Classification of assistance complexity of adults served in an emergency unit

Classificação da complexidade assistencial de adultos atendidos em unidade de emergência

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RESUMO

O estudo objetivou classificar o grau de dependência de pacientes adultos admitidos no setor de emergência. Estudo descritivo, realizado em unidade de emergência de hospital de ensino da Região Norte do Estado do Ceará. A população foi composta por 783 pacientes admitidos na unidade no período de julho a agosto de 2017. Foi utilizado o instrumento de classificação de pacientes de Fugulin para determinar o nível de dependência para os cuidados de enfermagem. Foram efetivadas 2557 observações de enfermagem. A maior parte dos pacientes (37%) se enquadrou no nível de cuidado mínimo, seguido do intermediário (31,7%). Foi observado que a maioria dos pacientes é consciente (63,1%), não dependente de oxigenoterapia (89,7%) e possui sinais vitais avaliados em controle de rotina (91,7%). São ainda independentes para a alimentação (45,1%), apesar da dificuldade para movimentar os segmentos corpóreos (32,7%) e de estarem restritos ao leito (31,5%). O cuidado corporal (31,9%) e a eliminação (31,3%) eram autossuficientes e a terapêutica mais comum foi endovenosa contínua ou por sonda nasogástrica (45,1%). Foi possível classificar os pacientes atendidos em uma unidade de emergência de acordo com a complexidade assistencial.

Palavras-Chave: Enfermagem; Cuidados de enfermagem; Classificação; Serviço Hospitalar de Emergência.

ABSTRACT

The study aimed to classify the degree of dependence of adult patients admitted to the emergency department. Descriptive study, carried out in an emergency unit of a teaching hospital in the Northern Region of the State of Ceará. The population consisted of 783 patients admitted to the unit from July to August 2017. The Fugulin patient classification instrument was used to determine the level of dependence for nursing care. 2557 nursing observations were made. Most patients (37%) were enrolled in the minimum care level, followed by the intermediate (31.7%). It was observed that most patients are conscious (63.1%), not dependent on oxygen therapy (89.7%) and have vital signs evaluated in routine control (91.7%). They are still independent for food (45.1%), despite the difficulty of moving the body segments (32.7%) and being restricted to the bed (31.5%). Body care (31.9%) and elimination (31.3%) were self-sufficient and the most common therapy was continuous intravenous or nasogastric tube (45.1%). It was possible to classify the patients treated in an emergency unit according to the assistance complexity.

Keywords: Nursing; Nursing care; Ranking; Emergency Hospital Service.

INTRODUCTION

The practice based on scientific evidence has been the focus of nursing care in the various contexts of care. In this sense, the characterization of the clients served in emergency units for the definition of care complexity has been extensively studied, in order to support an individualized, comprehensive and systematized care, besides predicting the quantitative and qualitative of nursing professionals, besides preserving the health of the worker.[1]

In the hospital context, patients are dependent on care, which makes the members of the nursing team fundamental elements in health care, which must be individualized, comprehensive and systematized, based on a rigorous clinical examination for the classification of the degree of dependence on care. For this, a system of patient classification becomes useful since it aims to equalize the relation demand (patient) and supply of care (nursing workers), so that care is provided according to the patient's need, without this overloading the worker.[2]

The idea of classifying the patient is not recent in nursing. Florence Nightingale used this practice, seeking to locate in the ward the patients whose level of care demanded more attention.[3] Currently, the need to classify the degree of patient dependence has become a priority, since it corroborates the adequacy of resources in a critical, reflexive and adhering to reality, generating an improvement in the quality of nursing care.[4]

The benefits of adopting a Patient Classification System (SCP) can reflect the optimization of the allocation of professionals, documentation of patients' needs according to the priority of their clinical condition and the level of care, comparison between nursing activities in the different sectors hospital costs, determination of nursing costs and distribution of investments in high quality health care.[5-6]

What is observed in the scientific literature are studies related to the classification of patients, but with little emphasis on specific care units such as the hospital emergency sector.[1,3]

Thus, this study is justified by the need to apply instruments aimed at classifying patients with a focus on an emergency unit in order to provide subsidies for a better human resources adequacy for care.

In view of the above, this study aims to classify the degree of dependence of adult patients admitted to the emergency department.

METHOD

This is a cross-sectional descriptive study carried out in an adult emergency unit of a teaching hospital in the interior of the State of Ceará, classified and qualified for tertiary care with the development of highly complex procedures, such as orthopedic, oncological, neurosurgeries, emergencies and emergencies, being a reference in trauma emergency. With 55 beds, the unit receives patients from more than 60 municipalities in the northern region of Ceará, totaling approximately two million inhabitants.

The study population consisted of patients admitted to the emergency unit during the 60 day period (July to August 2017). Therefore, the sample of this study was defined according to the number of patients hospitalized at the unit during the data collection period and based on the following inclusion criteria: age greater than 18 years and patients who were classified according to their risk of host health, totalizing a non-probabilistic sample and for the convenience of 783 patients.

To classify patients regarding dependence on nursing care, the Fugulin patient classification instrument was used. The Fugulin Classification Instrument establishes nine areas of care: mental status, oxygenation, vital signs, motility, ambulation, feeding, body care, elimination and therapy, according to the inpatient care complexity of inpatients. From this evaluation, patients are classified into one of the categories: intensive care (above 31 points), semi-intensive care (27 to 31 points), high dependency care (21 to 26 points), intermediate care (15 to 20 points) and minimal care (9 to 14 points).[3]

In addition to these instruments, a questionnaire was applied with sociodemographic and clinical variables. Data collection was performed daily during the three shifts (morning, afternoon and evening) from Sunday to Sunday. All inpatients were assessed by observation and by application of the instrument to the patient and/or family member.

The data were stored in a database, tabulated in the Excel 2016 program and analyzed in the statistical program Statistical Package for the Social Sciences (SPSS) version 20 for Windows, presenting the results by means of the absolute and relative frequencies represented in tables.

The ethical principles were respected during this research, as provided by Resolution 466 of December 12, 2012, the work was approved by the Research Ethics Committee of Vale do Acaraú State University under protocol No. 2,156,152 / 2017 and its realization was authorized by the institution under study.

RESULTS

783 patients were included in the study. Regarding the sociodemographic data, the predominance of male patients (63.5%) was found. The mean age was 52.1 (± 21.3), ranging from 18 to 94 years. Patients older than 60 years (40.8%) were prevalent. Regarding the clinical aspects, the hospitalization time ranged from one to 29 days, with an average of 3.3 days (± 3.2). The type of hospitalization was predominantly clinical (61.6%). Regarding the origin, 75.6% of the patients came from surrounding

cities, and 24.3% of the patients hospitalized in the emergency came from the city of Sobral.

Patients admitted to the emergency department were evaluated for the degree of dependence on nursing care for 60 days. Thus, 2557 nursing observations were made, considering that the patients were approached successively during their constancy in the emergency service.

It is observed that 37% of the patients were enrolled in the minimum care level followed by the intermediate (31.7%) (table 1).

Table 2 shows the data indicating the degree of complexity of the patients by area of care, obtained by Fugulin SCP. The total values to the right of the table were obtained by summing the number of instruments of each degree of complexity in each of the care areas.

In the Fugulin care area it was observed that the patients in the study were mostly conscious (63.1%), not dependent on oxygen therapy (89.7%) and had their vital signs evaluated in routine control (91.7%). They are still considered independent for food (45.1%), have difficulty moving body segments (32.7%) and are restricted to bed (31.5%). Body care (31.9%) and urinary and intestinal elimination (31.3%) were self-sufficient and the most common therapy was continuous intravenous or nasogastric tube (45.1%).

DISCUSSION

Patient classification systems make it possible to equalize the relationship between the demand generated by the patients and the care offer, in order to base the adaptation of safer practices and quality for patients and professionals, which makes it possible to weigh and adjust situations of overload[3] In addition, these systems allow us to identify changes in the complexity profile of hospitalized patients due to the seasonality of the pathologies or to the increase of chronic diseases due to the aging process and changes in the population profile.[7]

This research evidenced the classification of adult patients hospitalized in an emergency unit, according to the degree of dependency of the nursing care, proposed by Fugulin. The sample consisted mainly of male patients. A similar result was obtained from a study carried out in the emergency room of a university hospital in the State of Paraná, aiming at analyzing the level of care complexity and the nursing professionals dimension, and showed that 57.6% of the patients were male. a study that measured the degree of dependency on nursing care of the clientele identified a predominance of male patients (66%).[9] Men, through a series of cultural and educational issues, only seek health care when they lose their capacity or are in a serious condition such as heart attack, stroke, among others.[10]

The predominant age group in this study was over 60 years, with an average hospitalization of three days for clinical reasons.[11] The elderly population is characterized as a vulnerable public due to the aging process

TABLE 1 – Distribution of the patient's assessments according to the levels of care of the Fugulin scale in the emergency sector of teaching hospital - Sobral, CE, 2017.

CLASSIFICATION OF CARE	n	%
Intensive care (more than 31 points)	26	1,3
Semi-intensive care (27 to 31 points)	190	7,4
Care of high dependence (21 to 26 points)	583	22,8
Intermediate Care (15-20 points)	811	31,7
Minimal care (9 to 14 points)	947	37
Total	2557	100

Source: research data, 2017.

TABLE 2 – Distribution of complexity according to the care areas of Fugulin - Sobral, CE, Brazil, 2017.

Fugulin Care Area	Degree of complexity			
	1	2	3	4
Mental state	n (%)	n (%)	n (%)	n (%)
	1615 (63,1)	427 (16,8)	294 (11,4)	221 (8,6)
Oxygenation	2294 (89,7)	33 (1,2)	193 (7,5)	37 (1,4)
Vital signs	2345 (91,7)	195 (7,6)	3 (0,1)	14 (0,5)
food	1153 (45,1)	913 (35,7)	426 (16,6)	65 (2,5)
Motility	819 (32,1)	837 (32,7)	589 (23)	312 (12,2)
Ambulation	732 (28,6)	577 (22,5)	440 (17,2)	808 (31,5)
Body care	818 (31,9)	726 (28,3)	505 (19,7)	508 (19,8)
Elimination	853 (33,3)	812 (31,7)	419 (16,3)	473 (18,4)
Therapy	281 (10,9)	1153 (45,1)	1113 (43,5)	10 (0,3)

Legend: 1 - Minimal Care; 2- Intermediate care; 3- High dependence care; 4 - Intensive care.
Source: research data, 2017.

that is related to the loss of functionality and increased comorbidities, which may increase the degree of dependence on care and the length of hospital stay.

Using the Fugulin scale to classify the degree of dependency of the emergency patients, it was possible to identify the prevalence of minimum (37%) and intermediate (31.7%) care categories. A study that distinguished the care profile of adult patients hospitalized in a hospital in Belo Horizonte also showed that the degree of patient dependency was characterized by minimal care, followed by intermediaries.[12] A study performed at a university hospital in the southern region of Brazil identified the same classification of this study in patients in minimal care, intermediate care, high dependence, semi - intensive care and intensive care.[13] The stratification of care in an emergency unit, which represents a gateway to many serious conditions, is fundamental for planning and organization of care.

For the oxygenation and mental status indicators, 89.7% of the attendants indicated that oxygen was not used and 63.1% indicated guidance in time and space, suggesting that the adequate level of oxygen consciousness and oxygenation implies a better prognosis, which favors self-care.[14]

However, the self-care of a quantitative of the patients in the study is hampered by the fact that 19.8% of the visits indicate the necessity of bathing in the bed or assistance with the shower in the shower. The hospitalized patient, who receives the bath in the bed, passes from an independent individual to a dependent individual, requiring care by the nursing team to perform this procedure, increasing the degree of dependence of the nursing team.[15] Research conducted at Hospital Universitário do West of Paraná identified that 79% of the patients needed help from the nursing team to perform bathing in bed and oral hygiene.[16]

In addition, 12.2% of the patients found bed restricted or needed help to move body segments or to wander, which may require an even greater time for situations such as bathing and requiring more time for care.

In this sense, the Patient Classification System is a process by which accurate measurements can be obtained of the patient care needs and the workload of the nursing team. This classification process produces a data source that can be used for the qualitative and quantitative planning of human resources as well as the material resources necessary to ensure a safe nursing care. In addition, using a patient classification system allows users to know the profile of the patients and to plan the care in a more individualized way, geared to the needs of the patients and the nursing team.[17]

There are several benefits of using the user classification system, either in the quality of the care provided due to the individualization of the needs of each subject, in the planning of the assistance, or in the construction of a database that aid in decision making, monitoring productivity and even the costs of nursing services. However, in order to effectively use the classification to achieve these benefits, we believe that the user needs to be fully evaluated in the biopsychosocial aspects.[18]

It is worth noting that the adoption of a SCP enables nursing to become more knowledgeable about its clientele, as well as to develop the skills and competencies of professionals to assure assistance and management in a safer, innovative, autonomous and participative way.[19]

CONCLUSION

The result of the classification of the degree of dependence of hospitalized patients in the emergency under study, according to the complexity of care, showed that the largest number of patients assisted in this unit was classified as minimal care, followed by patients of intermediate care and high dependence of nursing . It was evidenced that the items of the scale of Fugulin with more punctuated score were to the ambulation, motility, corporal care and eliminations. Such evidence points to an increase in the work of the nursing team.

The present study has limitations because its occurrence occurred in a specific emergency unit, which may represent a context that is not compatible with other institutional realities and the absence of information about the epidemiological profile of hospitalized patients.

It is worth mentioning the relevance of the use of these instruments for the management of human and material resources in an emergency unit, with lower costs, improved safety and quality of patient care.

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