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Stress of nurses in emergency care: a social representations study

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ABSTRACT

Aim: To apprehend the social representations of Portuguese nurses regarding the stress that they experience in emergency care. **Method:** This research was based on the Social Representations Theory. Through the use of the free recall technique, used on a sample of 80 nurses, it was possible to identify the probable central and peripheral elements of the social representations from the semantic universe of the inductive terminology *stress*. The answers collected were analyzed using the EVOC software. **Results:** The EVOC analysis permitted clarification of the links between the categories, and to visualize the structural aspect of the representations. **Discussion:** Nurses regard stress in emergency care as harmful to their health, indicated by such words as "overload", "work" and "search" being mentioned more frequently and considered more important by the respondents. **Conclusion:** The study of the elements of social representation of these workers needs to be taken to a greater depth. This complementation is very important in order to better understand and describe the social representations from the stress experienced by nurses in emergency care.

Descriptors: Burnout, Professional; Nursing Care; Health Services.

INTRODUCTION

The need to understand the health policies adopted in Portugal is extremely important, and it is necessary to have a theoretical definition that permits observation of the implementation of emergency care. This should not only be from the normative-institutional perspective, but should also take into account the many different human feelings and responses in order to illustrate everyday life within a complex health system[1].

Emergency care is part of a complex network of healthcare services with typological and functional characteristics, filled in a permanent tension[2]. Emergency care is provided by health centers and hospitals, and in the case of the latter, the services are singular according to the specialty within which they operate. It is important to highlight that this service is polemic, being targeted by many critics, making it the recipient of the highest number of complaints in hospitals[1-3].

In Portugal, as in other countries, emergency care services serve as the entry point to the Portuguese National Health System ("SNS", in Portuguese). This system has both a national structure comprising Government, the Portuguese National Health Council and Central Services, and a territorial organization formed by health regions and sub-regions. Each region is managed by a Regional Health Administration office ("ARS", in Portuguese)[2,4]. Each ARS has an administrative council and serves as the local health authority, being responsible for the distribution of resources and the evaluation of institutions and healthcare service providers[4].

Nowadays, the majority of the assistance provided in emergency care is characterized as a simple procedure within general clinical care as a whole. This system defines the work of the nurse and supports his / her practice along with the users in low, medium or high complexity environments. This situation is aggravated by the presence of stressful issues for the health professionals, especially for the nurses who provide assistance to both patients in a critical condition and those who could have been assisted at ambulatory levels and in local health units[1,5].

It is accepted that there are defining characteristics for each profession, regardless of how many professional aspects of healthcare are shared by physicians, nurses and others. In this sense, it is important to focus on a classic piece of research performed in a London hospital on the effect of stress among professionally practicing nurses. The hospital, as a complex organization, has too many systems – encompassing roles, policies and social and technical responsibilities – that cross over to define the roles of each individual. From the start, nurses are not allowed to actively take part in decision-making processes inside the organization. This arrangement was considered to be a defense mechanism, later called *phantasia*[1-3].

Nursing is a stressful profession due to its direct and repeated association with the processes of pain, death, suffering, despair, incomprehension, irritation and many other feelings and reactions generated by the condition of being ill[5-6]. These experiences are more intense in emergency care services due to the high emotional, cognitive and physical overloads involved. However, these stressful experiences are not commonly recognized as occupational ones[1-7].

In order to focus on the stress that affects nurses who work in emergency care, this study was based on the Social Representations Theory. It sought to evaluate how these representations are organized, which factors are associated with stress and how it is related to work performed in emergency care[8]. There is a supposition that the study of stress at emergency care units

through the analysis of social representations can help managers to become aware of the actual working conditions, the role, and the personal views of the nurses, taken from their own testimonies[9-10].

Despite its importance, scientific literature in Portugal has not emphasized the stress faced by nurses in emergency care. However, this is a broad topic open to much debate and conjecture, regarding space, time, and context. From these considerations the following question arose: What are the social representations of Portuguese nurses regarding the stress in everyday life in an emergency unit?

The relevance of this study centers on the importance of identifying the social representations of stress arising from the overload of work and other probable factors present in nursing work. In addition to analysis of these situations, there is a suggestion to health managers to make better use of the aforementioned human resources as a means of improving the quality of care provided. Such a suggestion should also include the contributions that this study can make to the development of further research on the effects generated by stress in emergency care, particularly in Portugal.

This study, therefore, aims to understand the social representations of Portuguese nurses in relation to the stress they experience within emergency care services.

METHOD

This is a descriptive study, with a qualitative approach, based on the principles of Social Representations Theory. This is a set of standards, propositions and explanations, which originate in the course of everyday life and interpersonal communications, giving to the representations a definition *sui generis* to every science. The representations are intended to interpret and to elaborate the area of research[9]. They are a type of knowledge that is socially elaborated and shared, possessing a practical orientation, and competes to build a common paradigm to a social group[9].

In other words, social representations are a set of information, beliefs, opinions and attitudes regarding a certain objective taken from a specific social group[10], which enable an interpretation to be made of the behavior and practices of the subjects included in the group.

The studied scenario was the Hospital Infante D. Henrique, which is part of the University of Aveiro, Central Region of Portugal. The sample comprised 80 nurses of both sexes (93% were female), with an average age of 35. These professionals were selected by a simple random sampling technique, similar to that in a raffle. The criteria for inclusion were as follows: at least one year's work in emergency care and an agreement to participate in this study. The criterion of exclusion was the performing of a strictly bureaucratic role. The data collection was done based on the words that were recalled based on the topic, during the period from May to September 2010.

This study was approved by the Commission of Ethics of the University of Aveiro, under protocol #022784, after deliberation of the Administrative Council of the Hospital in which this study took place. It was conducted in accordance with all ethical and legal aspects of research on human beings.

To identify the probable central and peripheral elements within social representations of nurses, in relation to stress in emergency care, the associative method was used, applying the technique of free recall to the semantic universe of the inductive term, "stress". The procedure consisted of asking the subjects to say five words or expressions that immediately came to mind

when thinking of the inductive term. This technique involves the semantic universe, including its imagining dimension, in a faster and more dynamic way than other methods with the same objective, such as an interview[9].

The central core is responsible for guaranteeing a context for the other constitutive elements, unifying and stabilizing the representation and, consequently, making it more resistant to changes[9-10]. On the other hand, the peripheral elements are organized around the central core and correspond to the concrete components of everyday life, those that can be adjusted or integrated according to the situation.

The central system establishes the structure for the social representations because it is associated with the values and standards shared by the group. This system guarantees homogeneity, demonstrates stability and resistance to change, characteristics that permit the continuity and permanence of the representation[9]. As for a peripheral system, it is seen as more flexible and heterogeneous, incorporating the contribution of each member of the group regarding experiences and personal stories. This is achieved without conflicting with the central elements of the representation[9]. It is comprehensible, transmittable and mobile, being able to be reinterpreted according to the meaning of the central core, and can tolerate possible contradictions as well as new interpretations[9].

Hence, the set of words mentioned by free recall was grouped in a dictionary of 400 words, in which the occurrence of 160 different words was registered. The average of the orders of recall or, in other words, the *rang* (placing in rows) was equal to 2.6. The average frequency was 9 and the minimal frequency was 5, thus indicating how the possible central elements, the intermediate and the peripheral ones of social representations of stress are conceived by the nurses in this study.

The words recalled were processed with the use of the *Ensemble de programmes permettant l'analyse des evocations* (EVOC 2000) software, developed by Pierre Vergès[9]. EVOC helped to organize the data, from the calculations of simple occurrence frequency of each word, the weighted average of each, the order in which they were recalled and the order of the weighted averages of the total number of the recalled terms[9].

RESULTS

The EVOC analysis clarified the links between the categories and also enabled the structural aspect of the representations to be seen. At the central core (demonstrated on the superior-left quadrant) of social representations, Portuguese nurses connected stress with the word "overload" (Rang ≤ 2.17). This was the main element of the core, followed by the words "work" and "search", which consolidate the generational idea and from the professional function of a certain representation (Figure 1). These terms are associated explicitly with stress according to the responses of nurses in emergency care. Therefore, they articulate with the peripheral elements (inferior-right quadrant) and the intermediate elements (superior-right and inferior-left quadrants).

The intermediate elements include the following terms: "stress" (Rang ≤ 2.66) and "fear" (Rang ≤ 2.00), besides other terms. Hence, these terms possess more flexible connotations that interact with peripheral and central elements, varying their concentration, inference, engagement and dispersion of information[8].

Regarding the frequency of the terms of the main core of social representations, the term "overload" was prominent, being recalled 17 times, followed by "work" (15 times) and "search" (14 times) (Figure 1). These elements seem to characterize not only the central core, but also the other represented quadrants.

Figure 1 – Table of four quadrants with the recalls produced by the inductive terminology "stress". Aveiro, Portugal, 2011

CENTRAL CORE			INTERMEDIATE ELEMENTS		
Frequency > = 9.0 / Rang < =2.66			Frequency > = 9.0 / Rang > = 2.66		
Overload	17	2.17	Stress	18	2.66
Work	15	2.40	Grievance	11	3.90
Search	14	2.30			
INTERMEDIATE ELEMENTS			PERIPHERAL ELEMENTS		
Frequency <= 9.0 / Rang < =2.66			Frequency < = 9.0 / Rang > =2.66		
Fear	7	2.00	Interdisciplinarity	9	3.58
Excessive	6	1.83	Human Resources	5	2.66
Bed	5	2.00	Organization	6	3.20
			Risk	6	4.00
			Rhythm	7	3.00
			Timing	7	3.57

Source: Information gathered in the study

DISCUSSION

The processes involved in nursing in Portugal are exclusively performed by nurses, making it a multidimensional profession. At the same time, this profession is responsible for the more intellectual roles of service management and proceedings at the most varied levels of complexity[1-2]. In other words, these tasks and their diversity, ranging from the simplest to the highly complex, generate a work overload, as the processes within patient care are complex and multidimensional. This is the case whether patients are in emergency care or not[10].

It is important to mention that the hospital operates with highly technical equipment accompanied by all the necessary medication. However, the real demands on the emergency service, progressively generated by the users' needs, are not for urgent care but for the non-urgent procedures. This apparent change in the nature of admission to emergency care gradually leads to increased stress on the staff. This results in a reduction of the multi-professional team's capacity to fulfill its objectives, with nurses being particularly affected[11-13]. It is known that the success of the healthcare service in the provision of this type of care has a direct correlation with the interaction between human and technological resources, combined with the structural organization.

On one hand, there is a sharing of ideas regarding stress, as they are linked to the constitutive dimensions of the social representations. In other words, information about stress coexists with a representational field that recalls the attitude of the nurse to the non-urgent/emergency demands. The nurse is thus seen to be vulnerable to stress[13]. On the other hand, the data reflects a concrete reality seen in the professionals' everyday lives, which can be interpreted in the context of the progressive demands generated by emergency care services. It can also be viewed as a reflex to political, socio-cultural and epidemiological questions, besides those inherent to the organization of the health system itself[1-6].

The intense and continuous work overload, combined with the lack of response from organizational management, can compromise the work process and the quality of the healthcare service provided to the population[14].

The element "work" can be associated with nurses' perception of the accelerated working conditions resulting from work overload which does not allow the worker sufficient time to orga-

nize his tasks to perform them as needed. Often the workday in emergency care compromises the quality of life of the professional, which, instead, could be made more balanced by the inclusion of leisure activities.

In such an environment it is necessary for the professional to create a strategy for (and to allow some time for) leisure. This can amplify its inter-subjectivity as well as broaden the professional's own hopes regarding the ordinary challenges of life. In other words, a more effective balance between work and leisure time can contribute to a better quality of life. Historically, it has not been uncommon for nurses to be exclusively dedicated to their work, relegating personal leisure time to second place[12-13]. As a result, these professionals have been exposed to an environment that seems, to them, to be crammed with continuous and specific work routines. This applies in every area of work, the routines proceeding in cycles, with little or no critical reflection by the employees on their *modus operandi*.

The element "search" recalls the excessive demand for healthcare by the population. The huge requirements of the users can be reflected in the low performance of the Portuguese health system, where many of these problems could be rectified by an effective development of a primary care network.

Following on from the elements present in the central core, the data within the peripheral category (inferior-right quadrant), arranged according to the terms "interdisciplinarity", "human resources", "organization", "risk", "timing", and "rhythm", indicate the way these representations are related within the arena of emergency care. Furthermore, within the immediate context of work overload in emergency care, they reveal the feelings and attitudes of the nurses, with respect to the three functions of the peripheral elements. These are interconnected and inse-

parable from the generating and organizational action of the central core.

It is important to remember that the first of the three functions of the peripheral elements is related to the concretizing function, and because they are linked to the context in which they belong to, and are depended of it, they are also responsible for anchoring the representations in reality. The second function is responsible for regulating the system, by adapting the representations to the effects seen in the context, such as new informational and environmental changes. And the third and last function of the peripheral elements is the defense or the adaptation of the central core, giving it a higher resistance to changes. These are the elements that initially absorb the changes of the context in order to protect the central core[8].

The term "interdisciplinarity" suggests that emergency care demands a certain complementation. In this sense, it is understood that interdisciplinarity contributes essentially to the effectiveness of resolutions, as professionals are able to see the whole situation and, as a consequence, work towards producing effective health policies[14]. The terms "human resources", "organization" and "risk" confirm the representation of stress at complex levels of the emergency environment, as this stress also originates in the organization of the service and the inherent risks to which these professionals are exposed[14]. It is generally recognized that the association between health issues and working conditions have implications for sanitary, labor and pension aspects of employment. These matters can interfere in many aspects of the professional's life.

The words "rhythm" and "timing" seem to indicate how stress is viewed by the interviewees in the professional routines of emergency services, regardless of the nature of the work itself. The routines, based on timing and movements, are in reality a relic from a factory model of work

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practice. When there is no harmony between the timing and rhythm of work, stress begins to take hold, which seems to be true in the case of these nurses. Therefore, there is a gradual rupture of the rhythm of human life; a natural rhythm is replaced by an automatic one. This is a process which leads to profound changes in society[13-14].

It is important to highlight that the didactic device used, the quadrants, and the location of the constituent elements of social representations, followed the organizational and regulative model of the found elements, indicating their dynamics which are complemented by the existing tension between the defined elements.

CONCLUSION

It is possible to conclude that stress originates from the working conditions of the studied environment and its specific circumstances. Therefore, stress does not only depend on the personality of the professional; it is necessary to consider its many variables and components, as well as the organizational environment in which the work takes place. While the social representations – from the central core, peripheral and intermediate elements – present a homogeneity of feelings expressed by nurses regarding stress in emergency care, at the same time they are characterized by the actual reality that they experienced. This can be established by the information collected, by creating a representational field that reflects the attitudinal relationship of the nurses with the emergency care service.

On one hand, it is quite probable that the majority of the nurses were not aware of these facts because they are so firmly embedded in their routines, and in the organization of their labor. On the other hand, it is also possible that the majority of those who are now aware of the whole situation will search for adaptive ways to overcome the effects generated by stress. From this representational artifact, the nurses encounter stress in emergency care as something harmful to their health, as shown by the words "overload", "work", and "search", as well as other terms. These three were the ones most frequently mentioned and recalled, and considered the most important by the respondents. While there is a recognition of the limitations present in this study, it is recommended that the SNS be made aware of the table presented in this research. This could be extended to the whole care network of the country – the basic care, the family health programs ("PSF", in Portuguese), with readapting of material and human resources from the implementation of health awareness and education campaigns. This could assist in optimizing the usage of basic services, when there is a resumption of open public debate about the Portuguese SNS.

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