

Acute Confusion and Advanced Nursing Practice

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Abstract Acute confusion is a frequent and serious phenomenon in hospitals mainly affecting the older people. Patients with acute confusion are more vulnerable to threats to their security, such as falls, not only because they have an increased risk but also because the nurses have difficulty in the identification and treatment of acute confusion. Challenges emerge related to quality and continuity of nursing care provided to these patients, including the introduction of measuring instruments of acute confusion and the implementation and evaluation of the effectiveness of specific nursing therapies in clinical practice. The research came after another were was identified an algorithm for the management of confusion. Through an action research methodology it was introduced in the documentation system in use, widespread in Portugal, as a decision support system. The aim of this study was to evaluate the effectiveness of a model that supports the conception of nursing care in confusion patients. After six months of assisting nursing practice, was identified the reduction of the under diagnosis of acute confusion, a low incidence of acute confusion new cases and a reevaluation of reality orientation and family involvement as important nursing interventions.

Keywords: nursing, confusion, decision making, continuity of patient care

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1. Introduction

Acute confusion is a multifactorial phenomenon with a lot of predisposing and precipitants factors, and about which much is still unknown.

It is related with age, morbidity, mortality and worse clinical outcomes, hence it should be, and is not always regarded as a serious problem on which is very important to develop knowledge with practical applicability.

Its characteristics, fluctuating nature and motors subtypes, coupled with reduced awareness and knowledge of the problem by nurses [1] who are focused in orientation and in the behavior [2] and a weak use of measuring instruments for its evaluation, [3] like the NEECHAM Confusion Scale, [4] difficult diagnosis, and consequently the treatment, contributing not only to personal but also to economic and social severe consequences, such as the increasing of the length of hospitalization and institutionalization.

At the same time, research didn't enable significant advances in this field, and the management of acute confusion continues to be built on the experience and knowledge of each professional. [5] These facts have not helped to reduce the Physical Restraints (PR), because they pose serious security problems in these patients, such as falls, which together with the acute confusion, are an indicator of quality of care. In doubt and before weighing the risks and benefits of therapy, nurses rarely consider alternatives [6].

These facts led to the search of a model with the potential to improve the action of nurses. From the identification and publication of a model with these characteristics, it was decided to move on to their testing. The aim of this study was to evaluate the effectiveness of a model that supports the conception of nursing care in confusion patients.

2. Material and Methods

Another and previous research conducted by the same researchers in a medical care unit for acute patients of a hospital in Oporto - Portugal to study patients with acute confusion and the nursing action, identified a model that supports the conception of nursing care [7]. In this research, through the methodology of action research we proceeded to their implementation in the same context in order to know the extent of the problem and identify the model ability to promote healthy gains. The model assumes the following: in patients who walk balance is important while in bedridden patients it is the ability to rise [Figure 1](#).

It was noticed that the dynamics and the relationships of the various possibilities stand out in clusters of confused patients with characteristics which were unknown so far, opening up huge possibilities to research.

The model that emerged was transformed into a decision support system. It is composed by conditions that include nursing diagnosis associated with three phenomena: confusion, agitation and fall. This system was

introduced at the SAPE® application (Support System for Nursing Practice) Figure 2, which is used in most health institutions in Portugal, 10G version which uses the ICNP and for a period of six months. All nurses (27) were trained on the patients' management with confusion and in the NEECHAM Confusion Scale which was applied at the patients' admission. The NEECHAM Confusion Scale was

translated and validated into Portuguese of Portugal⁸. A convenience sample of 401 cases admitted in the acute medical unit for adult patients for six months was taken into account. At the end we used SPSS version 18.0. The statistical analysis was done through chi-square test, considering only the results with statistical significance ($p < 0,05$).

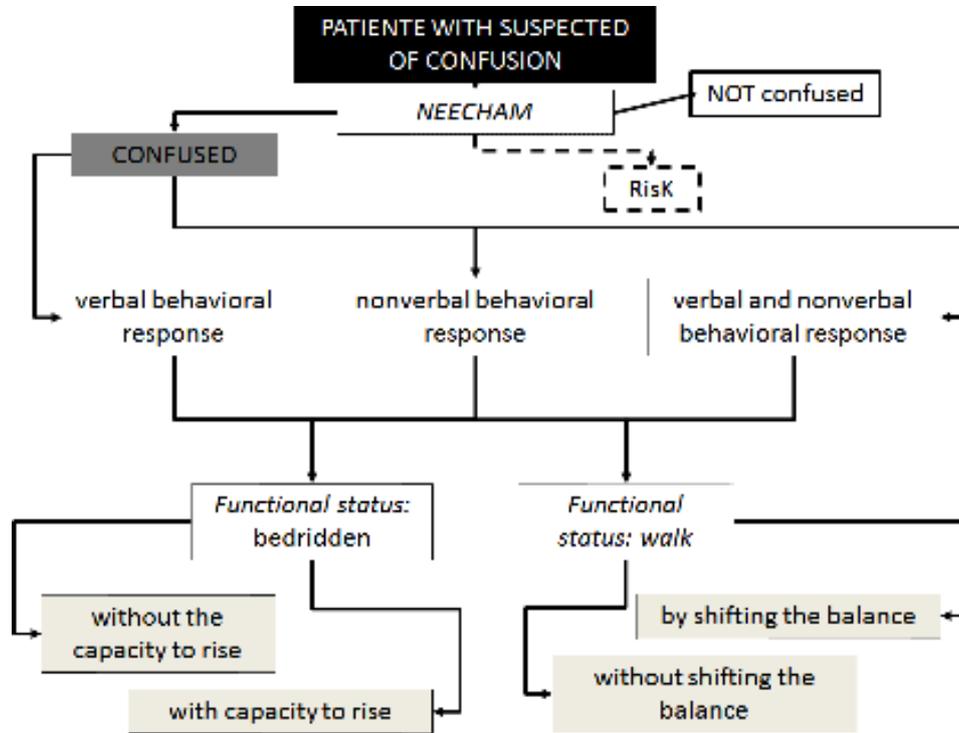


Figure 1. Model that supports the conception of nursing care in confusion patients (Marques *et al*, 2013)

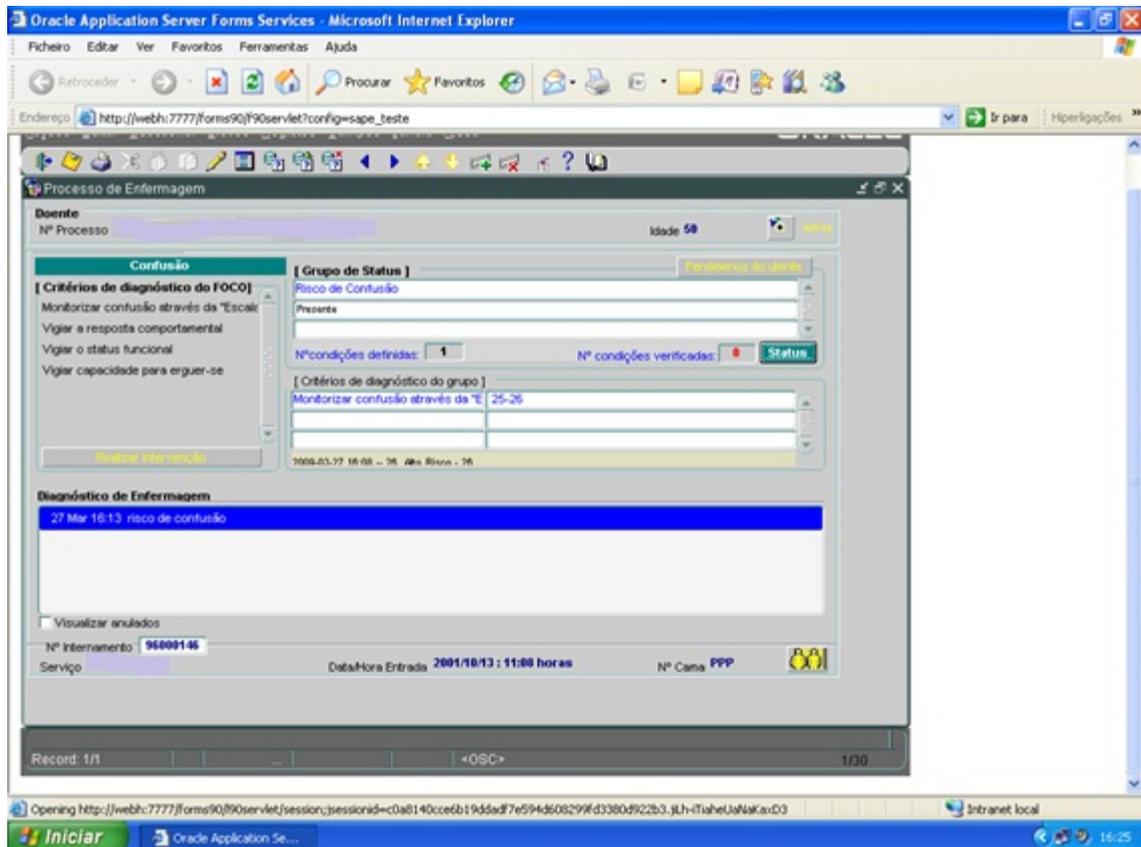


Figure 2. Decision Support System for nurses at the SAPE® application

The documentation system implemented associate diagnostic activities, diagnosis and suggested nursing interventions, starting to have some interventions described in the literature and that nurses used them, as Reality Orientation, Validation Therapy and Encourage Family Involvement, and nursing outcomes.

At the end of time for implementation of the changes, the evaluation pointed out the importance of the study, since the evidence has demonstrated the improvement in quality, in continuity of care and in patients' safety.

3. Results and Discussion

The results obtained after the introduction of the model are quit promising. Reduction of the under diagnosis of acute confusion; the systematic use of the NEECHAM Confusion Scale in the patients admission, allowed to increase the diagnostic of confused patients, specially its sub type hypoactive, which is congruent with the literature [9].

A low incidence of acute confusion (4.3%) was identified according to the best evidence. The new cases triggered in the context of the study are reduced which is an indicator of quality of care [10]. Until then, it was not possible to get this assessment with rigor. The prevalence of acute confusion (first positive assessment) shows values that also appear in other realities, around 44%.

Reality Orientation (RO) is associated with a positive evolution of the functional status. Patients who shift from the state "bedridden" to "walk". Reality Orientation seems to be an important intervention to these patients which is congruent with the best available evidence [11].

Encourage Family Involvement (EFI) is linked to a positive evolution of the NEECHAM score and the functional status. Several studies [11,12] pointed out the importance of the presence and the intervention of the family to guide the patient and in the control of his/her behavior. These two interventions (RO and EFI) were formally used for the first time.

When comparing the data in the different conditions, from the first to the last moment, the maintenance of the state prevails (e.g. 80% of the patients who presented confusion in their admission continued to show it in their discharge). There was a statistically significant improvement in the various levels of confusion determined by NEECHAM scale, which classifies patients as being not confused, in likelihood of confusion, with mild confusion or early development or moderate to severe confusion, as in other conditions but staying in a given status, suggests competent actions by nurses [13].

Physical Restraint is associated with moderate to severe confusion, to patients with non-verbal behavioral response to bedridden and to patients without the capacity to rise. These data suggest these are the patients most at risk of fall. It is noted that in the care unit where the research took place no specific measuring instruments to assess the risk of fall, like the Morse scale, were used at that time. Therefore the model fulfilled that flaw.

This reasoning is true but it had no effect during the research period because the number of falls did not change significantly. However the proposed system proved appropriate and valid for this particular aspect, which adds importance.

4. Conclusions

The implementation of a system that support decision making about confusion patient, enabled the generation of data to allow better understanding of the reality and act based on factual information. The improvement and replication of this model can lead to huge gains in sensitive health nursing care in an area of great difficulty approach. The developed system proved to be useful and suitable for its purposes supporting nurses in the care of hospitalized patients with acute confusion. This research has limitations that stem from the nature of the sample and the context of research, but has potential for significant development.

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