Original Article

Use of performance indicators in the nursing service of a public hospital

Carmen Silvia Gabriel[1]

Marcia Regina Antonieto da Costa Melo[1]

Fernanda Ludmila Rossi Rocha[1]

Andréa Bernardes[1]

Tatiana Miguelaci[2]

Maria de Lourdes Prado Silva[3]

The study aimed to identify performance indicators adopted by the Nursing Service of a public hospital and to analyze the opinions of the nurses regarding the use of these indicators to evaluate the quality of the nursing care. This is descriptive exploratory study with a quantitative approach, which used data from the management reports of the institution and applied a questionnaire in a sample of 25 nurses. It was found that the institution works with three databases of indicators, two being general and one specific for Nursing, which analyze 11 indicators. The indicators of pressure ulcer incidence and incidence of falls were the only ones considered highly relevant to qualify the nursing care for 100% of the nurses. It was concluded that the institution uses indicators for monitoring outcomes and tends to valorize the use of process indicators by the nurses to evaluate the Nursing performance, with it being necessary to expand the analysis to include multi-disciplinary indicators.

Descriptors: Indicators of Health Services; Nursing Service, Hospital; Quality of Health Care.

[1] RN, Ph.D. in Nursing, Professor, Escola de Enfermagem de Ribeirão Preto, Universidade de São Paulo, WHO Collaborating Centre for Nursing Research Development, SP, Brazil. E-mail: Carmen - cgabriel@eerp.usp.br, Marcia - mracmelo@eerp.usp.br, Fernanda - ferocha@eerp.usp.br, Andréa - andreab@eerp.usp.br.

[2] Undergraduate student in nursing, Escola de Enfermagem de Ribeirão Preto, Universidade de São Paulo, WHO Collaborating Centre for Nursing Research Development, SP, Brazil. E-mail: tatianamiguelaci@gmail.com.

[3] RN, Hospital Estadual de Ribeirão Preto, SP, Brazil. E-mail: mlpsilva@heribeirao.com.br.

Corresponding Author:
Carmen Silvia Gabriel
Universidade de São Paulo. Escola de Enfermagem de Ribeirão Preto
Departamento de Enfermagem Geral e Especializada
Av. dos Bandeirantes, 3900
Bairro: Monte Alegre
CEP: 14040-902, Ribeirão Preto, SP, Brasil
E-mail: cgabriel@eerp.usp.br

Utilização de indicadores de desempenho em serviço de enfermagem de hospital público

O estudo objetivou identificar indicadores de desempenho, adotados pelo Serviço de Enfermagem de hospital público, e analisar a opinião dos enfermeiros em relação à utilização desses indicadores para avaliar a qualidade da assistência de enfermagem. Trata-se de estudo descritivo exploratório, com abordagem quantitativa, que utilizou dados dos relatórios gerenciais da instituição e aplicou questionário numa amostra de 25 enfermeiros. Verificou-se que a instituição trabalha com três bancos de dados de indicadores, sendo dois gerais e um específico de enfermagem que analisa 11 indicadores. Os indicadores de incidência de úlcera por pressão e incidência de quedas foram os únicos considerados muito pertinentes para qualificar a assistência de enfermagem, por 100% dos enfermeiros. Concluiu-se que a instituição utiliza indicadores para acompanhamento de resultados e há valorização da utilização de indicadores de processos pelos enfermeiros para avaliar desempenho da enfermagem, sendo necessário ampliar a análise para indicadores multidisciplinares.

Descritores: Indicadores de Serviços; Serviço Hospitalar de Enfermagem; Qualidade da Assistência à Saúde.

Utilización de indicadores de desempeño en servicio de enfermería de hospital público

El estudio objetivó identificar indicadores de desempeño adoptados por el Servicio de Enfermería de hospital público y analizar la opinión de los enfermeros en relación a la utilización de estos indicadores para evaluar la calidad de la asistencia de enfermería. Se trata de estudio descriptivo exploratorio con abordaje cuantitativo, que utilizó datos de los informes de gestión de la institución y aplicó un cuestionario en una muestra de 25 enfermeros. Se verificó que la institución trabaja con tres bancos de datos de indicadores, siendo dos generales y uno específico de enfermería que analiza 11 indicadores. Los indicadores de incidencia de úlcera por presión y de caídas fueron los únicos considerados muy pertinentes para calificar la asistencia de enfermería por 100% de los enfermeros. Se concluye que la institución utiliza indicadores para acompañamiento de resultados y existe una valorización de la utilización de indicadores de procesos por los enfermeros para evaluar desempeño de la enfermería, siendo necesario ampliar el análisis para indicadores multidisciplinares.

Descriptores: Indicadores de Servicios; Servicio de Enfermería en Hospital; Calidad de la Atención de Salud.

Introduction

The continuous improvement in care quality should be considered by nurses as a dynamic and comprehensive identification of the factors involved in the work process of the nursing team and requires these professionals to implement actions and to develop instruments that allow a systematic evaluation of the levels of quality of the care provided. The nurse needs to analyze the outcomes of the assistance provided in order to define management strategies. For instruments to be developed by nurses to evaluate these outcomes, they need to be based on information that, directly or indirectly, translates the reality of this care. From this perspective, it is worth highlighting the importance of working with evaluation of the outcomes of patient care to gage the quality of care accurately, consistently and comprehensively, enabling analysis in the intra-and

Gabriel CS, Melo MRAC, Rocha FLR, Bernardes A, Miguelaci T, Silva MLP.

1249

extra-institutional areas and reflections regarding the different contexts of their professional practice[1].

An effective way of evaluating the performance and management of health services is with the use of indicators that show evolution over time, allowing the comparison with internal and external references. In this sense, the nurse is required to define the minimum set of data necessary for describing and monitoring their practice, recognizing these tools for the evaluation and improvement of healthcare. In the use of indicators to measure hospital quality, it is important that some questions be answered before their use or implementation[2]. The first question refers to the certification of quality: To what extent does it reflect the quality of care? The second question refers to registration: Can the indicator be measured in a reliable and valid way? The third question is: Will appropriate activities be initiated after the indicator provides a signal? The nursing quality indicator must be measurable, clear, objective and useful, favoring the generation of improvements. The development of these indicators for the nursing services requires the search for principle points that indicate the need to consider the policies of care, education and management in health; the mission and the organizational structure; the programs and proposals for the work of the institutions; the human, material, financial and physical resources available; and the expectations of the clientele attended[1].

In a previous study[3], 18 nursing indicators were considered which contemplate segments related to the evaluation of the patient, to the medical records of the patient, to the surgical procedures, to the use of anesthesia and antibiotics, to the control of infection, to the use of blood and blood products, to management of risks, supplies and medications, to the satisfaction of the patient and collaborator/worker, and to the management of demographic and financial data, related to the surveillance and to the control and prevention of events that threaten the safety of the patients, families and professionals involved in the care .

The Center for Hospital Management of the Associação Paulista de Medicina (NAGEH) has created a list of indicators related to nursing care, which are measured systematically by hospitals linked to it, in order to analyze and compare the performance of these nursing services. The nursing indicators monitored by the NAGEH are: incidence of falls, pressure ulcer incidence (PUI), incidence of loss of nasoenteric tube, incidence of phlebitis, incidence of non-compliance in medication administration, incidence of obstruction of central venous catheters, hours of nursing training, and distribution of nurses and technicians per bed[4]. The Brazilian Manual of Accreditation, a tool created by the National Accreditation Organization for measuring the quality of care in Brazilian hospitals, does not specifically identify which nursing indicators should be measured to evaluate the quality of their care, but clearly states that the hospital services, including Nursing should use indicators to analyze their performance[5].

In the particular scope of nursing management, it is necessary to shift the focus from "to do" and "how to" to "why do" and "what to do" and this change can only be executed if the nurses achieve a broader vision of their work context and use tools based on indicators to monitor the performance of their services and the quality of the care provided[2]. We agree with the study[6] which concludes that nursing needs to be evaluated in its quantitative and qualitative aspects for a more precise measurement of the quality of care provided to the patient. The same study also highlights the shortage of bibliographies on the evaluation of health systems, specifically regarding results of the care or outcome indicators for evaluation of the nursing services, which discuss the established criteria and their shortcomings, with a view to contributing to the study of more precise models of evaluation of the quality of the nursing services.

Given the previous considerations regarding the importance of using indicators for the Nursing Services this study aimed to identify the indicators adopted by the Nursing Service of a public hospital and to analyze the opinion of the nurses of this hospital regarding the use of these indicators to evaluate the quality of the nursing care in the hospital services.

Methods

This is a descriptive study with a quantitative approach toward the data, which sought to identify the use of indicators or measures of performance in nursing management and the different forms in which they are presented in the hospital institution of the study. The chosen site was a State public hospital located in Ribeirão Preto, in the State of São Paulo, with 50 beds, which opened on March 26, 2008, with a proposal to serve the municipalities of the XIII Regional Health Board with respect to medium complexity hospital care. The institution is overseen by the São Paulo State Health Department (SESSP), providing services according to a standard agreement with the Brazilian National Health

System (SUS). The administration is mediated by a private foundation, following the Social Organization of Health - SOH model, which has been adopted by the State Government since the end of the 1990s[7]. The institution is divided into six units. The organogram is composed of four medical directors and a nursing coordinator. In the Nursing context, there are 27 nurses, all subordinate to the nursing coordinator, without intermediate leadership positions and linearly distributed throughout the six units of the institution.

The data collection took place from November 2009 to January 2010. The subjects were all nurses, with the exception of the service coordinator, working in the institution during the study period. To analyze the opinions of the nurses in relation to the use of performance indicators for the nursing service, a questionnaire was applied, with 22 questions, 19 closed and 3 open, previously submitted for validation by three judges. In this questionnaire, the nurses were presented with 18 indicators that they had to classify as: highly relevant, relevant, slightly relevant or not relevant to evaluate the quality of the nursing care. The selected indicators were used in a previous study[8] and are systematically measured by the hospitals that constitute the Hospital Management Center of the Associação Paulista de Medicina (NAGEH)[4] and are considered appropriate to analyze the performance of nursing services[3]. According to Donabedian's theoretical framework[9], these indicators were classified as: 1) process indicators (incidence of falls of the patient, incidence of pressure ulcers, incidence of phlebitis, incidence of non-compliance with medication administration, incidence of accidental extubation, nasoenteric probe loss, incidence of central venous catheter obstruction, rate of work accidents of nursing professionals); 2) structural indicators (distribution of technicians and auxiliary nurses x bed, distribution of nurses x bed, hours of training of nursing professionals, nursing staff absenteeism rate, mean duration of hospitalization, turnover rate of nursing staff) and 3) outcome indicators (mortality rate and occupancy rate, nosocomial infection rate, client/patient satisfaction, mean duration of hospitalization).
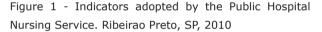
The criteria for inclusion of nurses in the sample were: to work at the institution as a nurse for more than 180 days and to agree to participate in the study, signing the Terms of Free Prior Informed Consent. The data regarding the indicators used by the institution and by the Nursing service were extracted from the report generated by SESSP for the first quarter of 2010[10] and the internal management report on the Nursing Services

for the year 2009, respectively. The project was approved by the Ethics Committee of the Ribeirão Preto College of Nursing (protocol number 0977/2008).

Results

The analysis of the report of the São Paulo State Health Department (SESSP)[10] for the year 2010 showed that the institution collects and sends quarterly reports to this department on the 11 general performance indicators described in Figure 1.

Loss of a nasoenteric tube
Incidence of phlebitis
Incidence of non-compliance with medication administration
Distribution of nurses x bed
Distribution of technicians and auxiliary nurses x bed
Nursing staff absenteeism rate
Nursing staff turnover rate
Rate of work accidents of nursing professionals
Hours of training of nursing professionals
Patient satisfaction with the nursing

Figure 1 - Indicators adopted by the Public Hospital Nursing Service. Ribeirao Preto, SP, 2010

The institution also sends information to form a database of indicators of the Associação Paulista de Medicina which established, in 1991, the São Paulo State Hospital Quality Control Program (CQH)[11]. This Program is based on the work of the Joint Commission for Accreditation of the United States, seeking interinstitutional assessment that combines approximately 125 Hospital of São Paulo State, bringing together 15 indicators, which are: institutional mortality, operative mortality, hospital occupancy rates, mean duration of hospitalization, suspended surgical operations, cesarean rate, Apgar score in newborns, overall hospital and per clinic infections, percentage of specialist physicians, nurse/bed ratio, nursing staff/bed ratio, turnover index, absenteeism rate, work accidents, and hours of training. Information related to these indicators are sent by these institutions and, thereafter, quarterly reports are prepared that compare the indicators of the institutions of the group. The hospital has participated in this program since the end of 2008.

Gabriel CS, Melo MRAC, Rocha FLR, Bernardes A, Miguelaci T, Silva MLP.

1251

Regarding the characteristics of the subjects, all the nurses had worked in the profession for more than a year, with 72% working in the profession for more than five years; 44% had worked in the institution since its foundation, i.e. two years; 36% had worked in the institution for more than one year; and 20% of the nurses had worked in the institution for less than one year. Concerning the training of the nurses, it was found that 68% had *latu senso* specializations, 16% had Master's degrees and one nurse (4%) had a Doctorate, all in the area of Nursing. Of the 26 nurses included in the sample, 25 (96%) responded to the questionnaire, which asked the nurses their opinion about the relevance of 18 indicators for measuring the quality of nursing care, among which were all those that the institution collected according to the NAGEH[4] and seven indicators which were extracted from the literature on the theme.

In relation to the knowledge of the nurses regarding the indicators that the institution adopted to evaluate the nursing care, 23 (88%) said that they know all the indicators used by the institution for the evaluation of the care.

Meetings with the nursing coordination was the means by which 78% of the nurses reported having knowledge of the results of the indicators adopted by the nursing service of the institution. The other means reported by the nurses were through management reports, information on the intranet, and bulletin notices and communications. In the analysis of the responses of the nurses regarding the relevance of the indicators for evaluating the quality of the care, it was verified that the indicators of falls and incidence of PUI are the only ones considered by 100% of the nurses to be highly relevant to evaluate the care, as shown in Table 1.

Table 1 - Opinion of the nurses regarding indicators that evaluate the quality of the care. Ribeirão Preto, SP, Brazil, 2009

Indicators	Classification (Donabedian)	Highly Relevant (%)	Relevant (%)	Slightly Relevant (%)	Not Relevant (%)	Not Answered (%)	Total (%)
Incidence of falls of the patient	Process	100	0	0	0	0	100
Incidence of pressure ulcers	Process	100	0	0	0	0	100
Incidence of phlebitis	Process	96	4	0	0	0	100
Incidence of non-compliance with medication administration	Process	92	4	0	4	0	100
Rate of nosocomial infection	Outcome	88	12	0	0	0	100
Incidence of accidental extubation	Process	87	13	0	0	0	100
Client/patient satisfaction	Outcome	76	24	0	0	0	100
Loss of a nasoenteric tube	Process	76	20	4	0	0	100
Incidence of central venous catheter (CVC) obstruction	Process	72.7	13.6	9.1	0	4.6	100
Rate of work accidents of nursing professionals	Process	72	28	0	0	0	100
Distribution of technicians and auxiliary nurses x bed	Structural	69.5	21.8	0	8.7	0	100
Distribution of nurses x bed	Structural	65.2	26.1	0	8.7	0	100
Hours of training of nursing professionals	Structural	65.2	26.1	8.7	0	0	100
Nursing staff absenteeism rate	Structural	52.2	39.1	8.7	0	0	100
Mean duration of hospitalization	Outcome	47.8	34.8	8.7	8.7	0	100
Nursing staff turnover rate	Structural	47.6	38.1	9.5	0	4.8	100
Mortality rate	Outcome	45.5	45.5	4.5	4.5	0	100
Occupancy rate	Outcome	34.8	52.2	4.3	8.7	0	100

Concerning the indicators related to specific Nursing processes, the incidence of phlebitis and the incidence of accidental extubation were considered highly relevant or relevant to evaluate the nursing care by 100% of the nurses of the sample. The rate of work accidents of the nursing professionals, patient satisfaction and the nosocomial infection rate were also indicators considered highly relevant or relevant by 100% of the nurses interviewed as indicators of the quality of nursing care. Other indicators related to processes and considered highly relevant by 72% of the nurses were nasoenteric probe loss, occurrence of non-compliance with medication administration (which are collected by the institution) and incidence of central venous catheter

obstruction (which is not collected by the institution). However, the nasoenteric probe loss and the venous catheter obstruction were also considered indicators of slight relevance to evaluate the quality of the nursing care in the opinion of 4% and 9% of nurses, respectively. In addition, 4% of the nurses felt that the incidence of non-compliance in the medication administration was not a relevant indicator to evaluate the quality of the care.

Of the nurses interviewed, 91% considered the hospital mortality rate as a highly relevant or relevant indicator of the quality of the nursing care. The absenteeism and turnover of nursing staff rates, which are indices related to personnel management, were considered by 52.2% and 47.6% of the nurses, respectively, as qualifiers of the nursing care. In relation to the indicators hours of nursing training, technician and auxiliary nurse/bed ratio and nurse/bed ratio, 8.7% of the nurses considered them slightly relevant or not relevant to qualify the care. The mean duration of hospitalization was also an indicator considered slightly relevant or not relevant to assess the quality of care by 17.4% of the nurses.

Discussion

The use of indicators of mortality, nosocomial infection rates, device use, unforeseen readmissions and others specifically related to the nursing processes, such as the incidence of falls, incidence of pressure ulcers, number of patients restrained in bed, patient satisfaction and hours of training were considered essential for evaluating the quality of the healthcare provided to the client[1,12-13]. Several authors stress that the knowledge, monitoring and analysis of these indicators should serve as a basis for the improvement of the nursing processes in the hospital institutions, since they constitute critical points of the processes related to the nursing care[3-4]. The data analysis showed that 44% of the subjects worked in the institution since its founding and 92% of the nurses reported knowing the indicators used by the Nursing Service, those which are discussed and analyzed by the group of nurses during the monthly meetings with the nursing coordination. According to the nurses, at the monthly meetings the aims, policies and management strategies adopted by the Nursing Service are also discussed, showing that there is effective communication between the coordination of the service and the care areas of the institution. This may be related to the organizational structure and to the management model adopted by the hospital, which presents a linear organogram, composed of four medical directors and

a nursing coordinator, without intermediate leadership positions, where the administration is based on the Social Organization of Health Model and mediated by a private foundation[7]. The organograms currently arise with more simplicity, in order to establish more direct organizational proposals, constituting functional units with the power of decision and linked to the top of the structure by the coordination, facilitating interpersonal communication and promoting worker participation in the management and organizational processes of the work[14]. However, we realize that in the majority of health institutions, there is still great difficulty in communication and social participation in the management processes, as demonstrated in a study conducted in 2004[2] with hospitals of the same region, in which it was found that only 33% of the institutions communicate the results of their indicators to the teams or care areas.

When the occurrence of PUI and falls in the hospital studied were analyzed, it was found that these indicators were considered by 100% of the nurses as highly relevant to evaluate the quality of the nursing care, corroborating the literature[15-16]. Other indicators considered by the nurses as highly relevant or relevant for the qualification of the care are intimately related to the daily nursing tasks, such as incidence of phlebitis, accidental extubation and incidence of non-compliance in the medication administration. The quality of care is usually evaluated from the perspective of the structure and process in order to provide the nurses with more objective and concrete data in the context of nursing[17], with little or no focus on the final evaluation of the results, which results in analyzing outcomes that are related to the work of all the professionals involved in the care. Regarding the administration of medication, it is considered important that Nursing develops instruments with the capacity to monitor this process and provide safety to the patient. Currently, the occurrence of adverse events related to medication is considered a serious public health problem[18]. In relation to accidental extubation, it is interesting to note that the hospital does not collect this indicator because it has no Intensive Care Unit, and therefore there is not a significant number of patients undergoing intubation in the institution, in view of its intention to treat medium-complexity patients; however, the nurses recognize the relevance of the indicator to assess the quality of care. It is noteworthy that the rate of work accidents was also considered, by 100% of the sample, as a qualifier of the care by the nurses. This indicator may evidence structural or procedural failures of the care, as shown by the study[15] that encountered rates of 72% of concordance of the

Gabriel CS, Melo MRAC, Rocha FLR, Bernardes A, Miguelaci T, Silva MLP.

1253

nurses in relation to the relevance of this indicator to qualify the nursing care.

The results described so far denote strong valorization of the indicators related to the specific nursing care processes, which are closely related to daily tasks performed by the nursing team and are able to portray the quality of these processes. The opinion of the nurses in relation to the indicator client/patient satisfaction confirms the results of national study[8] where this was considered highly relevant or relevant to qualify the care. The satisfaction of the client means comprehending and acting according to their needs of the client regarding the services and products of the team and should consider their subjectivity and their perception concerning the work process. Thus, this indicator represents a valuable instrument that enables a reflection by the managers on the process of production and organization of the health services[19]. The rate of nosocomial infection can be classified among the most prominent of care outcome indicators, since indicators are multidisciplinary in scope when analyzing their results and implications[16]. The results related to the opinion of the subjects regarding this indicator show that the nurses perceived the need to develop a more comprehensive and multidisciplinary vision concerning the outcomes of the care provided, which allows the evaluation of the care and the implementation of actions to improve the quality.

The mortality rate reflects the general condition of the patients and the medical care complexity and should be considered an evaluation parameter of the quality of care provided by the hospital institutions. The analysis should be based on the historical data of the institution itself or through means of comparisons with mortality rates of hospitals with similar organizational and care profiles[2], thus avoiding analysis of organizations of high and medium complexity or of different specialties, e.g. where the needs of the users are very specific. The nursing staff absenteeism is worrisome because it disrupts the service, creates dissatisfaction and work overload and consequently influences the quality of care provided to the client[20]. Similarly, a high rate of turnover of nursing staff can lead to insufficient human resources and difficulty in qualifying the worker, causing a decline in the quality of the care. A national study[8] showed that 66% and 83% of the nurses considered turnover and absenteeism, respectively, as important indicators for evaluating the outcomes of the nursing service. In the hospital studied, we found that the majority of the subjects considered turnover and absenteeism relevant for the qualification of the care, which shows that there

is an awareness of the importance of using indicators which are not directly related to the care processes for evaluating the quality of the nursing care.

The rates of distribution of workers per bed can be considered structural indicators of health services and are directly related to the quality of the care provided to the patients. In analyzing this issue, the nurse/bed ratio and the technician and auxiliary nurse/bed ratio were identified by 91% of the nurses as highly relevant or relevant indicators to evaluate the quality of the service, as well as in a national study[8], which showed that 100% of the nurses considered these indicators relevant in the evaluation of the quality of the care. The mean duration of hospitalization and the occupancy rate can be considered as traditional indicators in relation to the production and the productivity of the health services and were used as overall performance indicators by the majority of hospitals in a previous study[2], being included in the questionnaire applied to the nurses in the present study. However, less than 50% of the nurses considered both indicators highly relevant to qualify the health care. It was verified that the mean duration of hospitalization and the occupancy rate are indicators analyzed by the hospital management, outside of the list of specific nursing indicators and can be considered indices for evaluating the healthcare outcomes as they are influenced by the rates of resolvability achieved by the healthcare team[2]. The education of the workers and the constant evaluation of the effectiveness of the educational strategies adopted in the institutions are important measures to improve the quality of the healthcare. Thus, the amount of hours dedicated to the education of the team can be directly related to better preparation of the professionals for the care, representing an indicator evaluated in two international systems[12-13] and the NAGEH group[4].

Final considerations

The data presented allowed the conclusion that the institution uses management data and indicators for monitoring the results and goals and that there is an understanding among the group of nurses regarding the importance of using these indicators to evaluate the nursing performance. Thus, the sedimentation of a culture of valorization of management information in order to discuss and implement improvements in the care could be identified in the group of nurses surveyed. The indicators adopted by the Nursing Service are in line with what is used worldwide and are known and accepted by the group of nurses in terms of their importance in analyzing the outcomes of service performance.

Within the group the focus on the analysis of process indicators related to nursing still prevails, with it being necessary to expand the evaluation to include other indicators related to multidisciplinary care outcomes, which requires the involvement of the entire health team of the institution and not just of the nursing team. It is noteworthy that among the priority activities in the nursing work process are the care activities. However, nursing care is performed by honestly looking at the human being dependent on care, which must be articulated to other actions, including management, thus constituting systematic actions that facilitate the evaluation and qualification of the nursing work.

The indicators of both the scope of the healthcare process and the scope of the management, and of the evaluation of outcomes should be used to reevaluate, replan and reorganize the activities of the nursing staff. The importance is stressed of increasingly expanding the culture of quality in the nursing services, enabling nurses to develop and analyze indicators and providing a reflection on the nursing care in a dynamic way, aiming at the excellence of the care.

References

1. Kurcgant P, Tronchin DMR, Melleiro MM. A construção de indicadores de qualidade para a avaliação de recursos humanos nos serviços de enfermagem: pressupostos teóricos. Acta Paul Enferm. 2006;19(1):88-91.

2. Caldana G, Gabriel CS, Bernardes A, Évora YDM. Indicadores de desempenho em serviço de enfermagem hospitalar: revisão integrativa. Rev RENE 2011;12(1).

3. Bork AMT. Enfermagem de excelência: da visão à ação. São Paulo: Guanabara Koogan; 2003. 201p.

4. Programa de Qualidade Hospitalar (PQH). Manual de Indicadores de Enfermagem NAGEH - 2006 [Internet]. São Paulo: APM/CREMESP; 2006. [acesso 10 out 2010]. 40 p. Disponível em: http://www.cqh.org.br/files/Manual%20de%20Indicadores%20NAGEH%20-%20V.FINAL.pdf

5. Ministério da Saúde (BR). Secretaria de Assistência à saúde. Manual Brasileiro de Acreditação hospitalar. 5.ed. Brasília: Ministério da Saúde; 2006.

6. Feldman LB, Cunha ICKO. Identificação dos critérios de Avaliação de Resultados do Serviço de Enfermagem nos Programas de Acreditação Hospitalar. Rev. Latino-Am. Enfermagem. 2006;14(4):540-5.

7. Ibañez N, Bittar OJNV, Sá ENC, Yamamoto EK, Almeida MF, Castro CGJ. Organizações sociais de saúde: o modelo do Estado de São Paulo. Ciênc Saúde Colet. 2001;6(2):391-404.

8. Simões e Silva C, Gabriel CS, Bernardes A, Évora YDM. Opinião do enfermeiro sobre indicadores que avaliam a qualidade na assistência de enfermagem. Rev Gaucha Enferm. 2009;30(2):263-71.

9. Donabedian A. Basic approaches to assessment: structure, process and outcome. In: Donabedian A. Explorations in Quality Assessment and Monitoring. Michingan (USA): Health Administration Press; 1980.

10. Secretaria de Estado da Saúde de São Paulo (SESSP) (BR). Coordenadoria de contratos e de Serviços de Gestão de Saúde. Relatório de avaliação da parte variável de convênio de gestão. São Paulo: SESSP; 2010.

11. Sociedade Médica Paulista de Administração em Saúde. CQH - Compromisso com a Qualidade Hospitalar [Internet]. São Paulo: Sociedade Médica Paulista de Administração em Saúde; 2006 [acesso 17 jun 2010]. Disponível em: http://www.cqh.org.br/?q=home

12. Maryland Hospital Association. Quality Indicator Project [Internet]. Maryland: Quality Indicator Project; 2009 [acesso 2 mar 2009]. Disponível em: http://www.qiproject.org/home

13. Aydin CE, Bolton LB, Donaldson N, Brown DS, Buffum M, Elashoff JD, et al. Creating and analyzing a statewide nursing quality measurement database. J Nurs Scholarsh. 2004;36(4):371-8.

14. Motta PR. Gestão contemporânea: a ciência e a arte de ser dirigente. Rio de Janeiro: Record; 2002. 236 p.

15. Idvall E, Rooke L, Hamrin E. Quality indicators in clinical nursing: a review of the literature. J Adv Nurs. 1997;25:6-17.

16. Nascimento CC, Toffoletto MC, Gonçalves LA, Freitas WG, Padilha KG. Indicators of healthcare results: analysis of adverse events during hospital stays. Rev. Latino-Am. Enfermagem. 2008;16(4):746-51.

17. Vituri DW, Matsuda LM. Content validation of quality indicators for nursing care evaluation. Rev Esc Enferm USP. 2009;43(2):429-37.

18. Cassiani SHB, organizador. Hospitais e medicamentos: impacto na segurança dos pacientes. São Paulo: Yendis; 2010.

19. Paiva SMA, Ribas Gomes EL. Hospital care: assessment of users' satisfaction during hospital stay. Rev. Latino-Am. Enfermagem. 2007;15(5):973-9.

20. Marziale MHP, Silva DMPP. Absenteísmo de trabalhadores de enfermagem em um hospital universitário. Rev. Latino-Am. Enfermagem. 2000;8(5):44-51.