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Nursing therapies in the person with post-stroke dysphagia

Terapêuticas de enfermagem na pessoa com deglutição comprometida após acidente vascular cerebral

Terapias de enfermería para la persona con problemas de deglución después de un accidente cerebrovascular

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Abstract

Background: Dysphagia is one of the complications of stroke, with a severe impact on the person's capacity to recover autonomy, and severe respiratory, nutritional, and psychological complications.
Objective: To identify the foci/diagnoses and interventions, documented by nurses, in response to the care needs of the person with post-stroke dysphagia.
Methodology: An exploratory, descriptive, and retrospective study was conducted in an inpatient service of a rehabilitation center, using descriptive statistical analysis in nursing documentation between January and May 2019.
Results: The diagnoses most frequently documented are related to self-care (53.9%), and the most documented interventions are of the *observing* type (49.2%). Documentation of swallowing-related diagnoses and interventions is scarce.
Conclusion: There are interventions directed at this focus in nursing care to the person with post-stroke dysphagia, regardless of the documented diagnoses. The results suggest that, although they constitute a focus of attention in nursing practice, their documentation is limited.

Keywords: stroke; swallowing; nursing care; information systems

Resumo

Enquadramento: A disfagia é uma das complicações do acidente vascular cerebral, com sérias repercussões na capacidade da pessoa para a reconstrução da autonomia e graves complicações respiratórias, nutricionais e psicológicas.
Objetivo: Identificar os focos/diagnósticos e intervenções, documentados pelos enfermeiros, em resposta às necessidades de cuidados à pessoa com deglutição comprometida após acidente vascular cerebral.
Metodologia: Estudo exploratório, descritivo e retrospetivo, realizado num serviço de internamento num centro de reabilitação, com recurso a análise estatística descritiva da documentação de enfermagem entre janeiro e maio de 2019.
Resultados: Os diagnósticos mais frequentemente documentados são no domínio do autocuidado (53,9%) e as intervenções documentadas em maior número são da ação do tipo observar (49,2%). Os registos no domínio da deglutição, quer nos diagnósticos, quer nas intervenções, são escassos.
Conclusão: Nas terapêuticas de enfermagem na pessoa com deglutição comprometida após AVC existem intervenções dirigidas a este foco, independentemente dos diagnósticos documentados. Os resultados sugerem que, apesar de se constituir como foco de atenção na prática dos enfermeiros, existirá alguma limitação na sua documentação.

Palavras-chave: acidente vascular cerebral; deglutição; cuidados de enfermagem; sistemas de informação

Resumen

Marco contextual: La disfagia es una de las complicaciones del accidente cerebrovascular, con graves repercusiones en la capacidad de la persona para reconstruir su autonomía, así como graves complicaciones respiratorias, nutricionales y psicológicas.
Objetivo: Identificar el enfoque/diagnóstico y las intervenciones documentadas por los enfermeros en respuesta a las necesidades de atención de la persona con problemas de deglución después de un accidente cerebrovascular.
Metodología: Se realizó un estudio exploratorio, descriptivo y retrospectivo en un servicio de hospitalización en un centro de rehabilitación, para el cual se utilizó un análisis estadístico descriptivo de la documentación de enfermería entre enero y mayo de 2019.
Resultados: Los diagnósticos documentados con más frecuencia se dan en el campo del autocuidado (53,9%), y las intervenciones más documentadas son de tipo observatorio (49,2%). Los registros en el campo de la deglución, tanto en el diagnóstico como en las intervenciones, son escasos.
Conclusión: En las terapias de enfermería para pacientes con problemas de deglución después de sufrir un ACV, existen intervenciones dirigidas a este foco, independientemente de los diagnósticos documentados. Los resultados sugieren que, a pesar de ser un foco de atención en la práctica de los enfermeros, habrá algunas limitaciones en su documentación.

Palabras clave: accidente cerebrovascular; deglución; atención de enfermería; sistemas de información

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Introduction

Stroke is one of the primary causes of death and morbidity in Portugal, resulting in 23,400 cases of hospitalization in 2016 (Direção-Geral da Saúde, 2017). Half of these patients probably experienced swallowing difficulties throughout the illness, considering the high incidence of post-stroke dysphagia (Takizawa, Gemmell, Kenworthy, & Speyer, 2016). With a sudden onset, the stroke impacts negatively on the patient's capacity for self-care. Self-care is the self-performing activity of "keep[ing] oneself going and [handling] basic individual and intimate necessities and activities in daily life" (Conselho Internacional de Enfermeiros, 2016, p. 42), which often results in some degree of dependence associated with multiple problems (Krishnamurthi et al., 2015).

Dysphagia is a complication resulting from stroke and occurs more often during the first two weeks (up to 65%), gravely influencing the person's capacity to recover autonomy. It can lead to serious respiratory, nutritional, and psychological problems, and ultimately to a worse quality of life (Cohen et al., 2016). Although the burden for the person, caregivers, health professionals and health services is widely known, health professionals do not focus attention on this matter (Dziewas et al., 2017). To continuously seek to improve the quality of nursing care, care practices should be assessed and compared with the best available evidence and how they are recorded.

Thus, the foci of attention/diagnoses and interventions recorded by nurses when addressing the care needs of the person with post-stroke dysphagia should be identified.

These results will be essential to understand the importance of documenting nursing care provided to the person with stroke, with particular emphasis on the foci related to swallowing difficulties. This is because the "continuous improvement of healthcare to individuals requires developing a critical-reflexive analysis of the implemented care, comparing them with the best evidence, to build a daily practice that responds in the best way to the real needs of patients" (Mota, Bastos, & Brito, 2018, p. 20).

Background

Dysphagia is the difficulty in swallowing, as a result of the delayed bolus flow, airway penetration/aspiration, and/or the existence of post-swallowing residue in the pharyngeal cavity (Cohen et al., 2016). In the person with stroke, dysphagia increases the probability of death, disability, respiratory infection, dehydration, malnutrition, hospitalization time, and decline in the quality of life (Wirth et al., 2016). However, despite the devastating consequences of dysphagia, these are not often associated with it (Wirth et al., 2016). Specifically, pneumonia, one of the most relevant modifiable complications of strokes, would benefit significantly from the implementation of prevention strategies, mainly in reducing the risk of aspiration (Cohen et al., 2016). Several factors contribute to the complexity of identifying dysphagia as a clinical condition in itself, for instance the heterogeneous classification, diagnosis, assessment, and therapeutic approach to the person with dysphagia, the lack of high-quality evidence, the absence of specific clinical guidelines, and its multifactorial etiology (Dziewas et al., 2017).

Nurses may be crucial actors in this scenario, considering that they have the most considerable contact with the patient, being in an advantageous position for the early identification of complications and timely intervention, resulting in gains in health for the person with stroke (Hines, Kynoch, & Munday, 2016).

This creates a greater challenge for the person, the caregiver, and health professionals in response to health-illness situations. The changes in health and illness generate a process of transition, and the person becomes more vulnerable to risks that may, in turn, affect his/her health. This process can, therefore, be regarded as a relevant concept for nursing (Meleis, Swayer, Im, Hilfiger, & Schumacher, 2000). Nurses play a leading role as facilitator during this process of transition in health/illness, as they are who contact most with individuals experiencing processes of transition, either before, during, or after them.

Considering the difficulties in the therapeutic approach to the person with swallowing difficulties, it is essential to understand the practices of nurses, so that in the future it is possible to systematize the therapeutic approach to the person with dysphagia, based on the best available evidence and with the purpose of the continuous improvement of the quality of nursing care. The Quality Standards for Nursing Care (PQCE), that frame the professional nursing

practice, state that it is necessary to create a "system of records that includes automatically, among other data, the nursing care needs of the patient, the nursing interventions, and the patient outcomes of nursing interventions" (Ordem dos Enfermeiros, 2012, p. 18). The Basic Summary of Nursing Data (RMDE), a clear guideline for the Descriptive Statements of the PQCE, explains the most relevant clinical findings and indicators for the mandatory, regular, and systematic production of nursing data (Ordem dos Enfermeiros, 2007). The core and most relevant foci defined in the RMDE are aspiration, self-care, falling, and pressure ulcer (Ordem dos Enfermeiros, 2007). These core foci, interpreted in the set of nursing diagnoses, interventions, and outcomes, can mirror the unique contribution of nursing care to population health gains. Thus, it is important to identify the nursing therapies applied in the person with post-stroke dysphagia.

Research Question

What are the nursing foci/diagnoses and interventions in the person with post-stroke dysphagia that nurses more often document?

Methodology

The study was conducted in an inpatient service of a rehabilitation medicine center in Portugal. In this institution, nurses make all records in a documentation software named SClínico®, using the International Classification for Nursing Practice® (ICNP) Beta 2 version, having already integrated terms of more recent versions (Conselho Internacional de Enfermeiros, 2016).

In this exploratory, descriptive, and retrospective study, all nursing records in SClínico® were analysed. The collected data related to records made in the documentation software between January and May 2019. The inclusion criteria for the analysis were the records of patients admitted with a clinical diagnosis of stroke and who authorized access to their computerized clinical processes. The clinical processes of 16 patients were obtained. The data analysis considered the conceptual principles of the ICNP® regarding nursing practice foci and the diagnostic assessment, as well as the nursing interventions with referential integrity, that is, "the nursing actions and the areas of activity considered for the formulation of interventions, that relate to the nursing diagnoses identified in the production of sensible gains to nursing care" (Mota et al., 2018, p. 22). The data collected, treated and recorded by nurses during the initial assessment were also considered for the analysis.

The data were transferred from the electronic information system to a database, and descriptive statistics were used, given their nature, with the support of the IBM SPSS® software, version 25.0.

The study was approved by the institution's Health Ethics Committee and Board of Directors. All participants or their legal guardians authorized access to the data recorded in the information system. Also, data anonymity was ensured during their exportation from the information system to the statistical treatment software, thus making it impossible for the participants of the study (patients and nurses) to be identified.

Results

The documentation of 16 patients hospitalized with a diagnosis of stroke, recorded in the system during 3 January and 31 May 2019, were analyzed retrospectively. The mean number of hospitalization days at the time of the analysis of nursing documentation was 35. Seven patients with swallowing difficulties at the moment of hospital admission were identified.

Of the total 197 nursing foci, the most frequently identified was *self-care* (53.9%), as shown in Table 1.

Table 1
Nursing foci identified

Focus	*n*	%
Self-care	106	53.9
Elimination	21	10.7
Falling	16	8.2
Pressure ulcer	16	8.2
Skin tear	8	4.0
Communication	8	4.0
Body balance	6	3.0
Anxiety	4	2.0
Wound	4	2.0
Vomitting	3	1.5
Expectoration	2	1.0
Adherence to therapy	1	0.5
Aspiration	1	0.5
Insomnia	1	0.5
Total	197	100

The analysis of the self-care focus identified drinking and personal hygiene in all the patients (16), followed by self-feeding, and self-transferring (15), self-dressing (14), self-positioning (11), self-rising (9), walking with support device (5), walking (3), and moving in wheelchair (2). The most frequent diagnostic assessments were *dependence* and *impairment*, whose incidence was 116 and 42, respectively, corresponding to 50% and 18.1% of the diagnoses formulated.
Within the scope of this study's objective, the only diagnosis found was the *risk of aspiration*. The only intervention identified with referential integrity for this diagnosis was of the *observing* type: To assess risk of aspiration.
The planned interventions were also analyzed. Of the total 825 interventions, it was noted that the interventions of the *observing* type were the most often used, as seen in Table 2.

Table 2
Summary of the number of interventions identified by type of action

Type of action	*n*	%
Observing	406	49.2
Assisting	177	21.5
Managing	85	10.3
Informing	84	10.2
Performing	73	8.8
Total	825	100

In accordance with the type of action, the most frequently documented interventions were also analyzed. In *observing*, the *assessing* intervention stands out; in *assisting*, the *helping* intervention is emphasized; and in *informing*, the *educating* intervention corresponds to the majority of planned interventions (Table 3).

Table 3
Interventions planned by type of action

Type of action	%	Interventions	%
Observing	49.2	Assessing	62.1
		Monitoring	23.7
		Surveiling	13.5
		Inspecting/Supervising	0.7
Assisting	21.5	Helping	58.2
		Encouraging	37.3
		Relieving/Providing/Supporting/Listening/Promoting	4.5
Informing	10.2	Educating	51.2
		Teaching	36.9
		Training	11.9

Specifically, the potentially dysphagia-related interventions were identified, as seen in Table 4.

Table 4
Number of dysphagia-related interventions

Intervention	*n*
Surveiling meals	13
Nasogastric feeding	5
Optimizing nasogastric tube	4
Monitor gastric content	2
Correcting posture for feeding to prevent aspiration	2
Inserting nasogastric tube	2
Mouth washing	2
Assessing capacity for nasogastric feeding	2
Helping in nasogastric feeding	2
Assessing swallowing	1
Assessing the risk of aspiration	1
Inspecting oral cavity	1
Supervising nutrition	1
Removing nasogastric tube	1
Total	39

Discussion

The documentation of 16 patients admitted with a diagnosis of stroke in an inpatient service of a rehabilitation center was analyzed. The existence of seven patients with documented dysphagia at the time of admission stands out in the results of the initial assessment, but these results do not include nursing diagnoses related to dysphagia or risk of aspiration. It was expectable that the information contained in the initial assessment provided data reflected in care planning. There is no referential integrity between the data documented in the assessment of the person's condition and the foci identified by nurses. Furthermore, Abreu,

Barroso, Segadães, and Teixeira (2015) emphasize this issue, stating that the clinical history provides all the information about the patient at the time of admission and substantiates a better and more consistent nursing care planning by the nursing team during hospitalization. Indeed, the nursing diagnoses most frequently identified were of *self-care* dependence. This brings to mind the importance of self-care reported by nurses as the core of nursing care in the domain of autonomous interventions, thus complying with the priorities and frameworks for practice defined by the Portuguese Nursing Council (Ordem dos Enfermeiros, 2007; 2012). In the RMDE, regarding the core of most relevant foci, the types of self-care most frequently identified are feeding, personal hygiene, transferring, toileting, dressing, and walking (Ordem dos Enfermeiros, 2007), in accordance with the type of self-care most frequently identified in this scope of clinical practice to the person after stroke. Also, the aspiration focus is referenced in the RMDE as relevant to nursing practice (Ordem dos Enfermeiros, 2007), and can result in sensitive gains in health to nursing care. However, there was only one diagnosis with this focus, despite dysphagia was identified in the initial assessment of seven patients.
The analysis of the total 825 interventions by type of action found that 49.2% are of the *observing* type, being an intervention that produces useful information for the assessment of the person's clinical condition and care follow-up. However, it does not directly produce sensitive gains to nursing care. These interventions show "an emphasized intent to prevent complications and to detect in an early stage the aggravation of the clinical situation" (Machado, 2013, p. 198). Mota et al. (2018) refer that these interventions also demonstrate the usefulness of data for other health team professionals, mainly physicians, leading to their valorization by nurses in the collection, treatment, and documenting processes. These results are in line with the results found by these authors in the analysis of the interventions implemented by nurses in outpatient consultations, noting that 57.07% of these interventions were of the *observing* type. Also, Padilha (2013) found in his analysis of nursing interventions recorded within the scope of inpatient service that 41.01% of the interventions are of the *observing* type. These results highlight the visibility of monitoring activities in nurses´ actions (Machado, 2013).
Some potentially dysphagia-related interventions are identified, which suggests that nurses, regardless of the documented diagnoses, plan interventions directed at this focus. A previous study already identified inconsistencies between diagnoses and interventions, thus showing an apparent confusion in the documenting processes and the use of concepts/terminology. Therefore, it is recommended to improve the operationalization of these concepts in nursing teams for adequate valorization by nurses of the documentation of the real needs of patients (Abreu et al., 2015). Of all the identified diagnoses, only one was related to the *swallowing* focus, and, after analyzing interventions with referential integrity, only one intervention was noted of the total 39 interventions potentially related to this focus. Several studies support the need to improve the documentation process in nursing so that valid information may be obtained (Abreu et al., 2015; Machado, 2013; Mota et al., 2018; Padilha, 2013).
Regarding the other interventions analyzed by type of action, it should be noted that the low number of documented interventions of the *informing* and *managing* types corresponds to less than a fifth of the documented interventions. This raises the following question: do nurses not implement this type of intervention or do they implement it but not document it (Abreu et al., 2015). It is evident yet again that practices may not be adequately valued in nursing documentation because the "existence of information systems in itself does not ensure the production of valid and useful information, and the quantity and quality of data produced can contribute to that information becoming a reality" (Machado, 2013, p. 135).
The main limitations of this study are related to the sample size and to it being conducted in a specific clinical practice setting and with focus on swallowing. In this sense, it is important to understand how this phenomenon is reflected in the information systems used in other institutions. It will also be important to understand if this corresponds to the effective practice of professionals.

Conclusion

The diagnoses most frequently documented by nurses are focused on self-care, and the interventions most frequently documented are the

observing type. It is relevant to understand why interventions directed at dysphagia and the risk of aspiration are documented regardless of the diagnoses documented. These results suggest that, despite being a nursing focus, the documentation of these practices is probably limited, thus reinforcing the aforementioned need to improve the documentation processes in nursing. If the phenomenon is not valued and, consequently, not reflected in the documentation, it is important to clarify whether there are constraints related to the operationalization of documentation in the information systems or, yet, whether professionals feel prejudice toward the operationalization of documentation.
Regarding the aspects that comprise the core of the nursing documenting process, nurses primarily document the aspects related to self-care dependence and impairment. The documented interventions aim to enhance the monitoring activities, proposing a special focus on the prevention of complications in bodily processes and on the usefulness of these data to other professionals. A more comprehensive understanding of these results and their significance requires the contributions obtained from the observation of practices and perceptions of nurses about the information relevant to the decision-making process. How nurses document their practices is crucial to obtain data showing sensitive gains to nursing care.

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