

Assessment of quality of nursing documentation in a University Hospital*

Avaliação da qualidade das anotações de enfermagem em um Hospital Universitário

Evaluación de la calidad de las anotaciones de enfermería en un Hospital Universitario

Fabiane Gorni Borsato¹, Mariana Ângela Rossaneis¹, Maria do Carmo Fernandez Lourenço Haddad², Marli Terezinha Oliveira Vannuchi³, Dagmar Willamowius Vituri⁴

ABSTRACT

Objectives: To assess the quality of nursing documentation in a university hospital. **Methods:** We conducted a descriptive, quantitative research study with data collection supported by the available reports of quality assurance in nursing at the institution, from 2002 to 2009. Attributed to the item, "Documentation of Nursing", were these criteria: complete, incomplete, not filled in, and incorrect, for which was adopted as satisfactory: over 80%, below 15%, below 5%, and 0%, respectively. **Results:** The division of inpatient satisfaction reached in 2007, with 82.2% of the documentation completed. The intensive care units did not achieve satisfaction in any of the criteria. The Maternal-Child Health Division had 90.7% of records complete in 2009. **Conclusion:** We detected advances in the quality of the records until 2009, pointing to the awareness of nursing professionals and to the investment in the institution's educational processes.

Keywords: Nursing records; Quality management; Nursing care

RESUMO

Objetivos: Avaliar a qualidade das anotações de enfermagem em um hospital universitário. **Métodos:** Realizou-se uma pesquisa descritiva, quantitativa com coleta de dados apoiada nos relatórios da avaliação da qualidade em enfermagem da instituição, de 2002 a 2009. Atribuiu-se ao item "Anotação de Enfermagem", os critérios completo, incompleto, não preenchido e incorreto, para os quais se adotou como satisfatório: acima de 80%, abaixo de 15%, abaixo de 5% e 0%, respectivamente. **Resultados:** A divisão de internamento atingiu satisfação, em 2007, com 82,2% das anotações completas. As Unidades de Terapia Intensiva não alcançaram satisfação em nenhum dos critérios. A divisão Materno-Infantil apresentou 90,7% de registros completos em 2009. **Conclusão:** Detectaram-se avanços na qualidade dos registros até 2009 apontando para a conscientização dos profissionais de enfermagem e o investimento da instituição em processos de educação.

Descritores: Registros de enfermagem; Gestão de qualidade; Assistência de enfermagem

RESUMEN

Objetivos: Evaluar La calidad de las anotaciones de enfermería en un hospital universitario. **Métodos:** Se realizó una investigación descriptiva, cuantitativa con recolección de datos en base a los informes de la evaluación de la calidad en enfermería de la institución efectuadas del 2002 al 2009. Se atribuyó al ítem "Anotación de Enfermería", los criterios completo, incompleto, no llenado e incorrecto, para los cuales se adoptó como satisfactorio: encima del 80%, abajo del 15%, 5% y 0%, respectivamente. **Resultados:** La división de internamento alcanzó un resultado satisfactorio en el 2007, con el 82,2% de las anotaciones completas. Las Unidades de Cuidados Intensivos no alcanzaron el nivel satisfactorio en ninguno de los criterios. La división Materno-Infantil presentó el 90,7% de registros completos en el 2009. **Conclusión:** Se detectaron avances en la calidad de los registros hasta el 2009 apuntando para la concientización de los profesionales de enfermería y la inversión de la institución en procesos de educación.

Descriptores: Registros de enfermería; Gestión de calidad; Atención de enfermería

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¹ Resident in Nursing Service Management at Universidade Estadual de Londrina – UEL – Londrina(PR), Brazil.

² Ph.D. in Nursing. Professor, Nursing Department, Universidade Estadual de Londrina – UEL – Londrina(PR), Brazil.

³ Ph.D. in Public Health. Professor, Nursing Department, Universidade Estadual de Londrina – UEL – Londrina(PR), Brazil.

⁴ M.Sc. in Nursing. Nurse, Nursing Care Quality Control Advisory Council, Hospital Universitário Regional do Norte do Paraná - Londrina (PR), Brazil.

INTRODUCTION

Along with global events like the technical-scientific development and political, social and economic changes, different healthcare sectors have been joining efforts to guarantee the quality of their products⁽¹⁾. Institutions in a wide range of areas have attempted day by day to achieve excellence in the market, investing in the quality of their services with a view to satisfying their users⁽²⁾.

The decades from 1950 to 1970 were marked by product-focused management. As from the 1980's, the quality and productivity proposal was evidenced and entailed changes in management forms⁽³⁾. Organizations were reoriented towards quality management, which represents a key instrument to sustain institutions in a competitive market⁽¹⁾.

In nursing, informal quality control has always existed, with a view to care delivery in the best possible way. The arrival of the Nursing Process permitted organizing nursing services through the application of systemized care and which makes it possible to assess the delivered care⁽⁴⁾.

In this context, Wanda de Aguiar Horta proposed a conceptual nursing care organization model that comprises six consecutive steps: history, diagnosis, assistance plan, care plan or nursing prescription, evolution and nursing prognosis. This method permits systemized care organization, including the possibility of care records, allowing all team members to know about decisions made, actions taken and outcomes achieved through care delivery⁽⁵⁾.

Before nursing care systemization, records were limited to reports on care delivered in response to medical requests. In 1856, in her work "*Notes on nursing*", Florence Nightingale disseminated the idea that facts should be reported, so that the medical team would know about what happened with their patient⁽⁶⁾.

As the nursing team provides 50% of care information, today, it is expected that the records this team provides permit permanent communication among multiprofessional team members, transmitting information that facilitates planning, clinical and management decision making and care continuity⁽⁷⁾.

Besides permitting the effectiveness of the communication process, nursing records make it possible to assess nursing care⁽⁸⁾. Therefore, records need to be valued and elaborated with quality, that is, with reliable information, coherence, according to the patient's true conditions and reporting on the care that was actually delivered⁽⁶⁾.

Assessing the records permits identifying the weak points that need improvement in the nursing work process and, in the execution of this process, the audit is used as a work instrument for a detailed review of

nursing notes, with a view to surveying care improvement methods based on diagnoses reached⁽⁹⁾.

The trajectories of the theme nursing notes are outlined as the theme is studied. According to authors⁽⁶⁾, in 2006, 51 texts on the theme "Nursing Notes" were surveyed. They observed that the eldest text dated back to 1957, elaborated by a nurse and member of the Congregation of Sisters of Saint John, who already mentioned the importance of notes in nursing services.

In view of the importance of nursing notes in the legal context, with a view to effective communication and in the attempt to assess the quality of care nursing teams deliver, the following questions emerged: How do nursing professionals address records on the care delivered? Has any evolution occurred in the quality of nursing notes in recent years? These research results should contribute to research on the theme and permit assessing the qualitative trajectory of nursing notes at the institution, contributing to the identification of potentials and weaknesses based on concremented data. In this sense, this research aimed to assess the quality of nursing notes at a university hospital between 2002 and 2009.

METHODS

A quantitative and descriptive research was accomplished, based on secondary data made available by the Nursing Directory - Nursing Care Quality Control Advisory Council (NCQCAC) of a university hospital. This advisory council was created in 1998 with a view to guaranteeing safe and humanized nursing care delivery to clients. It is active in the qualitative assessment of nursing services, monitoring the category's work process and supporting permanent education activities according to the nursing team's training needs.

Data collection was based on the nursing prescription audit reports the NCQCAC issued between 2002 and 2009. These data take the form of positiveness percentages in relation to the quality standard of nursing activities per hospitalization unit. As three reports are issued per year, annual averages were calculated to obtain the values presented in this research.

This advisory council audits the nursing prescriptions with the help of a specific instrument that addresses six items, which are – identification data; elaboration of nursing prescription; nursing notes; nursing control; execution of the medical prescription; specific care delivered at Adult Intensive Care Unit I and II, Pediatric and Neonatal Intensive Care Unit.

Each of these items has indicators representing the guiding questions in data collection by the NCQCAC, to which the following criteria are attributed: complete, incomplete, not filled out and incorrect.

Both the instrument and the assessment method are

based on the studies by Cianciarullo et al.⁽¹⁰⁾ and Cianciarullo⁽¹¹⁾ and adapted by Haddad⁽⁴⁾.

This study was limited to the analysis of the item “nursing notes”, which includes 19 indicators to guide the assessment process.

Management of the hospitalization sectors is organized at the institution, so that these are distributed by divisions. These divisions join units with similar characteristics, some of which included in this study – the hospitalization division, which includes the female and male units, tuberculosis and infectious disease sectors; Intensive Therapy Unit (ITU) division, which comprises the adult ITUs; the maternal-infant division, with pediatrics, pediatric ITU, neonatal ITU and Intensive Care Unit and maternity.

Annual means were calculated per hospitalization unit, after which the means per division were calculated.

To facilitate assessment, the NCQCAC uses ideal percentages of positiveness with regard to outcomes, as described in the data shown in Chart 1.

These same positiveness percentages were used in this study to optimize the assessment, in line with the proposed objectives.

Data were processed and analyzed in Excel software and presented as tables.

Approval for this research was obtained from the Institutional Review Board at Universidade Estadual de Londrina, under Opinion No. 063/09.

RESULTS

The results emerged based on the calculations of annual means regarding the quality of nursing notes at each division of the study institution. The hospitalization division, which includes the male, female, infectious

diseases and tuberculosis, displayed considerable advances in compliance with nursing records. These sectors showed improvement in the quality of their nursing records between 2000 and 2009, like the fully satisfactory criterion reached (higher than 80%), equaling 82.2% as from 2007 and keeping up adequate levels until 2009 (Table 1).

When increasing scores for the completeness criterion, percentages for incomplete nursing notes significantly dropped, reaching satisfactory levels in 2004, at 11.4% (below 15%), and varying but maintaining adequate levels over the years. The existence of at least one nursing note was consolidated as from 2008, when satisfactory levels were reached for the not completed criterion (below 5%), which continued within the required standards until 2009 (Table 1).

Intensive Therapy Units showed unsatisfactory scores on the four criteria analyzed. Percentages varied for the completeness criterion during the study period. In 2009, only 73.7% of nursing notes were considered complete, below the positiveness percentage recommended in this research. It was observed that the score for the incompleteness criterion increased to 18.9% in 2009, while the ideal score would be below 15%. The not completed criterion continued above 5%, but with a downward movement in recent years, pointing towards growing concerns with the existence and execution of nursing notes (Table 2).

In 2002 and 2008, the NCQCAC trainees did not collect any data, due to an epidemic episode that altered the work process and restricted people’s access to ITUs-.

The Maternal-Infant Division, which includes the maternity, pediatrics, pediatric ITU, neonatal ITU and ICU at the study institution, has showed satisfactory scores since 2005, when it reached 82.6% of complete

Chart 1 – Satisfaction levels according to criteria used in nursing note quality assessment by the Nursing Care Quality Control Advisory Council (NCQCAC) of a university hospital.

Satisfaction level	Assessment criteria			
	Complete	Incomplete	Not Completed	Incorrect
Satisfactory	Above 80%	Below 15%	Below 5%	0%
Unsatisfactory	Below 80%	Above 15%	Above 5%	Above 0%

Table 1 – Percentages for hospitalization division of a university hospital, according to nursing notes quality assessment criteria, 2002 to 2009.

Assessment criteria	Year							
	2002	2003	2004	2005	2006	2007	2008	2009
	%	%	%	%	%	%	%	%
Complete	52.7	64.1	76.1	75.5	75.8	82.2	82.6	88.2
Incomplete	38.8	26.9	11.5	10.4	13.1	5.0	12.4	7.5
Not completed	8.4	7.4	10.0	10.8	8.4	11.1	2.9	3.0
Incorrect	0.1	1.6	2.4	3.3	2.7	1.7	2.1	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

nursing notes (Table 3).

Data in Table 3 show a quality deviation in 2008, when the percentage score for the completeness criterion dropped to 77.7% (below 80%). In 2009, quality was recovered with 90.7% of complete nursing records. The incomplete assessment criterion reached ideal scores (below 15%) as from 2004 (8.5%), showing an important evolution until 2009. As for non-completed notes, the division reached quality scores in 2009, when 4.3% of nursing records were executed.

As for the incorrectness item, for which a positiveness percentage of 0% was set, none of the divisions in this study reached satisfactory scores. The hospitalization Division reached the best score in 2009, with 1.3% of nursing notes elaborated incorrectly.

According to the general analysis of the three

divisions, quality was achieved in the completeness of nursing notes in 2008, with 80.1%, which continued satisfactory until 2009, when 84.2% of notes had been executed completely. In line with this increase, a drop in the incompleteness criterion was observed, reaching 10.0%, which indicated nursing professionals' greater concern with describing all care phases, as well as the general conditions of patients under their responsibility. The item not completed reached satisfactory scores in 2008 and continued at ideal levels in 2009, with 4.1% (Table 4).

DISCUSSION

The aim of nursing notes is to register information on care delivery, to guarantee communication among

Table 2 – General annual percentages for the Intensive Therapy Unit Division of a university hospital, according to nursing notes quality assessment criteria, 2002 to 2009.

Assessment Criteria	Year							
	2002*	2003	2004	2005	2006	2007	2008*	2009
	%	%	%	%	%	%	%	%
Complete	-	60.3	68.7	65.9	77.6	61.7	-	73.7
Incomplete	-	18.7	15.5	11.2	12.9	11.0	-	18.9
Not completed	-	19.5	14.5	22.0	8.5	22.6	-	5.1
Incorrect	-	1.5	1.3	0.9	1.0	4.7	-	2.3
Total	-	100.0	100.0	100.0	100.0	100.0	-	100.0

* Scores for 2002 and 2008 are not available for this division, due to an epidemic episode that made it impossible to collect data for those years.

Table 3 – General annual percentages for the Maternal-Infant Division of a university hospital, according to nursing notes quality assessment criteria, 2002 to 2009.

Assessment Criteria	Year							
	2002	2003	2004	2005	2006	2007	2008	2009
	%	%	%	%	%	%	%	%
Complete	60.2	67.1	72.7	82.6	81.8	83.1	77.7	90.7
Incomplete	25.8	16.5	8.5	7.3	6.5	5.0	11.9	3.6
Not completed	13.8	12.9	13.4	8.4	10.6	9.7	6.3	4.3
Incorrect	0.2	3.5	5.4	1.7	1.1	2.2	4.1	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 4 – Annual percentages for the Hospitalization, ITU and Maternal-Infant Divisions of a university hospital, according to nursing notes quality assessment criteria, 2002 to 2009.

Assessment Criteria	Year							
	2002*	2003	2004	2005	2006	2007	2008*	2009
	%	%	%	%	%	%	%	%
Complete	56.4	63.8	72.6	74.6	78.5	75.7	80.1	84.2
Incomplete	32.4	20.1	11.8	9.6	10.8	7.0	12.2	10.0
Not completed	11.1	13.2	12.6	13.8	9.1	14.5	4.6	4.1
Incorrect	0.1	2.9	3.0	2.0	1.6	2.8	3.1	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Scores for 2002 and 2008 did not include the percentages of the ITU Division, due to an epidemic episode that made it impossible to collect data for those years.

health team members and permit the continuity of the multiprofessional work process, guaranteeing security to patients and support from the legal and ethical viewpoints⁽¹²⁾.

The results point towards a qualitative improvement in nursing records at the adult hospitalization units which are part of the Hospitalization Division and the Maternal-Infant Division, reaching 2009 with satisfactory levels for the existence of notes and their completeness.

These results permit identifying the efficacy of nursing records to transmit information about care delivery to patients and problems, granting the team at this teaching hospital knowledge on all events. For existing records to reach this goal, they should be made completely and be updated, addressing all nursing actions, patients' clinical and psychological manifestations and procedures performed⁽¹³⁾.

Nursing notes at Intensive Therapy Units, on the opposite, did not permit the achievement of their goals, as they did not reach satisfactory scores regarding the completeness of the information they contained, which does not permit effective communication among team members, nor ethical-legal support.

When attributing causes to this fact, one can deduce that, in view of their technical skills, professionals working at these units are more concerned with patient observation and work performance upon demand when complying with patient care activities that are often intense, relegating the execution of nursing care delivery records to the background. In view of the need to have at least one note for every six-hour period, according to institutional standards, this action is performed for the sake of task compliance, without any commitment to the quality of records.

These results are in accordance with other studies that found inadequate nursing notes. In a research accomplished at a medium-sized teaching institution in the interior of Paraná State, Brazil, analyzing five files of patients hospitalized at an adult ITU, who were later forwarded to hospitalization units at the same institution, showed that most records were incomplete, not permitting the provision of data to support the continuity of the patient care process⁽⁷⁾.

A research carried out at hospitalization units and the Intensive Therapy Unit of a teaching hospital in the interior of Paraná in 2004 revealed that the surgical clinic reached the desirable quantity of nursing notes, indicating the lack of commitment to nursing records at the ITU, which should be elaborated carefully and more frequently, reporting on all events that involved the severely ill patients⁽¹³⁾.

In view of the severity and intensive care needs of patients hospitalized at intensive therapy units, there is greater need to control the care delivered and patient

conditions, which can be achieved through the records. Based on comprehensive data, information can be transmitted among multiprofessional team members with a view to supporting future conducts⁽¹⁴⁾.

Nursing records represent the most important proof of nursing care quality. Effective notes, although hard to define, should be considered with a maximum level of completeness, elaborated with correct information and which address the care delivered and findings that approach the patient's actual conditions more closely⁽⁷⁾. In this approach, according to the results at the three divisions, inadequacies can be identified in terms of reliable information, with the incorrectness criterion above reliable levels, evidencing that, despite the existence of nursing notes, these are partially insufficient in terms of reliability regarding some aspects related to clients' clinical conditions.

Like the Intensive Therapy Units, the Maternal-Infant Division covers more enhanced care, especially at the Neonatal Intensive Therapy Unit, taking care of critically ill infants. In a context of technological development and medical advances, the intensive care units that emerged in the 1960's have a great technological apparatus and accumulated technical knowledge at their disposal, permitting greater survival for premature infants⁽¹⁵⁾.

The results for the Maternal-Infant Division show satisfactory scores regarding the quality of the nursing notes, which are executed completely. This shows greater adherence, professional commitment to record quality and knowledge appropriation about their importance.

These results exceed those found in other studies, where the nursing process has not been well established yet, so that records do not demonstrate quality. A study developed at a Neonatal Intensive Therapy Unit of a medium-sized hospital in Rio Grande do Sul showed that the Nursing Process is not systematically applied and that nursing records remain very poor. Health professionals mentalize the situations and transmit them informally and, in most cases, verbally. Techniques are more valued, to the detriment of event reports⁽¹⁶⁾.

Critically ill newborns need special and continuous care, so that an intervention plan permits guiding and systemizing care delivery. Together with these advances, nursing attempts to improve its way to take care and nurses, as the characters who trigger the process, are responsible for stimulating and directing, through their scientific knowledge, child care practice⁽¹⁶⁾.

It should be highlighted that the nursing evolution only existed at the ITU of the study institution, so that technical professionals are responsible for making nursing notes at this sector. At other care units, on the other hand, where the nursing evolution does not exist, nurses can also use the fields destined for nursing notes, so that these professionals are also targeted in nursing

record assessment processes.

Written communication in the form of nursing notes is essential, as care practice generates countless pieces of information that should not be lost, but registered. Thus, continuous training and the improvement of the nursing conduct registration process are necessary to guarantee care quality⁽¹⁵⁾.

The analysis of the three divisions' mean scores revealed an evolution in the quality of nursing notes. One point that should be highlighted in the discussion of this improvement was the technical and scientific refinement and the presence of a Training and Permanent Education Department at the study institution. Its activities are directed at nursing professional training through workshops, courses, lectures, with a view to achieving training and professional recycling. Between 2004 and 2009, this Department held six training programs on nursing notes for nurses, nursing technicians and auxiliaries.

The education process comprises practices aimed at changing formerly adopted care models, together with technical and social modifications in the global scenario. It aims to enhance and encourage self-development, train professionals through knowledge dissemination and insert new professionals through recruitment, selection and training processes⁽¹⁵⁾. In this context, nurses play a fundamental role as multipliers of education strategies aimed at improving care quality⁽¹⁷⁾.

Workers are much more than staff members. They are also actors in daily reality and protagonists of changes.

REFERENCES

- Duarte MSM, Silvino ZR. Acreditação hospitalar x qualidade dos serviços de saúde. *R Pesq: Cuid Fundam Online*. 2010;2(Supl):182-5.
- Rocha ESB, Trevizan MA. Quality management at a hospital's nursing service. *Rev Latinoam Enferm*. 2009;17(2):240-5.
- 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.
- Haddad MCL. Qualidade da assistência de enfermagem: o processo de avaliação em hospital universitário público [tese]. Ribeirão Preto: Escola de Enfermagem de Ribeirão Preto da Universidade de São Paulo; 2004.
- Venturini DA, Marcon SS. Anotações de enfermagem em uma unidade cirúrgica de um hospital escola. *Rev Bras Enferm*. 2008;61(5):570-7.
- Carrijo AR, Oguisso T. Trajetória das Anotações de Enfermagem: um levantamento em periódicos nacionais (1957-2005). *Rev Bras Enferm*. 2006;56(Spe):454-8.
- Matsuda LM, Silva DMPP, Évora YDM, Coimbra JAH. Anotações/registros de enfermagem: instrumento de comunicação para a qualidade do cuidado? *Rev Eletrônica Enferm*. 2006;8(3):415-21.
- Vasconcelos MM, Gribel EB, Morais IHS. Registros em saúde: avaliação da qualidade do prontuário do paciente na atenção básica, Rio de Janeiro, Brasil. *Cad Saúde Pública = Rep Public Health*. 2008;24(Supl 1):S173-82.
- Luz A, Martins AP, Dyniewicz AM. Características de anotações de enfermagem encontradas em auditoria. *Rev Eletrônica Enferm*. 2007;9(2):344-61.
- Cianciarullo TI, Gualda DMR, Melleiro MM, organizadoras. Indicadores de qualidade: uma abordagem perinatal. São Paulo: Ícone; 1998.
- Cianciarullo TI. C & Q: teoria e prática em auditoria de cuidados. São Paulo: Ícone; 1997.
- Draganov PB, Reichert MCF. Avaliação do padrão dos registros de Enfermagem. *Rev Enferm UFPE on line*. 2007;1(1):36-45.
- Matsuda LM, Carvalho ARS, Évora YDM. Anotações / registros de enfermagem em um hospital-escola. *Ciênc Cuid Saúde*. 2007;6 (Supl 2):337-46.
- Andrade CR, Chianca TCM, Werli AR, Couto CR. Avaliação da qualidade do registro do balanço hidroeletrólítico. *Rev Enf Hosp Online*. 2009;1(1):3-4.
- Ferreira VR. Análise dos eventos adversos em uma unidade de terapia intensiva neonatal como ferramenta de gestão da qualidade da assistência de enfermagem [dissertação]. Belo Horizonte: Escola de Enfermagem da Universidade Federal de Minas Gerais; 2007.
- Duarte APP, Ellensohn L. A operacionalização do processo de enfermagem em terapia intensiva neonatal. *Rev Enferm*

Therefore, nurses should serve as motivating agents who stimulate participation in care decisions, so that they feel responsible for care and commit to high-quality care delivery⁽¹⁸⁾.

Another aspect that is inherent in the education process and which may have contributed to the improvement in care quality, especially in the correct application of the Nursing Process, is the professionals' release during work hours for training, guaranteeing greater participation, especially among professionals with two or more job activities⁽¹⁸⁾.

FINAL CONSIDERATIONS

Based on the obtained results, the researchers hope to stimulate discussions on the importance of quality assessment, as an effective management tool in the search for safe and risk-free care.

Effective nursing records would be achieved through the refinement of technical staff members' knowledge on their participation in the development of the Nursing Process. Therefore, nurses as care managers and technical staff need to be oriented in this sense.

In general, the evolution in the quality of nursing notes could be observed over the years, through satisfactory scores for the analyzed criteria, reflected nursing professionals' increased concern with the quality of records, the Training Department's actions and the qualification of technical staff at the institution, including an increasing search for academic qualification.

- UERJ, 2007;15(4):521-6.
17. Silva GM, Seiffet OMLB. Educação continuada em enfermagem: uma proposta metodológica. *Rev Bras Enferm.* 2009;62(3):362-6.
 18. Vituri DW. Desenvolvimento e validação de um instrumento para avaliação da qualidade do cuidado de enfermagem [dissertação]. Maringá: Departamento de Enfermagem da Universidade Estadual de Maringá; 2007.