Evaluation of Nursing Service Management Model applied in hospitals managed by social health organization

Avaliação do Modelo de Gestão de Enfermagem em hospitais gerenciados por Organização Social de Saúde

Evaluación del Modelo de Gestión de Servicios de Enfermería aplicado en hospitales administrados por organización

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ABSTRACT

Objective: Evaluate the Hospital Nursing Service Management Model from the perspective of nurses from hospitals managed by social health organization, considering the type and dimensions of the model. **Methods**: This is an exploratory, cross-sectional study with a quantitative approach; census population. The evaluation was conducted in 15 hospitals based on the Index of Professional Nursing Governance, including the descriptive analysis of the k-means method and multiple linear regression to score the instrument. Data collection was performed online, stored in REDCap®. **Results**: Of 1,523 invited, 680 (44.6%) accepted and 518 (34.1%) completed the questionnaire. With a general average of 184.3 points, 12 hospitals indicated shared; and 3 (20%), traditional governance (average of 165.7 points). **Conclusion**: Managers presented a lower perception of shared governance with professionals without a management function. The type of function and time of activity at the institution influenced the results. The present model is hybrid, in the transition process from the traditional to corporate.

Descriptors: Models, Organizational; Hospital Administration; Health Management; Nursing Service, Hospital; Nursing Process.

RESUMO

Objetivo: Avaliar o Modelo de Gestão de Serviço de Enfermagem Hospitalar sob a percepção de enfermeiros de hospitais gerenciados por organização social de saúde, considerando-se o tipo e as dimensões do modelo. **Métodos**: Trata-se de estudo exploratório, transversal, abordagem quantitativa; população censitária. A avaliação foi realizada em 15 hospitais com base no Index of Professional Nursing Governance, incluindo análise descritiva método k-means e regressão linear múltipla para pontuação do instrumento. A coleta de dados ocorreu on-line, armazenados em REDCap®. **Resultados**: Dos 1.523 convidados, 680 (44,6%) aceitaram e 518 (34,1%) completaram questionário. Com média geral de 184,3 pontos, 12 hospitais indicaram governança compartilhada; e 3 (20%), tradicional (média de 165,7 pontos). **Conclusão**: Os gestores apresentaram percepção menor de governança compartilhada que profissionais sem cargo gerencial. Tipo de cargo e tempo de trabalho na instituição influenciaram os resultados. O modelo atual é híbrido, em processo de transição do tradicional para o corporativo.

Descritores: Modelos Organizacionais; Administração Hospitalar; Gestão em Saúde; Serviço Hospitalar de Enfermagem; Processo de Enfermagem.

RESUMEN

Objetivo: Evaluar Modelo de Gestión de Servicio de Enfermería Hospitalaria bajo la percepción de enfermeros de hospitales administrados por organización social de salud, considerándose el tipo y las dimensiones del modelo. **Métodos**: Estudio exploratorio, transversal, abordaje cuantitativo; censo de población. Evaluación realizada en 15 hospitales con base en el Index of Professional Nursing Governance, incluyendo análisis descriptivo método k-means y regresión lineal múltiple para puntuación del instrumento. La recogida de datos pasó online, almacenados en REDCap®. **Resultados**: De los 1.523 convidados, 680 (44,6%) aceptaron y 518 (34,1%) completaron cuestionario. Con mediana general de 184,3 puntos, 12 hospitales indicaron gobernanza compartida; y 3 (20%), tradicional (mediana de 165,7 puntos). **Conclusión**: Los gestores presentaron percepción menor de gobernanza compartida que profesionales sin cargo de gerencia. Tipo de cargo y tiempo de trabajo en la institución influenciaron los resultados. El modelo actual es híbrido, en proceso de transición del tradicional para el corporativo.

Descriptores: Modelos Organizacionales; Administración Hospitalaria; Gestión en Salud; Servicio Hospitalaria de Enfermería; Proceso de Enfermería.

INTRODUCTION

With time, the Nursing Service (NS) management models were influenced by economic and social changes in the entire world. While a work process, studies considered two models of nursing management: 1. A model focused on the individual and in the organizations named "rational model"; 2. A model centered in social practices approach related to the history called "historic-social model"[1].

In this perspective, the Professional Practice Model (PPM), which origin is in the United States, is used by nursing in the search for a world-class standard, and is one of the requirements used by the American Nurses Credentialing Center for the Magnet Recognition Program accreditation, reflecting the excellence of hospital nursing (nursing assistance quality and safety)[2].

PPM favors the environment and exemplary professional practice and is defined as a system whose structures, processes, and values sustain the nursing care practices. It emerged from the Porter-O'Grady's work as a nursing professional practice model, named "shared governance," in which the principals of professional practice are partnership, equity, responsibility, and professional field[3-5].

In the health area, it is worth mentioning a tendency to use the term "governance," which encompasses technical and scientific techniques on the assumed "management" practices based on the premise that nurses assist the patient directly in the therapeutic environment. As they are considered the practitioners who best know the needs of patients, nurses define strategies and structures to enhance care, equating available resources based on best practices, also considering the increase in clinical demands by the population[2,4].

Management models in nursing professional practice are defined as systems whose structure allows the integration and articulation of theory contributions in professional practices. Processes, values and philosophies define the relationship set among nurses, clients, and the organization. The key elements are autonomy, responsibility, professional relationships, patient care models, shared management, and compensation and reward mechanisms[6].

The development, implementation, and evaluation process of the Nursing Professional Practices Model that began in health units, was established in hospitals, and started to be systematically disseminated. The studied nursing PPMs presented a theoretical basis, generally grounded by nursing concepts in one or more theories (Florence Nightingale theory, Jean Watson theory, Swanson theory), and few are anchored in organizational theories, such as Donabedian's Quality Guidelines[7], and the construction of results, such as the Basol's[8] PPM, The Compass.

In Brazil, Santos and contributors[9] introduced studies on the shared governance model in nursing and showed the possibility of a rupture of the models of traditional management in hospital nursing, in which nurses have little representation and participation in formal hierarchical structures of organizations[10].

To assess the management model of nursing services and the levels of implementation of shared governance, Hess[11], in 1994, developed and evaluated an instrument called Index of Professional Nursing Governance (IPNG), with 86 items, subdivided into six dimensions: 1. Control; 2. Influence; 3. Participation; 4. Resources; 5. Professional Practice; 6. Goals and resolution of conflicts. The sum of the items results in the total score of IPNG, which demonstrates the type of governance that exists at the hospital (traditional or levels of shared governance, self-governance), under the nurses' perception, providing the nurse-leader with the possibility of planning and improvement actions.

Translated and adjusted to the Brazilian context by Oliveira[12], in 2016, IPNG can measure the governance of professional hospital nursing practice, evaluate the hospital management structure and the level of autonomy of the managing and operational nurse, as well as use the results to improve the management of NS. Besides, the use of other IPNG evaluations promotes the monitoring of the implementation of a shared management model.

Given the above and based on the experience gained in 20 years of the implementation of the Nursing Service Management Model (NSMM) in hospitals managed by Health Social Organization (HSO) "Associação Paulista para o Desenvolvimento da Medicina" (SPDM), considered relevant to evaluate the referred model from the nurses' perspective. Knowing this perception and the respective management attributes can influence the work environment and autonomy of the professional team in the decision-making. Identifying attributes that should be maintained and those that certainly need improvement was also an implicit motivation for the development of this study. Consequently, the present work could both individually characterize the hospitals included in the research in relation to the type of nursing service management used and determine the factors that influence the nurses' perspective regarding the management model.

OBJECTIVE

Evaluate the NSMM from the perspective of active nurses from hospitals managed by SPDM, considering the type and dimensions of the model.

METHODS

Ethical aspects

The study was approved by the Research Ethics Committee of the Universidade Federal de São Paulo (Unifesp), with an amendment to the protocol in January 2019.

Design

This is an exploratory, cross-sectional survey with a quantitative approach and census population. The present study is in accordance with the Enhancing the Quality and Transparency of Health Research guidelines for quantitative surveys (Standards for Reporting Qualitative Research – SRQR)[13], in which the single integrated case study design was assumed. Used in administrative surveys, it allows the investigator to explore individuals or organizations by means of complex interventions, relationships, communities, or programs[13]. The single integrated case study evaluated the program that includes a "unit-analysis" applied in other units called "integrated"[14]. Authors consider a valuable approach for health sciences research to develop theories, evaluate programs, and elaborate interventions due to its flexibility and accuracy[14].

Population of the study

We chose to conduct the study in a census mode, i.e., all individuals in a group are invited to participate. In this case, they are active nurses from the 15 hospitals, totaling 1,523 nurses distributed. The inclusion and exclusion criteria of the population were not necessary for this study since it is a census population.

Study period and field

This study was held from January 2018 to August 2019. The survey field included the nursing service from 15 hospitals managed by NSMM with the following situation: 1 private hospital that assist SUS patients and offers supplementary medicine; and 14 public Municipal and State hospitals of the States of Sao Paulo and Minas Gerais.

Study protocol

The method was organized in four stages to analyze the nurse's perception concerning NSMM practiced in SPDM regarding the six management dimensions (previously described), which influence their professional practices, to know: 1. Establish the NSMM type practiced in hospitals managed by SPDM, i.e., organizationally based on the consolidation of individual results. 2. Determine the type of MGSE practiced by SPDM, that is, at the organizational level, based on the consolidation of individual results. 3. Identify and analyze factors that influence the nurses' perception concerning the type of practiced management. 4. Characterize the nurses active in the study hospitals.

To analyze the NSMM, the IPNG instrument including 86 questions divided in six thematic dimensions. Translated and adjusted to Brazilian context by Oliveira[12] in 2016, IPNG can measure the governance of professional hospital nursing practice, evaluate the hospital management structure and the level of autonomy of the managing and operational nurse, as well as use the results to improve the management of NS.

The six IPNG's thematical dimensions measure, the distribution of control, influence, power, and authority of the nursing team members about the assistance and management practices of the hospital, using the 5-point Likert scale. In this scale, values represent the following perceptions concerning the dominant group: Only the nursing management/administration; Mainly the nursing management/administration with some contribution of the nursing team; Equally shared between the nursing team and the nursing management/administration; Mainly by the nursing teams with some contribution of nursing management/administration; Only the nursing team.

It stands out that, in the traditional model of NS management, managers and administration have more influence over the decision-making within an organization. On the other hand, the shared management model offers a greater influence on the professional team regarding decision-making. In the self-management model, in turn, only the professional team has influences on decision-making.

Each dimension has a calculated score through the sum of the items that comprise the dimension, according to the participant's answer. Dimension 1 (Control) – score from 13 to 65 points; Dimension 2 (Influence) – score from 14 to 70 points; Dimension 3 (Formal Authority) – score from 22 to 110 points; Dimension 4 (Participates) – score from 10 to 50 points; Dimension 5 (Access to information) – score from 15 to 75 points; and Dimension 6 (Capacity) – score from 12 to 60 points. The sums of these scores generate the total score of the instrument, which varies from 86 to 430 points, based on which the evaluated institution is classified according to the type of management.

The management model, according to the IPNG scare, presents the following classification and respective total score: Traditional Management Model (86 to 172); Shared Governance Model 1 (173 to 257); Shared Governance Model 2 (258); Shared Governance Model 3 (259 to 344); Self-Management Model (345+)[12].

The score was defined by the instrument's author[12], and are based on rules, cut scores, and normative work to interpret the scores of the type of nursing service management in a hospital organization. It stands out that IPNG is widely used in the USA, and its results present satisfactory psychometric properties in measuring nurses' perception of professional practice management in the hospital, in different contexts for which they were develope[15-16]. In addition to IPNG, a questionnaire was elaborated with a profiling of the survey participants, including questions related to academic degree, professional work, and demographic data.

The NSMM, applied in 15 hospitals managed by the SPDM, was organized and modified in the last 20 years by the Corporate Nursing Management Center(CNE); structured to coordinate, guide, and follow the NSs' performance in the referred institutions. It aims to promote excellence in health care quality, focusing on patient safety, risk management, and continuous improvement of the team, based on the institution's guidelines.

CNE presents an NSMM implementation program that has four axes: 1. Implementation of the Nursing Service Structure: roles and responsibilities of the nursing team (management and operational); selection of nursing leaders and training on the model; dimensioning of the nursing team based on the hospital's care profile; forms of selection and admission; standard manual of nursing procedures and standard of rules and routines that should be adapted to the institutional profile; 2. Implementation of Nursing Assistance Process; 3. Development of workers: performance appraisal based on the minimum competencies needed for the function, individual development plan, and taking care of those who take care; 4. Results related to nursing care with indexes related to nursing tasks, expected results, and critical analysis. The referred program has action schedules for these institutions that provide, in the first two years of implementation, training activities and continuous training of the team.

Analysis of results and statistics

Data collection was performed electronically using the REDCap® (Research Electronic Data Capture) platform, hosted in Unifesp. Nurses were invited via email to participate in the survey, in which had an access link to the Free Informed Consent Form, using a declaration of understand and acceptance. The questionnaires could be completed in stages, given the extension of the IPNG. The participant received e-mails with an invitation to complete the filling.

The data were analyzed in a descriptive way using summary measures (mean, quartiles, minimum, maximum and standard deviation). The verification of the internal consistency of the IPNG and the six dimensions was performed using the Cronbach's alpha coefficient.

To evaluate an internal variability, similarities and differences among the hospitals of the study, the group analysis by the k-means method was used, dividing them in Groups 1 and 2 (G1 and G2), having the following hospitals in G1: Hospital Estadual de Diadema; Hospital das Clínicas Luzia de Pinho Melo; Hospital Municipal Vereador Jose Storopolli, and Hospital Geral de Guarulhos. Hospitals from G2 included: Hospital Geral de Pirajussara; Hospital Municipal Dr. Jose de Carvalho Florence; Hospital de Transplantes Euryclides de Jesus Zerbini; Hospital e Maternidade Municipal de Uberlandia; Hospital Geral de Pedreira; Hospital Helvetia; Hospital Lacan; Hospital Cantareira; Hospital Municipal de Barueri Dr. Francisco Moran; Hospital Regional de Sorocaba, and Hospital Municipal de Parelheiros.

The choice of the aforementioned institutions considered aspects such as the management of HSO, SPDM, and Nursing Corporate Center, responsible for the implementation and maintenance of NSMM in the period of the study, between January 2018 to August 2019.

The multiple linear regression was used to analyze the simultaneous effects in a set of variables on the score achieved in the IPNG. The analysis of the normality of the data was made using the Kolmogorov-Smirnov test. Tests were performed using the software SPSS 20°, with a significance level of 5%. Hospitals were separated into 4 categories, according to their characteristics to facilitate the analysis (Table 1).

Table 1 – Number of hospitals classified in the categories defined for the analysis of the study

Category	Number of Hospitals (%)
With certification	6 (40.0)
Without certification	4 (26.6)
Psychiatric	3 (20.0)
Less than 1 year of management SPDM*	2 (13.3)
Total	15 (100)

Note: *SPDM: Associação Paulista para o Desenvolvimento da Medicina.

RESULTS

The presentation and organization of the results were conducted according to the proposed goals descriptively and analytically. Data and its respective statistical analysis performed by the statistic professional, along with the author of this study, are described following the presentation of the results.

Individuals' profile: of 1,523 nurses, 680 returned the questionnaires, though 518 had 100% of questions answered. Most of the respondents were female, average age of 36.7 years; most of them married; 81.2% with com specialization and postgraduation; 64.3% worked from 6 to 15 years in SPDM; and 24.3% had manager position. There was a predominance of the CLT (Brazilian labor regulations) employment relationship, with 99.6%. Most of them (45.8%) worked in the morning shift; 22.2% in the afternoon; and 16.7% in the evening. The distribution of professionals by type of hospital, found 36 (6.9%) in a psychiatric hospital; 77 (14.9%) in institutions with less than one year of management; 153 (29.5%) in hospitals without certification; and 252 (48.6%) in institutions with certification.

Evaluation of the type of Nursing Service Governance Model: it was noted that 80% of the hospitals were classified as shared management (Table 2).

Evaluation of the type of Nursing Service Governance Model: it was observed that 45% classified hospitals as traditional management; and 55%, as shared management (Table 3). *Evaluation of the type of Nursing Service Governance Model:* it was verified that the average of total IPNG for traditional management was 165.7; and for shared management 184.3 (Table 4). Excepted for the "Access to information" and "Control over practice", all other dimensions were significant (Table 5).

Table 2 – Distribution of hospitals by "typology", "management time", and classification of the total Index of Professional Nursing Governance

Classifications of average score	n	%
Hospitals Classification – TOTAL	15	100.0
With certification	4	26.7
Without certification	6	40.
Psychiatric	3	20.0
Less than 1 year of management SPDM*	2	13.3
SPDM management time* – Classification	15	100.0
13 to 20 years	4	26.7
6 to 12 years	5	33.3
5 years or less	6	40.0
Total IPNG** (management model classification)	15	100.0
Traditional management (up to 172)	3	20.0
Shared management (173 to 344)	12	80.0

Note: * SPDM: Associação Paulista para o Desenvolvimento da Medicina. ** IPNG: Index of Professional Nursing Governance.

Analysis of the variability, differences, and similarities between hospitals: for the interpretation of patterns and similarities found by the group analysis (G1 e G2), the k-means method identified those that most distinguish a certain group from the others, verifying the coherence of the results in the studied process. Thus, there was a comparison of mean scores of hospitals with distribution by Groups 1 (n.4, 26%) and 2 (n.11, 73.3%), according to the variables. Excepting the "Participation," all the dimensions had significance (Table 6).

Regarding the results of the correlation analysis between the characteristics of the hospitals and the group to which they belong (G1 e G2), there were no associations between the hospital typology (p = 0.597); SPDM management time (p = 0.607); total IPNG classification (traditional and shared management, p = 0.516).

The data regarding the evaluation of factors that influenced the NS Governance perception among the managers and nurses, through multiple linear regression, were categorized in the following way: *total IPNG* – data about the type of function (p = 0.031), and time of activity was significant under the SPDM management (p = 0.028). People with management function presented, on average, a lower perception of governance (-12.4 points) than the others without a management function. Individuals that work between 11 to 15 years (+19.6 points) and 16 to 20 years (+33.7 points) under SPDM management presented, on average, a higher perception of governance than the others with less than one year of work. *Control over practice:* only the time of 11 to 15 worked years under SPDM management showed significant (p = 0.041). Professionals that worked between 11 to 15 years under SPDM management presented, on average, a higher perception of the control over practice (7.1 more points) compared to those with less than 1 year. *Goals and resolution of conflict:* only the type of function showed significant (p < 0.001).

Table 3 – Distribution of individuals by classification of the Index of Professional Nursing Governance for type of hospital

IPNG**	Type of Hospital								Total		p
	Without certification		With certification		Psychiatric		Less than 1 year SPDM*				
	n	%	n	%	n	%	n	%	n	%	
Total IPNG** (classification)	153	100.0	252	100.0	36	100.0	77	100.0	518	100.0	0.400
Traditional governance (86 to 172)	67	43.8	111	44.0	16	44.4	39	50.6	233	45.0	
Shared governance (173 to 344)	86	56.3	141	56.0	20	55.6	38	49.4	285	55.0	

Note: * SPDM: Associação Paulista para o Desenvolvimento da Medicina. ** IPNG: Index of Professional Nursing Governance.

Table 4 – Summary measures of the Index of Professional Nursing Governance total – classification of types of models

	Average	Standard Deviation	Min.	Max.	Mean	n
Total IPNG**	182.9	47.0	163.0	203.6	179.4	15
Traditional management (1 without certification, 1 with certification, and 1 with less than 1 year under SPDM* management).	165.7	8.6	163.0	168.0	166.1	3
Shared management (3 without certification, 5 with certification, 3 psychiatric, and 1 hospital with less than 1 year under SPDM* management).	184.3	12.8	176.8	203.6	181.5	12

Note: * SPDM: Associação Paulista para o Desenvolvimento da Medicina. ** IPNG: Index of Professional Nursing Governance.

Table 5 – Summary Measures Of Dimensions Of The Index Of Professional Nursing Governance Per Type Of Management

	Average	Standard Deviation	Min.	Max.	Mean	n	p
Control over personnel							0.009
Traditional management (up to 172)	24.0	0.5	23.4	24.3	24.2	3	
Shared management (173 to 344)	27.1	1.9	25.1	31.0	26.3	12	
Access to information							0.194
Traditional management (up to 172)	31.9	2.4	29.4	34.1	32.3	3	
Shared management (173 to 344)	33.8	1.5	31.4	36.1	33.5	12	
Access to resources							0.009
Traditional management (up to 172)	41.8	1.1	40.8	42.9	41.6	3	
Shared management (173 to 344)	47.5	2.9	43.0	52.3	47.3	12	
Participations							0.030
Traditional management (up to 172)	16.8	1.7	14.9	18.2	17.2	3	
Shared management (173 to 344)	19.2	1.8	17.3	24.1	18.9	12	
Control over practice							0.112
Traditional management (up to 172)	28.8	1.0	27.9	29.8	28.7	3	
Shared management (173 to 344)	31.2	2.7	26.8	35.4	30.7	12	
Goals and resolution of conflict							0.030
Traditional management (up to 172)	22.4	1.9	21.1	24.6	21.6	3	
Shared management (173 to 344)	25.5	2.0	22.0	29.0	25.3	12	

Table 6 – Summary measures of the gross scores of the total Index of Professional Nursing Governance and in the six dimensions, according to the groups obtained in group analysis

	Average	Standard Deviation	Min.	Max.	Mean	n	p
Total IPNG*							0.004
G1	193.7	7.2	187.1	203.6	192.1	4	
G2	175.8	6.9	163.0	183.2	178.2	11	
Control over personnel							0.006
G1	29.1	1.8	26.7	31.0	29.3	4	
G2	25.5	1.2	23.4	27.7	25.9	11	
Access to information							0.006
G1	35.4	0.8	34.4	36.1	35.6	4	
G2	32.7	1.5	29.4	35.1	32.7	11	
Access to resources							0.009
G1	50.2	1.8	48.6	52.3	49.9	4	
G2	44.9	2.9	40.8	50.6	44.8	11	
Participation							0.896
G1	18.6	1.1	17.5	20.0	18.6	4	
G2	18.8	2.3	14.9	24.1	18.7	11	
Control over practice							0.037
G1	33.2	2.0	30.5	35.4	33.4	4	
G2	29.8	2.2	26.8	34.8	29.4	11	
Goals and resolution of conflict							0.019
G1	27.2	1.8	25.3	29.0	27.3	4	
G2	24.1	1.9	21.1	27.0	24.6	11	

Note: * IPNG: Index of Professional Nursing Governance. p – descriptive level of the Mann-Whitney test.

DISCUSSION

When analyzing data, it was observed a greater participation, 48.6%, of the professionals coming from certificated hospitals, comparing to 29.5% of hospitals without certification. These data suggest that nurses from certified hospitals having academic excellence (lato and stricto sensus – 81.1%), when participating in studies and evaluation methods, have a better understanding of the importance of scientific events that could promote improvements in management and assistance.

Most of the survey's individuals worked in the morning shift (45.8%), and the nurse from the night shift from certified hospitals represented the lowest percentage (16.7%). This data may be related to studies conducted with night-shift workers, who had a greater tendency to fatigue and, therefore, lower participation in the training activities at work, given the possibility of low cognitive performance, especially for reading[17].

Regarding the use of IPNG, it is important to highlight that this instrument proved to be long and complex. Studies with the use of the IPNG had feedbacks between 24% to 33.8%. It should be noted that, of 1,523 nurses, 680 (44.6%) returned the questionnaire, and 518 (34.1%) returned the instrument 100% complete. Reflecting on the number of the study's participants, 518 nurses represented a considerable number of committed experts, and particularly involved in the collection of data for scientific purposes, which adherence exceeded the expectations of the study.

In fact, the number of respondents is closely related to the extensive content of this instrument, in which 86 items should be completely answered for the validation of the analyses[18]. A survey showed feedback of only 24% of invited; and of 342 instruments sent, only 207 were used in the study due to the incomplete answers[19]. Another investigation showed that, of 425 invited nurses, the answer was obtained was only 33.8%[20].

Regarding the reliability of the IPNG, the global internal consistency was verified with values obtained based on the analysis of Cronbach's alpha coefficient, with an excellent result (0.966). A study using the IPNG with 220 practitioners, whose objective was evaluating nursing governance, also presented significant internal consistency with Cronbach's alpha of 0.989, shows the accuracy of this instrument. Still, a study from the Alexandria Medical Research Institute[21], Egypt, with 220 physicians and nurses, which goal was to evaluate the present status of nursing governance using the IPNG also revealed significant internal consistency with Cronbach's alpha of 0.89, proving the accuracy of this instrument.

The International literature on management models of professional nursing practices that use IPNG is wide to obtain relevant and reliable results, which imply future actions for nursing leading practices[16-17,19-23]. They are studies conducted in hospital institutions in designation process Hospital Magnet, attributed to institutions that meet high criteria of excellence in care[19-23].

Regarding the total IPNG, it was possible to verify that 12 hospitals (80%) had an average of the total IPNG of 184.3 points, indicating a shared management model 1. Three hospitals (20%) were classified as traditional management, with a total IPNG average of 165.7. A study about the designation process Hospital Magnet had a total IPNG average a little higher, 187.59[21], compared to nursing management data from SPDM.

Surveys in which total IPNG data reached satisfactory results suggest that practitioners showed optimistic perception and clearly recognized the practices of collaborative management[22-24]. It is considered that such results reflect the individual's perception of the survey, in which the shared management based on the experiences of their practices, especially when identifying that leadership work in Harmony, based on team contributions and support to assistance practices.

The shared decision making represents important advances in Direction to excellence, according to authors of the California State University Magnetic Recognition Program in the USA[22]. Thus, feelings such as shared responsibility and "belonging" motivate nurses in the influence of standards of practice, professional development, clinical processes and search for results[23].

In this perspective, after two years of the implementation of a professional practice model, the authors of a study[19] used IPNG to evaluate three hospitals of the Acute Care Hospitals chain. Aiming to analyze the status of the nursing service management, the authors showed the total IPNG average of 135.3, 149.5, and 140.6 to hospitals A, B, and C, respectively. Three hospitals achieved results below the range of shared governance. Thus, researchers (nursing managers) used the data of this study to support the improvement initiatives of shared governance.

In summary, of the 15 studied hospitals, 12 were classified as shared management. It is noticed that these results show how institutions administered by the SPDM are perceived by nurses, who have a shared governance view considering what they experienced in their practices, mainly when identified that nursing management work in harmony, based on the teams' contributions. I.e., through total IPNG, it is suggested that practitioners judge that their respective institutions have nursing leading practices supporters of the shared governance.

Other data that confirm such assumption are the results p = 0.024 and p = 0.023, of the average scores of the "Control over the practice by type of hospital" and "Controle over practice per time of management," respectively. It was observed that certified hospitals and with a higher time under SPDM management presented a higher average of the total IPNG scores, compared to data of the group of hospitals with little management time under that HSO. This result suggests that practitioners submitted to certification processes and are a long time under SPDM management they consequently may have benefited from the long consolidation of management adopted. On the other hand, authors of a group that had similar results between hospital with and without certification reflected about the perception of nurses from non-certified institutions, which adhered to actions and practices related to improvements, aiming a future certification, under shared governance[22].

Regarding the results obtained in the dimensions among a group of hospitals with the type of management, it was observed important results in the group of institutions with shared management, with a superior average for "Control over personnel" (p = 0.009) and "Access to resources" (p = 0.009). It may reflect the bedside autonomy, in which nurses decide the necessary resources for their practice. In contrast, a study that applied the IPNG before and after the implementation of reforms in the shared management showed unsatisfactory results concerning the nurses' perception of "Control over personnel" after the

intervention[22]. Authors reflected that "having in mind the control of certain areas by managers, it becomes difficult to incorporate the involvement of the team in the decisions about budget, personnel hiring, for examples"[22]. This control also happens in SPDM, though the nurses' perception revealed an appreciation for these decisions, having in mind the regular meetings with managers. It is suggested that, when involving such practitioners giving them information, it is offered a greater sense of work, empowering them to understand aspects beyond the practice.

In the variability, similarities, and differences investigation, two distinct groups of hospitals were produced. Thus, 4 institutions (26.7%) represented G1 (2 certified hospitals and 2 without certification), and 11 hospitals (73.3%) formed G2. Hospitals of G1 showed a better perception of governance in total IPNG. The average of the six dimensions in the IPNG was distinct both for G1 (p = 0.012) and for G2 (p < 0.001). It is noticed that the data of best perception of G! was a result of the nursing directors of the respective hospitals, i.e., of practitioners with higher experience in the SPDM model, working for more than 15 years. They participated in the stages of improving the management model and supported relevant organizational changes.

Studies proved that nursing leaderships have a significant influence on the implementation of management improvements and assistance process[19,23-26]. A North American hospital had a significant decrease in the total IPNG after losses of nursing leaderships during the process of developing and implementing the management model of professional hospital practice[26].

On the evaluation of the factors that influence the perception of governance in the NSs, through the multiple linear regression, there were significant results of the total IPNG for "Type of job position" (p = 0.031) and "Time of activity under SPDM management" (p = 0.028). Nurses in management position had less perception of shared governance (-12.4 points). Practitioners with 11 to 15 years (+19.6 points) and with 16 to 20 years (+33.7 points) under SPDM management, had a higher average in the governance perception. This data presents relevant reflections on management practice in SPDM institutions. For being in a leadership position and be relatively supportive for having a wide vision of the decisions, nursing managers may not have a clear perception of the collaborative work. On the other hand, assistance nurses, whose care scenario is represented by constant exchanges of experiences and shared decision making between colleagues and other practitioners, consequent and precisely identify the collaborative governance model. Practitioners with more length of service tend to check the management model practiced more clearly.

Also, the result "Access to information" (p = 0.19) was highlighted, in which the type of function showed significant (p = 0.025). It was noted that people in management functions, presented, on average, lower perception of access to information than people without management functions. A study showed a similar result about "Access to information" with $p = 0.10$, comparing to total IPNG before and after implementation of improvements in shared management. Dimension kept unaltered in both moments. In SPDM institutions, nursing corporate management is responsible for the implementation and maintenance of NSMM, along with nursing leadership of the hospitals, sharing positive experiences, failures, and discussing relevant information.

Limitations of the study

It is understood that the IPNG's extensive content, which 86 items should be completely responded to for validation of the analysis, is a factor influencing the number of responses in the study.

Contributions to the fields of Nursing, Health or Public Policy

The nursing governance model is going through an important moment of maturity, and the experiences of nursing leaders can provide relevant cooperation in creating and adapting healthy work environments to the best professional practices. Incorporate changes based on scientific Community studies is a priority of managers to improve management structures and processes, as well as guide and measure results empirically.

CONCLUSION

Of 15 hospitals, 12 (80%) are under shared governance, that is, the first stage of shared governance in which the decisions is made mainly by the nursing management with some team's contribution. Three hospitals (20%) were identified as traditional management, in which the decision is made only by nursing management. Factors that influence the subject's perception regarding the classification of management model applied to hospitals, were the "type of position" and "time of activity", under SPDM management. The study's hypothesis was confirmed as to the type of NS management model practiced in hospitals: a hybrid management model in transition to shared governance.

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