

RENAL TRANSPLANTATION: INTENSIVE THERAPEUTIC NURSE IN THE IMMEDIATE POST-OPERATIVE PERIOD

Transplante renal: enfermeiro da terapia intensiva no pós-operatório imediato

Transplante renal: enfermero terapéutico intensivo en el post-operatorio inmediato

Iasmim Cristina Zílio¹, Kelly Aparecida Zanella², Cristiane Marolli³, Silvia Silva de Souza⁴, Tatiana Gaffuri da Silva⁵, Bruna Nadaletti de Araújo⁶

How to cite this article:

Zílio IC, Zanella KA, Marolli C, Souza SS, Silva TG, Araújo BN. Renal transplantation: intensive therapeutic nurse in the immediate post-operative period. 2020 jan/dez; 12:1144-1149. DOI: <http://dx.doi.org/0.9789/2175-5361.rpcfo.v12.8021>.

ABSTRACT

Objective: The study's main purpose has been to assess the nurses' understanding vis-à-vis patient care in the immediate postoperative period of renal transplantation. **Methods:** It is a descriptive-exploratory study with a qualitative approach, which was performed in a public hospital from the *Santa Catarina* State, in 2015. The participants were nurses who worked in the Intensive Care Unit with experience in postoperative renal transplant care. Data collection took place through semi-structured interviews, and the Collective Subject Discourse was used for data analysis. **Results:** This study resulted into five Collective Subject Discourses, as follows: the first hours require intensive care; checklist as potentiality in the care of patients undergoing postoperative period of renal transplantation; professional qualification as a strong support in caring; moment of expectation and anxiety for patients; and, the family companion during the postoperative period. **Conclusion:** This research evidenced the strengthening of nurses' knowledge concerning patient care and underlined the use of checklists, as well as the importance of continuing education and relatives as a source of support for patients.

Descriptors: Renal transplantation, critical care, postoperative care.

1 Nursing Graduate by the *Universidade Federal da Fronteira Sul (UFFS)*, MSc student enrolled in the Health Sciences Postgraduate Program by the *Universidade Comunitária da Região de Chapecó (UNOCHAPECÓ)*.

2 Nursing Graduate by the *UFFS*, Postgraduate in Emergency and Urgency by the *Centro Universitário Internacional (UNINTER)*, Registered Nurse at *Hospital Regional São Paulo*.

3 Nursing Graduate by the *UFFS*, Postgraduate student in Emergency and Urgency by the *Universidade Central de Educação Faem Faculdade (UCEFF)*, Registered Nurse at *Hemosc (Chapecó)*.

4 Nursing Graduate by the *UNOCHAPECÓ*, MSc in Nursing by the *Universidade Federal de Santa Catarina (UFSC)*, Professor at *UFFS*.

5 Nursing Graduate by the *Universidade do Vale do Itajaí (UNIVALI)*, PhD student enrolled in the Nursing Postgraduate Program by the *UFSC*, Professor at *UFFS*.

6 Nursing Graduate by the *Universidade de Passo Fundo (UPF)*, MSc in Education by the *UPF*, Professor at *UFFS*.

RESUMO

Objetivo: Avaliar os saberes de enfermeiros no cuidado ao paciente no período pós-operatório imediato de transplante renal. **Métodos:** Estudo qualitativo, realizado no ano de 2015 em um hospital público de Santa Catarina. Participaram enfermeiros que atuavam na Unidade de Terapia Intensiva com experiência em cuidado no pós-operatório de transplante renal. Para a coleta de dados foi utilizado entrevista semiestruturada e a análise foi através do Discurso do Sujeito Coletivo. **Resultados:** O estudo deu origem a 5 discursos do sujeito coletivo: As primeiras horas requerem cuidados intensivos, *checklist* como potencialidade no cuidado de pacientes no pós-operatório de transplante renal, qualificação profissional como ponto forte no cuidado, momento de expectativa e ansiedade para os pacientes e o acompanhante familiar no pós-operatório. **Conclusão:** O estudo evidenciou o fortalecimento de saberes dos enfermeiros, destacou o uso de *checklist*, a importância da educação continuada e de familiares como fonte de apoio aos pacientes.

Descritores: Transplante Renal; Cuidados críticos; Cuidados pós-operatórios.

RESUMEN

Objetivo: Evaluar y reflexionar sobre el conocimiento del enfermero en el cuidado de enfermería al paciente en el período post-operatorio inmediato de trasplante renal. **Métodos:** Estudio cualitativo descriptivo exploratorio, se utilizó la entrevista semiestructurada como forma de recolección de los datos con enfermeros actuantes de la unidad de terapia intensiva del local investigado. **Resultados:** se evidenció un respaldo teórico y práctico por parte de los enfermeros sobre el contexto del trasplante renal y la utilización del *check-list* como herramienta de trabajo. Se destacó la realización de capacitaciones en la institución hospitalaria. La familia fue identificada como relevante en la recuperación del paciente y la necesidad de un enfoque más amplio sobre la temática en la graduación. **Conclusión:** Los enfermeros identifican conocimientos y habilidades esenciales para el cuidado del paciente trasplantado, así como la institución hospitalaria, ya que ofrece oportunidad de perfeccionamiento técnico-científico a los profesionales.

Descriptores: Trasplante Renal; Critical care; Unidad de terapia intensiva; Cuidados de Enfermería; Cuidados posoperatorios.

INTRODUÇÃO

The number of chronic diseases has been increasing significantly associated with increased longevity and lifestyle. Among them, chronic kidney disease stands out, considered to be of high morbidity and mortality, with high incidence and prevalence at an advanced stage in Brazil and worldwide, with a consequent increase in patients on the waiting list for renal transplantation.^{1,2}

According to the *Sociedade Brasileira de Nefrologia (SBN)* [Brazilian Society of Nephrology], renal transplantation is the therapeutic cure option for patients with chronic renal failure. The donation of a healthy kidney from a person who is still alive or deceased to the patient diagnosed with terminal chronic renal failure. This replacement of the diseased organ by the healthy one makes it possible to restore the functions of filtration and elimination of toxins, it also results in a better quality of life for the patient, an objective that is

so desired, given the loss of autonomy that conservative treatment imposes.³

The nursing care provided to patients undergoing immediate postoperative period of renal transplantation must be as complex as the procedure that the patient underwent, and the nursing team, in this work being represented by the nurse, who must have skills considered essential, among them: technical-scientific domain, empathy, teamwork, effective communication and humanized care.⁴

The registered nurse, being the leader of the nursing team, actively participates in all stages of the organ transplantation process. Their activities are broad and specialized, where the satisfactory evolution of the patient is closely related to the care provided and directly with the professional quality of the nurse providing such care. The registered nurse has the task of coordinating nursing services, diagnosing problems early and proposing solutions, developing health education activities in the daily work with a focus on technical-scientific, humanistic and ethical aspects of the nursing team, prioritizing care based on patient safety principles, establishing an effective bond with family members and develop research based on clinical practice so that knowledge about the theme is deepened and disseminated.⁵

Bearing the aforesaid in mind, this study meant to assess the nurses' understanding vis-à-vis patient care in the immediate postoperative period of renal transplantation. And as specific objectives, this work pursued to identify both the potentials and limitations in care provision towards renal transplant recipients.

METHODS

It is a descriptive-exploratory study with a qualitative approach, which was performed in the general Intensive Care Unit (ICU) of a hospital in the Western region of the *Santa Catarina* State. Professional nurses who worked in the ICU of that institution participated in the study, in all work shifts and who had already assisted patients in the immediate postoperative period of renal transplantation, totaling eight professionals, seven assistants and a coordinator.

Data collection took place in September and October 2015, through semi-structured interviews, with the guiding question: How do you provide care to patients undergoing immediate postoperative period of renal transplantation?

The interviews were carried out individually, offering interviewees privacy to obtain reliable information through conversation, which was accompanied by audio recording in a room attached to the ICU. Furthermore, in order not to allow the identification of the interviewed participants, they were named with the letter P for the participant and numbers that included the total of the interviews. It should be noted that nurses were aware of the recordings and authorized them by signing the informed consent form.

The recordings were transcribed, and the data were analyzed using the Collective Subject Discourse (CSD)

technique, which through the construction of a collective discourse using the singular form of the first person expresses a set of similar or complementary individual speeches. This route proposes four methodological figures for making the CSDs, which are as follows: the key expressions (KEs), the central ideas (CI), the anchoring and the Collective Subject Discourse (CSD). For analysis and subsequent presentation of the data, three of the four methodological figures proposed by Lefèvre and Lefèvre were used:⁶ KEs, CI and CSD. After a thorough data analysis, the CSD was built. The analysis revealed KEs related to five CIs that resulted into five CSDs, which are as follows: CSD1: The first hours require intensive care; CSD2: Checklist as potentiality in the care of patients undergoing postoperative period of renal transplantation; CSD3: Professional qualification as a strong support in caring; CSD 4: Moment of expectation and anxiety for patients; CSD5: The family companion during the postoperative period.

The project was approved and appreciated by the Research Ethics Committee from the *Universidade Federal da Fronteira Sul – UFFS, Campus Chapecó*, under the *Certificado de Apresentação para Apreciação Ética (CAAE)* [Certificate of Presentation for Ethical Appraisal] No. 49499215.8.0000.5564. Previously, the project was evaluated and approved by the general nursing coordination, with the signature of the legal representative of the health institution.

The development of the research maintained its commitment to the protection of human rights, according to the Resolution No. 466/12 from the National Health Council, meeting the fundamental ethical and scientific requirements through the principles of autonomy, beneficence, non-maleficence, justice and equity.

RESULTS

Among the eight registered nurses interviewed, the average age was 31 years old, the majority being female, and only one male. Concerning the professionals' training time, the average ranged from three to 15 years. In regard to specializations, there were found the following data: one professional with no specialization, five with specialization in ICU, and two with specialization in other areas, such as acupuncture and medical-surgical nursing.

CSD1: The first hours require intensive care

The care provided to post-transplant patients is very intensive, especially in the first hours, there is a lot to deal with; we need to pay attention to the hemodynamic state, blood pressure control, see the respiratory function, presence of fever. We still need to control blood glucose, and pay close attention to water control and replacement, diuresis, abdominal circumference, drains, among many

other things; if we don't pay special attention to kidney function, we might lose the transplant. (P3, P1, P2)

CSD2: Checklist as potentiality in the care of patients undergoing postoperative period of renal transplantation

As a routine we use a Checklist, it facilitates care provision a lot; because the details do not go unnoticed, both immediate and mediate care. It is very important as we go doing things and checking to see if we have forgotten anything. (P2, P3, P6, P7)

CSD 3: Professional qualification as a strong support in caring

The whole team did the training, we always attend courses or lectures inside the hospital, which are undertaken by nurses, physicians, and also the in-hospital commission for organ donation. It is very good, it makes it much easier to take care of post-transplant patients, and there is always something new, we clarify our doubts. The cool thing is that we are also motivated to attend external courses. (P2, P6, P7)

CSD 4: Moment of expectation and anxiety for patients

They are going through a fragile situation, they want to know about diuresis, if the kidney has already started to work, they want to know everything, they don't know if it will work. It is a moment of expectation and joy for thinking about the possibility of a better life, but also of fear, they fear to be always dependent on the machine. Patients are counting on their recovery. (P1, P3, P5)

CSD5: The family companion during the postoperative period

It would be good to have a companion, a family member to stand on the side, give support, take the hand, talk, it would help a lot at this time. (P1, P3, P6)

DISCUSSION

The CSD1 addresses theoretical and practical support from nurses regarding the care provided to the patient in the immediate post-renal transplantation period, since the

nursing actions in this period aim to prioritize continuous assessment, enabling appropriate and early interventions in cases of complications. The highlights were made for the health conditions that most require care at this time, such as cardiovascular, respiratory, and renal function. A research performed by Manfro in 2011 addresses that the first 24 hours after renal transplantation correspond to the critical period, marked by hemodynamic and respiratory instability with a high risk of developing complications, mainly from graft rejection.⁷ Other authors corroborate that a good Evolution in this period is synonymous with positive recovery and better long-term survival.⁴

Such information supports the importance of scientific knowledge for the development of qualified care that meets positive responses and better long-term survival.⁴ In other words, the early detection of risk situations, evaluation of tests with the interpretation of results that escape those expected in conjunction with expertise in this area, can reduce, prevent or anticipate problems and provide quality care throughout the hospital stay

Another important aspect highlighted during the interviews was the adoption of a Checklist as a work tool to be used with patients after renal transplantation, contributing to the quality of care, as well as offering greater safety to patients and also supporting professionals. The Checklist is considered a valid and necessary instrument in several areas of activity, since it allows greater rigor related to the care provided to the patient. Therefore, more and more nursing has been adhering to technological mechanisms for care, as instruments to standardize, qualify, and support care practices.⁸ Furthermore, the use of these instruments offers greater safety to the patient in the pre, trans and postoperative period, as it allows nurses to check the patient's data and clinical information, as well as the functioning of the equipment, in addition to verifying the correct performance of the procedures, avoiding complications and errors during all the care provided to the patient.^{9,10} Despite this, it is worth mentioning that despite the positive experiences with the Checklist, many professionals trivialize its use, without giving due attention to the items listed, or even with incomplete data filling.¹¹

Concerning the CSD3, it reveals health education actions, more precisely, permanent health education, aimed at professionals who are part of the team involved in the care of post-transplant patients. For Lopes, permanent education is the union between the space of training and work, considering that learning and teaching are incorporated into the daily life of services. It fosters meaningful learning and develops from the day-to-day problems that occur in the place of professional performance, taking into account the pre-existing knowledge and experiences of the health team. It is considered a strategy for the construction of technical-scientific, ethical, sociocultural and relational knowledge, encompassing the daily issues of the institution.^{12,13}

Due to the complexity that dominates the ICU, it is essential that its professionals must be provided with quality

continuing education programs, so that the nuances of work routines can be used as a theme for deeper reflection and consequent professional qualification. Everyday activities should also be seen as a form of permanent education, in which one learns from the other, in other words, professional-professional and professional-patient. The registered nurse must identify himself as the coordinator of permanent education in the sector in which he works, considering his leadership position.¹⁴

The research also showed how important the participation of the family is for the recovery of the patient admitted to the ICU. According to Silva and Santos, the family is the main ally of nursing in the health-disease-family process. In most situations, both parties can support and assist, nursing collaborating to keep the family nucleus healthy and the family assisting in the care and recovery of the patient.⁷

Another point observed is that when the patient is diagnosed as having kidney disease he is faced with several limitations, both physical and emotional, and among his main feelings is the fear of death, dependence on the family, hemodialysis treatment, change in the image body, loss or change in sexual function and disabilities that interfere in the performance of work or leisure, as well as the breakdown of interpersonal relationships. For many of them, life starts to revolve around the disease, the treatment, the long sessions of hemodialysis, placing all hopes on a kidney transplant.¹⁵

Starting from the awareness and the verification of these relevant characteristics in the patient's health situation, it is necessary that Nursing, in particular, consider the relevance of these issues in its approach and the elaboration of its care plan, providing conditions in which the patient and their family have the opportunity to talk about their feelings, fears, insecurities and expectations in the face of kidney transplant.¹⁵

Through renal transplantation, the patient sees the opportunity to recover his quality of life, his physical well-being, and his social reintegration, without being dependent on a hemodialysis machine. It identifies the opportunity to lead a normal life, or close to the expected normality, because even after the replacement of the diseased organ, it must remain with some indispensable and continuous care, such as the use of immunosuppressants to avoid graft rejection. The patient must be made aware that even with his renal function restored, he still has a chronic disease, a fact that makes his commitment to self-care and the frequency of visits to the health service indispensable.¹⁶

Particularly considering the ICU reality, family members should be seen by the nursing staff as a secondary patient, as they are overcome by disturbing feelings, such as the fear of losing their loved one, the scarcity of information, the difficult access to their sick relative. Nursing serves as a link between the family and the patient and must play this role in a humanized and respectful way, based on the principle of empathy.¹⁷

It is noticeable that the family members and the affectively significant people in the patient's life have an important role in the course of the treatment. Both patient and family members

can create fantasies about the various situations to which they are exposed. The temporary breaking of the family link, due to the routines imposed by some hospital institutions, requires profound adaptations, which can significantly impair the patient's recovery, given the influence that emotional changes have on the clinical picture.¹⁸

In this respect, a study undertaken by Cruz et al. in 2015, presents negative feelings about the lack of dialogue in the reports of family members, especially concerning certain procedures and treatments adopted. On the other hand, they showed that the performance of nursing was decisive to minimize anguish and strengthen feelings of welcome and support. They also mentioned that the hospitalization period favored the reframing of the family, and spirituality as a source of help to cope with the disease.¹⁹ The family is inseparable from health practices and should be recognized by all professionals as an ally in the patient's recovery process.²⁰

FINAL CONSIDERATIONS

This research evidenced the strengthening of nurses' knowledge concerning patient care after renal transplantation, with a focus on hemodynamic, respiratory and renal care, and emphasized the use of checklists as instruments to facilitate the care provided. Another aspect underlined, was the presence of continuing education and encouragement of managers to participate in external events, evidencing the institution's concern with the qualification of the care services provided by its employees.

Furthermore, nurses highlighted the physical and emotional fragility, as particularities that involve the post-kidney transplant patient, and that extends to family members, with a necessary humanized professional approach aimed at integrality in the care process.

It is relevant to expose the difficulty found in the specific bibliographic search related to the immediate postoperative period of renal transplantation, thus highlighting the need for more scientific production aiming to produce new information and also provide better professional preparation, including in daily practices qualified, holistic, humanized and resolute care.

REFERENCES

1. Brasil, Ministério da Saúde. Governo Federal. DATASUS. Indicadores de Morbidade. Prevalência de pacientes em diálise SUS - Brasil. Brasília (DF): Ministério da Saúde; 2015.
2. Associação Brasileira de Transplante de Órgãos - ABTO. Registro Brasileiro de Transplantes - RBT. Dados numéricos da doação de órgãos e transplantes realizados por estado e instituição no período: Janeiro / Junho [Internet]. 2015 [citado 2016 abr 10]. RBT. 2015; 21(1):1-29. Available at: <http://www.abto.org.br/abtov03/default.aspx?mn=457&c=900&s=0>.
3. Sociedade Brasileira de Nefrologia - SBN (Brasil). Departamento de Transplante da Sociedade Brasileira de Nefrologia. Transplante Renal: Indicações e Contra-indicações. [Internet]. 2006. [citado 2016 abr 22]. Available at: http://www.jbn.org.br/images/TX1-Indicacoes_e_contra-indicacoes.pdf.

4. Roza B de A, Duarte MMF, Luz RM da L, Mendes K dal S, Lima AA. Assistência de enfermagem ao paciente submetido ao transplante renal: Protocolo de cuidados de enfermagem em Transplante de Órgãos - ABTO/2008 [Internet][citado 2016 jun 05]. Available at: http://www.abto.org.br/abtov03/Upload/file/Biblioteca_Teses/Textos/Assist%C3%83%C2%Ancia_de_Enfermagem_ao_pcte_Transpl_Renal.pdf
5. Cordeiro JABL, Brasil VV, Silva AMTC, Oliveira LMAC, Zatta LT, Silva ACCM. Qualidade de vida e tratamento hemodialítico: avaliação do portador de insuficiência renal crônica. Rev. eletrônica de enferm. [Internet]. [citado 2016 jun 08] 2009;11(4):785-93. Available at: <http://www.fen.ufg.br/revista/v11/n4/v11n4a03.htm>.
6. Lefèvre F, Lefèvre AMC. O discurso do sujeito coletivo: um novo enfoque em pesquisa qualitativa desdobramentos. Caxias do Sul: EDUCS; 2003.
7. Manfro RC. Manejo da doença crônica do enxerto renal. J. bras nefrol. 2011; 33(4):485-92.
8. Gawande A. Checklist - como fazer as coisas benfeitas. Rio de Janeiro: Sextante, 2011. 224 p.
9. Pancieri AP, Santos BP, Avila MAG de, Braga EM. Checklist de cirurgia segura: análise da segurança e comunicação das equipes de um hospital escola. Rev. gaúch. enferm. [Internet]. 2013 [citado 2016 jun 19]; 34(1):71-78. Disponível em: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1983-14472013000100009&lng=en. <http://dx.doi.org/10.1590/S1983-14472013000100009>.
10. Paiva, ACR de, et al. Checklist de cirurgia segura: análise do preenchimento da ficha de verificação no pré, trans e pós-operatório. Enferm. Rev. [Internet], Minas Gerais, v. 18, n. 2, p.62-80, 02 maio 2015 [citado 2016 jun 19]. Available at: <periodicos.pucminas.br/index.php/enfermagemrevista/article/download/11697/9350>. Acesso em: 01 jul. 2016.
11. Maziero ECS, Silva Ana EB de C, Mantovani MF, Cruz ED de A. Adesão ao uso de um checklist cirúrgico para segurança do paciente. Rev. gaúch. enferm. [Internet]. 2015 [citado 2016 jun 19]; 36(4): 14-20. Available at: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1983-14472015000400014&lng=en. <http://dx.doi.org/10.1590/1983-1447.2015.04.53716>.
12. Lopes SRS, Piovesan ET de A, Melo L de O, Pereira MF. Potencialidades da educação permanente para a transformação das práticas de saúde. Com. Ciências Saúde. [Internet]; [citado 2016 jun 19]18(2): 147-155, abr.-jun. 2007. Available at: <http://livrozilla.com/doc/300722/potencialidades-da-educa%C3%A7%C3%A3o-permanente-para-a>
13. Jesus MCP de, Figueiredo MAG, Santos SM dos R, Amaral AMM do, Rocha L de O, Thiollent MJM. Educação permanente em enfermagem em um hospital universitário. Rev. esc. enferm. USP. [Internet]. 2011 [citado 2016 mai 19]; 45(5):1229-1236. Available at: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0080-62342011000500028&lng=en. <http://dx.doi.org/10.1590/S0080-62342011000500028>.
14. Montenegro LC; Brito CGNS; Silva NC. Metodologia de Paulo Freire no desenvolvimento da educação permanente do enfermeiro intensivista. Enferm. Rev. [Internet], Belo Horizonte, v. 15, n. 3, p. 317-326 [citado 2016 jun 18], abr. 2013. ISSN 2238-7218. Available at: <http://200.229.32.55/index.php/enfermagemrevista/article/view/5182/5188>.
15. Cardoso LB, Sade PMC O enfermeiro frente ao processo de resiliência do paciente em tratamento hemodialítico. Revista Eletrônica da Faculdade Evangélica do Paraná [Internet], [citado 2016 jun 22] Curitiba, v.2, n.1, p.2-10, jan./mar. 2012. Available at: <http://www.fepar.edu.br/revistaeletronica/index.php/revfepar/article/view/35/45>.
16. Fontoura FAP. A compreensão de vida de pacientes submetidos ao transplante renal: significados, vivências e qualidade de vida. 2012 117 p. [Internet] Dissertação (mestrado em psicologia) - Universidade Católica Dom Bosco, Campo Grande, 2012 [citado 2016 mai 19]. Available at: <http://site.ucdb.br/public/md-dissertacoes/8221-a-compreensao-de-vida-de-pacientes-submetidos-ao-transplante-renal-significados-vivencias-e-qualidade-de-vida.pdf>
17. Ferreira PD, Mendes TN. Família em UTI:: importância do suporte Psicológico diante da iminência de morte. Rev. SBPH. [Internet]. 2013 Jun [citado 2017 Dez 20]; 16(1): 88-112. Available at: http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1516-08582013000100006&lng=pt.

18. Comassetto I, Enders BC. Fenômeno vivido por familiares de pacientes internados em Unidade de Terapia Intensiva. Ver. Gaúch. Enferm. [Internet], Porto Alegre (RS) 2009 mar [citado 2016 jun 19]; 30(1):46-53. Available at:<http://repositorio.ufrn.br:8080/jspui/handle/1/3173>.
19. Cruz MG da S, Daspett C, Roza BA, Ohara CV da S, Horta AL de M. Vivência da família no processo de transplante de rim de doador vivo. Acta paul. enferm. [Internet]. 2015 June [citado 2016 jun 10]; 28(3):275-280. Available at: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0103-21002015000300275&lng=en. <http://dx.doi.org/10.1590/1982-0194201500046>.
20. Freitas KS, Menezes IG, Mussi FC. Conforto na perspectiva de familiares de pessoas internadas em Unidade de Terapia Intensiva. Texto contexto - enferm. [Internet]. 2012 Dec [citado 2016 jun 25]; 21(4):896-904. Available at: http://www.scielo.br/scielo.php?script=sci_arttext&pid=S0104-07072012000400021&lng=en. <http://dx.doi.org/10.1590/S0104-07072012000400021>.

Received in: 22/08/2018

Required revisions: 07/01/2019

Approved in: 15/02/2019

Publicado em: 24/08/2020

Corresponding author

Tatiana Gaffuri da Silva

Address: Rua São Miguel do Oeste, 765 E, Efapi
Chapecó/SC, Brazil

Zip code: 89.809-603

Email address: tatiana.silva@uffs.edu.br

Telephone number: +55 (49) 99172-7797

**Disclosure: The authors claim
to have no conflict of interest.**