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CONSTRUÇÃO E VALIDAÇÃO DE UM INSTRUMENTO DE PERCEPÇÃO DO GESTOR
CONSTRUCTION AND VALIDATION OF A MANAGER'S PERCEPTION TOOL
CONSTRUCCIÓN Y VALIDACIÓN DE UN INSTRUMENTO DE PERCEPCIÓN DEL GERENTE

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RESUMO

Objetivo*:** descrever o processo de construção e validação de uma escala para a mensuração da percepção do trabalho realizado por enfermeiros gestores. ***Método*:** trata-se de um estudo quantitativo, descritivo, metodológico, com revisão da literatura e experiência de gestores expressa em um estudo prévio, desenvolvido por meio de um instrumento contendo oito dimensões e 42 itens, aplicado a 372 enfermeiros que desenvolvem a sua atividade na área da gestão em hospitais públicos e privados, com amostragem não probabilística. Empregaram-se, para a validação do instrumento, a análise fatorial exploratória e a avaliação da consistência interna de cada fator/dimensão. ***Resultados*:** nota-se que a análise fatorial indicou reajustes na composição original da escala de cinco para oito dimensões, mantendo-se os 42 itens e apresentando uma elevada consistência interna global (alfa de Cronbach de 0,950). ***Conclusão: avalia-se que a escala tem propriedades psicométricas adequadas, revelando o potencial para a utilização em futuros estudos na área da gestão em Enfermagem.

***Descritores*:** Enfermagem; Enfermeiras e Enfermeiros; Serviços de Enfermagem; Gestão em Saúde; Estudos de Validação; Competência Profissional.

ABSTRACT

***Objective*:** to describe the process of building and validating a scale for measuring the perception of the work done by nurse managers. ***Method*:** it is a quantitative, descriptive, methodological study, with literature review and manager's experience expressed in a previous study, developed through an instrument containing eight dimensions and 42 items, applied to 372 nurses who develop their activity in the area of management in public and private hospitals, with non-probabilistic sampling. For the instrument validation, exploratory factor analysis and internal consistency assessment of each factor/dimension were employed. ***Results*:** it is noted that the factorial analysis indicated readjustments in the original composition of the scale from five to eight dimensions, maintaining the 42 items and presenting a high global internal consistency (Cronbach alpha of

0.950). ***Conclusion***: it is evaluated that the scale has adequate psychometric properties, revealing the potential for use in future studies in the area of management in Nursing.

Descriptors: Nursing; Nurses; Nursing Services; Organization and Administration; Validation Studies; Professional Competence.

RESUMEN

Objetivo: describir el proceso de construcción y validación de una escala para medir la percepción del trabajo realizado por enfermeros gestores. ***Método:*** se trata de un estudio cuantitativo, descriptivo, metodológico, con revisión de la literatura y la experiencia de gerentes expresada en un estudio previo, desarrollado mediante un instrumento de ocho dimensiones y 42 ítems, aplicado a 372 enfermeros que desarrollan su actividad en el área de gestión en hospitales públicos y privados, con muestreo no probabilístico. Para la validación del instrumento se utilizó el análisis factorial exploratorio y la evaluación de la consistencia interna de cada factor / dimensión. ***Resultados:*** se observa que el análisis factorial indicó reajustes en la composición original de la escala de cinco a ocho dimensiones, manteniendo los 42 ítems y presentando una alta consistencia interna global (alfa de Cronbach de 0.950). ***Conclusión:*** se evalúa que la escala tiene adecuadas propiedades psicométricas, revelando el potencial de uso en futuros estudios en el área de la gestión de Enfermería.

Descriptores: Enfermería; Enfermeras y Enfermeros; Servicios de Enfermería; Gestión em Salud; Estudios de Validación; Competencia Profesional.

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INTRODUCTION

In a world where health institutions are increasingly close to business management, there are some challenges to nurses in order to acquire skills to face these changes, as well as to demonstrate that the activity is a positive value for the organization. These are listed as the two reasons that led to the development of a quantitative tool to be applied for diagnostic purposes on the activities of nurse managers of the organizations and also to develop programs of continuous or academic training that improve the performance of these health workers.

The process of building the instrument began with a qualitative preliminary phase, in order to identify the activities that managers do representatively in their day-to-day services.

It is important to note, over decades, that the activity of nursing managers has been studied; however, with the development of management professionals, it has also been questioned whether this work should be developed by a nurse with increased and advanced skills for this or if it could be developed by another professional, a specialist in the area of management.

It is currently expected that health care organizations ensure quality care in the sense of excellence, productivity and competitiveness, in a market in constant transformation and demand not only for the care product, but also for the organizational fabric created at the client's core. It is also intended that the organization's managers ensure alignment and commitment with the objectives, goals and organizational results. It is known that the manager's work demands an entrepreneurial posture that allows the organization's growth and, simultaneously, the existence of an adequate work environment, with the productivity and satisfaction of the professionals.[1]

It is understood that Nursing managers operating at the strategic, tactical and operational levels are the links between the organizational objectives and those of Nursing assistance, seeking the improvement of Nursing practice and the quality of care provided,[2] which reaffirms that this activity can be developed in the centrality of care or services, which differentiates the level of action.

This study is oriented to Nursing managers who develop their activity as service/health unit managers, which requires skills and abilities that guarantee commitments with the organization, with the client and with the professionals.[3] It is pointed out that competencies, understood as a set of behaviors that include knowledge, skills and personal attributes that are fundamental for the development of a successful work,[4] provide the direction for the groups of activities that are expected to be observed in the practice of nursing managers.

It is observed that a competence is built in the socio-cultural environment and in day-to-day relationships, when these require the individual to use relevant knowledge and tools, in order to respond actively and positively to the challenges that are faced.[5] It is considered essential to understand which activities have the greatest representation in the work of nursing service/health unit

managers, in view of the fact that the abilities, aptitudes or specialties are necessary for the execution of certain professional activities and, therefore, the competence is not made up of a set of allied knowledges that are not transmitted[4]. Given the particularity of management skills, the professional environment in which the individual develops the behaviors that distinguish him/her in the market by proactivity and high levels of performance in response to situations of greater or lesser complexity[1] effectively provides the forwarding to a level of advanced increased skills, as determined, in Portugal, the regulation of advanced increased competence in management.[6]

The aim is an instrument that can evaluate the development of competencies that represent the key factor in the resolution of an organization's problems.[7] It is necessary to understand the demands of this role in health organizations, particularly because this professional is expected to be responsible for decisions that ensure the quality of care that meets the requirements in the area of health[2,8].

It is stressed that leadership is one of the areas with great expression in literature,[1-2,7,9-11] however, in the activities developed by the managers, it is essentially related to transversal behaviors linked to human resource management. Three other obvious areas, but still strongly linked to human resources, are decision making, team work and communication.[1-2,4,7-12]

OBJECTIVE

To describe the process of building and validating a scale for measuring the perception of the work done by nurses managers.

METHOD

It is a quantitative, descriptive, methodological study, accompanied by a review of the literature and simultaneously with the application of the results of the expression of the opinion of managers about their experience, starting with a prior qualitative study from interviews with 22 nurse managers of a hospital unit. From the categories identified in this study, it can be seen that 42 statements were obtained that led to the construction of an instrument containing five theoretical dimensions and 42 items, which was applied in the format of a self-filling questionnaire.

The descriptors "mesh nurse manager", "human resource management" and "quality assessment" were used in the search engine EBSCO HOT and the databases CINAHL Complete, CINAHL Plus, Medic Latina and Medline Full Text. Based on the search criteria, articles dated from 2012 to 2017, full text and free access in English, Spanish and Portuguese are included. This search resulted in 25 articles, seven of which were excluded, after reading the abstract, for not being related to the subject. The 18 articles were then read, of which only nine answered the research question.

The questionnaire was built after the analysis of interviews with nursing managers and considering the competencies defined by the Portuguese Order of Nurses for the nurse manager.[13] The activities expressed by the managers from each competence were identified: Professional practice, ethics and legal (five activities ranging from five to 20 points); Care management (14 activities ranging from 14 to 56 points); Human Resources management (14 activities ranging from 14 to 56 points); Political intervention and advisory (five activities ranging from five to 20 points) and Professional development (four activities ranging from four to 16 points). It is important to mention that each activity was classified as never (one point), few times (two points), sometimes (three points) or always (four points). A four-point scale was chosen to avoid the central tendency option in the answers. It is noted that the total variation of the scale is from 42 to 168 points, the 42 being the situation of not doing management activities and the 168, doing management activities according to the best representation of these activities.

The questionnaire was applied to 372 nurses who develop their activity in the area of management in public and private hospitals in mainland Portugal, from January 2017 to July 2018, with a non-probabilistic sample created in snowball, with the collaboration of the Portuguese Association of Nurse Managers and Leadership and the institutions that accepted to participate.

The following were selected as inclusion criteria, being a nurse manager in a health unit and carrying out this activity by appointment or public contest for at least six months.

The research process was approved by the Ethics Commissions of the Centro Hospitalar de S. João - EPE (45/2017), of March 23, 2017, and by the Local Health Unit of Matosinhos and Hospital Pedro Hispano (93/CA/JAS), of November 17, 2017.

The questionnaire was made available from the Google platform. It is estimated that the sample universe consisted of 1904 nurses.[14] For validation, an exploratory factor analysis and evaluation of the internal consistency of each factor/dimension were employed. In the statistical analysis, the quality of the factorial model was evaluated using the Kaiser-Meyer-Olkin (KMO) sample adequacy measure for the whole scale and a factorial analysis with extraction of factors by the principal components method was performed. In order to determine the number of factors to retain, the Kaiser rule was adopted, which consists in selecting the factors whose associated own values are higher than one.[15]

In addition, some adjustment quality coefficients were used: Goodness of Fit Index (GFI): 0.759; Adjusted Goodness of Fit Index (AGFI): 0.607 and Root Mean Square Residual (RMSR): 0.041. It is evaluated that all these measures lead to the conclusion that, globally, the adjustment has good quality.

RESULTS

Of the 372 nurses in management activity distributed throughout the country, 39.8% were located in the North region and the same number was registered in Lisbon, the Tagus Valley and the South region, obtaining 13.7% of the sample in the Center. It is noteworthy that 6.7% of the participants belonged to private institutions. It is estimated that the ages of the participants varied between 28 and 63 years, with a mean of 48.48 years, with a standard deviation of 7,437 years. It is noted that the professional exercise varied from one to 41 years, with an average of 25.06 years, however, in management, the variation was from one to 35 years, with an average of 11.3 years and an average of 8.37 years in the service where the duties are exercised.

It is noted that, of the participants, 67.5% were women and 79.2% had a specialty, the most represented specialties being Medical-Surgical Nursing (31.8%), followed by Rehabilitation Nursing (22.1%) and Community Nursing (15.4%). It is revealed, on the academic formation, that 43.0% were graduated and 26.6% had a complete master's degree.

It is verified, on factor analysis, that the data is adequate to perform this type of analysis. The existence of many moderate and high correlations between the statements is registered. It should be noted that the measure of adequacy of the KMO sampling for the whole scale is 0.932, a very high value. Figure 1 shows this measure for each statement (the statements are identified by their numbering in the questionnaire, as in the following tables), with all values being high or very high, much higher than 0.5.[15]

Statements	KMO	Statements	KMO	Statements	KMO
1	0.91	15	0.94	29	0.94
2	0.91	16	0.96	30	0.93
3	0.96	17	0.96	31	0.91
4	0.94	18	0.96	32	0.95
5	0.95	19	0.92	33	0.84
6	0.94	20	0.94	34	0.93
7	0.93	21	0.93	35	0.92
8	0.94	22	0.96	36	0.94
9	0.94	23	0.94	37	0.78
10	0.94	24	0.92	38	0.86
11	0.92	25	0.96	39	0.94
12	0.91	26	0.96	40	0.91
13	0.92	27	0.92	41	0.92
14	0.93	28	0.92	42	0.97
				Global	0.93

Figure 1. KMO Sampling Adequacy Measure. Porto, Portugal, 2017.

A factor analysis was performed with the extraction of factors by the principal components method, and the variance explained by the factors was found in table 2. In order to determine the number of factors to retain, the Kaiser rule was adopted, which consists in selecting the factors whose associated own values are greater than one, resulting in a solution with eight factors, an adequate number and which explains 60.8% of the total variance, which is an acceptable percentage (other rules were tested, such as Pearson's rule and Cattel's rule, but the Kaiser's rule led to a better solution).[15]

Table 1. Own values and explained variance of factors. Porto, Portugal, 2017.

Factor	Own Value	% of Variance	% Acumulated	Factor	Own Value	% of Variance	% Acumulated
1	14.57	34.69	34.69	22	0.54	1.29	0.54
2	2.35	5.59	40.28	23	0.51	1.20	0.51
3	2.02	4.80	45.08	24	0.47	1.11	0.47
4	1.64	3.91	49.00	25	0.46	1.09	0.46
5	1.49	3.55	52.54	26	0.43	1.04	0.44
6	1.25	2.97	55.51	27	0.43	1.03	0.43
7	1.14	2.70	58.21	28	0.41	0.97	0.41
8	1.07	2.56	60.77	29	0.40	0.96	0.40
9	0.97	2.30	63.07	30	0.38	0.89	0.38
10	0.89	2.12	65.19	31	0.35	0.83	0.35
11	0.86	2.05	67.23	32	0.34	0.82	0.34
12	0.82	1.94	69.18	33	0.33	0.79	0.33
13	0.775	1.84	71.02	34	0.29	0.70	0.29
14	0.693	1.65	72.67	35	0.29	0.69	0.29
15	0.69	1.64	74.31	36	0.28	0.66	0.28
16	0.68	1.61	75.92	37	0.27	0.63	0.27
17	0.61	1.46	77.8	38	0.25	0.59	0.25
18	0.60	1.43	78.81	39	0.22	0.52	0.22
19	0.59	1.40	80.21	40	0.19	0.45	0.19
20	0.58	1.39	81.60	41	0.18	0.44	0.18
21	0.57	1.35	82.95	42	0.16	0.38	0.160

The results of the forced factorial analysis of eight factors are explained, followed by the varimax rotation and normalization of Kaiser, in table 3, where the factorial weights of the different statements in each factor are indicated, and in bold, the highest weight of each statement is found (for the easiest reading and interpretation of the table, the items are indicated by the order of the fac-

tor in which they saturate and not by the order of the questionnaire). Also in table 2, the communalities are shown.

Table 2. Factorial structure. Porto, Portugal, 2017

Statements	Fact.1	Fact.2	Fact.3	Fact.4	Fact.5	Fact.6	Fact.7	Fact.8	Com.
7	**0.42**	0.37	0.14	0.05	0.07	0.14	0.37	-0.02	0.50
14	**0.39**	0.22	0.29	0.17	0.19	0.36	0.35	-0.13	0.62
20	**0.49**	0.27	0.18	0.04	0.04	0.27	0.00	0.04	0.42
21	**0.51**	0.25	0.14	0.32	0.12	-0.03	0.19	0.19	0.53
25	**0.50**	0.23	0.28	0.27	0.01	0.06	0.07	0.31	0.56
27	**0.57**	0.23	0.17	0.40	-0.03	-0.09	0.28	0.21	0.70
29	**0.57**	0.25	0.10	0.07	0.23	0.25	0.13	0.23	0.59
30	**0.46**	0.19	-0.02	0.11	0.12	0.01	0.38	0.35	0.54
31	**0.63**	0.08	0.08	-0.05	0.40	0.32	-0.03	0.01	0.68
32	**0.59**	0.05	0.40	0.23	0.20	0.23	0.02	0.11	0.67
1	0.18	**0.79**	0.07	0.18	0.12	0.18	0.08	0.13	0.76
2	0.17	**0.78**	-0.02	0.16	0.15	0.15	0.13	0.09	0.74
3	0.25	**0.50**	0.38	0.37	-0.01	0.07	-0.07	0.07	0.61
4	0.11	**0.70**	0.27	0.11	0.12	0.27	-0.02	0.10	0.69
5	0.35	**0.63**	0.21	0.08	0.13	0.06	0.24	0.02	0.65
6	0.13	**0.50**	0.43	0.05	0.09	0.07	0.21	0.17	0.53
8	0.27	0.21	**0.67**	0.15	-0.09	0.12	0.01	0.03	0.61
10	0.18	0.30	**0.54**	0.25	-0.05	0.30	0.17	0.21	0.64
16	0.43	0.19	**0.48**	0.36	0.05	0.18	0.14	0.00	0.63
17	0.17	0.16	**0.55**	0.18	0.12	0.20	0.15	0.10	0.48
18	0.17	0.14	**0.58**	0.09	0.16	0.13	0.37	0.05	0.57
22	0.30	0.22	**0.47**	0.02	0.17	0.16	0.20	0.31	0.55
37	-0.17	-0.20	**0.55**	0.48	0.18	-0.07	0.11	0.02	0.65
39	0.11	0.14	0.06	**0.76**	0.20	0.13	0.08	0.09	0.68
40	0.19	0.18	0.21	**0.75**	0.08	0.01	0.07	0.11	0.70
41	0.12	0.15	0.22	**0.78**	0.08	0.10	0.14	0.06	0.74
42	0.25	0.28	0.09	**0.40**	0.18	0.37	0.17	0.10	0.52
33	0.20	0.02	-0.08	-0.03	**0.77**	0.20	0.10	0.11	0.71
34	0.21	0.19	0.18	0.20	**0.56**	0.08	-0.08	0.19	0.52
35	-0.14	0.20	0.39	0.10	**0.53**	-0.04	0.23	0.33	0.66
36	0.41	0.26	0.21	0.12	**0.53**	0.00	0.07	0.11	0.59
38	0.03	0.09	0.01	0.24	**0.76**	0.07	0.14	-0.03	0.67
9	0.06	0.33	0.16	0.02	0.19	**0.49**	0.35	0.02	0.54
11	0.09	0.15	0.32	0.07	0.15	**0.64**	-0.05	0.27	0.64
12	0.18	0.29	0.04	0.04	0.06	**0.64**	0.23	0.16	0.61
15	0.27	0.08	0.41	0.19	0.08	**0.43**	0.28	0.05	0.55

13	0.07	0.14	0.17	0.11	0.04	0.26	**0.69**	-0.03	0.61
19	0.17	0.08	0.25	0.20	0.27	0.01	**0.49**	0.27	0.52
28	0.07	0.03	0.33	0.27	0.06	0.06	**0.44**	0.36	0.51
23	0.32	0.07	0.28	0.28	0.15	0.09	0.03	**0.56**	0.61
24	0.08	0.14	0.01	0.02	0.13	0.21	0.04	**0.74**	0.63
26	0.31	0.09	0.17	0.18	0.07	0.49	0.09	**0.49**	0.65
% variance	34.7	5.6	4.8	3.9	3.5	3	2.7	2.6	

It is revealed that the first factor presents high factorial weights of the statements "accompanies the execution of care in a planned manner"; "develops plans for continuous quality improvement"; "assists the passing of shifts"; "evaluates the performance of nurses"; "creates, maintains and develops cohesion, team spirit and a work environment, managing conflicts"; "promotes the commitment and motivation of the team (global vision)"; "ensures planning, organization, coordination and evaluation of the quality of support services"; "acts as a trainer in the multi and intradisciplinary team"; "promotes and evaluates the professional satisfaction of nurses and other collaborators" and "creates and maintains conditions for cooperative work within the team". It can thus be seen that this can be designated as the factor of coordination and evaluation of human resources and planning. It is considered interesting that a large part of the statements of human resource management has been associated with the same factor. It is noted that these are statements related to the coordination and evaluation of these resources. Two statements related to the planning and execution of care and quality improvement have also been associated to this factor, which makes sense because the execution of care with quality is mainly dependent on human resources and, specifically, on the way they are commanded, that is, coordinated.

It is understood that the second factor presents high factor weights of the statements "cares about the values of nurses and patients"; "discusses ethical issues related to care with their team"; "controls respect for the privacy and individuality of the patient"; "ensures legal conditions for care and professional exercise"; "discusses with nurses decisions about care" and "promotes clinical decision making", which can be designated as the factor of professional practice, ethics and legal and decision making. It should be noted that all statements of professional, ethical and legal practice in the questionnaire are associated with the same factor, which in part justifies its designation. It is emphasized that the statements on decision making (clinical and care) were associated with this factor, which means that, in the opinion of those surveyed, clinical decision making is mainly related to the professional, ethical and legal Practice.

It is pointed out that the third factor presents high factor weights of the statements "predicts and ensures the means and resources necessary to provide care"; "takes decisions in order to ensure

the best care for patients"; "contributes to the development of good practices, through the proper use of material resources existing in the unit"; "ensures safe environments, identifying and managing risks and introducing corrective measures"; "manages serious clinical situations, both with the involvement of patients and families and the team"; "coordinates the process of employee integration and assumes a role of reference" and "adapts material resources to needs, taking into account the cost-benefit ratio", which can be designated as the resource factor for the quality of care. It is noted that both claims about efficient resource management and claims about quality care are associated with this factor, which makes sense because resources must be managed in order to provide quality care. It is also known that quality care includes the correction of problems that may pose risks or lead to serious clinical situations. It is summarized that the provision of quality care requires the availability of resources.

It is added that the fourth factor presents high factorial weights of the statements "promotes evidence-based nursing"; "promotes formal and informal team training"; "stimulates nurses towards self-training" and "provides spaces for reflection on practices in order to promote the commitment of the team in the management of its own competencies", evaluating that this can be designated as the factor of professional development. It is understood that this factor coincides with the professional development of the questionnaire, which is why it is assigned the same designation.

It should be emphasized that the fifth factor presents high factorial weights of the statements "participates in the definition and implementation of health policies of the hospital"; "participates in the strategic planning of the service"; "prepares service reports"; "conceives and operates projects in the service, involves and implies the team in the development and implementation of organizational projects" and "participates in working groups and commissions in the area of clinical and non-clinical risk management", which can be designated as the factor of political intervention and advice. It is emphasized that this factor almost coincides with the Political Intervention and Advisory component of the questionnaire, which is why it is attributed the same designation, with the statement "adapts material resources to needs, taking into account the cost-benefit ratio" being the only exception, being associated with the third factor.

It is revealed that the sixth factor presents high factor weights of the statements "discusses risks of patients in relation to care and service conditions"; "guarantees safe endowments according to the quality standards of the profession"; "analyzes and evaluates the quality of care and implements corrective measures" and "elaborates, applies, evaluates and updates procedures guiding the use of equipment and material", designating this as the factor of risks and quality of care. It is affirmed that all these statements belong to the Care Management component of the questionnaire, and the risks of the patients arise again associated to the quality of care and both arise associated

to the administration of resources (in this case, equipment and material), as it occurs in the third factor.

It is pointed out that the seventh factor presents high factorial weights of the statements "guides care of greater complexity"; "promotes meetings with nurses" and "ensures formal communication mechanisms of the team and other collaborators", and this can be designated as the factor of the functions of leadership and coordination. It should be noted that the last two statements belong to the Human Resources Management component of the questionnaire, while the first belongs to Care Management. These are clearly management functions, including communication, i.e. functions that require great competence and will normally be assigned to nurses with a higher category. This is listed as the reason why these statements have been associated with the same factor.

The eighth factor has high factor weights of the statements "calculates the needs of nurses according to the conditions of services"; "manages the nurses according to the intensity and complexity of care, through methodologies that allow calculating in advance the number of hours of care needed" and "distributes the nurses according to the needs of patients", designating this as the factor of management of the activity of nurses. It is perceived that all these statements belong to the Human Resources Management component of the questionnaire.

It was verified, for the evaluation of the quality of the factorial model obtained, in the first place, that the factorial weights (previous table) are generally acceptable or high and that the communalities are almost all higher than 50%, with only three exceptions. It should also be pointed out that there are only 184 residuals (i.e. 21%) with an absolute value above 0.05.

Finally, the reliability and validity of the scale was evaluated. The value of Cronbach's alpha for the whole scale is estimated to be 0.95, which is a very high value and shows a very strong internal consistency of the scale. It is also argued that the consistency of the first four subscales is high, the fifth is good, the sixth is reasonable and the seventh and eighth is a little low but still acceptable. It is added that the composite reliability of the first four subscales is high, that of the fifth and sixth is good and that of the last two is acceptable.

It is suggested, in summary, that the results show the proposal to maintain the 42 items, but with different dimensions from those described at the beginning of the study and that integrated the questionnaire.

DISCUSSION

From the global analysis of the scale, it can be seen that there is an approach to that recommended by the Portuguese Nurses Order in the following areas of competence: ethical and legal professional practice; quality and safety management; change management, professional and organiza-

tional development; planning, organization, direction and control; and professional practice based on evidence and oriented to obtaining gains in health.[6]

It is considered that the Coordination becomes one of the dimensions to be preserved in the scale, as well as the Evaluation of human resources and planning, which is confirmed by the literature, where it is valued that the nurse manager organizes and plans the work of the Nursing team, as well as the organization of the workplace,[11] but also referred to by the ability to manage work processes in order to ensure safe endowments in the provision of nursing care and ensuring continuous and quality assistance by promoting the safety of professionals and care.[1-2,4,7-12]

It is perceived that decision making influences the effectiveness and efficiency of the health organization, and should be guided by the best evidence and updated information, to ensure and promote the quality of decisions and to be able to mobilize the team in an informed manner[1-2,4,7-11] this requires an ethical and legal view by the nurse manager and justifies the creation of a professional, ethical and legal practice and decision dimension. In this dimension, the value of communication as an efficient, easy to use and accessible tool becomes significant, which promotes the intended purpose and reduces the conflicts that could arise due to communication problems. It is known that an effective and clear communication, in which a reciprocal and clear understanding occurs, leads to effective negotiations, drives processes and changes and improves the quality of teamwork and, consequently, the quality of care.[1-2,4,7-12]

It is expected that the manager in Nursing has a commitment and orientation for results, which leads to an appropriation of the goals, vision and strategic objectives of the organization, so that the entire management process is guided by all available resources and in the sense of converging to the organization, since it is reflected in the work and results of the organization itself[(12)]. It is noted that this approach to the outcome leads to the Resources dimension for quality of care, a central aspect of the discourse of many of the participants in the first study.

The professional development dimension is consolidated, in first line, in a strong knowledge sharing, because, in an organization where the strategic vision is oriented to the assistance quality, the nurse manager has to assume the constant need to endow and capacitate the Nursing teams with knowledge, using the continuous formation and the stimulation of the professionals' progression, recognizing and creating value in the team, so that it is capacitated for the quality care provision. It is evaluated that capable and competent teams work with organizational commitment to the excellence of the organization.[1-2,4,8-12] It also highlights self-development as the support for a reflective practice, self-evaluation and critical thinking, in order to constantly correspond to the changes within the organization.[2,4,7-8,12] It is believed that Nursing needs proactive and committed leaders to produce organizational and environmental transformations in the workplace.[1,9-11]

It is important, in the management process, that the nurse manager participates in the definition of health and management policies at the different levels of the organization, and it is expected that he will be an influencer, in order to guarantee the quality of care and the success of the organization in the environment where he/she is inserted and to respond to the needs of customers and society.[1-2,7-11] In this context, the dimension Political intervention and advice is identified, in which, besides this organizational intervention, the nurse manager can transcend the microsystem and interact in decision making in broader systems.

Analysis and problem solving within teams with different individuals and professional groups are essential.[16] It is pointed out that inadequate solutions have a negative impact on team relations and lead to discomfort, anxiety, stress and poor communication, which influences team effectiveness and directly affects the quality and safety of care. Proper negotiation and conflict resolution are considered to be the key to promoting professional retention, since high turnover, scarce human resources and absenteeism from work are the great challenges of the nurse manager[2,16] and that interfere with the dimension Risks and quality of care. It is argued that the intervention of nursing managers and the quality of care require a strong dose of entrepreneurship in the processes of quality management and projects, and it is important to create opportunities for the development of professional autonomy, persistence and resilience to setbacks and obstacles.[2] The nurse manager is understood as a professional with initiative and willingness to develop his or her functions with effectiveness, efficiency and creativity, guiding and mobilizing the team and the organization for quality and innovation.[12]

It becomes the evident leadership in the Leadership and Coordination Functions identified at scale as a dimension. The ability to influence the team and voluntarily commit to achieving the objectives of the group or organization is analyzed, requiring that the nurse manager possess knowledge, skills and abilities to help direct the qualities of the professionals to the collective effort, using an effective and strategic collaboration.[2,9-11] In this process, it is evaluated that a leader has to be aware that the leadership style adopted has impact and implications within the team and in the organization's results, for its sustainability and for the quality of care.[1]

It is noted that the management dimension of the nurses' activity refers to a competence, requiring the nurse manager to assume the role of articulator, to have the capacity to negotiate and articulate the interests of the organization, management and worker, for the construction of assertive and participatory solutions[2,4,9-11] but also the importance of teamwork as a pillar for the success of an organization. It is necessary for the nurse manager to create skills to collaborate and enhance the work of multidisciplinary teams,[1-2,17] assuming the role of facilitator,[9] for the estab-

lishment of cooperative relations and the recognition of the success of the team,[7] leading to a feeling of belonging and quality of care.[4,12,16]

In summary, it can be seen from the literature review and statistical analysis of this scale that it is possible to evaluate the role of the manager in the specificity of his activities, approaching a set of increased skills in the area of management and advisory. It is considered important that the nurse manager has flexibility and capacity of adaptation, in order to assume the role of agent that stimulates and facilitates change, transmitting confidence and serving as a model to the professionals that he or she manages.[1-2,7-11,18]

CONCLUSION

It is concluded that the items of the scale are mirrored in the literature on management in Nursing and the dimensions of the scale come from the practice of nurse managers in health units.

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It is stressed that the proposed scale had five dimensions and, after the analysis, underwent reorganization to eight dimensions, showing that the 42 items should be maintained.

After the route described in this article, it is evaluated that an instrument has been created that can be used safely. It was also understood that it is necessary to continue studying the specific activities of the nurse managers, identifying their needs to improve their skills.

CONTRIBUTIONS

All authors also contributed in the conception, analysis and interpretation of the research, in the writing and critical review with intellectual contribution, and, in the approval of the final version.

CONFLICT OF INTERESTS

Nothing to declare.

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