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Profile matrix of clinical nurse managers from the perspective of the budget process of hospitals

Matriz de perfiles de gerentes de enfermería clínica desde la perspectiva del proceso presupuestario de los hospitales

Matriz de perfil dos gestores clínicos enfermeiros sob a ótica do processo orçamentário de hospitais

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Abstract

The aim was to trace the profile and build the matrix of clinical nurse managers of public and private hospitals, from the perspective of the budget process. Cross-sectional, exploratory study with a quantitative approach. The sample consisted of 69 nurses who occupied management positions and had intra-hospital budgetary responsibility. The data collection instrument, containing 20 questions, was previously validated. The study variables were synthesized in the Profile Matrix of clinical nurse managers. The quadrants that make up the Matrix represented the profile of managers, with the 1st quadrant showing the time of experience that was above average, postgraduates, with less organizational complexity, belonging to private hospitals and high levels of participation and budgetary feedback. The characteristics of greater organizational complexity and public funding placed them in the 4th quadrant – low levels of budgetary participation and feedback. The characteristics of hospital institutions, with emphasis on organizational complexity and funding source, apparently promote different demands for knowledge and skills about inputs and budgeting processes of clinical nurse managers, suggesting demands for economic-financial skills of these professionals since their basic graduation training.

Descriptors: Job Description; Health Manager; Budgets; Health Care Economics and Organizations; Nurses.

Resumén

El objetivo fue trazar el perfil y construir la matriz de enfermeras clínicas gerentes de hospitales públicos y privados, desde la perspectiva del proceso presupuestario. Estudio exploratorio transversal con abordaje cuantitativo. La muestra estuvo conformada por 69 enfermeros que ocupaban cargos gerenciales y tenían responsabilidad presupuestaria intrahospitalaria. El instrumento de recolección de datos, que contiene 20 preguntas, fue validado previamente. Las variables de estudio se sintetizaron en la Matriz de perfiles de enfermeras gestoras clínicas. Los cuadrantes que conforman la Matriz representaron el perfil de los gerentes, siendo el 1er cuadrante el tiempo de experiencia que estuvo por encima del promedio, posgrados, con menor complejidad organizacional, pertenecientes a hospitales privados y altos niveles de participación y retroalimentación presupuestaria. Las características de mayor complejidad organizacional y financiamiento público los ubicaron en el cuarto cuadrante - bajos niveles de participación y retroalimentación presupuestaria. Las características de las instituciones hospitalarias, con énfasis en la complejidad organizacional y la fuente de financiamiento, aparentemente promueven diferentes demandas de conocimientos y habilidades sobre los insumos y procesos presupuestarios de los enfermeros clínicos gerentes, sugiriendo demandas de habilidades económico-financieras de estos profesionales desde su formación básica de egreso.

Descriptores: Perfil Laboral; Gestor de Salud; Presupuestos; Economía y Organizaciones para la Atención de la Salud; Enfermeros.

Resumo

Objetivou-se traçar o perfil e construir a matriz dos gestores clínicos enfermeiros de hospitais públicos e privados, sob a ótica do processo orçamentário. Estudo transversal, exploratório, com abordagem quantitativa. A amostra foi composta por 69 enfermeiros que ocupavam cargos de gestão e com responsabilidade orçamentária intra-hospitalar. O instrumento de coleta de dados, contendo 20 questões, foi previamente validado. As variáveis do estudo foram sintetizadas na Matriz do Perfil dos gestores clínicos enfermeiros. Os quadrantes que formam a Matriz representaram o perfil dos gestores, sendo que o 1º quadrante apresenta o tempo de atuação que foi acima da média, pós-graduados, com menor complexidade organizacional, pertencentes a hospitais privados e altos níveis de participação e feedback orçamentários. As características de maior complexidade organizacional e financiamento público os posicionaram no 4º quadrante – baixos níveis de participação e feedback orçamentários. As características das instituições hospitalares, com destaque para complexidade organizacional e fonte de financiamento, aparentemente promovem diferentes demandas de conhecimento e habilidades acerca de insumos e processos de orçamentação dos gestores clínicos enfermeiros, sugerindo demandas por habilidades de natureza econômico-financeira destes profissionais desde a sua formação básica de graduação.

Descritores: Perfil Profissional; Gestor de Saúde; Orçamentos; Economia e Organizações de Saúde; Enfermeiros.

Introduction

Spending on health at the global level reached 8.3 trillion or approximately 10% of the Gross Domestic Product (GDP) in 2018, with more than 75% of these global expenditures belonging to the regions of Europe and the Americas, in which Brazil is classified[1].

Brazil has a health system entirely financed by general tax revenues, with Law No. 8,142/90 which provides for intergovernmental transfers of financial resources in the health area and Complementary Law No. 141/12 which regulates the Amendment Constitutional No. 29, establishing the participation of the Union, States and Municipalities in the sector's budget[2]. Brazil allocates 8.32% of GDP to Health and with this volume of resources it is the 4th largest expenditure on health in the world, represented both in absolute terms (ranging from US$ 656, in the case of Peru, to a maximum of US $1,836, in Russia), and in per capita expenditures[3,4]. Therefore, Brazil occupies 4th place in the ranking of per capita spending on health, which reveals, in a way, the inclination of Brazilian society to prioritize the area of health more, which was consolidated with the creation of the Unified Health System (SUS) and the preceding Constitutional Amendments, which promoted an expansion of minimum expenditures in this area[4].

The Brazilian health system faces challenges in finding a balance between financing and spending in the sector, with the need to seek extra resources. Some factors can be pointed out to explain this imbalance, such as the scarcity of financial capital, inefficient use of resources, increased expenses, and difficulties in controlling costs5. The increase in spending on Health can be justified by the psychosocial and economic evolution that Brazil has undergone over the years, such as the increase in the population aging rate and decrease in fertility rates, change in the epidemiological profile of diseases and incorporation of new technologies in the diagnostic determination[5,6].

In addition to these factors, in 2020, due to the Covid-19 Pandemic scenario installed in Brazil, there was a high and growing emergency demand for the SUS, as the demand for many hospital beds (General and Intensive Care Units) increased. - ICU) for the care of victims of SARS-CoV-2 (New Coronavirus), especially the most serious ones, impacted the costs of hospitals, requiring new flows of access organization, modern equipment, especially mechanical ventilators, electrical and gas network able to withstand this overload, inputs in adequate quantity and quality and, above all, a skilled workforce to deal with the growing number of complex cases[7].

Given the fact that financial resources are scarce and insufficient to meet health needs, it is important to appropriately allocate these funds, so that the execution and fulfillment of services and actions guaranteed by the SUS and private institutions, are carried out with quality and efficiency. To this end, health organizations started to adopt adequate management instruments so that managers could manage these insufficient resources, aiming at the continuous search for efficiency and effectiveness of activities[6,8,9].

Thus, among the management instruments, the budget is a tool for improving performance in hospitals, as it has the potential to improve processes, promote cost efficiency without sacrificing the institution's service quality and maximize resources, in addition to facilitating the decision-making process. The budget consists of both a management plan - represented by the quantification of economic and financial goals to be achieved by an organization, expressed through the formalization of revenue and expenditure projections, as a process, comprising the relationships between the elements of the system of an organization's control[10-12].

Within the budget process, the involvement of health professionals in the formulation and development of these systems is essential, through efforts to adopt management tools that meet emerging needs. This involvement is given by budgetary participation, in which these health professionals, who have a budgetary responsibility in the management of their departments, participate in the process of preparing budget goals, and later receive information on the achievement of these goals, in accordance with the budget execution reports, featuring budget feedback. Thus, budget feedback allows managers to analyze the information received about the execution of agreed goals, enabling adjustment for the future budget and the effective direction of resource allocation decisions. In the context of training these clinical managers, the budget is an instrument that requires the incorporation of a set of knowledge and skills that equip the profession for the development of an innovative, more autonomous management process aimed at improving efficiency, effectiveness, and economy[13-15].

Among these managers, nurses stand out, because in their work process, they must articulate care and management actions, that is, this professional needs to be able to develop numerous skills, both to provide more complex care and to manage the team and the unit of which you are a part[16].

In the international context, competences that are similar for the generalist nurse have been identified, such as: decision-making based on clinical practice and ethical practice, nursing prescription considering the safety of care, early detection of clinical complications, in addition to respect for professional regulations that establish the ideal technique. At the national level, several competencies were identified for hospital nurses, including care planning, supervision and coordination of care provided by the care team and administrative roles, implementation of permanent education for the team and leadership[17-19].

With this, they will be able to analyze financial data to support the management of material, physical and financial resources. These professionals constitute an important decision-making level in the allocation of resources[20].

Nurses who occupy management positions in a hospital are responsible for the management control of a relatively large proportion in relation to the institution's total resources, the management control activities carried out by them being relevant[13].

The aim of this study is to qualify the profile of the clinical nurse manager, characterized by a matrix of clinical managers who are hospital nurses structured from the perspective of the budget process. In view of this scenario, there are still gaps regarding the profile of clinical nurse managers of public and private hospitals regarding their participation in the budget process, a decisive process for the allocation of resources to be more efficient, and budget feedback, given by the monitoring regarding the execution of the planned budget goals for your department. Therefore, this study aimed to outline the profile and build the matrix of clinical nurse managers of public and private hospitals, from the perspective of the budget process.

Methodology

This is a cross-sectional exploratory study with a quantitative approach to data. The study was carried out at the Regional Health Department (DRS) in the city of Ribeirão Preto (DRS XIII), in the state of São Paulo, from November 2018 to July 2019. The determined population were nurses who occupied management positions and who had budgetary responsibility for an area or department in the intra-hospital environment, whether public or private.

The technique used was snowball, snowball sampling[21], considered appropriate to select the Health Service managers who are really involved in the institution's budget process and who can answer the questionnaire. Based on the indication of a respondent, the researcher made the contact to participate in the research and ensured that the nurse had a level of budgetary responsibility and was involved in the budget process of the hospital that works to be considered part of the sample.

The sample was not probabilistic, but for convenience, covering nurses who occupied management positions and who had budgetary responsibility in an area or department in the intra-hospital environment, whether public or private, totaling 69 completed questionnaires.

The following variables were used to characterize the profile of managers: gender, age, length of experience in the function, academic background, level of organizational complexity, given by the number of subordinates in their sector and the type of institution they belong to.

The matrix was created from the fashion measures of the budget process variables – budget participation and budget feedback, according to the classification of the profile variables, described below, for later construction of the proposed matrix.

The length of work and organizational complexity variables were grouped into “below average” and “above average” and the fashion measures of these groups were analyzed, classifying them and placing them in the quadrant corresponding to the level of participation and budgetary feedback; on the other hand, for the academic education variable, the fashion of the Undergraduate and Graduate groups was analyzed, as well as for groups of managers belonging to institutions whose funding source was private or public.

After analyzing the fashion for the questions related to the budget process variables - participation and feedback, there was a classification in the quadrant corresponding to the level of participation and feedback, thus enabling an overview of each characteristic of the profile in relation to the intensity of the level of budget participation and budget feedback.

The data collection instrument was developed from questions about budget participation and budget feedback, used in previous research on this topic, in English.[14,22-24].

First, the questions were translated by two different translators, with Portuguese as their native language and command of the English language, one with experience in the Nursing area and the other in the business area, both with experience abroad. These two versions were analyzed by the researcher to resolve discrepancies between the two translated versions, creating a new version of the instrument.

This new version was sent for review by a business specialist with experience in the management control area of a multinational, who experiences the budget process and three nurse managers to express their opinions on the need for cultural adaptations in the Brazilian version. This verification is also called content validation, as it involves consulting a small sample of typical respondents and/or experts to judge the suitability of the items chosen to represent the constructs[21].

Thus, the questionnaires were sent to these four judges for evaluation, as it was considered that this composition of the group of judges would be adequate due to their experience around management in the healthcare environment, as well as in business organizations.

A pre-test was carried out with five managers from the Nursing area, with characteristics like the intended sample. After the application of this questionnaire, the nurses did not report any difficulty in answering it, the response time took approximately 20 minutes, and no noise was identified that would indicate any flaw in the present instrument.

In the last step, the pre-final version was backtranslated into English by a native English-speaking teacher who lives in Brazil and who is fluent in Portuguese. There were no changes in this assessment, it was just highlighted to keep some terms in English and provide a complete definition to reduce the risk of misunderstanding, with the collection instrument being validated for definitive application in the sample intended for the research.

Thus, the final instrument is composed of 11 questions on a Likert-type scale from zero to five points, which ask respondents about the level of participation and involvement in budget preparation and influence over the established budget goals and in relation to the level of feedback budget received from their superiors on the fulfillment of budget targets and monitoring of the budget execution of the department under their responsibility, in addition to nine questions for the classification of respondents.

There was contact between the researcher and a small group of professionals and professors in Health, who made the first indications of nurse managers of the Health Service, who had budgetary responsibility under their sector,

sent by email, so that new respondents could be identified. After that first contact, this return flow of e-mails with new indications from managers was periodically monitored by the researcher. Having returned a questionnaire, it was checked and validated for inclusion and subsequent analysis of the collected data.

All questions were tabulated and organized in Microsoft Excel® software spreadsheets, with descriptive data analysis, calculating the measures of mode, median, minimum, and maximum, frequency to profile the respondents and construction of the profile matrix of clinical nurse managers.

The study was approved by the Research Ethics Committee of the University of São Paulo, under opinion No. 866.003, of November 26, 2014, in accordance with the CAAE protocol: 13520813.3.0000.5407, as per Resolution No. 466 of December 12, 2012, from the National Council for Research Ethics of the Ministry of Health, which addresses ethics in research with human beings. Participants were asked to sign the Informed Consent Form, after voluntarily agreeing to participate in the study.

Results

Clinical Managers Profile

Table 1 presents the profile of nurse managers of public and private hospitals.

Table 1. Profile of nurse managers according to gender, age, academic background, performance in the function, professional experience in public and private hospitals. Ribeirão Preto, SP, Brazil 2019 (n=69)

Variables	Categories	Public Hospitals		Private Hospitals		Total	
		n	%	n	%	n	%
Gender	Feminine	20	90,9%	45	95,7%	65	94,2%
	Masculine	2	9,1%	2	4,3%	4	5,8%
Age	25 to 30 years	2	20,0%	4	6,8%	6	8,7%
	31 to 40 years	1	10,0%	28	47,5%	29	42,0%
	41 to 50 years	1	10,0%	27	45,8%	28	40,6%
	51 to 60 years	5	50,0%	0	0,0	5	7,2%
	Over 60 years	1	10,0%	0	0,0	1	1,4%
Academic Education	Graduated	2	10,0%	7	14,3%	9	13,0%
	Specialization (Lato Sensu)	8	40,0%	16	32,7%	24	34,8%
	Master's Degree (Stricto Sensu)	6	30,0%	20	40,8%	26	37,7%
	Doctorate (Stricto Sensu)	4	20,0%	6	12,2%	10	14,5%
Role in the Function	Less than 1 year	0	0,0	2	4,3%	2	2,9%
	1 to 5 years	12	54,5%	21	44,7%	33	47,8%
	6 to 10 years	4	18,2%	16	34,0%	20	29,0%
	11 to 20 years	5	22,7%	6	12,8%	11	15,9%
	21 to 25 years old	0	0,0	2	4,3%	2	2,9%
	over 30 years old	1	4,5%	0	0,0	1	1,4%
Professional Experience	1 to 10 years	10	43,5%	21	45,7%	31	44,9%
	11 to 20 years	5	21,7%	22	47,8%	27	39,1%
	21 to 30 years old	5	21,7%	3	6,5%	8	11,6%
	over 30 years old	3	13,0%	0	0,0	3	4,3%
Subordinates	Up to 50 subordinates	18	81,8%	40	85,1%	58	84,1%
	More than 50 subordinates	4	18,2%	7	14,9%	11	15,9%

It is observed that the majority (94.2%) of managers belong to the female gender and are in the age group of 31 to 50 years (82.6%). They still do not differ between public and private hospitals in terms of length of service (1 to 5

years). Interestingly, while specialization is more frequent in public hospitals (40.0%), the master's degree appears more frequently in private hospitals (40.8%). Furthermore, 79.7% of clinical managers have up to 10 years of professional experience and coordinate up to 50 subordinates in their sector (84.1%), which is valid for both hospitals.

Of this sample, 68.1% work in hospitals financed by private resources and 31.9% by public resources. Table 2 reports the descriptive statistics of the variables used in the study on the budget process - budget participation and budget feedback.

Table 2. Descriptive statistics referring to Budget Participation and Budget Feedback, from private (n=47) and public (n=22) hospitals. Ribeirão Preto, SP, Brazil 2019

Variable	Median		Mode		Minimum		Maximum	
Hospital	**Private**	**Public**	**Private**	**Public**	**Private**	**Public**	**Private**	**Public**
				Budget Participation				
PO_q1*	5	3	5	3	2	1	5	5
PO_q2	3	3	3	1	1	1	5	5
PO_q3	4	3	4	5	1	1	5	5
PO_q4	5	3	5	5	1	1	5	5
PO_q5	5	3	5	3	1	1	5	5
PO_q6	4	3	5	5	1	1	5	5
PO_q7	4	3	5	1	1	1	5	5
PO_q8	3	3	1	1	1	1	5	5
				Budget Feedback				
FO_q9†	4	3	5	1	1	1	5	5
FO_q10	4	2	5	1	1	1	5	5
FO_q11	4	2	5	1	1	1	5	5

Note: *Budget Share of Question 1, †Budget Feedback of Question 9.

Managers of private hospitals are more involved in setting the budget for their sector, being consulted on what should be included in the budget. Furthermore, managers perceive that they have a high degree of influence in determining budget targets, according to the PO_q1, PO_q5 and PO_q7 question position measures (PQ), evidenced when the manager is asked if the budget is closed until they are satisfied with what was proposed (PO_q2), with mode 1 for nurses in public hospitals and mode 3 for PO_q5, being indifferent about the importance of their opinion in the process of elaborating the budget goals. It is noteworthy that all claim to include suggested changes in the definition of budget targets (PO_q6) and work with their teams, involving all members in this process (PO_q4).

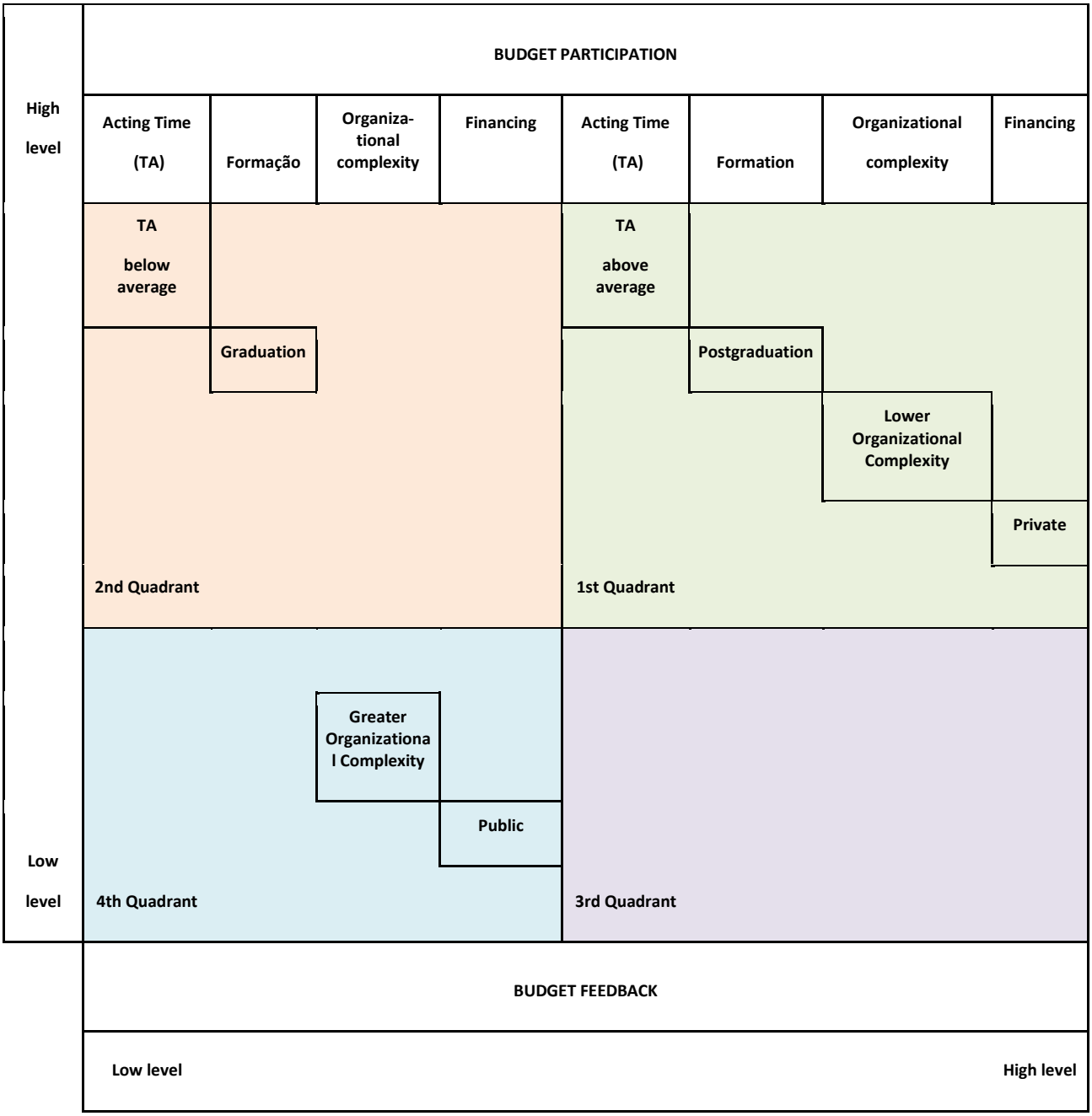
Regarding the issue of budget feedback, there is a clear difference in relation to the perception of nurses in public and private hospitals, according to the fashion and median measures presented. In public hospitals, managers reported not receiving enough information about the achievements regarding the budget targets of the sector under their responsibility, that is, the level of achievement of budgetary targets reported by their superiors.

The matrix consisted of four quadrants, consisting of variables related to the responses of managers in the professional nursing category.

Professionals with longer experience in the role of manager have a higher level of budgetary participation and feedback, being classified in the 1st quadrant of the matrix, while those who have less time in the role, in the 2nd quadrant, because they have a high level of budgetary participation, however low level of feedback. The academic background of these clinical managers, whether with undergraduate or graduate degrees, classifies them as having a high level of budgetary participation, differing in terms of the level of budgetary feedback. Professional graduates were classified in the 2nd quadrant, and postgraduates in the 1st quadrant - high levels of budgetary participation and feedback.

As for organizational complexity, those with a greater number of subordinates had a low level of participation and feedback (4th quadrant), while those with a smaller number of subordinates were placed in the 1st quadrant, with high levels of budgetary participation and feedback. Those working in public and private hospitals were classified in the 1st and 4th quadrants, respectively, placing them in the opposite way, that is, managers belonging to private hospitals have high levels of participation and feedback in contrast to those of public, with low levels of participation and feedback. The profile matrix is represented in Figure 1, showing in the first quadrant the relationship of the position of managers with high levels of participation and budgetary feedback; in the second, high level of participation and low level of feedback, in the third, low level of participation and high level of feedback, and in the fourth, low levels of participation and budget feedback.

Figure 1. Profile Matrix of Clinical Nurse Managers, according to budget participation and feedback. Ribeirão Preto, SP, Brazil 2019 (n= 69)



It appears that there was no classification of managers in the 3rd quadrant, as if the professional had a high level of feedback, he would have participated in the budget process. The predominant classification was in the 1st quadrant, in which managers with above-average length of experience, postgraduate degrees, with less organizational complexity and belonging to private hospitals, presented high levels of budgetary participation and feedback.

The characteristics of greater organizational complexity and public funding placed managers in the 4th quadrant – low levels of budgetary participation and feedback. When they have a working time below the average and are only graduates, they tend to have a high level of participation, but a low level of budgetary feedback.

Discussion

Clinical nurse managers can be equated to clinical managers, who are defined as managers of clinical departments, who are generally doctors or nurses responsible for a sector/unit to which a decision-making level is attributed in relation to the establishment of budget goals[6,25]. According to these authors, the decision-making process of these clinical managers is a key factor in the issue of hospital resource consumption and their involvement in this process is seen as critical for the institution's effectiveness and performance.

Nurses stand out for having experience in managing different contexts of health service provision and, therefore, they have been frequently asked to participate in the identification, control, and reduction of costs, contributing

to the allocating efficiency of human and material resources and structural to improve the quality of care, avoid waste and ensure accessibility to patients/users. Therefore, nurses need to know the factors involved in the increase in health expenditures and costs and how the sector is financed[26].

In addition to their qualified participation in the process of calculation, control and containment/minimization of care costs, nurses have great potential to contribute to cost management by developing and publishing studies that support the rational allocation of resources, the balance between costs and finances, and continuous improvement of results, guiding the redefinition of priorities and monitoring of productivity[27].

It finds that clinical managers of large departments, in which they have greater organizational complexity, make greater use of budget information than in smaller departments, as budget feedback occurs so that this information can be used for diagnosis and correction of variations that have occurred. It is also reported that their managerial skills are based on their professional experience, so the longer their work experience, the greater the development of their managerial skills. This study corroborates the research data as presented in the profile matrix of clinical nurse managers, in the Brazilian context, when there is greater organizational complexity, the levels of participation and budgetary feedback are low, but it is confirmed that the time of work above the average provides high levels of budget participation and feedback[28].

When it comes to private hospitals, these can be leveled with organizations, in which the budget is considered one of the most important management control systems[6,29] and it acts as an instrument for resource allocation, coordination and control and communication of strategies, as there is a growing search for cost reduction and resource efficiency[6].

In this scenario, managers participate more actively in the budget process and receive information to monitor the achievement of goals and variations that have occurred, confirming the position of clinical nurse managers in the 1st quadrant of the matrix. On the other hand, professionals belonging to public hospitals are in the 4th quadrant, with low levels of participation and budgetary feedback, due to the model for agreeing on budget goals in our country.

As for their training, it was found that graduate students had a higher level of participation and budgetary feedback, classifying them in the 1st quadrant. Thus, the higher the level of training of the nursing professional, the greater will be the development of administrative and managerial skills, expanding their involvement in budget issues, as well as the reporting of their budget information and communication with superiors, being ranked in the 1st quadrant of the profile matrix of clinical nurse managers.

Among the knowledge in the Administration area that enable them to be more involved in managerial tasks, we can mention planning, communication, negotiation, teamwork, culture, and specifically the management of material resources, costs, information systems and decision-making processes[20,30].

From the mapping of the profile of clinical nurse managers, the need for increases in their professional training to deal with budgeting processes is highlighted. Mastering specific knowledge regarding planning and the management of resources and inputs will help them to conduct more consistent budget plans, and potentially also promote more assertive reporting and feedback meetings. In this way, the budgeting process can be more aligned between the administrative and staff sectors and the care area, generating greater efficiency in the use of resources, infrastructure, cost reduction, greater care production, with a consequent increase in revenue and, therefore, potential improvement in the economic and financial health of hospitals.

For these managers to assume economic and financial responsibilities in the health service, using the budget as an instrument for this, it is necessary to incorporate a set of knowledge, skills and competences that equip the profession to develop a management process. innovative, more autonomous and aimed at improving efficiency, effectiveness, and economy. This need for knowledge about the specific area of costs was raised in a study in which nurses - unit directors, division heads, section heads and clinical nurses - were interviewed about the meaning of cost management, the use of management reporting and the contribution of management reports by cost center. The results showed that the focus of attention is focused on care, that there is a lack of professional training focused on cost management and that there is a need for training for a better understanding and analysis of cost management reports[31,32].

Thus, the training of these professionals, through the development of attitudes, knowledge and skills related to the economic-managerial approach, integrating the aspects of the profession with those of economic management, would be a possibility for overcoming these managers' participation in the budget process. There are few careers in Health that include disciplines focused on the management of health services at undergraduate level, even though the National Curriculum Guidelines point to the development of this competence, and a minimum preparation so that nurses can assume this role[31,33].

Among health service managers, only a small percentage specialize in management. In the present study, 20% of clinical nurse managers have specialization courses in management, which also indicates a reduced percentage of specific training for the development of managerial competence activities required for this function[20,30].

The holistic financial view of health services and the importance of participation and budgetary feedback is only acquired through the participation of these professionals in postgraduate courses, leaving gaps in the training of these professionals, especially in the financial dimension of hospital management. This is an indication that management competence is included in the pedagogical project of undergraduate nursing courses so that these professionals can articulate management and practice, when inserted in planning and management processes, such as the budget process, and they can be positioned at high

levels of participation and budgetary feedback from the profile matrix of clinical nurse managers, ensuring quality care for patients and cost-effectiveness for health institutions.

This study had as limitations the use of a non-probabilistic sample, which interferes with the generalizability of the results; also, the origin of the collection instrument, as even going through a process of translation and validation, the cultural aspect where it was developed may have interfered in this translation process.

This article will directly contribute to the presentation of the role and importance of nursing professionals in the budget process in health services, pointing out their current characteristics in the city of Ribeirão Preto and the professional profile represented by the matrix. In addition, studies in the area are needed to update this theme and expand data collection to other Brazilian regions.

Conclusion

The aim of the study was to outline the profile and build the matrix of clinical nurse managers in public and private hospitals, from the perspective of the budget process. Based on the profile of clinical nurse managers, characterized in the budget process matrix, it can be observed that the characteristics of hospital institutions, such as organizational complexity and funding source, apparently promote different demands for knowledge and skills regarding inputs and budgeting processes of clinical nurse managers, thus suggesting economic-financial skills of these professionals in their basic undergraduate training.

The results demonstrate that there is a long way to go, especially in the continuing learning of clinical nurse managers, seeking their participation and feedback in budgeting processes. It is expected that the results of this study can contribute to the educational improvement of new clinical managers and that they can sensitize the high administrative management of public hospitals regarding the level of participation and budgetary feedback.

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