dx.doi.org/10.5380/ce.v26i0.78884

Cogit. Enferm. 2021, v26:e78884

Cogitare Enfermagem

ORIGINAL ARTICLE

CLINICAL SUPERVISION IN NURSING TO OPTIMIZE SELF-CARE ASSESSMENT

Inês Alves da Rocha e Silva Rocha[1]
Manuel Agostinho Caldas Rodrigues[2]
Cristina Maria Correia Barroso Pinto[2]
António Luís Rodrigues Faria de Carvalho[2]

ABSTRACT

Objective: to assess agreement on the degree of self-care dependence attributed by the expert, nurses and computer records, identifying clinical supervision strategies that nurses implement to optimize self-care assessment. Method: descriptive-exploratory, quantitative study with 108 users and 44 nurses of a hospital in northern Portugal. In 2017, the "Self-Care Assessment Tool" and the "Frequency Assessment Questionnaire of Clinical Supervision Strategies in Nursing" were applied. Descriptive statistical analysis was performed and the coefficient of agreement was calculated. Results: the agreement between experts and nurses in the assessment of the degree of dependence on self-care on eating and positioning is weak, but moderate on self-care and hygiene. "Feedback", "continuous training" and "support" are the strategies that nurses would most like to implement. Conclusion: it is essential for health organizations to assess the conception of care provided, and identify clinical supervision strategies, in order to enhance its improvement.

DESCRIPTORS: Nursing; Nursing Supervision; Self-care; Nursing Diagnosis; Strategies.

HOW TO REFERENCE THIS ARTICLE:

Rocha IA da R e S, Rodrigues MAC, Pinto CMCB, Carvalho ALRF de. Clinical supervision in nursing to optimize self-care assessment. Cogit. Enferm. [Internet]. 2021 [accessed "insert day, monh and year"]; 26. Available from: http://dx.doi.org/10.5380/ce.v26i0.78884.

[1]Instituto de Ciências Biomédicas Abel Salazar da Universidade do Porto. Porto, Portugal.
[2]Escola Superior de Enfermagem do Porto. Porto, Portugal.

INTRODUCTION

Clinical Supervision in Nursing (CSN) can be defined as a formal monitoring process that aims to promote autonomous decision-making by nurses, valuing the protection of users and the safety of care, through processes of reflection and analysis of clinical practice[1]. CSN is considered essential for a quality professional practice[2], as it promotes greater awareness of professional responsibility, favoring professional development and evidence-based practice, reflecting, in an institutional level, a propitious environment to the well-being of professionals and a reduction in incidents and complaints[3-4]. Supervisory programs are supported by clinical supervision strategies: ways to optimize the clinical performance of nurses[5]. Thus, due to the advantages that CSN brings, its implementation and maintenance in health contexts is justified[6].

According to the International Classification for Nursing Practice (ICNP®), self-care is defined as "an activity performed by oneself: dealing with what is necessary to remain operational and dealing with basic and intimate individual needs and activities of daily living", integrating, among others, bathing (hygiene), eating, and turning around (positioning oneself)[7]. Self-care is central to the intervention of nurses and is assumed as one of the areas that may enhance health gains, being recognized as an indicator of quality of care and a quality criterion for professional practice[8-9].

Specialized training and knowledge in self-care enable nurses to assess the dependence degree of users in a more individualized way and adapted to their needs, with the purpose of defining and implementing realistic interventions that improve the well-being of users through training to take care of themselves[10]. Thus, it is essential that the assessment of the dependence degree of users is carried out in each domain of self-care[11].

CSN presents an undeniable contribution to the development of nurses' capacity to intervene in the promotion, maintenance and recovery of users' self-care[12]. In fact, by enabling a reflective practice, CSN contributes to the improvement of the quality of nursing care[13], namely through an adequate formulation of nursing diagnoses in the context of self-care, adapted to the clinical situation of the clients. The assessment of the impact of CSN on the promotion of users' self-care can be carried out through the registration of clinical interventions, the implementation of alternative ways of self-care assessment, and the assessment of the perception of the impact that nurses have on the promotion of users' self-care[14].

However, there is currently a great heterogeneity of nursing diagnoses, with a consequent multiplicity of prescriptions for nursing interventions, which can make the provision of care inefficient[11]. Thus, the use of clinical supervision strategies is extremely important, as, by providing nurses with knowledge and skills that allow them to identify the nursing diagnoses that are more adjusted to the needs of clients, they enable a more meaningful nursing practice for them, enhancing their recovery more efficiently[15].

However, there is also a scarcity of studies that assess the degree of agreement between experts, nurses and computer records regarding nursing diagnoses in the context of self-care. In order to fill this gap in literature, researches in this regard should be carried out and, subsequently, clinical supervision programs in health contexts should also be implemented. For these programs to be robust, it is important to identify which clinical supervision strategies nurses would like to implement in their professional contexts, in order to improve their practice. In this sense, this study aims to: (1) assess the agreement on the degree of dependence on self-care attributed by the expert, nurses and computer records; (2) identify clinical supervision strategies that nurses can implement to optimize self-care assessment.

METHOD

This is a descriptive and exploratory study, of a quantitative nature, carried out between October and December, 2017. The study population is composed by inpatients from two medical services and nurses who work in the same places in a hospital in northern Portugal.

The sample, obtained through non-probabilistic sampling methods, for convenience, includes 108 inpatients. We have defined the inclusion criteria: being hospitalized in one of the two medical services where the investigation took place.

Data collection was carried out using the form "Self-Care Assessment Instrument" (SAI) designed for this purpose, and based on the "Self-Care Dependence Assessment Form - short version"[16], to proceed with the sociodemographic and clinical characterization of the users, and the assessment of the degree of dependence related to self-care, hygiene, eating and positioning themselves. The form includes 156 items, with responses scored on a four-point Likert scale, where one corresponds to "independent" and four to "highly dependent". For the application of the form, each nurse was asked to select two users (among those they were caring for in that shift) to participate in the study, and to fill in the form for these same users.

For each user, three forms were completed: the expert (researcher) completed the form for each user individually; the nurse individually filled in the form for each user; and the expert also filled out a form for each user with the transcription of the information registered by the nurses about the nursing diagnoses in SClinico®. Once completed, the forms were paired so that, for the same user, there was an analysis of agreement between the data obtained from the three sources (expert, nurses, computer records).

With regard to nurses, the sample consists of 44 of them, which corresponds to the total number of nurses working in both medical services. We have defined the inclusion criteria as: performing duties as a nurse or expert nurse in one of the two medical services selected by the hospital. Data collection was performed through the application of the "Frequency Assessment Questionnaire of Clinical Supervision Strategies in Nursing" (FAQCSSN)[17] adapted to this study, in order to identify the clinical supervision strategies that nurses would like to implement in their professional context. The adaptation of the FAQCSSN for this study includes 14 clinical supervision strategies, and nurses were asked to mark the strategies they would like to see implemented.

For the application of the FAQCSSN, a code was assigned to each questionnaire, hand-delivered to each of the nurses along with an envelope, and the objective of the study was explained to them. The voluntariness of their participation was also highlighted, being assured that non-participation would not be a reason for harm to the nurse. In order to ensure the anonymity of the responses, participants were encouraged not to put their name anywhere in the questionnaire. After being filled in, the envelopes with the questionnaires were sealed and left by the nurses in a specific box, placed in each of the two services.

In order to carry out this study, we have obtained authorization from the Board of Directors and the Ethics Committee for Health (number 71/CE/JAS) within the hospital where the data were collected.

For data analysis, descriptive statistics and Cohen's Kappa coefficient of agreement were used, through the Statistical Package for Social Sciences (SPSS) version 25.0, with a significance level of 5%. To interpret Cohen's Kappa coefficient of agreement, the cutoff points indicated by McHugh were taken into account[18].

RESULTS

Regarding the sociodemographic and clinical characterization of users, the sample

consists of 108 users, most of them female (n=56; 51.9%). The age of the participants varies between 26 and 96 years old, with an average age of approximately 72 years old (M=71.7; SD=14.4). Users have a wide range of medical diagnoses, with the most frequent pathology categories being: circulatory system diseases (n=46; 42.6%); respiratory system diseases (n=24; 22.2%); urinary system diseases (n=9; 8.3%); and diseases of the neurological system (n=6; 5.6%).

Considering the nurses' sociodemographic and professional characterization, the sample consists of 44 nurses, most of them female (n=40; 90.9%). The age ranges between 22 and 49 years old, with an average of 34.1 years old (SD=7.5). Regarding the professional title, most participants are nurses (n=37; 84.1%) and only seven (15.9%) are expert nurses. Regarding the length of professional practice, the average is 10.7 years (SD=7.4), with a minimum of zero and a maximum of 27 years. With regard to the length of stay of functions in the current service, it appears that the average is 6.6 years (SD=7.1), with a minimum of zero and a maximum of 22 years.

The first objective of this study is to assess the agreement on the degree of dependence on self-care (hygiene, eating and positioning) of users assigned by the expert, nurses, and present in computer records. Through Table 1, it is verified that there is agreement among the three observations in the three self-care, with the highest agreement between nurses and records (hygiene: k=0.72; eating: k=0.71; if: k=0.74) and lower between the expert and the records (hygiene: k=0.53; eating: k=0.57; positioning oneself: k=0.55).

Table 1 - Agreement between expert, nurses and computer records in assessing the degree of users' dependence on self-care (hygiene, eating and positioning themselves). Porto, Portugal, 2017

	Cohen's Kappa		
	Expert-Nurses	**Expert-Records**	**Nurses-Records**
Hygiene	0,65*	0,53*	0,72*
Eating	0,59*	0,57*	0,71*
Positioning	0,56*	0,55*	0,74*

* p<0,05

Source: Authors (2017).

Regarding hygiene self-care, it appears that agreement is moderate between the expert and the nurses (k=0.65) and between the nurses and the records (k=0.72), being weak between the expert and the records (k=0.53). With regard to eating self-care, agreement is moderate between nurses and records (k=0.71), but weak between expert and nurses (k=0.59) and between expert and records (k=0.57). In terms of self-care, agreement is moderate between nurses and records (k=0.74), but weak between expert and nurses (k=0.56) and between expert and records (k= 0.55).

The second objective of this study is to identify the clinical supervision strategies that nurses would like to implement in their services, in order to optimize their professional practice in the context of self-care. Table 2 shows that the clinical supervision strategy that nurses would most likely see implemented is "feedback" (n=34; 77.3%), followed by "continuous training" (n=28; 63, 6%), "support" (n=25; 56.8%), and "demonstration" (n=24; 54.5%). The clinical supervision strategy that nurses would least like to implement is "distance supervision: telephone, e-mail and skype®" (n=3; 6.8%), as well as "individual supervision sessions" (n=7; 15.9%), "self-supervision" (n=7; 15.9%), and "nursing care documentation analysis" (n=7; 15.9%).

Table 2 – Clinical supervision strategies selected by nurses to implement in their services. Porto, Portugal, 2017

Clinical supervision strategies	n	%
Feedback	34	77,3
Continuous training	28	63,6
Support	25	56,8
Demonstration	24	54,5
Group case analysis	21	47,7
Critical-reflective analysis of practices	20	45,5
Group supervision sessions	14	31,8
Observation	13	29,5
Analysis of cases with the supervisee	8	18,2
Reflective report	8	18,2
Analysis of nursing care documentation	7	15,9
Self-supervision	7	15,9
Individual supervision sessions	7	15,9
Remote supervision: phone, email and skype®	3	6,8

Source: Authors (2017).

DISCUSSION

Regarding the first objective of this study, there is agreement in the degree of dependence on self-care (hygiene, eating and positioning) attributed by the expert, nurses and present in the computer records. However, it appears that the agreement is weak between the expert and the nurses in self-care, eating and positioning, with the exception of self-care hygiene, in which it is moderate. The results obtained are similar to those found in a study with a sample of 110 users of a medical service of a hospital in the north of Portugal, in which there is no full correspondence between the assessment made by the expert and the nurses[19]. These results highlight the gaps in the nursing process regarding the assessment of the dependence degree on self-care of users. In fact, it was expected that there would be greater agreement between the expert and the nurses regarding the identification of the users' degree of dependence on self-care, since the expert is considered the gold standard.

In this sense, there is an urgent need to fill the gaps found, which may be the target of intervention within the scope of the CSN, as this, by promoting reflection on practice, emerges as an essential tool to provide nurses with more knowledge and skills[3]. Decision-making, fostered in a reflective practice, influences the design and delivery of care, with repercussions not only on the way nurses carry out their activities and interventions, but also on their choices[20]. Thus, during a supervisory program that is supported by a CSN model, these issues can be worked on with nurses, and it is essential to use clinical supervision strategies that promote critical reflection and, consequently, a change in nurses' practices, in order to improve the users' self-care assessment.

As for the second objective of this study, nurses would like all clinical supervision strategies presented to be implemented in their services. This result is relevant, as it demonstrates the need for a supervisory program to be implemented in its context.

Identifying the clinical supervision strategies that nurses would like to see implemented in their services is essential, as the clinical supervisor nurse, in supervisory processes, must select those that make it possible to respond to the real needs of the context, that is, those that best suit supervised nurses, in order to promote their personal and professional development[5].

Through the analysis of the obtained results, it appears that "feedback" was the most selected clinical supervision strategy by nurses to implement in their professional context, followed by "continuous training", "support" and "demonstration". These results differ from those found in a study with 273 nurses from various health institutions in Portugal, in which nurses in the hospital context want "observation" and "demonstration" to be, respectively, the most implemented clinical supervision strategies in their medical services[21].

However, these results can be explained by the fact that the "feedback" strategy consists of an interactive process whose objective is to promote the supervised nurses' awareness of their performance, thus constituting a basic pillar for their development[22]. In fact, within the CSN, it is essential that nurses provide and receive feedback regarding their professional performance[23]. Thus, nurses feel the need to provide and receive clear and constructive feedback to optimize communication and the processes of self and hetero knowledge, fostering their practice and, consequently, their confidence and security in the performance of their professional practice[11].

"Continuous training" was the second most selected clinical supervision strategy by nurses, possibly because it is understood as an essential training strategy for updating knowledge and practices, contributing to the construction of their knowledge, training and professional development[24], but also due to the fact that the hospital where the study was carried out participates in a quality accreditation program, in which one of the main assumptions is the development of continuous training for its professionals.

In turn, in this study, "support" was the third most selected strategy by nurses, a result similar to those found in other studies that emphasize that this clinical supervision strategy works to reduce stress, prevent burnout, and increase of nurses' personal satisfaction[14,21,25].

It should also be noted that, as Nursing is a discipline that presupposes a large component of know-how, it is understood that the "demonstration" was selected in fourth place by nurses. This strategy consists of the process through which the clinical supervisor, using exemplary methods, explains or teaches the supervised how to perform or approach a given situation, making this strategy crucial in the development of practice and knowledge in action[26]. The "demonstration" ranked second among the clinical supervision strategies that nurses would most like to see implemented in a study of 273 nurses[21].

The remaining clinical supervision strategies ("group case analysis", "critical-reflective analysis of practices", "group supervision sessions", "observation", "case analysis with the supervisee", "reflective report", "nursing care documentation analysis", "self-supervision", and "individual supervision sessions") are more related to reflective processes, key elements for supervisory programs, so clinical supervisor nurses should be able to mobilize, in the sense of observing and monitoring the performance and development of the supervised nurse, which is the starting point of reflection on the action[15].

It is noteworthy that, in this study, the "group supervision sessions" are more valued than the "individual supervision sessions", differing this result from those found in another investigation, which concludes that nurses in the hospital context prefer the sessions of individual to group supervision[27].

The strategy "remote supervision: telephone, email and skype®" was the least selected by nurses, a result similar to those found in other studies, which mention that remote supervision strategies are not frequently applied in health contexts[21,28]. This result can be explained by the characteristics of the context where the study was carried out

(hospital context), in which there are already moments of sharing among nurses, namely in shift changes, developing a methodology based on teamwork, which may make nurses feel personally supported (face to face), not valuing distance supervision strategies so much.

This study may contribute to a better understanding of the process of assessing the dependence degree on self-care (hygiene, eating and positioning oneself), through the analysis of the agreement between the expert, nurses and computer records, suggesting the implementation of a supervisory program, based on a CSN model, as a way to optimize the professional practice of nurses in the context of self-care.

With regard to the limitations of this study, which make it impossible to generalize the results, the following stand out: the sampling technique used; the fact that it is an exploratory study; and data collection was performed only in two medical services of the same hospital. Another limitation is related to the fact that the instruments used (SAI and FAQCSSN) are self-completed, which may lead to some biases caused by social desirability, random responses, among others.

CONCLUSION

The scientific evidence produced on the assessment of the dependence degree on self-care (hygiene, eating and positioning oneself), through the analysis of agreement between the expert, nurses and computer records, is scarce. In the present study, it appears that there is, in most of the self-care assessed, a weak level of agreement between the expert and the nurses, a worrying result, as the expert is considered the gold standard. In this sense, it is suggested, in the future, the implementation of a supervisory program, based on a CSN model, as a way to develop in nurses' knowledge and skills that allow them to carry out a self-care assessment more adjusted to the real needs of users, thus contributing for safer and higher quality nursing care.

For the implementation of a supervisory program, it is important to identify which clinical supervision strategies nurses would like to be implemented. Thus, prior to the implementation of a supervisory program, it is beneficial to apply the FAQCSSN, in order to diagnose nurses' CSN needs, and based on these data, a program adjusted to their needs can be planned. Furthermore, in these circumstances, the supervisory program will have in its favor the fact that nurses are motivated to implement it, since the clinical supervision strategies to be used were identified by them.

It is then suggested that research be carried out in priority areas, such as CSN in self-care, since this way the improvement of the professional practice of nurses is promoted, affecting the quality and safety of care provided to users.

REFERENCES

1. Ordem dos Enfermeiros. Caderno temático. Modelo de desenvolvimento profissional: fundamentos, processos e instrumentos para a operacionalização do sistema de Certificação de Competências. Lisboa: Ordem dos Enfermeiros; 2010.

2. Gonge H, Buss N. Is it possible to strengthen psychiatric nursing staff's clinical supervision? RCT of a meta-supervision intervention. J Adv Nurs. [Internet]. 2015. [accessed 06 de out 2020]; 71(4):909-21. Available from: http://doi.org/10.1111/jan.12569.

3. Cutcliffe JR, Sloan G, Bashaw M. A systematic review of clinical supervision evaluation studies in nursing. Int J of Ment Health Nurs. [Internet]. 2018. [accessed 20 de out 2020]; 27(5):1344-63. Available

from: http://doi.org/10.1111/inm.12443.

4. National Health Service Trust. Policy: C16 – Clinical supervision for nurses. London: National Health Service Trust; 2011.

5. Rocha IA da R e S, Santos MR, Pires RMF. Distance supervision in nursing: a reality desired by nurses. Rev Enf Ref. [Internet]. 2016. [accessed 20 de out 2020]; 4(10):95-102. Available from: http://doi.org/10.12707/RIV16025.

6. MacCulloch T, Shattell M. Clinical supervision and the well-being of the psychiatric nurse. Issues Ment Health Nurs. [Internet]. 2009. [accessed 24 de out 2020]; 30(9):589-90. Available from: http://doi.org/10.1080/01612840902954541.

7. International Council of Nurses. Classificação Internacional para a Prática de Enfermagem (CIPE): versão 2.0. Lisboa: Ordem dos Enfermeiros; 2011.

8. Ordem dos Enfermeiros. Padrões de qualidade dos cuidados de enfermagem: enquadramento conceptual e enunciados descritivos. Lisboa: Ordem dos Enfermeiros; 2012.

9. Cruz AG, Gomes AMT, Parreira PMSD. Priority nursing foci and interventions for older people in acute care settings. Rev Enf Ref. [Internet]. 2017. [accessed 06 de out 2020]; 4(15):73-82. Available from: http://doi.org/10.12707/RIV17048.

10. Meleis A. Theoretical nursing: development and progress. Philadelphia: Lippincott Williams & Wilkins; 2007.

11. Petronilho F. Autocuidado: conceito central de enfermagem. Coimbra: Formasau; 2012.

12. Cruz S, Carvalho AL, Sousa P. Clinical supervision: priority strategy to a better health. Procedia Soc Behav Sci. [Internet]. 2014. [accessed 24 de out 2020]; 112:97-101. Available from: http://doi.org/10.1016/j.sbspro.2014.01.1143.

13. Cruz SSSMS. Clinical supervision in nursing: effective pathway to quality. Procedia Soc Behav Sci. [Internet]. 2001. [accessed 20 de out 2020]; 29(1):286-91. Available from: http://doi.org/10.1016/j.sbspro.2011.11.240.

14. Butterworth A. The potential of clinical supervision for nurses, midwives and health visitors. In: Bishop V. (eds) Clinical Supervision in Practice. London: Palgrave; 1998.

15. Pires R, Santos MR, Pereira F, Rocha I. Most relevant clinical supervision strategies in nursing practice. European Proc Social & Behav Science. [Internet]. 2016. [accessed 27 de out 2020]; 1:352-361. Available from: https://www.europeanproceedings.com/files/data/article/43/1020/article_43_1020_pdf_100.pdf.

16. Pereira S. Formulário de avaliação de dependência no autocuidado – versão reduzida. [dissertação]. Porto: ESEP; 2014.

17. Rocha I, Santos MR, Pires R. Questionnaire for assessment of clinical supervision strategies in nursing: construction and validation of the QACSSN. Nurs & Health. [Internet]. 2017. [accessed 06 de out 2020]; 5(2):35-38. Available from: http://doi.org/10.13189/nh.2017.050202.

18. McHugh ML. Interrater reliability: the kappa statistic. Biochem Med. [Internet]. 2012. [accessed 24 de out 2020]; 22(3):276-82. Available from: http://pubmed.ncbi.nlm.nih.gov/23092060/.

19. Teixeira SMM, Carvalho ALRF de, Cruz SS da SMS. Self-care assessement as an indicator for clinical supervision in nursing. Rev Rene. [Internet]. 2016. [accessed 20 de out 2020]; 17(3):356-62. Available from: http://doi.org/10.15253/2175-6783.2016000300008.

20. Petronilho F, Pereira CMBC, Magalhães AI da C, Carvalho DMF, Oliveira JMC, Castro P, et al. Evolution of self-care dependent individuals admitted to the National Network for Integrated Continuous Care. Rev Enf Ref. [Internet]. 2017. [accessed 27 de out 2020]; 4(14):39-48. Available from: https://www.researchgate.net/publication/319996421.

21. Rocha I. Construção e validação do questionário de avaliação da frequência de estratégias de supervisão clínica em enfermagem. [dissertação]. Porto: ESEP; 2013.

22. Gonge H, Buus N. Model for investigating the benefits of clinical supervision in psychiatric nursing: a survey study. Int J Ment Health Nurs. [Internet]. 2011. [accessed 20 de out 2020]; 20(2):102-11. Available from: http://doi.org/10.1111/j.1447-0349.2010.00717.x.

23. Kim H. The nature of theoretical thinking in nursing. New York: Spring Publishing Company; 2010.

24. Garrido A, Simões J, Pires R. Supervisão clínica em enfermagem: perspectivas práticas. Aveiro: Universidade Aveiro; 2008.

25. Charleston R, Happell B. Psychiatric nurses and undergraduate nursing student's perceptions of preceptorship in the mental health setting. Int J Psychiatr Nurs Res. [Internet]. 2005. [accessed 24 de out 2020]; 10(3):1166-78. Available from: https://pubmed.ncbi.nlm.nih.gov/15960245/.

26. Simões JF, Alarcão I, Costa N. Supervision in nursing clinical placements: the perspective of cooperating nurses. Rev Enf Ref. [Internet]. 2008. [accessed 27 de out 2020]; 2(6):91-108. Available from: https://www.index-f.com/referencia/2008pdf/0691108.pdf.

27. Gonge H, Buus N. Model for investigating the benefits of clinical supervision in psychiatric nursing: a survey study. [Internet]. 2003. [accessed 06 de out 2020]; 10(4):7-38. Available from: https://doi.org/10.1111/j.1447-0349.2010.00717.x.

28. Marrow CE, Hollyoake K, Hamer D, Kenrick C. Clinical supervision using video-conferencing technology: a reflective account. J Nurs Manag. [Internet]. 2002. [accessed 20 de out 2020]; 10(5):275-82. Available from: http://doi.org/10.1046/j.1365-2834.2002.00313.x.

Received: 14/01/2021
Approved: 16/08/2021

Associate editor: Luciana Alcântara Nogueira

Corresponding author:
Inês Alves da Rocha e Silva Rocha
Instituto de Ciências Biomédicas Abel Salazar da Universidade do Porto – Porto, Portugal
E-mail: inesarsrocha@gmail.com

Role of Authors:
Substantial contributions to the conception or design of the work; or the acquisition, analysis, or interpretation of data for the work - Rocha IA da R e S, Rodrigues MAC, Pinto CMCB, Carvalho ALRF de; Drafting the work or revising it critically for important intellectual content - Rocha IA da R e S, Rodrigues MAC, Pinto CMCB, Carvalho ALRF de; Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved - Rocha IA da R e S. All authors approved the final version of the text.

ISSN 2176-9133