competencies self-assessment ranges from 3: I neither agree nor disagree, to 4: I mostly agree. Namely, directors of healthcare institutions considered administrative skills M = 3.22; SD = 1.39 and leadership skills M = 3.33; SD = 1.33 on average as the skills least acquired through education, and communication skills M = 3.85; SD = 1.26 and time management skills M = 3.70; SD = 1.23 on average as the skills best acquired through education.

Table 1 Professional competencies acquired through education

Item	I completely disagree	I mostly disagree	I neither agree nor disagree	I mostly agree	I completely agree	M	SD
Administrative skills	4 (14.8%)	4 (14.8%)	8 (29.6%)	4 (14.8%)	7 (25.9%)	3.22	1.39
Leadership skills	3 (11.1%)	5 (18.5%)	5 (18.5%)	8 (29.6%)	6 (22.2%)	3.33	1.33
Communication skills	2 (7.4%)	2 (7.4%)	5 (18.5%)	7 (25.9%)	11 (40.7%)	3.85	1.26
Organization skills	2 (7.4%)	4 (14.8%)	7 (25.9%)	5 (18.5%)	9 (33.3%)	3.55	1.31
Team leadership skills	2 (7.4%)	4 (14.8%)	5 (18.5%)	9 (33.3%)	7 (25.9%)	3.55	1.25
Time management skills	2 (7.4%)	3 (11.1%)	4 (14.8%)	10 (37%)	8 (29.6%)	3.70	1.23

Source: Authors

Table 2 shows the personal competencies acquired through education, including innovation, self-criticism, visionary/strategic thinking, kindness, and understanding. Data analysis shows that the average score of self-assessment of personal competencies ranged from 3: I neither agree nor disagree, to 4: I mostly agree. Namely, directors of healthcare

institutions considered innovation  $M = 3.62$ ;  $SD = 1.18$  and visionary/strategic thinking  $M = 3.92$ ;  $SD = 1.07$  as the skills least acquired through education, and kindness  $M = 4.18$ ;  $SD = 1.11$  and understanding  $M = 4.18$ ;  $SD = 1.03$  as the skills best acquired through education.

**Table 2 Personal competencies acquired through education**

Items	I completely disagree	I mostly disagree	I neither agree nor disagree	I mostly agree	I completely agree	M	SD
<i>Innovativeness</i>	1 (3.7%)	5 (18.5%)	4 (14.8%)	10 (37%)	7 (25.9%)	3.62	1.18
<i>Self-criticism</i>	1 (3.7%)	2 (7.4%)	1 (3.7%)	12 (44.4%)	11 (40.7%)	4.11	1.05
<i>Visionary / strategic thinking</i>	1 (3.7%)	2 (7.4%)	4 (14.8%)	11 (40.7%)	9 (33.3%)	3.92	1.07
<i>Kindness</i>	1 (3.7%)	2 (7.4%)	2 (7.4%)	8 (29.6%)	14 (51.9%)	4.18	1.11
<i>Understanding</i>	1 (3.7%)	1 (3.7%)	3 (11.1%)	9 (33.3%)	13 (48.1%)	4.18	1.03

Source: Authors

The data presented suggest that the directors of healthcare institutions perceive their personal and professional competencies acquired during their education to be inferior to those they currently possess while serving as directors. This points to the opportunity to create new study programs and lifelong learning and training programs that will contribute to successful leadership of healthcare institutions and improve the readiness of future directors to assume leadership roles. Namely, the ability to lead is not a static competence, but lifelong learning designated for continuous development (Senge, 2003). The director is the key person to steer the institution in a positive direction and make the work of employees effective. Indeed, changes in the economic, social, political, and technological context require changes in educational policies so that directors can acquire various competencies and be able to influence the quality of the work at the institution. Such a role leads to the fact that the function of the director grows and needs to be regulated as a profession (Kokanović, 2021). Namely, the need to emphasize lifelong learning requires a new learning culture for which

individuals are not adequately prepared during formal education. Accordingly, the continuous development of individual competencies is essential to successfully meet the modern demands of today's society (Šagud, 2011), and especially the challenges posed to healthcare institutions and directors by the COVID-19 pandemic. Namely, the most successful leaders in the field of healthcare are those who are able to continuously study internal and external factors and effectively combine their strategy with the necessary readiness and sense to respond to change (Sabbag, 2021), and in order to be prepared, they must receive the necessary professional and practical training to face the challenges in the most appropriate and efficient way and meet the requirements of modern healthcare management. The results of this research show that directors of healthcare institutions rate their personal and professional competencies acquired during their education lower than the competencies they possess during the period in which they serve as directors. These findings can be used as a starting point for the creation of new study programs and lifelong learning and training pro-

grams. In particular, they should include programs related to crisis management and competencies related to adaptation to new challenges and working conditions, which proved to be a key indicator of successful leadership during the COVID-19 pandemic.

Furthermore, Table 3 shows self-assessment of management competencies that led a successful director during the COVID-19 pandemic to maintain the healthcare system and work discipline that directors of healthcare institutions are likely to possess and that make them successful directors. Management skills include strategic management, human resource management, team management,

time management, project management, and financial management. Data analysis shows that the average score of self-assessment of management competencies that make a successful director ranges between 4: I mostly agree and 5: I completely agree, which may indicate that they assess their current competencies as high. The directors self-assess themselves as least successful in the categories of strategic management  $M = 4.25$ ;  $SD = 0.94$ , and time management  $M = 4.25$ ;  $SD = 0.90$ , while human resources management  $M = 4.51$ ;  $SD = 0.93$ , team management  $M = 4.44$ ;  $SD = 0.97$ , and project management  $M = 4.44$ ;  $SD = 0.93$  are the categories in which the directors self-assessed themselves with the highest grades.

**Table 3** Self-assessment of management competencies that make a successful director during the COVID-19 pandemic for preserving the healthcare system and work discipline

Items	I completely disagree	I mostly disagree	I neither agree nor disagree	I mostly agree	I completely agree	M	SD
<i>Strategic management</i>	1 (3.7%)	0	3 (11.1%)	10 (37%)	13 (48.1%)	4.25	.94
<i>Human resources management</i>	1 (3.7%)	0	2 (7.4%)	5 (18.5%)	19 (70.4%)	4.51	.93
<i>Team management</i>	1 (3.7%)	1 (3.7%)	0	8 (29.6%)	17 (63%)	4.44	.97
<i>Time management</i>	1 (3.7%)	0	2 (7.4%)	12 (44.4%)	12 (44.4%)	4.25	.90
<i>Project management</i>	1 (3.7%)	0	2 (7.4%)	7 (25.9%)	17 (63%)	4.44	.93
<i>Financial management</i>	1 (3.7%)	1 (3.7%)	1 (3.7%)	8 (29.6%)	16 (59.3%)	4.37	1.00

Source: Authors

The results obtained by the survey questionnaire items confirm the established hypothesis 2. Every successful manager should have the ability to select and use the right tools and resources to achieve the goals of the institution (Buble, 2010),

which is especially important in times of crisis. For the process of crisis management to be successful, it is necessary to integrate the knowledge and experience of various areas of management (Coombs, 2012).



**Table 4 Correlations between management competencies that make a successful director during the COVID-19 pandemic and the level of education**

		Level of education	Strategic management	Human resources management	Team management	Time management	Project management	Financial management
Level of education	Pearson correlation	1	-.221	-.421*	-.300	-.204	-.181	-.213
	Sig. (2-tailed)		.267	.029	.129	.306	.366	.285
	N	27	27	27	27	27	27	27
Strategic management	Pearson correlation	-.221	1	.756**	.790**	.821**	.780**	.867**
	Sig. (2-tailed)	.267		.000	.000	.000	.000	.000
	N	27	27	27	27	27	27	27
Human resources management	Pearson correlation	-.421*	.756**	1	.835**	.746**	.783**	.810**
	Sig. (2-tailed)	.029	.000		.000	.000	.000	.000
	N	27	27	27	27	27	27	27
Team management	Pearson correlation	-.300	.790**	.835**	1	.826**	.832**	.846**
	Sig. (2-tailed)	.129	.000	.000		.000	.000	.000
	N	27	27	27	27	27	27	27
Time management	Pearson correlation	-.204	.821**	.746**	.826**	1	.816**	.907**
	Sig. (2-tailed)	.306	.000	.000	.000		.000	.000
	N	27	27	27	27	27	27	27
Project management	Pearson correlation	-.181	.780**	.783**	.832**	.816**	1	.883**
	Sig. (2-tailed)	.366	.000	.000	.000	.000		.000
	N	27	27	27	27	27	27	27
Financial management	Pearson correlation	-.213	.867**	.810**	.846**	.907**	.883**	1
	Sig. (2-tailed)	.285	.000	.000	.000	.000	.000	
	N	27	27	27	27	27	27	27

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

Source: Authors

Table 4 shows the correlations between management competencies which make a successful director during the COVID-19 pandemic and the level of education. The results show that none of these competencies are related to the level of education of a director. Since the respondents were university graduates, PhD degree holders and professors, it is concluded that the aforementioned crisis management competencies may not have been acquired through education at all or at least not sufficiently. The COVID-19 pandemic has placed great demands and challenges on the directors of healthcare institutions, who, in addition to professional and medical knowledge, also require crisis management knowledge (Jankelová et al., 2021). According to research conducted by Jankelová et al. (2021) during the COVID-19 pandemic, there is a need to acquire and expand managerial and crisis competencies of directors in the healthcare system, as confirmed by many other scientific studies (Jankelová et al., 2021). The results of this research lead to the same conclusion and indicate the need for lifelong learning of directors of healthcare institutions.

#### **4. Conclusion**

The healthcare system was in an emergency situation when the management competencies of healthcare system directors became crucial to the survival of the system and the suppression of the pandemic. The hypotheses in this paper indicate the potential shortcomings of competencies acquired by directors, but also the recognized need to acquire them through education or lifelong learning. The role of a director who manages, coordinates and communicates during the crisis caused

by the COVID-19 pandemic is extremely important and has an impact on the healthcare system. That is why organizations must be able to communicate the positive elements of a crisis situation to show that a crisis situation can be a productive process and not just an unpleasant and negative phenomenon. Crisis management strategies must include the development of the present and the future. They also require abandonment of daily, routine activities, i.e., the introduction of innovative activities that require a high level of management readiness (Mihaljević & Mihalinić, 2011). The situation caused by the COVID-19 pandemic described above has shed light on shortcomings caused by bureaucratic procedures, and lack of competencies or skills needed by directors of healthcare institutions. In addition, it is concluded that it is important for directors of healthcare institution to know the elements of crisis management of the institution in unforeseen situations. Therefore, the solutions are reflected in the role of directors who will acquire the necessary competencies, knowledge and skills through the educational process. At the same time, we want to present the success of the process of management in healthcare institutions during the COVID-19 pandemic with regard to the acquired initial education. Therefore, the need for further research related to health institutions at the primary, secondary and tertiary levels of medical care was identified. Namely, as the COVID-19 pandemic continues to unfold and evolve, there is a need to strategically consider how to influence human resources and restructure healthcare institutions so that crisis management during and after the COVID-19 pandemic can take effect in a timely and effective manner.

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