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Original article

Evaluation of nursing records through Quality of Diagnoses, Interventions and Outcomes

Avaliação dos registros de enfermagem por meio do *Quality of Diagnoses, Interventions and Outcomes*

Evaluación de los registros de enfermería a través del *Quality of Diagnoses, Interventions and Outcomes*

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Abstract

Objective: to evaluate the quality of nursing process records in medical records of an adult intensive care unit. **Method:** cross-sectional study, with application of the Quality of Diagnoses, Interventions and Outcomes in 145 medical records of patients who were hospitalized from November 2018 to June 2019. **Results:** in relation to the domain called Nursing Diagnoses as a process, only 27% of the records were complete. In the nursing diagnostics as a product domain, the results were satisfactory with 97% of the complete documentation. Satisfaction remained in nursing interventions, in which completeness was obtained in 94% of the medical records. As for the Results, more than half of the records presented inconsistencies. **Conclusion:** the records of the Nursing Process have been executed in the intensive care unit in a partially satisfactory way, and, from this study, it is possible to develop strategies to improve the quality of records.
Descriptors: Nursing Records; Nursing Process; Nursing Diagnoses; Nursing; Hospital Education Service

Resumo

Objetivo: avaliar a qualidade dos registros do Processo de Enfermagem em prontuários de uma unidade de terapia intensiva adulto. **Método:** estudo transversal, com aplicação do *Quality of Diagnoses, Interventions and Outcomes* em 145 prontuários de pacientes que estiveram internados no período de novembro de 2018 a junho de 2019. **Resultados:** em relação ao domínio denominado Diagnósticos de Enfermagem como processo, apenas 27% dos registros apresentaram-se completos. No domínio Diagnósticos de Enfermagem como produto, os

resultados foram satisfatórios com 97% da documentação completa. A satisfatoriedade se manteve nas Intervenções de Enfermagem, em que a completude foi obtida em 94% dos prontuários. Quanto aos Resultados, mais da metade dos registros apresentaram inconsistências. **Conclusão:** os registros do Processo de Enfermagem vêm sendo executados na unidade de terapia intensiva de forma parcialmente satisfatória, e, a partir deste estudo, é possível desenvolver estratégias para melhoria da qualidade dos registros.
Descritores: Registros de Enfermagem; Processo de Enfermagem; Diagnósticos de Enfermagem; Enfermagem; Serviço Hospitalar de Educação

Resumen

Objetivo: evaluar la calidad de los registros del proceso de enfermería en los registros médicos de una unidad de cuidados intensivos de adultos. **Método:** estudio transversal, con aplicación del *Quality of Diagnoses, Interventions and Outcomes* en 145 historias clínicas de pacientes hospitalizados desde noviembre de 2018 hasta junio de 2019. **Resultados:** en relación al dominio denominado Diagnósticos de Enfermería como proceso, sólo el 27% de los registros fueron completos. En el dominio del diagnóstico de enfermería como producto, los resultados fueron satisfactorios con el 97% de la documentación completa. La satisfacción se mantuvo en las intervenciones de enfermería, en las que se obtuvo completitud en el 94% de las historias clínicas. En cuanto a los resultados, más de la mitad de los registros presentaron inconsistencias. **Conclusión:** los registros del Proceso de Enfermería se han ejecutado en la unidad de cuidados intensivos de manera parcialmente satisfactoria, y, a partir de este estudio, es posible desarrollar estrategias para mejorar la calidad de los registros.
Descriptores: Registros de Enfermería; Proceso de Enfermería; Diagnósticos de Enfermería; Enfermería; Servicio de Educación Hospitalaria

Introduction

Nursing is the protagonist and responsible with regard to the quality of care provided in health environments. Nursing records correspond to one of the main instruments to systematize care, as well as ensure continuity of care and communication among professionals. From adequate, coherent and complete records, the quality of care is also evidenced.[1]

Considering that nursing records incorporate and support the care provided, it is necessary that they are quality, in order to guide the practice of professionals, provide follow-up of the clinical evolution of the patient and continuity of the prescribed interventions, besides providing the necessary contribution to the evaluation of care. Thus, the records provide benefits for professionals in the category and strengthen the work of the multidisciplinary team,[2] in addition to supporting and recognizing nursing.[3]

In order to improve the quality of care and records, the Nursing Process (NP) emerges as a methodology to systematize care. For the implementation of the NP, it is

suggested the use of standardized language systems (SLS), with a view to providing a language that allows documentation based on scientific evidence, ensuring greater professional, institutional and social visibility to the work of nurses.[4] Quality records corroborate the process of improving the quality of care, and the implementation of the NP allows a deeper knowledge about the health-disease process of patients and improves clinical reasoning in situations and conducts of professionals.[3]

Nursing records are analyzed in the audit processes of health institutions, with the objective of evaluating the quality of care provided. This evaluation has relevance, considering that, from the data and indicators obtained, it is possible to plan educational actions, as well as the promotion of constant improvements.[5]

To evaluate the quality of NP records, one can rely on the Quality of Diagnoses, Interventions and Outcomes (Q-DIO), developed by researchers from Switzerland, the Netherlands and the United States in 2007, having been translated and validated for Portuguese in 2012, facilitating its use in Brazil. The Q-DIO can be used as an indicator that compares the records, becoming an ally in the definition of goals, evaluation of the impact of permanent education programs and in the nursing audit system. This tool evaluates the quality of nursing history records and evolution, more specifically issues related to diagnoses, interventions and Nursing Outcomes.[6]

The scientific literature on this theme reveals weaknesses regarding the quality of nursing records, and indicates as main problems the inadequate dimensioning of teams, the deficits in the academic and continuing education of professionals and the importance and priority given to the records.[2] From this perspective, researchers from all over the world have shown concern in performing a reliable assessment of the quality of nursing records, based on a validated instrument, such as the Q-DIO.[7-9] In the American continent, especially in Brazil, the use of Q-DIO as an evaluative instrument is still incipient, and the evaluation of records of clinical hospitalization units is limited.[10] Considering the relevance of complete nursing records and written clearly and objectively as a way to guarantee and evidence the quality of care provided, there is the following research question: how do NP records are presented in relation to quality, measured by Q-DIO in an adult intensive care unit (ICU).

In order to answer this question, the present study aimed to evaluate the quality of NP records in medical records of an adult ICU.

Method

This is a cross-sectional study of documental analysis, which integrates the research macro-project Nursing Process as Care Technology in the Health Care Network: Teaching Nursing Professionals.

The research was carried out with medical records of patients who were admitted to the adult ICU of a large hospital in the western region of Santa Catarina. The hospital has 312 beds in its general structure, of which 12 are adult ICU beds. As for nursing professionals, at the time of collection, the team consisted of nine nurses and 36 nursing technicians working in the sector. The choice by the ICU was due to the fact that it was the first sector of the hospital to have the NP implanted in all its stages, a process that lasted one year.

The health institution understood the need to implement and implement the NP and, in partnership with the nursing courses of two public and community universities* planned the steps of the NP based on the theory of Wanda Horta[11] and the standardized language systems NANDA-I, Nursing Outcomes Classification, known by the acronym NOC, and Nursing Interventions Classification, known by the acronym NIC, being the adult ICU the pioneer sector. Since its implementation, no evaluations of the data produced by the service had been performed, and, when observing this demand, a scholarship member of the research project was assigned for data collection, through study and appropriation of the Q-DIO instrument. Medical records are stored in the medical and statistical archive sector (MESA) in physical form and digitized. These medical records were selected, and the data were consulted online at the hospital premises.

Data collection occurred during three months, from July to September 2019, and medical records of 145 patients who were hospitalized between November 2018 and June 2019 were evaluated. This period was randomly determined when starting the collection, going backwards in the months from June, until the number of medical records made the sample valid. The sample calculation was performed based on the number of questions contained in the Q-DIO instrument, i.e., 29. The sample size was

determined based on authors who determine a minimum of five times more observations than the number of variables to be analyzed.[12] Medical records were included in the study with NP records from patients who remained hospitalized for at least five days, a time interval defined so that it could be analyzed from the information on the nursing history collected at admission to the evaluation of nursing prescriptions, interventions provided and results, according to the recommendations of the Q-DIO tutorial. Medical records of patients who did not contain the NP instrument were excluded, since without it it is not possible to evaluate nursing history, evolution and prescription.[6]

Data collection occurred through the analysis of medical records with application of the Q-DIO instrument, which is represented by a Likert scale, with a score of zero, one and two, and zero means that there is no record related to the question, one means that the records are partially complete, and the score two represents complete documentation, that is, quality. The instrument is composed of 29 items, which are distributed in four domains: Nursing Diagnoses as a process, Nursing Diagnoses as a product, Interventions and Nursing Outcomes. The first domain assesses the questions related to anamnesis and physical examination; the second domain addresses the formulation of nursing diagnoses and their completeness; domain three evaluates the care prescribed and offered to patients, and the fourth domain evaluates the records in the medical records regarding the results and nursing evolution.[6]

The collected data were entered in a spreadsheet elaborated in Microsoft Excel and later analyzed through descriptive statistics, and the absolute, relative and average frequencies were calculated through the Statistical Package for Social Sciences (SPSS), version 22.0. The research in question was conducted following the ethical standards of Resolution 510/2016 of the Ministry of Health and according to the opinion mentioned, according to protocol 1.836.351/2016.

Results

Of the 145 medical records analyzed, it was evidenced that the mean age of the patients was 53.36 ± 9.8 years. The hospitalization period ranged from 5 to 98 days, with a mean of 22.6 ± 6.4 days. Regarding the main reason for hospitalization, the

neurological diseases were highlighted. Neurological, respiratory and oncologic diseases together represented more than 60% of the causes of hospitalization (Table 1).

Table 1 – Characterization of patients according to age, days of hospitalization and reason for hospitalization. Chapecó, SC, Brazil, 2019. (n=145)

Variables	N	%
Age, mean ± SD	53.36 ± 9.8	
Days of hospitalization, mean ± SD	22.6 ± 6.4	
Reason for hospitalization		
Neurological	51	35.1
Respiratory	20	13.8
Cancer	19	13.1
Abdominal	9	6.2
Infection	7	4.8
Heart	5	3.4
Renal	2	1.3
Trauma	13	9.1
Others	9	6.2
Over one associated condition	10	6.8

SD: standard deviation.

In the analysis of the evaluation of the diagnosis as a process, that is, data from anamnesis and physical examination, it was found that only items 1 and 9 presented a mean above 1, which were present completely in 64.1% and 62% of the medical records, respectively. It is noteworthy that, for items 4, 5 and 7, the complete record was not observed in any medical records (Table 2).

Table 2 – Analysis of Nursing Diagnoses items as a Process (1-11). Chapecó, SC, Brazil, 2019.

Nursing Diagnosis as a Process	0	1	2
	N (%)	N (%)	N (%)
1. Current situation that led to hospitalization	27 (18.7)	25 (17.2)	93 (64.1)
2. Anxiety, concerns, expectations and desires related to hospitalization	143 (98.6)	1 (0.7)	1 (0.7)
3. Social situation and environment/circumstances in which you live	66 (45.5)	71 (48)	8 (5.5)
4. Coping with the current situation/with the disease	137 (94)	8 (6)	-
5. Beliefs and attitudes towards life (related to hospitalization)	139 (95.9)	6 (4.1)	-
6. Information about the patient and family/other important people in the situation	75 (51.7)	62 (42.8)	8 (5.5)
7. Gender-Related Personal Intimacy Issues	136 (93.8)	9 (6.2)	-
8. Hobbies, leisure activities	70 (48.2)	55 (38)	20 (13.8)
9. Important people (to contact)	31 (21.4)	24 (16.6)	90 (62)

10. Activities of daily living	49 (33.8)	66 (45.5)	30 (20.7)
11. Relevant nursing priorities according to the assessment	138 (95.2)	4 (2.7)	3 (2.1)

Note: 0 = no record; 1 = partial records; 2= complete records.

Regarding the evaluation of nursing diagnoses as a product, which represented the actual and potential problems of patients, all items evaluated presented a mean greater than or equal to 1.6 and percentages above 78% for records performed in a complete way. In items 16, 17, 18 and 19, the information was recorded completely in all medical records analyzed (Table 3).

Table 3 – Items of Nursing Diagnoses as a Product (12-19). Chapecó, SC, Brazil, 2019.

Nursing Diagnoses as a Product	0	1	2
	N (%)	N (%)	N (%)
12. Nursing Problem/Diagnosis title is recorded	-	1 (0.7)	144 (99.3)
13. Title of diagnosis is formulated and numbered according to NANDA	-	1 (0.7)	144 (99.3)
14. The etiology is recorded	29 (20)	-	116 (80)
15. The etiology is correct and corresponds to the Nursing Diagnosis	29 (20)	2 (1.4)	114 (78.6)
16. Signs and symptoms are recorded	-	-	145 (100)
17. Signs and symptoms are correctly related to the Nursing Diagnosis	-	-	145 (100)
18. The nursing goal relates/corresponds to the Nursing Diagnosis	-	-	145 (100)
19. The nursing goal is achievable through interventions	-	-	145 (100)

Note: 0 = no record; 1 = partial records; 2= complete records.

Table 4 shows the evaluations of nursing interventions and the care prescribed and offered to patients, according to their needs. Among the three items evaluated, two of them (20 and 21) were completely recorded in all medical records.

Table 4 – Nursing Intervention Items (20-22). Chapecó, SC, Brazil, 2019.

Nursing Interventions	0	1	2
	N (%)	N (%)	N (%)
20. Concrete, clearly named according to NIC interventions – and planned (what will be done, how, how often and by whom)	-	-	145 (100)
21. Nursing Interventions have an effect on the etiology of Nursing Diagnoses	-	-	145 (100)
22. The Nursing Interventions performed are recorded (what was performed, how, how often and by whom)	-	52 (35.9)	93 (64.1)

Note: 0 = no record; 1 = partial records; 2= complete records.

Regarding the Nursing Outcomes, presented in Table 5, there was a heterogeneity in relation to the record of the items that make up this domain, the mean ranged from 0 to 1.93, and items 24, 27 and 28 were incomplete in all medical records analyzed. Item 1 received the highest mean (1.93), and its complete record was in 93.1% of the medical records.

Table 5 - Nursing Outcome Items (23-29). Chapecó, SC, Brazil, 2019.

Nursing Outcomes	0 N (%)	1 N (%)	2 N (%)
23. Critical diagnostic changes are assessed daily or shift by shift / extended diagnostics are assessed every 4 days	-	10 (6.9)	135 (93.1)
24. The Nursing Diagnosis is reformulated	145 (100)	-	-
25. The Nursing Outcome is registered	1 (0.7)	33 (22.8)	111 (76.5)
26. The Nursing Outcome is observable/measured and recorded in accordance with NOC	4 (2.8)	104 (71.7)	37 (25.5)
27. The Nursing Outcome indicates: improvement of the patient's symptoms; improvement of patient knowledge; improvement of the patient's coping strategies; improvement of self-care skills; improvement in functional status	145 (100)	-	-
28. There is a relationship between the results and Nursing Interventions	145 (100)	-	-
29. Results and Nursing Diagnoses are internally related	-	145 (100)	-

Note: 0 = no record; 1 = partial records; 2= complete records.

Discussion

This study identified that the NP is performed in all its stages and the Q-DIO domains that presented the best quality of registration were those that evaluated the description of the elements of nursing diagnoses and interventions. However, the categories related to nursing diagnoses as a process and the results presented less satisfactory results.

Just as the completeness of the records adds quality to care, the lack of them also impairs the process. The first stage of the NP consists of data collection, when the professional knows the patient and identifies his problems through anamnesis and physical examination.[13] Considering that the nursing history provides data that support nursing diagnoses, it is essential that nurses evaluate the patient in its entirety, because when the collection is performed incompletely, it can lead them to list erroneous and

insufficient diagnoses to the patient's condition, resulting in failure in the other stages of the care process.

In a study conducted in a Swiss hospital,[7] in order to evaluate the quality of nursing records through the Q-DIO, better results were obtained in view of the variable in question, and the records referring to the nursing history reached an average of 1.2 on the Likert scale, while in the present study the mean was 0.52. Furthermore, only two of the 11 items evaluated in the Nursing Diagnosis domain as a process indicated completeness and, therefore, quality in the history records, demonstrating inconsistency in this first stage of the NP.

Therefore, most of the items evaluated by the nursing history presented inconsistency in the records. Questions analyzed by the Q-DIO in which no records were found concern religion/spirituality or other psychospiritual beliefs and needs, for example, the need for religious visits and aspects related to culture, practices and rituals. Issues such as these have relevance when analyzing the bases of the profession, in this case nursing theories, and Wanda Horta's theory,[10] based on basic human needs, brings this dimension as a focus of care, besides being able to be allied with other theories, like Watson, in which the holistic paradigm is approached.[14] Moreover, with regard to theories, the biopsychospiritual needs of patients and the importance of care with this approach are noticeable.[15] However, even if this dimension is addressed in nursing theories, as well as receiving emphasis on them, no current research was found in the scientific literature that addressed nursing records in the face of religion/spirituality or biopsychospiritual needs.

A Brazilian study[15] sought relationships of patients' spirituality in the ICU context, and the results showed that more than half of patients are based on some religion as a way of coping, showing that spirituality and religiosity are relevant factors in the way of dealing with difficult situations, such as ICU admission. Considering the number of people who seek support through faith, not addressing this dimension in care ends up fragmenting care and the integral look to the patient and around him. Therefore, from the perspective of integrality of care, it makes sense to promote interdisciplinarity/interprofessionality with psychologists and religious support services, both for patients and family members.[15]

Furthermore, in the patient's medical records, no information was found regarding the patients' intimacy issues, nor were information addressing the gender issue, habit relationships and privacy, such as number of partners and contraceptive methods, which was one of the questions evaluated by Q-DIO in nursing history. This result corroborates the literature, which indicates the scarcity of this theme and may be attributed to nurses' weaknesses, because of the evaluation of gender and sexuality issues, or even taboos. In this perspective, a study was conducted that sought to identify nurses' perception of the sexuality of hospitalized patients, which pointed out the unpreparedness of the category to deal with these situations and treat sexuality in a veiled way, generating anxiety and embarrassment for the patient and the professional.[16]

The mean of this variable showed that the records referring to the Nursing Diagnosis as a process result in a quarter of the ideal, that is, there is still a long way to go for completeness in the quality of records related to data collection. According to another study, which also evaluated the quality of the NP documentation, the information in this domain is relevant in the construction of the NP, because they allow identifying real or potential problems.[17] Therefore, it is evident the relevance of the instruments for data collection, their contribution to nursing records, the importance of preparing them with a scientific evidence to contemplate the maximum amount of relevant information and the contribution to the quality of care provided during hospitalization.

However, although the evaluative instrument Quality of Diagnoses, Interventions and Outcomes was created to be applied in all hospital sectors, it is perceived that there are particularities, referring to this first domain that deals with Nursing Diagnoses as a process, which does not cover all realities and not all relevant information in the care process within the sector addressed. Just as the organization of the profile of diagnoses, interventions and results are constructed according to the needs of the sectors, and the questions related to this first domain need to be reviewed and organized in such a way.

Unlike the nursing records related to history, which were incomplete, those referring to nursing diagnoses as a product demonstrated very satisfactory results. The

stage of Nursing Diagnoses is the essence for a good evolution of patients, as it supports the planning of care.[18]

A previous study conducted at the same site of this study identified high accuracy of nursing diagnoses listed by nurses, demonstrating that their diagnostic reasoning has been effectively performed.[3] The results reveal that the variable referring to Nursing Diagnoses as a product can be attributed, in part, to the use of SLSs, which improve the documentation of the nursing registry in an integral and scientific way. The results of the present study indicate that all nursing diagnoses recorded in the medical records analyzed were with complete nomenclature. Some presented inversion in the order, first indicating the defining characteristic and, in the sequence, recording the related factor, but this detail did not prevent the records from pointing out as complete.

One aspect analyzed in the evaluation of nursing diagnoses was that 20% of patients' medical records do not present records of related factors in the structure of the Nursing Diagnosis – for example: "Impaired skin integrity related to [is not] evidenced by changes in skin integrity", or "Ineffective breathing pattern related to [is not] evidenced by abnormal respiratory pattern". The related factors help to define the diagnoses and relate them to the interventions, because the relationships between both determine the extinction or reduction of the causes of the Nursing Diagnosis, in addition to the accuracy of the diagnosis, questioning the quality of nursing care.[19] Misconceptions such as this, referring to the lack of factors related to the Nursing Diagnosis, are of concern considering that they appeared in the NP record every day of hospitalization of the patient, which generates doubts about the clinical and critical reasoning of the nurse for the definition of nursing diagnoses, as well as the planning of care. Thus, it is clear the need to improve the nurses' diagnostic reasoning.

The next items analyzed relate to the dimension of Nursing Interventions, based on clinical judgment based on the analysis of data from previous stages, and constitute actions and activities aimed at patient well-being.[20] For this domain, the results were satisfactory, indicating completeness of the records. However, even with the complete records and consistent with the NIC, there was inconsistency in more than one third of the patient's medical records, in which it was identified that the prescribed activities

were not checked, that is, there was no proof that the care was provided by nursing professionals.

The prescription is a private function of the nurse, but the execution and verification of these actions are mostly checked to nursing technicians.[20] Occurrences observed in the records of the patients' medical records in relation to the checks is that, or all the activities of the nursing prescriptions were checked or none of them, besides having identified that the lists of interventions were relatively long. This datum corroborates a study that evaluated the quality of nursing prescriptions in an ICU of a university hospital and brought, in its results, that the nursing prescriptions presented positive results, but the checks of the prescribed activities were not successful and were performed inadequately, or not yet performed.[21]

Nursing technicians are fundamental in the execution of the NP, mainly by converting nursing prescriptions into direct actions to the patient. These professionals need to have their knowledge recognized and should be included and involved in the planning of the steps of the NP, so that they are able to perform their functions in a coherent way to the proposed objectives, aiming at the best results. In the hospital focus of this research, fortnightly meetings are held only with the nursing professionals of the sectors for the construction of the NANDA-I, NOC and NIC care matrices, indicating the need for training/training to nursing technicians to perform the NP.

When evaluating the domain related to nursing outcomes, it was found that nurses do not record the evolution of the patient based on the steps of the NP, not even as recommended by resolution 514/2016 of the Federal Nursing Council (Cofen), which approves the Guide to Recommendations for Nursing Records in the Patient's Medical Records and Other Nursing Documents.[22] Nursing evolutions constitute nursing notes containing only information about vital signs and general physical examination of the patient, medications, infusions and eliminations, as well as equipment and utensils of which they make use, among other specific aspects. However, to characterize a nursing evolution, as the name says, the data must be analyzed, processed and contextualized.

A complete nursing evolution should be performed on the admission of patients, allowing, from their reading, their general visualization. When comparing the results of

the study with those of a study conducted in the Northern Region of Brazil,[23] some points were identified in the records of nursing evolutions, such as medical diagnosis, aspects of the disease, signs and symptoms and complications. However, incongruities were found in the records regarding the conducts taken and the evaluation of the results obtained, and the evolutions in the study site do not present this information, failing to record the basic needs affected, as well as the nursing conducts taken before them.

When analyzing this condition in the literature,[23] the lack of time has been considered as the main conditioning factor for not performing or performing incompletely the records of nursing evolution. Tied to this factor, we highlight the excess of nurses' attributions and the lack of a model for the recording of evolutions.

As a result of the study, it was possible to identify that the stage of nursing evolution is the most neglected among the stages of the NP, considering that they are not included in the nursing records referring to the NP, but in separate sheets, which are next to the other documents of the patient's medical records. Moreover, the evolution of nursing, instead of containing records of specific nursing care, covers information of medical interest, culminating in not being configured as a clinical analysis document, with particularities of nursing care and care.

By observing the data of the evolutions and the way in which they were written, it is possible to view them as a fragility for the nursing area. This, when considering that the NP exists to bring real science and appreciation of the class, but does not fulfill its role when nurses do not understand the theoretical bases of their profession, nor their priorities and functions, which prevents them from making a correct clinical judgment in the face of nursing needs, referring to the clinical diagnosis elaborated by the physician. Therefore, it is evident that the nursing evolution performed at the study site does not present the result of the care plan proposed by the NP, because, in its structure, the results of this care do not appear, not even aspects that address the care offered by nursing.

In addition, in relation to evolutions, it was possible to identify weaknesses about the time nurses spend with the patient and the content of the evolutions described. The more follow-up days, the greater the possibilities of observing the patient's needs. However, when evaluating the temporality of the prescriptions and comparing the

prescriptions of the first days of hospitalization with those of the latter, no significant differences were perceived, which might mean that nursing evolutions have been performed repetitively and automatically. In this sense, the importance of the development of evolutions focusing on the quality of care is emphasized, and not only for legal reasons, since this maintenance of the NP registry without alterations during the hospitalization period can lead to questions regarding the quality of nursing care.[24] This is another indicator that reinforces the need for the development of nurses' diagnostic reasoning.

Furthermore, a study[24] points to factors that interfere in the number of nursing diagnoses listed to patients and in their sensitivity to nursing outcomes. Advanced age and long hospitalization period tend to result in fewer positive results, which was not identified in the present study.

Another point of inconsistency identified in the records refers to the Nursing Results found in the records from NOC,[25] in which only a quarter of them had the indicators of the results achieved filled out according to the Likert scale. In the records in which the results were properly completed, many did not present a coherent evaluation sequence, that is, when a Nursing Diagnosis receives a five for the NOC indicator achieved, it should be rethought, because, theoretically, this potential problem was solved, and can be reevaluated and replaced by a risk diagnosis or removed the Nursing Diagnosis from the record in the patient's medical record, which rarely occurred in the medical records analyzed. Still, most of the records in the medical records indicate that the patients ended the day with four evaluations of NOC achieved, but, the next day, instead of starting with baseline NOC in measurement four, which would correspond to the actual state of the patient, in most records in the medical records the baseline value did not change, even with the NOC reached from the previous day indicating improvement. This result indicates, once again, the factor "copy and paste" and the weaknesses in the clinical reasoning for the evaluation of the patient.

At the same time that technologies contribute to the nursing work process, by allowing easy access to the information contained in the SLS, rapid connection, standardization, scientific-based care plans, as well as time savings, they can also lead to

disadvantages, such as repetition of the previous day's prescriptions, due to the ease of use of the system and superficial prescriptions only with institutional routines, often weakening clinical reasoning and decision-making in the evaluation and reassessment of patients' needs – a fact that reflects on the quality of care and care. This analysis may result in a lack of commitment of nurses due to the use of technologies to qualify care. The discussion of this variable follows the logic of the discussion of the previous items. When observing the last domain of nursing outcomes, an inconsistency of records is noticeable, demonstrating deficit in their quality in all aspects related to nursing evolution.

As factors that hindered research and its discussion, we highlight the scarcity of previous studies and scientific publications to support the findings of this study, especially with regard to the quality of nursing evolution, which is a theme that lacks deepening and expansion of the number of studies. Moreover, due to the use of a cross-sectional study conducted in a single hospital, with a limited number of medical records from a single sector, the data presented here do not represent the totality of care practices.

In view of the importance of nursing records in hospital institutions, as well as the execution of the NP, using a tool such as Q-DIO to evaluate the quality of nursing records contributes significantly to the training of professionals. It is noteworthy that a return occurred to the place of study, and educational actions focused on the demands found have been planned. Furthermore, this publication contributes to professional valorization, since it demonstrates that nurses have been performing the NP based on SLS.

However, the present study represents an advance in the knowledge about the evaluation of ICU nursing records, using the Q-DIO to measure the quality of the records performed in this scenario. It provides, therefore, parameters for comparison with other realities, in addition to subsidies for the elaboration of strategies aimed at qualifying the records and, consequently, the nursing care provided to the patient dependent on intensive care.

Conclusion

This research demonstrates that the Nursing Process has been performed in the ICU and, according to the Quality of Diagnoses, Interventions and Outcomes instrument, the records present partially satisfactory results. Regarding the variables, the domains that exhibited greater completeness of the records and, therefore, more quality, were those that evaluated the records referring to nursing diagnoses as a product and nursing interventions. For the evaluation, both categories are fully based on the standardized language systems NANDA-I, NOC and NIC, being responsible for the satisfactory results, because the information is organized and recorded according to the taxonomies. In the categories related to nursing diagnoses as a process and nursing outcomes, the found means demonstrate the need to reevaluate the execution of the Nursing Process due to the deficit and incoherence of the recorded information.

Therefore, adjustments in the execution of the Nursing Process in the study ICU are still necessary. Based on the data found in this research, it is possible to point out the weaknesses of the process and act on them through the creation of educational strategies focused on further qualifying nursing records and, therefore, the care provided.

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