



Federal Fluminense University

AURORA DE AFONSO COSTA
NURSING SCHOOL



Original Articles



Demand of hospitalized surgical patients information: a descriptive and prospective study

Annecy Tojeiro Giordani¹, Debora Viviane Stadler¹,
Gabriela Machado Ezaías Paulino², Renata Rodrigues Zanardo¹,
Helena Megumi Sonobe³, Maria Aparecida Valerio⁴

1 State University of North of Paraná

2 Hospital Dr. Anísio Figueiredo of Londrina

3 University of São Paulo

4 Engineering and Agricultural Development Sector

ABSTRACT

Aim: to identify post-operative complications in patients undergoing surgical procedures in a hospital of medium complexity, the difficulties experienced in self-care during the post-operative period and the guidance provided in the discharge process. **Method:** a descriptive study, quantitative prospective undertaken in patients who underwent surgical treatment in a hospital of Paraná. **Results:** in a total of 110 patients, 70 (64%) participated, and of these, 57 (87%) had some type of complication and 67 (95%) said they had received instructions for discharge. Although 38 (54%) inquiries did not have doubts about self-care, 26 (37%) reported doubts about changing the dressing and 6 (9%) about the correct use of medication. As for the professional advisor, 45 (64%) were instructed by nurses, 40 (58%) by doctors and 4 (5%) by other professionals. **Conclusion:** It showed the need for more efficient educational actions by health professionals in the peri-operative period.

Descriptors: Surgical Patients; Care; Planning.

INTRODUCTION

Hospitalization causes the patient to create expectations that are directly reflected in their recovery, awakening feelings that are exacerbated when the need arises for a surgical intervention. A surgical procedure is a stress factor, numerous uncertainties translated by anxiety-inducing feelings of fear, anguish and insecurity. This status, in general, changes the patient's self esteem, their psychological and physiological needs, and consequently, their physical and emotional balance. It should be noted that fear is the main feeling experienced by patients in the peri-operative period, it can be avoided by surgery previous orientations, which reduces anxiety⁽¹⁾.

The surgery is seen by the patient as something paradoxical, because at the same time will relieve the pain and will be effective in treating the problem, but it is also an assault on the body, which will lead to the development of coping mechanisms. Stress in surgical patients is inevitable, but the post-operative outcome is more positive in those who develop more appropriate coping strategies, and it is essential to an educational care⁽²⁾.

Therefore, care is the nurse's action object, being essential in the treatment and in educational interventions for patients and families, to promote the recovery and well-being during the hospitalization period, training the patient for self-care after hospital discharge. In turn, self-care occurs when a patient develops care practices for their own benefit, which are critical for recovery, as it will help them improve their social activity and return to their family function, positively influencing adherence to treatment⁽³⁾.

When the patient is informed about the

need for a surgical procedure, a process starts in which the patient and his family will need to adapt to a new life routine to face this challenge. It is essential that clear and accurate information about the recovery period is transmitted after hospital discharge⁽³⁾.

For this, it uses the Systematization of Nursing Assistance (SAE), a method that directs the actions of the nurse in daily professional practice, taking into consideration the individual needs of the patient, family and community. Nursing has its own taxonomy, which not only involves the standardization, but also the need to relate assistance to scientific principles and thus provide quality care for the hospitalized patient⁽⁴⁾.

The assistencial model called the Systematization of Perioperative Nursing Care (SAEP) allows a comprehensive and individualized assistance, helping the patient and his family to assimilate the procedure to which the patient is subject, with the intention to alleviate his fear and reduce the risks of the surgical procedure. The SAEP started in 1979, when the nurse Wanda de Aguiar Horta identified the need for a specific SAE for Surgery Center (CC) that met all the care and management needs. With its deployment, we can provide a nursing care planned and organized⁽⁵⁾.

From the point of view of the teaching-learning process, the SAE aims to reduce surgical stress as well as symptoms of anxiety, feelings of insecurity and fear, and in addition, to enable the understanding of the surgery by the patient and their family. This ensures physiological recovery and the extent of post-operative rehabilitation - including the resumption of daily activities closer to the time prior to becoming ill. However, health professionals are not always able to provide information that truly meets the expectations

of patients. In addition, the cultural behavior of the one who receives care enhances and maintains the attitude of these professionals. In general there is a lack of the right to receive information during the hospitalization process by the population, as well as information to ensure proper post-operative recovery⁽⁶⁾.

Nursing plays a fundamental role in the treatment and in educational interventions for patients and their families. Many questions may arise about the surgical process, a novelty for the patient and his family, leaving nurses to assess and identify the educational needs of these individuals considering their beliefs, values, support and self-knowledge about their health condition⁽³⁾.

As for nurses the care quality is based on ethics and aspects of professional competence, for the patient the attributes of quality care are related to interpersonal aspects, including the provision of information and respecting their needs. From this perspective, perioperative nursing care should be planned by the nurse to ensure individuality and demand of patient's needs, i.e. in surgical units, professionals must be prepared to develop educational activities, to ensure the recovery of the patient with a view to the practice of self-care⁽⁷⁾.

Knowledge of patient's sociodemographic characteristics and clinical condition allows surgical planning peri-operative nursing care focused on the individual's needs, to ensure recovery and post-operative rehabilitation. Nurses can and have the opportunity to individualize care in their daily activities, performing techniques, teaching and providing explanations to patients and their families, respecting their limits and capabilities^(7, 8).

In the previous study⁽⁹⁾, with a random sample of 110 medical records of patients who underwent surgery in the first semester

of 2013, there was a female predominance (61-55%), and surgeries both in patients aged under 20 (36%) and adults aged between 41 and 60 years (33%). In addition, 80 patients (73%) had no comorbid conditions, followed by 16 records (15%) isolated of hypertension, and five associated with diabetes mellitus and elevated cholesterol levels. Antibiotic prophylaxis was used in 80 patients (73%), being elective surgery (76-69%) and emergency (34-31%). Of the total of 110 surgeries 27 (25%) were orthopedic surgeries, 26 (24%) general surgeries, 25 (23%) vascular surgeries and 32 (28%) surgeries of other specialties. Regarding the anesthesia, the most used was epidural (63-57%), followed by spinal (36-33%), with duration of 30 to 60 minutes in 48 surgeries (44%), 61 to 90 minutes in 14 (13%) surgeries, and of 91 to 120 minutes in 14 (13%) surgeries, respectively.

This study aimed to identify post-operative complications in patients undergoing surgical procedures of medium and small size in a hospital of medium complexity, as well as the difficulties experienced in self-care during the post-operative period and information provided in the process of discharge.

METHOD

Descriptive, prospective study with a quantitative approach, developed in the period from January to June 2014. This corresponds to the second phase of a research lasting three years carried out in a medium complexity hospital in the city of Londrina / PR, non-profit institution and linked to the Unified Health System (SUS).

The hospital had 117 active inpatient beds, distributed between the sectors of Emergency Care, Inpatient for Medical and

Surgical Clinic, both adults and pediatric patients, as well as a Surgery Center for the performing of elective and urgency surgery, small and medium size.

As inclusion criteria for this study in the first stage⁽⁹⁾, we considered the patients undergoing surgery in the period from January to June 2013 or their families. Those whose medical records were not located in the period of data collection were excluded.

The study was approved by the Ethics Committee of the University of North of Paraná, under approval n°. 459623.

In this second phase of the study, data collection was carried out with interviews by telephone contact with the patient or a close family member who was able to provide the necessary information for research such as origin, profession/occupation, family income, study period in years, post-operative complications, discharge guidelines, questions or difficulties for self-care at home and the identification of the individual who performed the guidelines for the hospital.

As inclusion criteria, they are required to have been part of the random sample of the study's first phase and the patient or family must be able to provide the requested information. Were excluded those who were not located after three telephone contact attempts at different times and on different days of the week. Phone calls were made to 110 patients in the random sample of the first stage^(n-REUOL), however it was only possible to contact 70 individuals. 40 subjects were excluded due to failure to answer phone calls; phone number being either unavailable to receive calls, non-existent or not belonging to the patient, no contact number registered in the medical record, family not being able to provide reliable information about the patient or the patient wasn't at home. The

data collection instrument was based on clinical experience of the authors and scientific production on the subject.

The data were encoded in a database (spreadsheet) in MS Excel XP application, powered with double entry to ensure the reliability of the data collected and subsequently exported and analyzed using the Statistical Package for Social Sciences (SPSS) version 19.0. For the description of the results, we used the frequency distribution of the variables, which are presented in Table 1.

RESULTS

Table 1 - Socio-demographic and clinical profile of 70 surgical patients, study participants treated at the hospital in the first half of 2013. Londrina, 2015.

Approach	Patients	
	N	%
Origin		
Londrina	64	91
Other	6	9
Occupation		
Retired	12	17
Students and children at day care	24	34
Merchant	8	11
Housewife	8	11
General services	6	9
Other	12	17
Family Income		
Up to 1SM	8	12
1 SM to 3 SM	50	71
3 SM to 5 SM	12	17
Postoperative Complications		
None	9	13
Pain	43	61
Fever	2	3
Nausea	13	19
Edema	16	23
Dehiscence	6	9
Bleeding	3	4
Infection	3	4
Others	18	26

Guidance received at hospital discharge		
Medications usage	65	93
Care with wound and dressing	26	37
Outpatient return	49	70
Urgent care	0	0
Referrals to other units	0	0
No guidance	3	4
Guidance by		
Doctor	40	58
Nurse	45	64
Other	4	5
Difficulties with self-care		
None	38	54
Dressing	26	37
Intake of Medications	6	9
Others	6	9

SM: minimum wage
Source: own elaboration

Table 1 summarized the data collected during the interviews with the 70 patients contacted by telephone, highlighting the prevalence of individuals living in Londrina, total of 64 patients (91%). The other 6 patients are from other regional cities, such as the health institution where the research was carried out which is located in a regional health unit composed of 21 municipalities, that refer patients to Londrina for elective surgery and for medical and urgent surgical care. With regard to occupation, there was a predominance of students and children who attend day care, 24 patients (34%), followed by 12 retired individuals (17%), as family income, 50 patients (71%) have families with an average income between one and three minimum wage. None of the patients claimed that family income had influenced in adherence to care after discharge.

When asked about the occurrence of post-operative complications, 57 patients (87%) reported having presented some type of complication, especially pain for 43 subjects (61%), as well as the presence of ede-

ma by 16 patients (23%). The occurrence of fever and dehiscence of the surgical wound, despite its low incidence in the sample, may represent major complications, since they stand out as criteria for surgical site infection diagnoses (ISC). In this study, three patients (4%) reported having been diagnosed with ISC, in a smaller percentage other complications such as varicose veins, limb numbness, difficulty swallowing and ambulation appeared.

Among the interviewees, 67 (95%) reported having received hospital discharge guidance on the use of medication, and 49 subjects (70%) on outpatient treatment. Only 26 (37%) received information on the changing the dressing, other self-care guidelines in the post-operative period were not identified. Among the interviewees, 3 (4%) reported having received no guidance.

A representative number of patients denied the occurrence of questions on self-care (38-54%). Corroborating the data related to the care of the surgical wound, 26 patients (37%) reported difficulties with the realization of the dressing, cleaning and maintenance of the surgical wound. Still others reported doubts about the time they should use socks in the post-operative period indicated for varicose veins and to minimize post-operative edema.

Faced with the guidance received at discharge, only six subjects (9%) reported difficulties in the use of medications, which demonstrates the effectiveness of the information provided by the health team, the aspect most mentioned by the participants.

Still, 45 patients (64%) and 40 patients (58%) reported having received guidance from the nurse and doctor, respectively, it is important to emphasize that most patients did not know how to distinguish the pro-

fessional nurse from other members of the nursing staff (assistants and technicians).

DISCUSSION

It was found that from the total of 70 subjects, 67 (95%) received guidance on the use of the medication, 49 (70%) received guidance on outpatient care, and 26 (37%) received guidance on the completion of dressings. Only 38 subjects (54%) reported no difficulties in self-care. In addition, 26 participants (37%) who received guidelines on the dressing, cleaning and wound maintenance reported difficulties in carrying out this self-care.

ISC is the main post-operative complication in surgical patients, which may increase the morbidity and mortality rates, therapeutic costs, and in addition be an indicator of the quality of care provided⁽¹⁰⁾. It is responsible for 14-16% of all nosocomial infections in hospitalized patients, and is considered the most common among surgical patients. It can be prevented by environment maintenance measures biologically safe in the surgery and the adherence of professionals to aseptic practices. Still, the direct and indirect costs of the ISC treatment are extremely high^(10,11).

The implementation of an ISC surveillance protocol is a tool that is available to hospitals, is an essential element when organizing the follow-up of patients with this complication regarding the evaluation of professionals in the practice, reducing the number of cases⁽¹²⁾.

Pain events deserve special attention because they contribute to an inability state in the patient that is independent of the base disease, transcending the physical and transferring from the spiritual to the emotio-

nal, which can result in a state of prostration, restlessness and exhaustion, further aggravating catabolism in the post-operative period of many patients, especially the elderly and children. In this way, it is necessary to use resources to minimize the symptomatic pain perception, from a multidisciplinary care to use different resources and allow the sum of multiple knowledge to minimize unnecessary energy expenditure⁽¹³⁾.

On the other hand, in the post-operative, pain should not be considered an expectant symptom or go unnoticed to professionals, leaving them to implement control measures.

For the immediate and mediate post-operative, the nurse must develop strategies to prevent complications, how to prevent or stop bleeding by clinical evaluation and continuous observation of the surgical site, and administration of medications, intravenous liquids or blood products, as prescribed by the doctor⁽⁸⁾.

In addition to the care provided during the hospitalization, it is also a function of the nursing staff to prepare the patient for discharge through home care education. Therefore, nursing should carry out a plan identifying the needs of patients, using the SAE to plan a comprehensive care, which is individualized and systematized⁽⁸⁾. In this case, at the time of discharge aspects such as pain, fever, edema, dehiscence, bleeding and infection, to favor self-care at home must be addressed.

It is critical to truly understand the questions presented by the patient or family, as the simple transfer of information, often in addition to not answering questions, can maximize anxiety. Then, preferably, in a quiet environment, professional nurses should establish a dialogue with the patient and their families, in order to guide them to a better recovery and treatment⁽¹⁴⁾.

Commonly, the nursing staff is more concerned in passing guidance on basic procedural care to surgical patients such as performing dressing, administering medications and personal hygiene. Because of this, ends up ignoring the complexity of the needs and expectations of the patient, as it does not offer the attention the patient needs and expects⁽⁷⁾.

Doubts were also reported about the use time of socks in the post-operative period indicated for varicose veins and to minimize post-operative edema.

Although a small percentage (3-4%) of patients surveyed claimed not to have received any guidance in this period, it is necessary to consider it because the provision of adequate information by health professionals is a basic intervention in hospital discharge planning and the post-operative rehabilitation⁽⁷⁾. Health professionals use highly technical language during the process for discharge orientation, which difficults the communication with the patient/family⁽¹⁵⁾.

It is necessary for effective communication that nurses understand the subjectivity of the patient, translating what he feels and how faces the process of hospitalization for surgery. The perception of un verbalized expressions of patients as well as their decoding, assists the nurse in the implementation of effective care and promotes the exchange of information⁽¹⁶⁾. Good communication helps in the nursing process, i.e., it facilitates the identification of diagnostics and the development of a care plan that ensures continuity of care. Post-operative care is essential, as it is the first period of the patient's adaptation to the resumption of daily activities after surgery⁽⁴⁾.

Knowing the patient's questions is to be aware of their expectations and verbalized or

perceived characteristics. But this is not enough. It is necessary to know the time and way to provide the information without causing anxiety and hindering the interpretation and understanding of the patient. An important strategy in the act of directing at the time that precedes the discharge is a possible post-discharge follow-up in an outpatient environment⁽¹⁴⁾.

Understanding the information is critical to patient recovery, and how to transmit it is crucial to understanding the same, it is important to identify how the patient can better understand the guidelines, as it will be essential to achieving his rehabilitation⁽¹⁴⁾.

The recommendations may be provided in an educational brochure, not just verbally, even for families and patients who do not have the habit of reading, they are of a important value because they help minimize the insecurity and stress, allowing greater tranquility in care at home⁽¹⁷⁾.

Knowledge of nurses about patients and their needs will enable their active participation in this post-discharge self-care. The planning of nursing care for surgical patients should include the implementation of educational interventions considering their physical and psychosocial demands, based on individuality and social context, preparing them to assume greater autonomy and independence, self-care to promote recovery and post-operative rehabilitation. Therefore, it is necessary to know the sociodemographic and clinical profile of surgical patients, as well as post-operative complications and difficulties in self-care at home.

CONCLUSION

This study involved 70 individuals, where 57 (87%) reported some type of post-

operative complication, pain standing out in 43 (61%) patients, presence of edema was reported by 16 (23%) and 3 (4%) were diagnosed with ISC.

In relation to the discharge guidance, although 67 (95%) individuals claim to have received information about the medication, 49 (70%) of outpatients treatment, and 26 (37%) on the dressings, 26 (37%) had doubts, at home, concerning the care of the wound and 6 (9%) with medications. Only 3 (4%) reported having received no guidance.

Regarding the difficulties experienced in self-care, 38 (54%) of the respondents denied having any questions, although 26 (37%) indicated doubts concerning the care of the surgical wound, the dressing and use of medications.

Failures in self-care stem from the deficiency of information at discharge, for which the nurse is responsible, especially when it comes to dressings, the correct cleaning and maintenance of the operative wound. Such failures make it impossible to carry out a continuous and satisfactory home care.

The results of this study indicate the need for greater investment in the realization of educational activities with more efficient strategies for teaching self-care.

REFERENCES

1. Barbosa AC, de Souza Terra F, de Carvalho JBV. Humanization of medical and nursing assistance to perioperative patient at a university hospital. *Revista Enfermagem UERJ*. [internet] 2015 [cited 2015 aug 8];22(5):699-704. Available from: <http://dx.doi.org/10.12957/reuerj.2014.2605>.
2. Daian MR, Petroianu A, Alberti LR, Jeunon EE. Estresse em procedimentos cirúrgicos. *ABCD arq bras cir dig*. [internet] 2012 [cited 2015 aug 8];25(2):118-24. Available from: <http://dx.doi.org/10.1590/S0102-67202012000200012>.
3. Romanzini AE, de Jesus APM, Sasaki VDM, Damiano VB, Gomes JJ. Orientações de enfermagem aos pacientes sobre o autocuidado e os sinais e sintomas de infecção de sítio cirúrgico para a pós-alta hospitalar de cirurgia cardíaca reconstrutora. *Revista Mineira de Enfermagem*. [internet] 2010 [cited 2015 aug 8];14(2):239-43. Available from: <http://www.dx.doi.org/S1415-27622010000200014>.
4. Moreira RAN, Caetano JÁ, Barros LM, Galvão MTG. Nursing diagnoses, related factors and risk factors during the postoperative period following bariatric surgery. *Rev Esc Enferm USP*. [internet] 2013 [cited 2015 aug 8];47(1):168-75. Available from: <http://dx.doi.org/10.1590/S0080-62342013000100021>.
5. Adamy EK, Tosatti M. Sistematização da assistência de enfermagem no período perioperatório: visão da equipe de enfermagem. *Revista de Enfermagem da UFSM*. [internet] 2012 [cited 2015 aug 8];2(2):300-10. Available from: <http://cascavel.ufsm.br/revistas/ojs-2.2.2/index.php/reufsm/article/view/5054/3754>.
6. Costa Junior ÁL, Doca FNP, Araújo I, Martins L, Mundim L, Penatti T, et al. Psychological preparation in patients undergoing surgical procedures. *Estudos de Psicologia (Campinas)*. [internet] 2012 [cited 2015 aug 8];29(2):271-84. Available from: <http://www.scielo.br/pdf/estpsi/v29n2/a13v29n2.pdf>.
7. Razera APR, Braga EM. The importance of communication during the postoperative recovery period. *Revista da Escola de Enfermagem da USP*. [internet] 2011 [cited 2015 aug 8];45(3):632-7. Available from: <http://dx.doi.org/10.1590/S0080-62342011000300012>.
8. de Araújo Saldanha E, Lima FBB, de Sá JD, Fernandes MldCD, de Carvalho Lira ALB, de Oliveira Lopes MV. Defining characteristics present in patients receiving post-operative care after prostatectomy: a transversal study. *Online Braz J Nurs*. 2013 [cited 2015 aug 8];12(3):442-50. Available from: <http://www.objnursing.uff.br/index.php/nursing/article/view/4072>.

9. Giordani AT, Sonobe HM, Ezaias GM, Valério MA, Barra MR, STADLER DV. Profile of surgical patients treated in a public hospital. *Journal of Nursing UFPE*. 2014;9(1):54-61.
10. Aguiar APL, Prado PRd, Optiz SP, Optiz SP, Faro ARMdC. Fatores associados à infecção de sítio cirúrgico em um hospital na Amazônia ocidental brasileira. *Rev SOBECC*. [internet] 2012 [cited 2015 aug 8];17(3):60-70. Available from: [http://itpack31.itarget.com.br/uploads/snf/arquivos/Ano17_n3_%20jul_set2012_\(Fatores_associados_infeccao_de_sitio_cirurgico_em_um_hospital_na_amazonia_ocidental_brasileira\).pdf](http://itpack31.itarget.com.br/uploads/snf/arquivos/Ano17_n3_%20jul_set2012_(Fatores_associados_infeccao_de_sitio_cirurgico_em_um_hospital_na_amazonia_ocidental_brasileira).pdf).
11. Junker T, Mujagic E, Hoffmann H, Rosenthal R, Misteli H, Zwahlen M, et al. Prevention and control of surgical site infections: review of the Basel Cohort Study. *Swiss Med Wkly*. [internet] 2012 [cited 2015 aug 8];142:w13616. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/22949137>.
12. Mabit C, Marcheix P, Mounier M, Dijoux P, Pestourie N, Bonnevalle P, et al. Impact of a surgical site infection (SSI) surveillance program in orthopedics and traumatology. *Orthopaedics & Traumatology: Surgery & Research*. 2012 [cited 2015 aug 8];98(6):690-5. Available from: <http://www.sciencedirect.com/science/article/pii/S1877056812001594>.
13. Florentino D, de Sousa F, Maiworn AI, Carvalho AC, Silva KM. A fisioterapia no alívio da dor: uma visão reabilitadora em cuidados paliativos. *Revista Hospital Universitário Pedro Ernesto*. [internet] 2012 [cited 2015 aug 8];11(2). Available from: <http://www.e-publicacoes.uerj.br/index.php/revistahupe/article/view/8942/6835>.
14. Remonatto AR, Coutinho AOR, de Souza EN. Dúvidas e expectativas de pacientes no pós-operatório de revascularização do miocárdio quanto à reabilitação pós-alta hospitalar: implicações para a enfermagem. *Revista de Enfermagem da UFSM*. [internet] 2012 [cited 2015 aug 8];2(1):39-48. Available from: <http://cascavel.cpd.ufsm.br/revistas/ojs-2.2.2/index.php/reufsm/article/view/3829>.
15. de Lemos Negreiros P, de Oliveira Fernandes M, de Freitas Macedo-Costa KN, da Silva GRF. Comunicação terapêutica entre enfermeiros e pacientes de uma unidade hospitalar. *Revista Eletrônica de Enfermagem*. [internet] 2010 [cited 2015 aug 8];12(1). Available from: <http://www.fen.ufg.br/revista/v12/n1/v12n1a15.htm>.
16. Bax AMC, de Araujo STC A. Expressão não verbal do paciente no cuidado: percepção do enfermeiro em unidade cardiointensiva. *Esc Anna Nery*. 2012 [cited 2015 aug 8];16(4):728-33. Available from: <http://dx.doi.org/10.1590/S1414-81452012000400012>.
17. Santos DRFd, Silva FBL, Saldanha EdA, Lira ALBdC, Vitor AF. Cuidados de enfermagem ao paciente em pós-operatório de prostatectomia: revisão integrativa. *Revista Eletrônica de Enfermagem*. [internet] 2012 [cited 2015 aug 8];14(3):670-701. Available from: <http://repositorio.ufrn.br:8080/jspui/handle/1/11716>.

All authors participated in the phases of this publication in one or more of the following steps, in According to the recommendations of the International Committee of Medical Journal Editors (ICMJE, 2013): (a) substantial involvement in the planning or preparation of the manuscript or in the collection, analysis or interpretation of data; (b) preparation of the manuscript or conducting critical revision of intellectual content; (c) approval of the versión submitted of this manuscript. All authors declare for the appropriate purposes that the responsibilities related to all aspects of the manuscript submitted to OBJN are yours. They ensure that issues related to the accuracy or integrity of any part of the article were properly investigated and resolved. Therefore, they exempt the OBJN of any participation whatsoever in any imbroglis concerning the content under consideration. All authors declare that they have no conflict of interest of financial or personal nature concerning this manuscript which may influence the writing and/or interpretation of the findings. This statement has been digitally signed by all authors as recommended by the ICMJE, whose model is available in http://www.objnursing.uff.br/normas/DUDE_eng_13-06-2013.pdf

Received: 08/08/2015
Revised: 04/18/2016
Approved: 04/27/2016