

SIGNIFICANCE OF THE FOUNDING BODY (OWNERSHIP AUTHORITY) FOR FINANCIAL PERFORMANCE OF HOSPITALS IN POLAND – EVIDENCE FROM COUNTY AND PROVINCIAL HOSPITALS

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SIGNIFICANCE OF THE FOUNDING BODY (OWNERSHIP AUTHORITY) FOR FINANCIAL PERFORMANCE OF HOSPITALS IN POLAND – EVIDENCE FROM COUNTY AND PROVINCIAL HOSPITALS

Abstract

The purpose of the article/hypothesis: The purpose of the article is to identify and assess differences in the financial performance of Polish hospitals according to the type of the founding body. Research hypothesis assumes that the founding body is of great importance for the hospital's financial condition.

Methodology: Selected financial ratios illustrating various areas of financial performance of the analyzed units are used in the study. Statistical significance is also verified in terms of differences between the mean values of indicators characterizing the financial performance of hospitals. The study is conducted on the example of public hospitals subordinated to provinces (voivodships) and counties (poviats).

Results of the research: The assessment of the financial performance shows that the situation of the provincial hospitals seems to be slightly better than that of the county ones. In addition, the study shows significant differences between the analyzed groups of hospitals within the areas of debt, as well as in the case of cash (immediate) financial liquidity, which allows only to partially accept the research hypothesis. In case of current and quick liquidity, as well as obtained profitability, unambiguous verification of the hypothesis is not possible.

Keywords: hospital financial performance; hospital founding body; hospital financial management; hospital ownership authority; hospital financial condition.

JEL Class: I15, H75, G3.

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INTRODUCTION

The existence of reliable and sound healthcare sector is very important from the social perspective, as its task is to protect and save human health and life. Significant financial resources from public sources are allocated for its financing. Therefore, it can undoubtedly be seen as a socially important sector.

Health expenditures constitute a significant burden for the public finance sector in many countries. The largest part of public funds allocated to financing health services in Poland is dedicated to hospitals. Unfortunately, many of them suffer losses on their core activities, which leads to the growing debt of the hospital sector itself (Paździor and Maj, 2017: 309–321) and the negative situation in the entire healthcare system as well. Taking this into account, it should be stated that the proper functioning of hospitals has a significant impact on the functioning of the overall healthcare system. Therefore, the search for factors determining the efficient functioning of the hospital seems to be a priority task.

The purpose of this study is to indicate the differences in selected areas of the financial condition among Polish hospitals subordinated to various founding bodies (ownership authorities). The considerations contained in the article are based on the following hypothesis: the occurrence of significant differences in the financial condition of hospitals depends on the founding body.

This study extends the subject literature concerning the importance of the founding bodies (ownership authorities) for the financial condition of hospitals – especially the public ones. It brings some evidence in the topic on the example of county and provincial hospitals applying a wide set of financial indicators. The presented results may have a significant meaning and good informative value for healthcare managers, health policymakers, hospitals' founding bodies or ownership authorities.

The structure of the article is as follows. Section 1 presents the concept of the founding body and ownership authority in hospital. Section 2 indicates a comprehensive literature review concerning the meaning of the hospital's founding body or ownership authority for financial performance. Section 3 describes in detail methods applied in the study conducted for the purpose of this article, and Section 4 presents empirical results of the study. The article is finished with the main conclusions made based on the obtained results presented together with the discussion with some other studies in the analyzed matter.

1. FOUNDING BODY AND OWNERSHIP AUTHORITY IN HOSPITAL – DIFFERENT TYPES OF DEFINITIONS

Considering the concept of the founding body and ownership authority in Polish hospitals, it is worth to have an in depth look at the types of definitions that occur both in theory and practice of healthcare management.

In the Polish Act on Medical Activity (UODL, 2011), which is supposed to comprehensively regulate the activity of all medical entities, the founding body is defined as an entity or body that creates a medical entity in the form of an independent public health care facility, budgetary unit or military unit (UODL, 2011: art. 2, sec. 1, point 6). Such a definition emphasizes the public nature of the founding body. Responsibilities of the founding body portrayed in these terms include: preparing the hospital's statute, employing the CEO, appointing and dismissing the social council, supervision and control over the subordinated medical entity, etc. (UODL, 2011: art. 42, paragraph 4; art. 43 sec. 3; art. 48 sec. 5; art. 121).

This trend – emphasizing the public nature of a hospital's founding body is also included in the definition of the founding body, or otherwise the supervisory body presented by the Central Statistical Office in Poland (GUS). According to them, it can be defined as a public administration body which appoints or controls an organizational unit of public administration, acting on the basis of legal provisions. Moreover, in additional explanations supplied by the GUS website, it is argued that the concept of a founding or supervising body should apply only to public sector entities (GUS, 2022).

On the other hand, it should be noted that medical entities in Poland (including hospitals) may be run by entrepreneurs including many different types of legal forms, or also in such forms as: an independent public healthcare unit (SP ZOZ), a budgetary entity (including state budgetary units established and supervised by the Ministry of National Defense, the ministry responsible for internal affairs, the Ministry of Justice or the Internal Security Agency), a research institute, a military unit, a legal person, a foundation or and association (UODL, 2011: art. 4 sec. 1). Bearing this in mind, it should be stated that a hospital as a medical entity in Poland may be run both in a public or non-public form.

Taking the above into account, in the case of non-public hospitals in Poland, one should speak of the ownership authority of the hospital rather than the founding or supervising body. However, in economic practice and in everyday use, the concept of a hospital's founding body is very often also extended to non-public entities (Hass-Symotiuk, 2011: 37; Rabciej, 2013: 100–108; Krzeczewski, 2014a: 569–581; OZZL, 2021; Zdrowie Łódzkie, 2021). Anyway, from the theoretical point of view it can be stated that the concept the founding or supervising body is expressed in narrower terms, covering only public entities, whereas the concept

of the ownership authority can be applied to both public and non-public hospitals or other medical entities – as a concept with a broader meaning.

2. FINANCIAL PERFORMANCE IN HOSPITALS IN ACCORDANCE WITH DIFFERENT TYPES OF FOUNDING BODIES OR OWNERSHIP AUTHORITIES – LITERATURE REVIEW

Polish hospitals may be subordinated to various ownership authorities or founding bodies, which is often related to a specific function of a given hospital (e.g. a general hospital or a specialist one) and providing patients with a specific package of health services. The scope of health services provided may, in turn, have significant impact on the financial condition of the hospital. The private or non-public hospitals in Poland are usually characterized by a much narrower scope of medical activity as compared to their public counterparts (Janik, 2012: 27–44) focusing very often just on the most profitable health services. Public hospitals, on the other hand, must provide the society with a full range of health services. It is mainly due to the fact that public hospitals are responsible for realizing very important social goals in the healthcare system (Paździor and Paździor, 2017: 54–62). Most public hospitals in Poland are local government hospitals, which means that their founding bodies are local government units (Rabiej, 2013: 100–108) i.e. municipalities, counties (poviats) or provinces (voivodships).

One of the studies comparing the financial situation of selected hospitals subordinated to different ownership authorities or founding bodies is presented by Janik (2012: 27–44), who analyzes the situation of two public and two private hospital units. The data used in the study is from 2010. The author notices a number of differences that exist between public and private entities. According to the study, public hospitals are much larger units with much larger assets, which in the first place is a source of costs, and only in the longer term can be perceived as a source of benefits. In public hospitals, the so-called passive fixed assets dominate – i.e. buildings, land, etc. By contrast, in private hospitals, the technical salary predominates in the structure of fixed assets. Moreover, private hospitals usually have a much narrower level of specialization than public hospitals. However, despite the differences, Janik (2012: 27–44) concludes that it is difficult to clearly state which hospitals act more effectively, emphasizing a need for further research in the analyzed area.

A similar study is presented by Krzeczewski (2014a: 569–581), where the financial performance of Polish public hospitals – subordinated to local government units and non-public hospitals operating in the form of limited liability companies is compared. 22 public hospitals and 10 non-public hospitals from the Lodz region are analyzed. The period of the study covers the years between 2007–2011.

The conclusions from the study confirmed the fact that the founding body (ownership authority) is important for the financial condition of the hospital. There occur statistically significant differences between the analyzed groups of hospitals in case of most of the financial ratios applied in the study. However, the obtained results do not make it clear which hospitals actually act more effectively. While non-public hospitals are characterized by higher levels of profitability and generate higher revenues in relation to assets (which may be extremely important from the point of view of financial efficiency), public hospitals are characterized by better levels of financial liquidity. Krzeczewski (2014a: 569–581) indicates that in order to confirm the obtained results, it would be worth conducting research on a much larger scale e.g. throughout the whole country.

In the other study, Krzeczewski (2013: 271–284) compares the financial situation between hospitals subordinated to different types of local government units i.e. county (poviat) and provincial (voivodeship) hospitals in the Lodz region. The study is conducted on the example of data from 8 county (poviat) and 10 provincial (voivodeship) hospitals in the years 2006–2010. Krzeczewski (2013: 271–284) indicates that the financial situation of province (voivodeship) hospitals is much better than in county (poviat) ones. Though, there is also a clear need for further research aimed at verifying the statistical significance of differences in financial ratios obtained by hospitals subordinated to different types of founding bodies.

Dubas-Jakóbczyk et al. (2020: 2188) conducting a cross-sectional study on the example of Polish public hospitals in 2018 also bring some important conclusions to the considerations regarding the importance of the founding body for the financial condition of the hospital. The authors show that the university and local hospitals (municipal and county ones) are characterized by worse financial performance than regional (provincial) and ministerial hospitals. The research covers such financial categories as gross profit margin, debt ratio, or the share of arrears in total liabilities.

Miszczyńska (2020: 203–212) presents a study to capture the impact of the founding bodies in Polish hospitals on the selected financial liquidity ratios (current and quick liquidity ratios) and debt ratios (debt-to-equity, total debt and financing of fixed assets ratios) in the years 2007–2015. County (poviat), provincial (Marshal's office), university and ministerial hospitals are included in the study. Miszczyńska (2020: 203–212) indicates that the impact of the founding body on the selected financial ratios can be confirmed just in the particular years of the analyzed period. She also draws attention to the difficult financial situation of Polish hospitals, regardless of the type of the founding body in the hospital.

Miszczyńska and Miszczyński (2021: 4596) analyze the situation of 123 county (City Hall) and 134 provincial (Marshal's Office) hospitals using three debt ratios in 2013–2017. Additionally, the study also takes into account the size of the

hospital measured by the number of beds (medium 0–400 beds and large beds over 400 beds). The authors notice that a better situation in terms of the analyzed debt ratios is among provincial hospitals in the group of medium-sized ones. Nevertheless, in the group of large hospitals, the situation is actually the opposite i.e. county hospitals perform better and are characterized by lower indebtedness and ratio values closer to the recommended normative values. However, the authors emphasize the lack of statistical significance in the obtained results.

Some results regarding the importance of the founding bodies or ownership authorities for the financial condition of hospitals can also be found in the study by Krzeczewski (2014b: 209–215). The analysis covers 49 hospital units including 23 local government hospitals (county and provincial), 4 university hospitals, 2 ministerial hospitals and 10 non-public hospitals. The analyzed period covers the years 2007–2011. The author finds that there are differences in the assessment of the financial performance between the analyzed groups of hospitals.

Kautsch (2017: 63–76) analyzes the role of county (poviat) supervision over the subordinated hospitals. The study covers 8 counties (poviats) which perform ownership and supervisory functions in relation to their subordinate medical entities. Kautsch (2017: 63–76) conducts a qualitative study, aimed perhaps not so much at assessing the financial performance of hospitals, but rather on issues related to a supervising process. Nevertheless, there might be found some interesting observations concerning the analyzed topic. Kautsch (2017: 63–76) notes that county (poviat) supervision over hospitals is actually the worst among all types of local government units in Poland. In addition, the author also draws attention to the poor financing level of county hospitals, as well as the lack of adequate funds for employing health care professionals supplying specialist care rather than the general one, whereas specialist care is often much better priced. All of these translates into a worse financial situation in hospitals subordinated to the counties as compared with the ones subordinated to the other local government units in Poland.

The above literature review shows the importance of the analyzed problem. Though, in the opinion of the author of this article, the analysis of the described problem needs to be extended and deepened. It is mainly due to the fact that many of the above studies are based on very small samples or on a relatively small number of financial ratios. Hence, all the generalizations made on their basis may be biased in some way. Additionally, the time periods analyzed in the studies are very often quite short and also distant in time and they need to be updated. The study presented below is aimed at reducing the above-mentioned problems.

3. METHODS

In the study public hospitals subordinated to the local government units are examined. Analyzing the situations of public hospitals in Poland is important because, as it was mentioned earlier, they are responsible for providing comprehensive healthcare protection for the society. Moreover, the analysis of the situation of hospitals subordinated to particular local government units is extremely important because the financial management of hospitals causes many problems on the part of local government units (Miszczyńska, 2013: 187–200). Despite the fact that the importance of private hospitals is systematically growing (Dubas-Jakóczyk and Kamińska, 2017: 185–196) their medical scope is usually much narrower as compared to the public ones. That is why, their role in the healthcare system is limited.

For the purposes of this study, the author applies statistical hypothesis testing assessing financial ratios in two independent groups of hospitals i.e. county and provincial ones. County and provincial hospitals constitute the most numerous groups of public hospitals in Poland.

It is worth emphasizing that in the context of the previous considerations about hospitals' ownership authorities and founding bodies, due to the fact that the examined units are public hospitals, the narrower concept of ownership authority portrayed just through the prism of the founding body might be applied.

Time period of the analysis covers the years 2005–2017. The financial data comes from the Amadeus database. 92 public hospitals are examined – including 49 provincial hospitals and 43 county ones. In the study, a number of financial ratios to illustrate the basic areas of the financial performance have been used. The formulas of the analyzed indicators are presented below:

Table 1. Formulas of financial ratios applied in the study

Ratio	Formula
Profitability:	
Return on assets ratio (ROA)	Net profit / Total assets
Return on sales ratio (ROS)	Net profit / Sales revenue
Debt:	
Total debt ratio (DT)	(Current liabilities + Non-current liabilities) / Total assets
Long-term debt ratio (DL)	Non-current liabilities / Total assets
Financial liquidity:	
Current ratio (CR)	Current assets / Current liabilities
Quick ratio (QR)	(Current assets – Stocks) / Current liabilities
Acid test ratio (ATR)	Cash and Cash Equivalent / Current liabilities

Source: own elaboration.

In the case of profitability ratios, the return on equity (ROE) ratio is omitted due to the fact that in some hospitals there occur negative equity values. In such a situation, it is necessary to refrain from calculating the ROE as obtained values may be misleading (Stępień, 2015: 101–110). Because of the legal exclusions regarding the bankruptcy of hospitals in Poland operating in the form of the SP ZOZ, i.e. independent public health care units, (UPU, 2003: art. 6 sec. 3) the negative equity values sometimes might occur. Though, it is usually a temporary situation. In the case of presenting aggregate data, taking into account negative values of equity would give a false picture of the situation in the functioning of the analyzed hospitals.

Statistical hypothesis testing is based on comparing the mean values between two independent groups i.e. provincial and county hospitals. The null hypothesis of equality of means in both groups is tested, which can be written as follows:

$$\begin{cases} H_0: m_1 = m_2 \\ H_1: m_1 \neq m_2 \end{cases}$$

where:

m_1 – the mean values of the first group of hospitals,

m_2 – the mean values of the second group of hospitals.

Before deciding on the equality of two mean values, the distribution in each of two independent groups should be analyzed to find out if the data distribution is a normal one or not. One of the most commonly used tests for this type of analyses is Kolmogorov-Smirnov test. For normally distributed data, the null hypothesis can be tested with the t-Student test. Otherwise, nonparametric tests are used. In this case, one of the most commonly used tests is the Mann-Whitney test. The construction here is as follows:

$$\begin{cases} H_0: F_1(x_1) = F_2(x_2) \\ H_1: F_1(x_1) \neq F_2(x_2) \end{cases}$$

where:

F_1 – distribution of the variable x_1 ,

F_2 – distribution of the variable x_2 .

It is necessary to apply such a procedure to all of the financial ratios used in the study.

4. RESULTS

The results presenting financial ratios and differences between them in both analyzed groups of hospitals are shown in the table below.

Table 2. The mean values of financial ratios in the years 2005–2017

Ratio	The mean value of provincial hospitals (1)	The mean value of country hospitals (2)	Difference (1) – (2)
Profitability			
ROA (%)	–0,34	–0,55	0,21
ROS (%)	–1,11	–0,95	–0,16
Debt			
DT (%)	57,90	63,53	–5,63
DL (%)	15,60	17,86	–2,26
Financial liquidity			
CR	1,05	0,86	0,19
QR	0,97	0,79	0,18
ATR	0,35	0,26	0,09

Source: own elaboration based on financial data from Amadeus database.

As it can be observed, county hospitals achieve slightly lower levels of ROA and, at the same time, slightly higher levels of ROS as compared to their provincial counterparts. Nevertheless, both groups of hospitals are featured by negative levels of profitability. Though, it must be pointed out that generating a profit in the case of public hospitals in Poland is not the primary goal. This does not mean, however, that such entities cannot or should not generate profits. Rational and balanced functioning should be the goal considering all healthcare entities, including hospitals as well (Węgrzyn, 2013: 197; Węgrzyn, 2015: 311–322). Such a rationality should be portrayed as a balanced activity, which could be ensured by maintaining even small, but still positive levels of profitability.

Looking at financial liquidity, it can be noticed that county hospitals generally achieve slightly lower levels of financial ratios as compared to the provincial ones, which should be assessed negatively. Though, comparing financial liquidity ratios in both groups of hospitals with the normative values presented in the subject literature (Grzywacz, red., 2014: 13–14), it might be noticed that hospitals in Poland achieve lower values than desired. In the case of provincial hospitals, however, the deviations from the normative values are much lower than in the case of county hospitals. Moreover, it should be remembered that making an assessment based on normative values should be treated with a high level of caution, as the lower values of financial liquidity ratios may result from the specificity of the hospital sector.

The county hospitals are characterized by slightly higher values of debt ratios as compared with the provincial ones, which can also be assessed negatively. It is worth noting that in both groups of hospitals, total debt accounts consist of more than half of the total assets. Bearing this in mind, the share of long-term debt in total assets seems to be relatively low. This may indicate a low level of investment in Polish hospitals as long-term financing is usually spent on investments in business entities. This situation may be to some extent explained by the fact that investment activity in hospitals is often carried out with funds coming from the subsidies of the founding bodies or the European Union (Bem et al., 2014a: 27–36; Janik and Paździor, 2017: 137–147), as well as various types of foundations, etc. Moreover, it shows that hospitals in their current operations mainly use short-term financing.

Having in mind the foregoing differences in financial condition between county and provincial hospitals, it is obviously justified to find out if they are statistically significant. The table below presents the results of the Kolmogorov-Smirnov test, indicating that none of the analyzed variables is described by a normal distribution.

Table 3. Results of Kolmogorov–Smirnov test

Ratio	Provincial hospitals		County hospitals	
	KS test statistic	Critical value of the test statistic for $\alpha = 0,05$	KS test statistic	Critical value of the test statistic for $\alpha = 0,05$
Profitability				
ROA	0,210	0,060	0,124	0,064
ROS	0,111	0,060	0,125	0,064
Debt				
DT	0,118	0,060	0,140	0,064
DL	0,191	0,060	0,169	0,064
Financial liquidity				
CR	0,162	0,060	0,104	0,064
QR	0,169	0,060	0,103	0,064
ATR	0,228	0,060	0,185	0,064

Source: own elaboration based on financial data from Amadeus database.

In order to assess whether the differences in financial ratios between the analyzed groups of hospitals are statistically significant, it is necessary to conduct a non-parametric test. For this purpose, the Mann-Whitney test is used in accordance with the previously described methodology. The results of the non-parametric Mann-Whitney test are summarized in the table below:

Table 4. Results of the Mann-Whitney test for the mean values of the ratios in the analyzed groups of hospitals

Ratio	Z value	p-value
Profitability		
ROA	-0,02	0,98
ROS	0,12	0,90
Debt		
DT	-2,92	0,00
DL	-3,27	0,00
Financial liquidity		
CR	0,82	0,41
QR	0,82	0,41
ATR	2,28	0,02
Bold – indicates the statistical significance of the differences in the mean values of the ratios		

Source: own elaboration based on financial data from Amadeus database.

The obtained results indicate that significant differences between the average values of the ratios in provincial and county hospitals occur only in the area of debt (DT and DL), and also in the case of cash (immediate) financial liquidity, i.e. the acid test ratio (ATR). In the case of the remaining financial liquidity ratios (CR and QR), as well as profitability ratios (ROA and ROS), the null hypothesis regarding the equality of means cannot be rejected in favor of the alternative hypothesis.

CONCLUSIONS

Financial results of Polish hospitals are generally poor. Analysing the results of the study, it seems that hospitals' authorities should pay more attention to maintain positive levels concerning profitability. As it was mentioned earlier, obtaining high levels of profitability does not have to be the main goal in case of hospitals, though keeping rational and balanced financial activity and generating, even if not a very high but positive level of profitability should be a kind of priority. Moreover, it seems that authorities of Polish hospitals should try to limit the level of short-term debt in favor of long-term one, which would have positive impact on financial liquidity.

Anyway, it is worth to remember that introducing the changes among hospitals in Poland in the aspects mentioned above, might be sometimes difficult due to some problems occurring in the Polish healthcare system i.e. monopolistic position of third-party payer and longtime of collecting receivables, financing over-performance in hospitals or some political reasons (Krzeczewski, 2020: 73–77, 130–141, 199).

The results presented in the foregoing study indicate that the adopted hypothesis assuming the existence of significant differences in the financial condition of hospitals subordinate to different founding bodies (ownership authorities) can only be partially verified. Such differences occur in case of debt (DT and DL) and cash financial liquidity (ATR). On the other hand, in the case of current (CR) and quick (QR) liquidity, as well as the profitability (ROA and ROS) it was not possible to reject the null hypothesis in favor of an alternative hypothesis. Thus, it is not fully clear if the differences observed in these areas of financial condition are significant or not.

The presented study covers a relatively long period of analyzes, a broad set of financial ratios and is conducted on a relatively large group of hospitals as compared to the studies conducted among hospitals both in Poland and abroad (Aggarwal and Hahn, 1979: 13; Chu et al., 1991: 39–58; Upadhyay et al., 2015: 1–9; Upadhyay and Smith, 2016: 148–157; Prędkiewicz and Prędkiewicz, 2013a: 169–179; Prędkiewicz and Prędkiewicz, 2013b: 311–323; Bem et al., 2014b: 41–48). Additionally, concerning some studies devoted to the importance of the founding body (ownership authority) for the financial condition of a hospital (Janik, 2012: 27–44; Krzeczewski, 2013: 271–284; Krzeczewski, 2014a: 569–581; Krzeczewski, 2014b: 209–215; Kautsch, 2017: 63–76), this study extends a time period, a number of the analyzed units, or the range of the analyzed financial ratios.

The foregoing study fulfills and extends somehow the subject literature concerning the importance of the founding bodies (ownership authorities) for the financial condition of hospitals – especially the public ones (Krzeczewski, 2013: 271–284; Dubas–Jakóbczyk et al., 2020: 2188; Miszczyńska, 2020: 203–212; Miszczyńska and Miszczyński, 2021: 4596). This study confirms that hospitals subordinated to different founding bodies i.e. provinces and counties are characterized by different financial condition. It turns out that the situation of province hospitals is slightly better than the situation of county hospitals. Such a situation may partly result from a different approach to the control and supervision of provinces and counties as founding bodies over their subordinated hospitals, or from different levels of funding supplied to hospitals by different types of local government units (i.e. provinces and counties), indicated by Kautsch (2017: 63–76). However, significant differences in financial condition between the analyzed groups of hospitals apply only to some areas of financial management assessment i.e. the area of debt and cash liquidity. In the case of the remaining areas of the financial condition, it was not possible to unequivocally state whether the observed differences in the values of financial ratios are statistically significant. The obtained results are consistent with the study by Dubas–Jakóbczyk et al. (2020: 2188), where significant differences in terms of debt among public hospitals subordinated to various ownership authorities are also presented. Though, the results obtained in this study, are inconsistent with the study by Miszczyńska and

Miszczyński (2021: 4596), where the differences in debt ratios of hospitals subordinated to various provinces and counties turn out to be statistically insignificant. Such an inconsistency may, however, result from a different research sample size or from methodological issues.

Due to the scope of the analyzes performed for the purposes of this study, it is not possible to confirm the consistency or inconsistency regarding the importance of the ownership authority for the financial condition of public and non-public hospitals, indicated in the studies by Janik (2012: 27–44) and Krzeczewski (2014a: 569–581). Difficulties in these types of analyzes are related primarily to constructing adequately comparable groups consisting of public and non-public hospitals. Significant differences between public and non-public entities as well as the access to reliable financial data concerning the latter ones constitute the main reasons for such difficulties. Taking this into account, gathering a research sample large enough to conduct a sound and reliable study might be a very difficult task.

This study undoubtedly broadens the set of financial ratios used to assess the financial condition of Polish public hospitals with the usage of relatively large samples (Dubas–Jakóbczyk et al., 2020: 2188; Miszczyńska, 2020: 203–212; Miszczyńska and Miszczyński, 2021: 4596). Nevertheless, the author is aware that the presented deliberations do not fully exhaust the analyzed research problem. First of all, the study is conducted using the groups of provincial and county hospitals. However, among public hospitals in Poland, one can distinguish also other types of hospitals subordinated to different founding bodies like medical universities or particular ministries. This indicates the place for further studies in the analyzed topic as the concept of the founding body or ownership authority in hospital is broader. Additionally, due to some difficulties in obtaining financial data, the study covers 92 hospital units. Although, as compared with some other studies in the analyzed topic (Janik, 2012: 27–44; Krzeczewski, 2013: 271–284; Krzeczewski, 2014a: 569–581; Krzeczewski, 2014b: 209–215; Kautsch, 2017: 63–76) the research group seems to be quite large, it is worth to bear in mind that there are much more hospitals operating in Poland. According to the estimates of the Ministry of Health, in Poland in 2017 (the last year of the analyzed time period in the study) there were 930 general inpatient hospitals (CSIOZ, 2018 : 59), whereas according to the data from the Register of Healthcare Entities in Poland, the number of entities providing hospital services at the end of December 2017 is estimated at 1389 (RPWDL, 2021). Taking this into account, in the event of gathering more relevant financial data, it is possible to expand the presented analyzes further and validate the obtained results and conclusions. What is more, in recent years, there have been introduced many dynamic changes in the Polish healthcare system, which might have a significant impact on the activity of Polish hospitals.

Among others, introducing the so-called hospital networks or COVID-19 pandemic could be mentioned, when there were temporarily founded so called dedicated COVID-19 hospitals by transforming many of the existing hospitals in Poland. All these changes introduced in the recent years into the Polish healthcare system might constitute very interesting topics expanding the presented study. Hence, it is advisable to perform further analyzes and update the current conclusions.

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ZNACZENIE ORGANU ZAŁOŻYCIELSKIEGO (WŁAŚCIELSKIEGO) DLA KONDYCJI FINANSOWEJ SZPITALI W POLSCE – WYNIKI BADAŃ EMPIRYCZNYCH DLA SZPITALI POWIATOWYCH I WOJEWÓDZKICH

Streszczenie

Cel artykułu/hipoteza: Celem artykułu jest wskazanie różnic w zakresie osiągniętej kondycji finansowej przez polskie szpitale podległe różnym organom założycielskim (właścicielskim). Pozwoli to na ocenę jakości zarządzania finansowego, które może być uzależnione właśnie od takiego organu. Rozważania oparto na następującej hipotezie: występowanie istotnych różnic w kondycji finansowej szpitali uzależnione jest od organu założycielskiego (właścicielskiego).

Metodyka: Badanie zostało oparte na analizie finansowej wybranych jednostek szpitalnych. Została w nim również dokonana weryfikacja istotności statystycznej w zakresie różnic pomiędzy wartościami wskaźników charakteryzujących kondycję finansową szpitali podległych różnym organom założycielskim (właścicielskim). Badanie zostało wykonane na przykładzie szpitali podległych jednostkom samorządów wojewódzkich oraz samorządów powiatowych.

Wyniki/Rezultaty badania: Ocena kondycji finansowej wykazała, że sytuacja szpitali wojewódzkich prezentuje się nieco lepiej, niż szpitali powiatowych. Ponadto w badaniu wykazane zostały istotne różnice pomiędzy analizowanymi grupami szpitali w ramach obszarów zadłużenia, a także w przypadku gotówkowej (natychmiastowej) płynności finansowej, co pozwala jedynie na częściowe przyjęcie postawionej hipotezy. W przypadku

natomiast płynności bieżącej i szybkiej, a także uzyskiwanej rentowności jednoznaczna weryfikacja postawionej hipotezy nie była możliwa.

Słowa kluczowe: kondycja finansowa szpitala; organ właścicielski szpitala; zarządzanie finansami szpitala; organ założycielski szpital; organ tworzący szpital.

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