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DETERMINANTS IN THE PRODUCTION OF ERROR IN NURSING WORK

DETERMINANTES NA PRODUÇÃO DE ERRO NO TRABALHO EM ENFERMAGEM

DETERMINANTES EN LA PRODUCCIÓN DE ERROR EN EL TRABAJO DE ENFERMERÍA

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Objective: to analyze determinant conditions for the production of error in nursing work. Method: documentary, analytical, qualitative research. Data collected in 19 ethical-disciplinary processes, from 2000 to 2018, whose object of complaint was the mistake committed by nursing workers. The Thematic Content Analysis proposed by Bardin and the Theory of Social Production interpreted by Carlos Matus were used. Results: nursing techniques and assistants were the most reported workers; medication error was the most frequent; job precariousness was a determining condition in the occurrence of errors in the processes analyzed. Final considerations: structural conditions of error production in nursing work predominated, allowing refuting the hegemonic notion of error as a moral phenomenon in nursing work.

Descriptors: Nursing. Work. Working Conditions. Medical Errors. Patient Safety.

Objetivo: analisar condições determinantes para a produção de erro no trabalho em enfermagem. Método: pesquisa documental, analítica, qualitativa. Dados coletados em 19 processos ético-disciplinares, no período de 2000 a 2018, cujo objeto de denúncia foi o erro cometido por trabalhadoras em enfermagem. Empregou-se a Análise de Conteúdo Temática proposta por Bardin e a Teoria da Produção Social interpretada por Carlos Matus. Resultados: as técnicas e auxiliares em enfermagem foram as trabalhadoras mais denunciadas; o erro de medicação foi o mais frequente; a precarização do trabalho foi condição determinante na ocorrência de erros nos processos analisados. Considerações finais: predominaram condições estruturais de produção de erro no trabalho em enfermagem, permitindo refutar a noção hegemônica do erro como fenômeno moral no trabalho em enfermagem.

Descritores: Enfermagem. Trabalho. Condições de Trabalho. Erros Médicos. Segurança do Paciente.

Objetivo: analizar condiciones determinantes para la producción de error en el trabajo en enfermería. Método: investigación documental, analítica, cualitativa. Datos recogidos en 19 procesos ético-disciplinarios, en el período

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de 2000 a 2018, cuyo objeto de denuncia fue el error cometido por trabajadoras en enfermería. Se empleó el Análisis de Contenido Temático propuesto por Bardin y la Teoría de la Producción Social interpretada por Carlos Matus. Resultados: las técnicas y auxiliares en enfermería fueron las trabajadoras más denunciadas; el error de medicación fue el más frecuente; la precarización del trabajo fue condición determinante en la ocurrencia de errores en los procesos analizados. Consideraciones finales: predominaron condiciones estructurales de producción de error en el trabajo en enfermería, permitiendo refutar la noción hegemónica del error como fenómeno moral en el trabajo en enfermería.

Descriptores: Enfermería. Trabajo. Condiciones de Trabajo. Errores Médicos. Seguridad del Paciente.

Introduction

The work produced and consumed in health services results from a complex system of relationships, which allows the occurrence of errors in its production. Error is an unintentional act, characteristic of human nature, the product of circumstances in which the planned actions do not achieve the desired result[1].

The occurrence of errors in the production of health services affects health organizations, because it affects the image and organizational reliability, puts at risk the physical and emotional integrity of patients and can cause sequelae, damage or death. For workers, error is often related to feelings of shame and guilt, given that organizations adopt a culture based on guilt and fear[2]. Generally, health services and the State take the individual approach, blaming workers for the cause of the error. With this, they foster a culture of punishment and fear.

We understand that this way of managing error at work considers only the uniqueness of the worker, disregarding the responsibilities of the health organization itself, as well as the mechanisms created as barriers to its occurrence. The existing barriers in complex systems, such as health, particularly hospital, are confronted by political and economic pressures that place the safety of patients and workers at risk, scenario conducive to the occurrence of errors.

Thus, working and employment conditions are identified as conditions of error production, since they affect both task and activity performance and increase the probability of occurrence[3]. This, in the contemporary context of work, is related to the precariousness of work, precarious working conditions and the rigid hierarchical structure of the work process. In view of this scenario, the error should be considered as evidence of deeper problems within a system. This should be considered in the management of errors at work and in the approach of workers who err, both by health organizations and by the body that regulates work[4].

From the perspective of the regulation of nursing work, error is understood as an ethical infraction committed through action, omission or collusion, which results in non-compliance with what is recommended in the Code of Ethics of Nursing Professionals. In the approach adopted by the model of labor regulation, the establishment of ethical-disciplinary process (EDP) falls on the nursing worker who makes a mistake with the Regional Nursing Council, whose punitive act is exhausted in itself. In this case, the power that condemns the worker is responsible for socially building the approach and acceptance that the error will be curbed with individual punishment. This way of interpreting error, confusing it with ethics, denies the field of social relations where work is performed. As much as the error is materialized in an individual act, it cannot be separated from the context in which it occurs[4].

Given that the occurrence of error at work in nursing is a complex and multifactorial phenomenon, to direct the analysis, we have elaborated theoretical foundations, based on the Theory of Social Production, as interpreted by Carlos Matus. This theory refers to the reading of

reality that explains it beyond the apparent facts, considering three situational plans: the planning of the facts themselves or phenoproduction (fact of any nature); the planning of accumulations or phenostructures (ability to produce new facts); and the planning of rules, basic laws or genostructures, which regulate a social formation and determine the variety of the possible[5].

Matus[5] proposes a way of approximating phenomena, which integrates three spaces of definition and explanation of problems that we use in this study: the general space, which expresses the basic social rules, structural rules or genostructures; the particular space, which expresses the production of human actions translated into political, economic, organizational, cognitive and communicational facts, capable of generating production flows or phenostructures; the singular space, which expresses the production of social facts or phenomena or phenoproduction.

In this sense, when evaluating the occurrence of error in nursing work in different spaces, we situate, in the general space, the determinants for its occurrence in nursing work, in which we highlight defined as a political system aimed at domination, which governs the management models of labor organizations, spreading fear, creating a context of permanent insecurity of the worker and subjecting them to exploitation[6]; the model of organization of the work process, in particular the process of health work, which is characterized by the rigid hierarchical structure and fragmentation of activity[7]; and the model of work management adopted in organizations, which is based on management by fear, flexibility of work processes and relations and the acquisition of worker subjectivity[8]. These conditions structure and govern the systems of work to which workers are subjected.

In the particular space, which includes the organization of the nursing work process, we situate the conditions for the occurrence of error in nursing work. These are expressed in different work processes for the different professions of the nursing field, which generates fragmentation in the production and execution of activities at work. The nursing work process is delimited by the social and technical division, demarcating and fragmenting the so-called intellectual work of nurses and the so-called manual work of nursing assistants and technicians[4].

The hierarchy, fragmentation and inequalities that characterize the nursing work process are primary elements for the occurrence of error, given that the social and technical division of labor does not allow nursing assistants and technicians to become actors, distancing them from the understanding and control of their work process[4].

In the singular space, we situate the individual characteristics of the worker who errs, which are related to the practices performed, with the domain of specific technical knowledge, between workers in the work process and between workers and users of health services. In this space, we consider that error can occur in any situation, since fallibility is inherent in human nature.

In view of the singular space in the production of error, active failure is considered the materialization of the error committed by workers who work in the baseline of health services. The singularities of the workers contrast with attitudes that concern the social and affective aspects related to work – which explain the behavior normally experienced by the human being in their work environment; knowledge – that correspond to knowledge, a series of information assimilated and structured by the subject; and the ability – which concerns the ability to apply and make use of the knowledge acquired in order to achieve an activity[9].

The different spaces of error production are interrelated and interdependent, since the general space – the determinants – encompasses the particular and singular spaces. However, this article focuses on the conditions of error production at work in nursing located in the space of determinants or general space and presents as a research question: What are the determinant conditions for the production of

error in nursing work identified in disciplinary ethical processes processed, judged and filed in the Regional Nursing Councils in the Brazilian Northeast region? In this sense, the objective of this article is to analyze determining conditions for the production of error in nursing work.

Method

This is a documentary and analytical study, with a qualitative approach. The research sites were the archives of the Regional Nursing Councils of the Brazilian Northeast region (Alagoas, Bahia, Rio Grande do Norte and Sergipe). The coverage period comprised the years 2000 to 2018. Equator Standards For Reporting Qualitative Research was used to guide the methodology[10].

The sources of data were the EDPs, considering as inclusion criteria processes processed, completed and filed in the Regional Nursing Councils participating in the study, from 2000 to 2018. Administrative cases and those that did not have the error as a complaint were excluded, resulting in 279 cases. Of these, 19 had as object of complaint the error committed by nursing workers.

Data were collected between January and November 2019. Two instruments constructed by the researchers were used. The first characterized the EDPs and workers denounced, with the following dimensions: identification of the process – number, date of opening and closing, description of the object of the complaint, date and shift of the occurrence of the error, complainant; characteristics of the worker reported – professional category, sex, age; characteristics of the organization where the error occurred – legal nature of the organization, unit of work where the error occurred; identification of infringed articles provided for in the Code of Ethics; decision of the plenary of the Regional Council on the process. The second instrument, which recorded the documentary content of the EDP, identifying its number, object of the complaint and category of the denounced is detailed in three sub-sections for transcription of the statement of the complainant, the denounced and the representatives of the Regional Council.

For the characterization of the reported processes and workers, descriptive statistics were used, with simple absolute frequencies. For the analysis of the determinant conditions of error production, we use the Thematic Content Analysis, which consists of the analysis of the meanings and characteristics of the message itself: the arguments and the ideas expressed therein[11].

In this perspective, we developed a systematization of procedures required for the application of Thematic Content Analysis, covering chronologically the following phases: pre-analysis – fluctuating reading of the collected material and partially ordered for preliminary analysis, in order to identify who is wrong, where is wrong, what kind of error, in what circumstances is wrong; exploration of the material – coding/definition of the units of record, context and categorization. After the definition, the units of record and context were quantified, by means of simple frequency, to meet the postulate that affirms the increased importance of a unit based on the frequency of appearance; treatment of the results, inference and interpretation – the results were described in a synthesis that expresses the set of meanings present in the various units of analysis, seeking interconnections between the error committed, the space studied, the conditions of error production and the procedural evidence, relating them to the theoretical framework adopted[11].

This study was approved by the Research Ethics Committee of the Nursing School of the *Universidade Federal da Bahia* (Certificate of Presentation of Ethical Assessment n. 28046914.7.0000.5531 and Opinion n. 632.501/2014).

Results

In the Regional Nursing Councils participating in the study, 19 EDPs with error were identified in the period analyzed. Of this total, 11 corresponded to the state of Bahia, 3 to the state of Alagoas, 3 to the state of Rio Grande do Norte and 2 to the state of Sergipe.

Regarding the characterization of the context of occurrence of the error recorded in the EDPs, the night shift was the most cited when the error occurred (7 citations). As for the nature of the organizations cited in the proceedings, 13 are public and 6 are private. The hospital was the place of occurrence of errors cited in 13 cases, the Primary Health Unit was cited in 3 cases, the occurrence of errors in Health Center (specialized care service) was cited in 2 processes and home care service in 1 process. In 17 EDPs analyzed, medication error was the object of complaint; in 1 process, there was error in procedure; and in 1 process, patient fall. As for the victims of the error, 11 were adult patients, 7 were children and 1 occurrence was recorded with an elderly patient.

Concerning the characteristics of the workers reported, 12 were nursing techniques, 7 nursing assistants, 5 nurses and 1 nursing attendant. Of the 26 workers reported, 25 were female. We emphasize that, in one case, more than one worker can be reported. We note that the higher frequency of complaints referred to the technical level workers.

In relation to the determining conditions of error production, considering the analytical procedure employed and assuming that the importance of an analytical unit increases with the frequency of appearance, Table 1 shows the general space of error production and the conditions that compose it, based on the count of the analysis units. In this panorama, of the 106 units of analysis identified, 79 (74.52%) were related to the general space, which includes determinants for the occurrence of error in nursing work, especially the precariousness of work.

Table 1 – Frequency of analytical units per error production space. Bahia, Alagoas, Rio Grande do Norte, Sergipe, Brazil – 2000-2018. (N=106)

Error Production Space	n
General Space - Determinants for the occurrence of an error	79
Precariousness of work	49
Work intensity	46
Precarious working conditions	2
Dismissal of labor law	1
Model of Organization of the Work Process in Health	20
Lack of protocols	19
Hierarchy in the health work process	1
Work Management Model	10
Lack of Continuing Education Program	10

Source: Created by the authors.

In Chart 1, we present the analysis of the processes. We consider the general space of error production in nursing work and their respective conditions, showing the most frequent production conditions in all processes analyzed.

Chart 1 – Error analysis categories according to production spaces, dimension and procedural evidence

Error Production Space (General)	**Dimension**	**Procedural Evidence**
General Space: determinants for the occurrence of errors in nursing work	Precariousness of work	Work intensity: *I also claim work overload, given that I was responsible, at that time, for pediatrics, with a capacity for 13 beds, sometimes with up to 18 beds occupied, and also responsible for the emergency, as there is not always a professional in this sector.* (Nursing Assistant, Process 10).
		Work intensity: *Inside this unit, first floor, there are 20 beds, plus operating room, delivery room, nursery and mini ICU* [Intensive Care Unit]. *Besides, on the ground floor, there is the emergency room, the observation room and the sterilization room. We are two to take care of all this, performing dressings, sterilization, nebulization, measuring AT* [Arterial Tension]*, passing through surgical and delivery rooms, with rare nights when there's no cesarean section.* (Nursing Assistant, Process 14).
		Precarious working conditions*: The horizontal physical structure with walls makes articulation between the beds and the nursing station difficult. It is a fact that the structure of the ICU sector* [Intensive Care Unit] *being between walls contributed to the error, instead of being panoramic. This undoubtedly harms the performance of professionals. Behold, as they have to move between the nursing sector and the ICU for the procedures of taking notes and receiving medication, they end up losing sight, momentarily.* (Nurse, Process 5).
		Dismissal of labor law: *Do you have the right to rest during the shift? No. When the shift is calmer, which was not the case, the mattresses are taken from the crib, put them on the floor of the post and take turns resting with the colleague. On this day, were you or your colleague able to rest? No.* (Nursing Assistant, Process 12).
	Organizational model of the health work process	Lack of working tools (protocols): *Is there a protocol in this sector that only the nurse can administer medications? Not officially. Some technicians, in a given situation, administered the medication, but, in general, they did not. It was the nurse who administered and it wasn't written. It was all verbal. There is no SOP* [standard operating procedure] *exclusively for administering medication in the ICU* [Intensive Care Unit]*, but there is a consensus without SOP, that only the nurse administers medication.* (Nurse, Process 2).
		Hierarchy in the health work process*: I even commented to one of my colleagues "forty drops of dipyrone for a 3-year-old?", but one of them, who I don't remember who it was, even said to me: if the doctor prescribed it, you have to do it.* (Nursing Technician, Process 1).
	Work management model	Lack of Continuing Education Program*: Does the hospital have a continuing education system? No. We have sporadic educational training interventions.* (Nurse, Process 16).

Source: Created by the authors.

Discussion

We recorded that most complaints occurred against nursing technicians and assistants. This fact is related to the social and technical division of nursing work. The technical-level workers assume technical-assistance activities in the work process, being more prone to the occurrence of failures of this nature. The nurse is responsible for coordinating this process, configuring the assistance-management nature of their work[12]. The social and technical division of nursing work favors the occurrence of error, because it separates planning and execution actions[4].

Although nursing attendants are not recognized by the legislation of nursing work (Federal Law n. 7,498/1986), an EDP filed a complaint against a worker in this position. The

category of nursing attendant was extinguished in 1986 by Law n. 7,498, which limited the performance of nursing attendants until 1996. However, the largest contingent of workers in the field of nursing until the mid-1990s was constituted of this professional group, however, as evidenced by the EDP, they continued to exercise private activities of nursing technicians, since the dates of the EDPs samples analyzed begin in 2000[13].

Medication error was the most recurrent type in the processes, which can be attributed to the fact that these are more easily identified, because they present potential for immediate harm to the patient. Therefore, they are most often reported by health workers. Although they represent one of the most common types in health services, their causality is complex and multifactorial[14].

The most frequently cited place of error in the cases was the hospital. For the provision of care in the hospital environment, more dense and continuous technologies are used, with greater exposure to this type of risk. It is still necessary to consider that the notification of these cases is more common in hospitals, due to the characteristics of the services produced and because it incorporates patient safety policies[15].

The night shift predominates in reports of errors. A study conducted in hospitals in Ethiopia demonstrated that night work was a condition associated with errors in drug administration due to sleep deprivation, loss of concentration and exhaustion experienced by nursing workers during the night[16].

The conditions located in the general space were the most recurrent in the processes analyzed. In all processes, we identify aspects of work precariousness, the most recurrent being the intensity of work, which refers to the consumption of personal and group energies spent by workers[17]. The intensity of the work is revealed in the undersizing of nursing workers, who employ all their mental, physical, creative and relational capacity to perform the required activities. The intensity of the work experienced by them, with the undersizing and accumulation of tasks, is one of the prerogatives of toyotism, which has as basic premises the multipurpose and multifunctional worker, with subjective engagement with the organization[18].

A study[19] states that the intensity of nursing work is related to institutional/labor factors focusing on precariousness of work, undersizing of staff with consequent increase in workload, weaknesses in working conditions and relations, extension and/or duplication of the working day and performing several tasks simultaneously. These findings are compatible with those of the study[4], which demonstrated, in a EDP analysis at the Regional Nursing Council of Bahia, that the intensity of work and undersizing are the most recurrent conditions of error production.

Working conditions are identified as determinants of work error. These are composed of a set of variables that influence not only the work, but the life of the worker[20]. Nursing workers, in general, try to overcome the poor working conditions imposed by employers, developing strategies not to harm patient care, adapting to the precariousness of work. These adaptations are punctual and palliative, because they do not solve the problem of lack of structure of working conditions aligned with the logic of capital and neoliberal economic policy.

To illustrate these adaptations, when working conditions are inadequate to meet the profile and need of the patient, nursing workers need to adapt existing resources to replace those not available, performing their activities with materials, equipment, resources and improvised environments, while performing multiple tasks and assisting more patients than they are capable of. All this indicates trajectory of risks for the occurrence of error in nursing work.

The disposal of the right to work is also identified, when the labor rights contained in the laws that regulate work in Brazil (Consolidation of Labor Laws or other regulations) are not met by the employer. The procedural evidence shows that nursing workers are not entitled to rest time or adequate place guaranteed by the employer. The nursing work in the hospital is developed through a process in which the assistance to the user must be continuous and uninterrupted.

When working under these conditions, nursing workers are more exposed to job precariousness. In addition to this fact, the reduction of rest or even its absence, which leads to an increase in the number of hours worked, generating fatigue, drowsiness and indisposition, and this contributes to the occurrence of errors in health work[21].

In this sense, the guarantee of rest during the working day is fundamental for the reestablishment of the physical and mental conditions of the workers, since, during the working say, they expend efforts to meet the demands of the organization and the needs of users. Although intraday rest is consolidated as a right, it is not uncommon to restrict it by employers organizations, in view of the predominance of precarious work, increasing exploitation and thus intensifying work.

The changes in the CLT, approved in 2017 by Law n. 13,467/2017, legalized existing practices in the labor market and allowed organizations to manage the workforce according to their needs[22]. One of the changes, which makes the working day more flexible and affects the right to rest of nursing workers, is the opening of the negotiation to reduce the feeding/rest interval to less than one hour in working hours that exceed six hours per day.

Although this gives the impression that the workers themselves have control over the mode of labor regulation, and are able to negotiate with employers, in fact, it expands the employer's freedom to manage the worker's working time and individual time according to their need, as well as extend the working day and increase the intensity of work. Moreover, such measures to dismantle labor law diminish the power of the unions and demobilize the collective organization of workers[23].

Still in the general space, we situate the model of organization of the work process in health, which is characterized by having a complex and singular work object, because it is of a collective nature, involving multiple agents in its execution and by the intense division of labor in its organization. In the health work process, the following elements are recognized: agents, objects, instruments and activity, and purpose[7]. For our discussion, the focus is on the work instruments, because, in the context of the occurrence of error, it was found the lack of these operational and assistance protocols that constitute technological resources that guide and organize this kind of work.

Due to the heterogeneity of the work process in health, with multiple agents, work object with distinct and socially determined needs, permeated by different knowledge, practices and technologies, protocols are essential tools to organize health care and guide the practice of health workers[24]. The lack of these instruments, lack of routines and institutional standards allow the assistance to users to be produced in a heterogeneous way, leaving to each worker the decision on what they consider appropriate. This leads to a variability of actions and practices that can culminate in the occurrence of errors. This is also related to the organization and characteristics of the health work process, given its hierarchy and the hegemony of knowledge and medical power in the definition of therapy. The units of analysis indicate that nursing workers, when recognizing a medical prescription error, do not question the decision made and follow what is prescribed for fear of retaliation from prescribers and leaders of the organization.

In this context, we can predict that the decision not to question medical prescription, especially among middle-level nursing workers, does not only happen by fear, but by the fact that these workers feel incompetent, given the hegemony of medical knowledge and the subordinate hierarchical position they occupy in the health work process.

Another determining condition for the occurrence of error at work in nursing is related to the model of work management adopted by organizations and the decision not to implement Permanent Health Education Programs. Since the 1980s, toyotism has consolidated as a hegemonic model of work organization. The ideology disseminated by this model starts from the premise that the worker must be able to take risks, be versatile, be flexible, always seek to qualify and be able to make decisions about his work[18]. Thus, in addition to the physical

force being the target of capitalism, so is the subjectivity of the worker. In this context, in which the toyotist management demands from the worker proactivity and imprints the ideology that they must be able to manage their own life, we found a reference to explain the lack of Permanent Health Education programs.

In this management model, we understand that the responsibility of qualification for work falls only on the worker, printing the conception that continuous improvement is their responsibility, to meet organizational demands. Management by fear, typical of the precarious work system, instills insecurity in the worker. If the worker does not fit the norms and needs of the organization, they will be easily discarded. Thus, the organization exempts itself from the obligation to qualify workers. However, due to the characteristics of health work, these training and qualification devices should be performed permanently.

In health work, Permanent Education in Health is a strategy that allows the production of education processes at work itself, capable of promoting reflections on how health actions materialize, aiming to problematize and reconstruct them through meaningful educational practices[25]. We consider that the obstacles to the consolidation of permanent education programs are related to characteristics of the toyotist work management model, because this disregards structural conditions that influence the work process and places the responsibility of training and qualification only on the worker, who must be constantly adapting to meet the requirements of the organization.

We recognize that Permanent Health Education can contribute to the qualification of workers in a pedagogical and practical dimension. Nevertheless, we point out the impossibility of changing the structural limits of capital, the precariousness of work and the precarious working conditions experienced by these workers, which are determining factors for the production of error. In the context of this occurrence in nursing work, Permanent Health Education may be necessary for the construction of a new order that seeks to change the punitive approach of workers. The occurrence of these events can also be used for learning development, as well as to expand and improve the technical, scientific and political capacity of these workers.

A limitation of this study is the analysis of data on errors in nursing work that were reported to the Regional Nursing Councils participating in the study, with outcome in EDP. It should be considered that, in the period of coverage of this study, other errors occurred in health services, although not all have become objects of complaint with the municipality that regulates the work in nursing.

This research contributes to elucidate that nursing workers do not err alone or make mistakes predominantly because of their singularities. Thus, the individual approach to error and the punitive measures employed in EDPs should not constitute a form of management of error at work. When punishing, excluding and invalidating workers who make mistakes, the conditions that determine the production of this event in nursing work remain intact.

Final Considerations

The authorship of the error is frequent among nursing technicians and assistants, due to the place occupied by these workers in the social and technical division of work and in the nursing work process, when they assume care activities, executed in a fragmented way and without participation in planning. The most frequent type of error refers to medication, and the hospital is the place of greatest occurrence.

As for the analysis of the conditions of error production in nursing work, the elements most frequently identified are located in the general space or space of the determinants, and are related to the precariousness of work. This is identified in the work context in all the analyzed EDPs, and the intensity of work – expressed by the undersizing of personnel – the most recurrent condition.

Thus, there is evidence to affirm that the conditions of error production in nursing work is a structural condition, which allows refuting the hegemonic notion in the field of nursing work, which addresses error as a moral phenomenon.

Collaborations:

1 – conception and planning of the project: Dhuliane Macêdo Damascena, Cristina Maria Meira de Melo and Handerson Silva Santos;

2 – analysis and interpretation of data: Dhuliane Macêdo Damascena, Cristina Maria Meira de Melo and Handerson Silva Santos;

3 – writing and/or critical review: Dhuliane Macêdo Damascena, Cristina Maria Meira de Melo, Handerson Silva Santos, Tatiane Araújo dos Santos and Daniely Oliveira Nunes Gama;

4 – approval of the final version: Dhuliane Macêdo Damascena, Cristina Maria Meira de Melo, Handerson Silva Santos, Tatiane Araújo dos Santos and Daniely Oliveira Nunes Gama.

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