

ANNA KSYKIEWICZ-DOROTA, SYLWIA GRADOWSKA-BURCZYK

Analiza strategiczna w zarządzaniu opieką pielęgniarską i położniczą

Strategic analysis in nursing and obstetric care management

Streszczenie

Wprowadzenie. Pielęgniarki naczelne są odpowiedzialne za monitorowanie i analizowanie zmian, jakie dokonują się w opiece pielęgniarskiej/położniczej. Zarządzająca kadra powinna analizować, a następnie adaptować i wprowadzać do praktyki standardy, procedury i narzędzia, które pozwolą usługom pielęgniarskim/położniczym być jakościowo konkurencyjnymi. Ważne jest, aby podstawą sukcesu opieki pielęgniarskiej i położniczej była właściwa strategia, poprzedzona zastosowaniem analizy strategicznej.

Cel badań. Celem badań było przedstawienie mocnych i słabych stron sektora świadczeń pielęgniarskich/położniczych oraz szans i zagrożeń w otoczeniu w szpitalach trzech poziomów referencyjnych.

Materiał i metody. Metodą analizy strategicznej była analiza SWOT. SWOT jest wystandaryzowanym narzędziem opracowania danych z przeszłości i teraźniejszości oraz prognoz na przyszłość w celu identyfikacji wewnętrznych silnych i słabych stron organizacji oraz szans i zagrożeń w środowisku zewnętrznym. Badania przeprowadzono techniką ankiety, zaś narzędziem był arkusz dla potrzeb analizy SWOT. Badania przeprowadzono w 13 szpitalach I poziomu referencyjnego, 8 szpitalach II poziomu referencyjnego oraz 3 szpitalach III poziomu referencyjnego. Grupę badawczą stanowiło 289 osób z kierowniczej kadry pielęgniarskiej. Badane cechy poddano analizie statystycznej: testowi jednorodności χ^2 oraz testowi niezależności χ^2 , przyjmując 5% błąd wnioskowania i związany z nim poziom istotności $p \leq 0,05$.

Wyniki. W badaniach wykazano, że mocną stroną sektora opieki pielęgniarskiej/położniczej było decydowanie o szerokim zakresie usług tych grup zawodowych, słabą – brak środków finansowych na dodatki motywacyjne, szansą – dobra współpraca z dyrekcją szpitala, zaś zagrożeniem – powiększające się różnice w dochodach ludności.

Wnioski. Kierownicza kadra pielęgniarska nie stosuje systematycznie analiz strategicznych, a spośród badanych, które korzystają z tych metod, najczęściej wybierano analizę SWOT.

Summary

Introduction. Head nurses are responsible for the monitoring and analysis of changes taking place in the sector of nursing care. The managerial staff should analyse, then adapt and implement into practice, standards, procedures and tools which would provide the nursing/obstetric services with competitiveness. It is important that a basis for success, including nursing and obstetric care, should be an appropriate strategy preceded by the use of strategic analysis.

Objective. The objective of the study was the presentation of strengths and weaknesses in the sector of nursing/obstetric services, as well as opportunities and threats in the environment in hospitals of three levels of reference.

Material and methods. The method of strategic analysis applied in the study was SWOT analysis. SWOT is a standardised tool for the analysis of data concerning the past and the future, in order to identify internal strengths and weaknesses of an organization, as well as opportunities and threats in its external environment. The study was carried out by the technique of a survey, the research tool was a questionnaire form designed for the needs of SWOT analysis. The study covered 13 hospitals of the first level of reference, 8 hospitals of the second reference level, and 3 hospitals of the third reference level. The study group were 289 nursing managerial staff members. The traits examined were subject to statistical analysis: χ^2 test for uniformity, χ^2 test for independence, while adopting the conclusion error of 5%, and associated with it the level of significance $p \leq 0.05$.

Results. The study showed that the strength of nursing/obstetric care was making decisions concerning a wide range of services provided by this occupational group; the weakness – lack of financial resources for employee motivation benefits, the opportunity – a successful cooperation with the hospital board of managers, while the risk – the increasing inequalities in population's income.

Conclusions. The nursing managerial staff does not systematically apply strategic analyses, and the respondents who use these methods most frequently chose SWOT analysis.

Słowa kluczowe: analiza strategiczna, analiza SWOT, sektor opieki pielęgniarskiej i położniczej.

Key words: strategic analysis, SWOT analysis, sector of nursing and obstetric care.

INTRODUCTION

Head nurses/directors for the matters of nursing care are responsible, among other things, for the monitoring and analysis of changes taking place in the sector of nursing/obstetric care. The managerial nursing/obstetric staff should analyse, then adapt and implement into practice, standards, procedures and tools which would provide the nursing/obstetric services with competitiveness, to similar that on the market of health services [1].

The SWOT concept was created in the developed countries where it became a standard of the adopted algorithm of evaluation of the activity of every organization [2]. This concept was first described by Ansoff in the 60s of the 20th century [3]. In the 70s there appeared the first notices concerning the application of selected tools of strategic analysis in the sector of health care [4]. As reported by Gierszewska and Romanowska [5], the scientific and methodological inspiration for the development of SWOT analysis was the concept of force fields developed by Lewin in the 60s. In time, SWOT analysis has become operational and simplified.

In 1999, in the system of health care in the United Kingdom, SWOT analysis was one of the methods which was found useful while developing a strategic plan for the needs of the engagement of society in the reduction of active tobacco smoking among children and adolescents [6]. The studies were conducted in 113 centres in the UK. The programme was monitored by the staff of the health care system, schools and media. The SWOT analysis was presented in the form of pictures which described advantages and disadvantages of tobacco smoking, and its effect on the human body.

The application of SWOT analysis in the countries of the European Union is greatly varied. In the UK this analysis is applied for the evaluation of the mode of work of head nurses by inscribing and grouping of strengths and weaknesses of their work, as well as opportunities and threats originating from the environment managed by them [7]. In Denmark, this analysis is an effective method of evaluation of financing nursing/obstetric services [8].

In Poland, SWOT analysis is applied, among other things, for the evaluation of the sector of nursing and obstetric care, which allows the adjustment of this sector to the changing needs of the health care system, as well as the requirements of potential patients and their families, and indicates further possibilities and directions of the development of this sector of services [9]. In 2001, the Independent Public Health Care Unit in Maków Mazowiecki carried out an analysis of marketing strategy, prepared with the use of various strategic analysis techniques [10]. The author drew attention to the need for performing a continuous evaluation of the internal situation of the health care unit described, and also its position and the position of competitive units on the market of health services [10]. According to the author, the success of such a strategy, to a great extent, depends on behaviours of the staff, including their relations with patients and cooperating with medical staff [11]. The quality of the strategic plan, to a great degree, depends on the good recognition of the environment in which a given unit functions [10].

In 2002, Korzeniewska confirmed the optimum management of the Health Care Unit in Łódź, based on previously conducted SWOT analysis [4]. When this method is ap-

propriately combined with skilful use of the analysis of resources and the market, it is then known what the strategic prevalence over the competitor may be built upon. Such knowledge may enable health care unit be classified to the group above the average, and guarantee strategic success [12].

OBJECTIVE

The objective of the study was the presentation of strengths and weaknesses of the sector of nursing/obstetric services, as well as opportunities and threats in the environment, in hospitals of three levels of reference in the area of the Regions of Lublin and Rzeszów.

MATERIAL AND METHODS

The proper studies were conducted during the period 2005-2007, and preceded by pilot studies. The study group covered: 13 hospitals of the first level of reference (municipal and provincial hospitals), 8 hospitals – of the second level of reference (regional hospitals), and 3 hospitals of the third reference level (clinical hospitals). Studies in hospitals of the third level of reference were conducted only in the Lublin Region, because there are no such hospitals in the Rzeszów Region.

The study covered 289 nurses/midwives performing managerial functions, including 18 head nurses/directors for matters of nursing care, and 271 charge nurses/midwives.

The research method was a diagnostic survey, while the technique – the SWOT analysis.

The authors of the presented study, following British researchers [13], did not provide an 'empty' tool for the needs of the SWOT analysis, but proposed more than a dozen criteria with a request to select 7 of them, most important for the evaluation of services of nursing/obstetric sector, in each field of the SWOT analysis. Prior to the SWOT analysis, according to the suggestions by the British authors [13], the respondents were trained in correct application of the SWOT method of analysis. If, in respondents' opinions, the criteria proposed were appropriate for the evaluation of the nursing/obstetric sector in the hospital where the study was carried out, they were asked to inscribe these criteria. In the case of other factors, which were significant according to the respondents and were not included in charts, the request was to exchange them.

The studies were carried out after consent had been obtained from the board of directors of the health care units in the study, then each person examined who expressed consent for the study obtained a research tool. The studies were voluntary and anonymous, and the participants were informed about the purpose. The traits examined were analysed statistically by: χ^2 test for uniformity, χ^2 test for independence, while adopting the conclusion error of 5%, and associated with it the level of significance $p \leq 0.05$.

RESULTS

The study covered: 13 hospitals of the first level of reference (54.2%), 8 hospitals of the second level of reference (33.3%), and 3 hospitals of the third reference level (12.5%) – Figure 1.

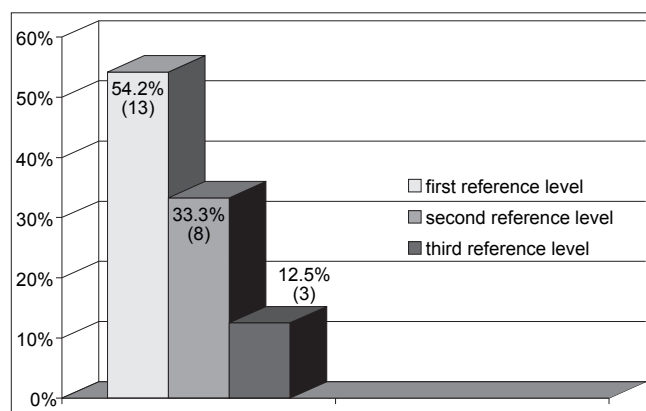


FIGURE 1. Reference level of hospitals.

The study group were 18 head nurses/directors for the matters of nursing care (6.2%), and 271 charge nurses/midwives (93.8%).

Figure 2 presents in percentages the structure of the nursing and obstetric managerial staff in the area of the regions examined. In the Lublin Region (Group A) the study covered 167 people. This group covered 10 head nurses/directors for matters of nursing care, which constituted 5.9% of the respondents in this group, and 157 (94.1%) of charge nurses/midwives. Nurses/midwives from the Rzeszów Region (Group B) constituted a smaller study group of 122 respondents, including 8 head nurses/directors for matters of nursing care (6.5%) and 114 (93.5%) charge nurses. No statistically significant differences were observed between the two groups examined (the Regions of Lublin and Rzeszów) with respect to the position occupied ($\chi^2=0.04$; $p=0.84$).

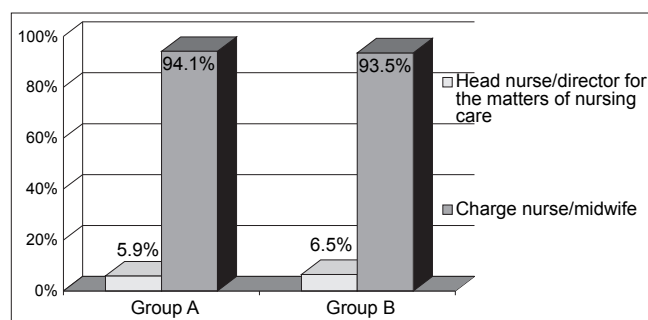


FIGURE 2. Structure of the managerial nursing/obstetric staff in the study.

While analysing the selection of the SWOT method from the aspect of the position occupied it was noted that all head nurses/directors for the matters of nursing care (100.0%) in both groups applied the SWOT method. Among charge nurses/midwives, SWOT analysis was chosen by 99.3%, and in Group B – 99.1% of respondents.

With respect to the reference level of hospitals it was confirmed that more than 99.2% of the total number of respondents from the first level of reference chose SWOT analysis. This concerned all the employees from Group A (100.0%), and 98.2% – from Group B. The differences between both groups were not statistically significant ($p=0.48$). In hospitals of the second level of reference, in Group B, all respondents reported that they applied SWOT analysis – 100.0%, compared to Group A (98.7%), which was also

statistically significant ($p=0.51$). All respondents from the third level of reference (10.0%) mentioned that they applied the method of strategic analysis.

Based on the SWOT analysis performed by the nursing/obstetric managerial staff employed in hospitals of the first, second and third level of reference in the area of two regions: Lublin and Rzeszów, in the section *strengths* indicated the factor concerning the making of decision pertaining to the wide scope of nursing/obstetric services – the Lublin region (84.4%), the Rzeszów Region (78.6%), and a positive image of nurses and midwives. In hospitals of the first level of reference, the above-mentioned factors were indicated by 114 (86.3%) of respondents, in the group of the second level of reference – 90 (75.6%), and the third level – 19 (50.0%). A significant factor ($p=0.00001$) for the respondents from the first level – 88 (6.6%), compared to the second level – 42 (32.2%), and the third level – 18 (47.3%) made decisions concerning the number of nurses/midwives on individual work shifts.

The results obtained indicate that also the making of decisions concerning the methods of improving the quality of nursing/obstetric care was significant ($p = 0.007$) for the head nurses/directors for matters of nursing care, and charge nurses/midwives on all the levels – 80 (60.6%) and 28 (73.6%), respectively. The skills of promoting nursing and obstetric services was important for 69 (52.2%) respondents from the group of hospitals of the first reference level. For 46 (38.6%) of respondents from the second level this was equally as important as for 11 (28.9%) respondents from the third reference level. A statistically significant difference ($p=0.000005$) was observed in favour of hospitals from the first level of reference. The subsequent *strength* was making decisions concerning nursing/obstetric staff scheduling during individual work shifts. This was most frequently mentioned by staff employed in hospitals of the third reference level – 23 (60.5%), followed by those from hospitals of the first level of reference – 62 (46.9%), and hospitals of the second level – 52 (43.6%). The statistical analysis of the data showed significant differences ($p=0.000002$). The remaining factors, such as the skills of obtaining non-budget financial resources, were most often reported by respondents from the first level of reference (18.9%), followed by the second level – 14.2%, and the third level – 10.5% which, after the performance of statistical analysis, proved to be significant ($p=0.009$). A strong statistically significant relationship was also noted with respect to the making of decisions concerning the improvement of nursing/obstetric teams in the group examined ($p=0.004$), especially in hospitals of the third level of reference – 76.3%, compared to hospitals of the second level of reference, where the third factor was indicated by 57.9% of respondents, whereas in hospitals of the first level of reference – by 55.3%.

The subsequent element of detailed SWOT analysis were the respondents' replies concerning *weaknesses* of the sector of nursing/obstetric care. The largest number of the managerial nursing/obstetric staff in the section: *weaknesses* of nursing and obstetric care, selected lack of financial resources for motivation extra payments for nurses/midwives – 85.4%. In the group of hospitals in the Lublin region, such an answer was provided by 150 (89.8%) of all the respondents, while in the Rzeszów Region – by 97 (79.5%). These differences were not statistically significant ($p = 0.52$). In

opinions of more than a half (57.4%) of respondents, the *weakness* of hospitals where they were employed was the lack of equipment for nursing, e.g. adjustable hospital beds, changing pressure mattresses, sets applied in the prophylaxis and treatment of bedsores.

Among the criteria which are the *opportunity* in the external environment of the sector of nursing and obstetric care, with consideration of the position occupied by respondents, those criteria were mentioned which concerned good cooperation with the board of directors – 58.8%. This element was more often indicated by the respondents from the Rzeszów Region (59.0%) than from the Lublin Region (55.5%), and by charge nurses and midwives (59.0%), which was not statistically significant ($p=0.6$). The promotion of nursing and obstetric services was important for 49.8% of the total number of respondents. Such a reply was provided by a half (50.0%) of the total number of head nurses/directors for the matters of nursing. This was more than a half of respondents from the Lublin Region (56.2%), and 46.9% from the Rzeszów Region. Statistical analysis did not show any significant differences ($p=0.32$). The subsequent *opportunity* was the development of the standards of nursing/obstetric care. A part of respondents (49.4%) confirmed this issue, including 59.8% of those from the Rzeszów Region. This answer was also provided by a half (50.0%) of head nurses/directors for matters of nursing care. A slightly smaller percentage (49.1%) reported as an *opportunity* the possibility to expand nursing and obstetric services. Such an opinion was more frequently expressed by charge nurses/midwives (49.8%) than head nurses/directors for matters of nursing care (38.8%), as well as people employed in hospitals in the Rzeszów Region (51.6%). No statistically significant differences were observed in the evaluations of the element discussed ($p=0.76$). Further analysis confirmed that for 48.7% of all the nurses and midwives the implementation into practice of the standards of nursing and obstetric care is an *opportunity* for development. This was important for more than a half of the total number of head nurses/directors for matters of nursing care (55.5%). It is noteworthy that also more than a half of respondents from the Rzeszów Region (53.2%) mentioned this issue ($p=0.94$). Next, the cooperation was indicated with the leading national centres – 36.6%. Such a reply was more frequently provided by head nurses/directors for matters of nursing care (38.8%), and respondents from the Lublin Region (41.9%). Also in this case, no statistically significant differences were noted ($p = 0.92$). The factor concerning the demand for nursing/obstetric services in accordance to the prediction was the seventh *opportunity* in the environment. As many as 31.8% of respondents indicated this factor. In this group were a half (50.0%) of head nurses/directors for matters of nursing care from the Rzeszów Region, and 34.7% of respondents from the Lublin Region.

The most frequent *threat* reported by the respondents were the increasing differences in population incomes, which was indicated by 48.4% of all the nurses and midwives in the study. This problem was more often chosen by charge nurses/midwives (48.7%) than head nurses/directors for matters of nursing care (44.4%). The statistical analysis showed that the differences occurred with a tendency for significance ($p=0.08$) in favour of the Lublin Region (50.8%), compared to the Rzeszów Region (45.0%). The subsequent *threat*

for the group examined was the emigration of nurses and midwives. This fact was noted by charge nurses/midwives (69.7%), and respondents from the Lublin Region (76.6%). These differences were not statistically significant ($p=0.73$). The inconsistent health policy of the State towards health care units was mentioned by 67.1% of the total number of respondents. This problem was more often indicated by charge nurses/midwives (67.1%), and respondents from hospitals in the Lublin Region (77.8%); however, the differences were not significant statistically ($p = 0.33$).

The subsequent *threat* for the sector of nursing/obstetric care (statistically insignificant; $p = 0.48$) in the opinions of respondents from both regions was the departure of qualified nurses/midwives to competitive units (66.4%). This was reported by 67.1% of charge nurses/midwives, and 69.6% of respondents from the Rzeszów Region. The lack of possibility to employ an additional number of nurses and midwives occupied further position (51.9%), and was indicated by 55.5% of head nurses/directors for matters of nursing care, and more than a half of the staff from the Lublin Region (53.2%). These differences were not statistically significant ($p=0.34$). A part of respondents from hospitals in the Rzeszów Region, as the sixth criterion mentioned the lack of financial support on the part of a hospital for specialisation courses for nurses and midwives (60.2%), and as the seventh – reduction of the financial resources allocated for contracts (48.7%). Both of these problems were also more often indicated by head nurses/directors for matters of nursing care (83.3%, 50.0%), than charge nurses/midwives (58.6%, 48.7%).

DISCUSSION

SWOT analysis is a research procedure which mainly fulfils diagnostic functions, but is also the tool biased towards the improvement of an organization in its further functioning [12]. This method of strategic analysis is a systematic compilation of data from the past and present, as well as the prognoses for the future, in order to identify the internal strengths and weaknesses of an organization, and the external opportunities and threats from the environment [14].

In own studies, in the national health care system, SWOT analysis was performed for the first time on a large scale with respect to the sector of nursing and obstetric care. Despite the fact that the managerial nursing staff admitted that they did not apply strategic analyses (e.g. SWOT) in the evaluation of the quality of care of nurses and midwives, based on the respondents' opinions, the strengths and weaknesses in this field of care were revealed in hospitals of various levels of reference.

As the *strengths* of nursing/obstetric practice, the making of decisions concerning a wide range of services offered by these occupational groups were considered, and a positive image of nurses and midwives which resulted from the study of patient satisfaction.

The *weak element* in the management of nursing care was the lack of financial resources for motivation extra payments for nurses and midwives, whose quality of work was outstanding. The lack of equipment for the nursing of patients was also reported as an important factor hindering the provision of good quality care.

The *opportunity* for the hospital sector of nursing care was a good cooperation with the board of directors of a hospital and promotion of nursing services.

The *threats* were increasing differences in the population income, which makes it impossible for poorer people to use private nursing care, and the financial emigration of nurses and midwives, which resulted in a generation gap in hospitals where the study was conducted (*mean age of charge nurses and midwives was approx. 45*).

The study carried out may be the source of information for the managers of the sector of nursing/obstetric care needed for the formulation of a general strategy for the functioning of this area of care. This element is also pointed out by other authors who have reported that in the SWOT analysis the best strategies lead to the fulfilment of hospital's mission through taking advantage of the opportunities which the organization faces, and its strengths, with a simultaneous neutralization of threats from the environment and avoidance of weaknesses [15]. The SWOT analysis is a communicative and easily accessible method used in hospitals by various groups of staff [10]. With respect to time, it is a 'bridge' between the present state of functioning of a company, and that prognosticated in a close or more distant perspective [16]. Moreover, it indicates the indispensable actions, the undertaking of which is necessary for an increase in the market activity, competitiveness, and improvement of the effectiveness of actions by health care units [17].

CONCLUSIONS

1. The managerial nursing staff (head nurses/directors for matters of nursing care, charge nurses and midwives), do not systematically apply the methods of strategic analysis for evaluation of the functioning of the sector of nursing/obstetric care. Among the staff who uses these methods, the SWOT analysis is most often chosen.
2. Most frequently, the *strength* of the sector of nursing/obstetric services was making the decisions concerning a wide range of nursing/obstetric services, and the positive image of nurses and midwives. The *weaknesses* were the lack of financial resources for motivation extra payments for nurses/midwives, and the lack of a sufficient number of nurses/midwives.
3. The *opportunity* in the environment of wards/hospitals were, for the sector of nursing/obstetric care, good cooperation with the board of directors and the promotion of nursing and obstetric services, while the *threats* were increasing differences in population income and emigration of nurses and midwives.

REFERENCES

1. Klich J, Kautsch M, Campbell P. Zarządzanie w opiece zdrowotnej. Planowanie. Kraków: Uniwersyteckie Wyd. Medyczne „Vesalius”; 1998.
2. Pettinger R. Introduction to Management. London: Mc Milan; 1994.
3. Ansoff HI. Corporate strategy. New York: Mc Graw – Hill; 1965.
4. Korzeniewska AE. Zastosowanie analizy SWOT do określenia celów marketingowych i formułowania strategii organizacji na przykładzie SPZOZ Przychodni Zdrowia nr 1 w Łodzi. Zdrowie i Zarządzanie. 2002;4(1):45-51.
5. Gieraszkiewicz G, Romanowska M. Analiza strategiczna przedsiębiorstwa. Warszawa: PWE; 2002.
6. Edwards R, Brown JS, Hodgson P, Kyle D, Reeds D, Wallace B. An action plan for tobacco control at regional level. Public Health. 1999; 113(4):165-70.
7. Filkins J. Nurse Directors' jobs – a European perspective. J Nurs Manag. 2003;11:44-7.
8. Dobies B. Analiza SWOT. Antidotum. 1996;5:36-48.
9. Andruszkiewicz A, Tyloch F. Model analizy strategicznej SWOT dla Zakładu Pielęgnacyjno-Opiekuńczego. Pielęg Pol. 2001; 1(11):50-5.
10. Hajdukiewicz DR. Strategia marketingowa samodzielnego publicznego zakładu opieki zdrowotnej w Makowie Mazowieckim. Zdrowie i Zarządzanie. 2001;3(6):68-75.
11. Hajdukiewicz DR. Mazowiecki Sojusz Partnerski – alianse strategiczne zakładów opieki zdrowotnej. Menedżer Zdrowia. 2004;4:14-8.
12. Stabryła A. Zarządzanie strategiczne w teorii i praktyce firmy. Warszawa, Kraków: PWN; 2000.
13. Proctor T. Strategic marketing management for health management: cross impact TOWS (treats, opportunities, weaknesses, strengths). J Manag Med. 2000;14(1):47-56.
14. Lundy O, Cowling A. Strategiczne zarządzanie zasobami ludzkimi. Kraków: Wyd. Oficyna Wydawnicza; 2000. p. 111.
15. Mosakowski E. Strategy Making under Causal Ambiguity: Conceptual Issues and Empirical Evidence. Organization Science. 1973;7-8: 44-53.
16. Baum R, Wielicki W. Metoda SWOT jako narzędzie analizy strategicznej przedsiębiorstw agrobiznesu. Poznań: Wyd. Akademii Rolniczej im. A. Cieszkowskiego; 2004.
17. Marciniak R. Organizacja procesu zarządzania strategicznego w Publicznym Zakładzie Opieki Zdrowotnej. Studium Przypadku. Antidotum. 2002;12:3-21.

Informacja o Autorach

Dr hab. n. med., prof. nadzw. UM ANNA KSYKIEWICZ-DOROTA – kierownik, dr n. med. SYLWIA GRADOWSKA-BURCZYK – Katedra i Zakład Zarządzania w Pielęgniarstwie, Wydział Pielęgniarstwa i Nauk o Zdrowiu, Uniwersytet Medyczny w Lublinie.

Adres do korespondencji

Prof. dr hab. n. med. Anna Ksykiewicz-Dorota
Katedra i Zakład Zarządzania w Pielęgniarstwie
Al. Raławickie 1, 20-059 Lublin, Poland
e-mail: ksykzarz@umlub.pl