POTENTIALLY STRESSFUL SITUATIONS FOR NURSES CONSIDERING THE CONDITION OF ACCREDITATION OF HOSPITALS

SITUAÇÕES POTENCIALMENTE GERADORAS DE ESTRÉS PARA ENFERMEIROS SEGUNDO CONDIÇÃO DE ACREDAÇÃO DO HOSPITAL

SITUACIONES POTENCIALMENTE GENERADORAS DE ESTRÉS PARA ENFERMERS SEGÚN CONDICIÓN DE ACRÉDITACIÓN DEL HOSPITAL

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Cross-sectional study aimed to evaluate and compare the frequency of perceived/self-reported stress by nurses in hospitals with and without accreditation. One conducted in an accredited and two non-accredited hospitals in São Paulo in 2010 and 2011. Data collection included a questionnaire and the Stress Inventory for Nurses, with 262 participants, who evaluated stressful situations in the categories: Intrinsic Factors of Work, Interpersonal Relationships at Work and Stressful Roles in Career. The differences among hospitals concerning nurses’ perception/self-declaration about potentially stressful factors were evaluated by the chi-square test, considering p < 0.05 the critical level. Working in an accredited hospital protected against perception/self-declaration of stress caused by stressful factors in the categories: Intrinsic Factors of Work and Stressful Roles in their Career, being a risk factor related to the category Relationships at Work. One concludes that nurses from the accredited hospital perceived/self-reported more stressful factors in situations related to interpersonal relationships.

Descriptors: Nursing; Burnout, Professional; Accreditation.

Estudo transversal que objetivou avaliar e comparar a frequência de estresse percebido/autodeclarado por enfermeiros em instituições hospitalares, com e sem acreditação. Foi realizado em um hospital acreditado e dois não acreditados do interior do Estado de São Paulo, em 2010 e 2011. A coleta de dados incluiu questionário e o Inventário de Estresse para Enfermeiros, com 262 participantes, que avaliaram situações potencialmente estressoras nas categorias: Fatores Intrínsecos ao Trabajo, Relaciones Interpessoais no Trabajo e Papéis Estressores na Carreira. As diferenças entre hospitais quanto à percepção/autodeclaração dos enfermeiros sobre fatores potencialmente estressores foram avaliadas pelo teste qui-quadrado, considerando-se crítico p<0,05. Trabalhar em hospital acreditado protegeu contra percepção/autodeclaração de estresse decorrente de alguns estressores das categorías Fatores Intrínsecos ao Trabajo e Papéis Estressores da Carreira, sendo fator de risco para estressores da categoria Relaciones en el Trabajo. Conclui-se que enfermeiros atuantes no hospital acreditado perceberam/autodeclararam mais estressores em situações relativas às relações interpessoais.

Descrições: Enfermagem; Esgotamento Profissional; Acreditación.

Estudio transversal, con objetivo de evaluar y comparar la frecuencia de estrés percibido/auto declarado por enfermeras en instituciones hospitalarias, con y sin acreditación. Desarrollado en un hospital acreditado y dos no acreditados del interior de Sao Paulo, Brasil, en 2010 y 2011. Se utiliz ó el Inventario de Estrés para Enfermeras, con 262 participantes que evaluaron situaciones de estrés en las categorías: Factores Intrínsecos al Trabajo, Relaciones Interpersonales en el Trabajo y Papeles Estressores en la Carrera. Las diferencias entre hospitales con respecto a percepción/auto declaración de enfermeras acerca de factores estresores fueron evaluadas por el test chi cuadradado, considerándose crítico p<0,05. Trabajar en hospital acreditado protegió contra percepción/auto declaración de estrés resultante de algunos estresores de las categorías Factores Intrínsecos al Trabajo y Papéis Estressores de la Carrera, siendo factor de riesgo para estresores de la categoría Relaciones en el Trabajo. Enfermeras actuantes en el hospital acreditado percibieron/auto declararon más estresores en situaciones relativas a las relaciones interpersonales.

Descripciones: Enfermería; Agotamiento Profissional; Acreditación.
INTRODUCTION

Providing quality health care is a technical and social imperative and not an isolated attitude anymore. This fact happens due to many reasons, such as the increased demand for care, increasing maintenance costs, limited resources, the increasing presence of more demanding users who are aware of the rights they have, beyond the claims of professionals that aim to have decent and ethic working conditions\(^1\).

On the one hand, users of health care expect services to be executed with quality and on the other hand, the hospitals have an interest in demonstrating the quality of the services they offer, being the certifications such as the hospital accreditation, one of the ways to make potential users aware of it. In Brazil, the Brazilian Health Surveillance Agency (Agência Nacional de Vigilância Sanitária) ANVISA, recognizes the National Accreditation Organization (Organização Nacional de Acreditação) ONA as a competent and authorized institution to conduct the development of the accreditation of organizations and health services\(^2\).

Regardless of being certified or not, one supposes that in the management process, every effort to improve the organization should start focusing on professionals. In this scenario, health professionals, including nursing ones, are essential to guarantee the maintenance of the qualification process through commitment, engagement and strengthening of the policy established by the institution, because, otherwise, the technology and the structure may have little meaning\(^3\). However, nursing professionals often feel overwhelmed and discouraged with the work they perform\(^4\). Considering the context of the nursing team being inserted in health institutions, one observes very often that members of the staff are affected by stress\(^5\).

The scientific literature has shown a protective effect of social support on the health status and on the harmful effects of stress, showing a close relationship between the level of satisfaction with interpersonal relationships and ease of adjustment to stressors. There is the perception that individuals who belong to a strong social network have more aid in dramatic events and perceive stressful situations in a less intense way\(^6\).

Among the main factors pointed as triggers of stress in the nursing staff are emotional overload, lack of human and material resources, salary issues, interpersonal relationships, professional insecurity, excessive workload and factors related to organizational structure, such as: management style, lack of cooperation, communication and support from managers and strict control, among others\(^7\), resulting in decreased quality of care\(^8\).

Studies about stress of the nursing staff resulting from the action in the emergency rooms\(^8\), first aid\(^9\) surgical center\(^10\) and intensive care unit\(^11\), were published in Brazil in recent years. However, one did not find in national or international literature research about perceived/self-reported stress by nurses from accredited institutions.

Thus, ones performed the current study to answer the question: do nurses who work in accredited hospitals perceive/self-declare more stress on their working process than those who work in not-accredited hospitals? The underlying assumption is yes and due to the demand level of the institution. In this context, the aim of the study was to evaluate and compare the frequency of perceived/self-reported stress by nurses in hospitals with and without accreditation.

It is expected to help institutions recognize stress as an important aspect at work and identify situations that can develop it to contribute to the adoption of strategies that can minimize it.

METHOD

This is a cross-sectional\(^12\) and comparative study held in the countryside of São Paulo, in the cities of Bauru (Hospitals A and B) and Marilia (Hospital C).

The choice of hospitals was based on two aspects that allowed one to obtain the necessary data for the conduction of the research: being accredited or not and

 approximate number of nurses: Hospital A is the only accredited one that attends the Unified Health System in this region, with 318 beds, 130 nurses and level two of accreditation; Hospitals B and C are not accredited and both were selected so that the number of professionals to be interviewed could be close to the professionals of the accredited hospital. Hospital B has 178 beds and 55 nurses. Hospital C has 222 beds and 100 nurses, totaling in hospitals B and C, 155 nurses.

From hospital A, 129 nurses (99.2%) participated; from Hospital B 40 (72.7%) and from Hospital C 93 (93.0%), comprising a sample of 262 subjects.

The only criteria for inclusion were: they should have been working at the institution of study for six months or more and agree to participate.

One used a questionnaire with questions about sociodemographic and work aspects for characterization of the study participants, including gender, length of training and service in the institution, weekly working hours, number of jobs and classification of the performance area and the Stress Inventory for Nurses (SIN), which was developed and validated in Brazil\(^{(13)}\). The SIN contains 38 items, divided into three categories.

The Intrinsic Factors to Work are related to physical effort to accomplish the work, develop activities beyond the occupational function, have in practice a greater workload, take service to do at home, lack of equipment necessary to work, lack of human resources, manage or supervise the work of others, perform different tasks simultaneously, feel emotional stress with work and have more than one function at work\(^{(13)}\).

The Interpersonal Relations circumscribe the ability to combine work and family issues, relationship with nurses, relationship with the medical staff, relationship with the managers, teamwork, care for severe cases, care for family members, teach students, attend a large number of people, resolve unforeseen events that happen in the workplace, do a repetitive job, keep up to date, provide patients with care, perform procedures fast, exclusive dedication to the profession, to be responsible for the quality of service that the institution offers and the specialty they work with\(^{(13)}\).

The Stressful Career Roles focus on issues such as: working with untrained people, working with inadequate infrastructure, working in an unhealthy environment, working in an atmosphere of competitiveness, assisting the patient, gap between theory and practice, blurring in the role of the nurse, being unable to provide direct patient care, having short time to follow orders, restriction of professional autonomy, interference of institutional politics at work and feeling powerless due to the tasks to be performed\(^{(13)}\).

To respond to SIN, the participants considered their work environment and indicated for each item evaluated, the presence of sources of tension or stress according to the following scale: Never, Rarely, Sometimes, Many Times and Always.

For the analysis of the data recorded in the SIN, in this study, one decided to group the answers as follows: when a person marked Sometimes, Many Times and Always, it was considered that the perceived/self-declared stress was present; if the person marked Never or Rarely, it was considered as absent.

An author and a previously trained nurse were responsible for the delivery of questionnaires to study participants during their working hours, according to the guidance of the institutions studied. They remained on the place and collected them afterwards. One considered as a refusal when after three attempts the nurses reported not being able to respond to the questionnaire at that moment.

For data analysis one used the EpiInfo statistical software, version 6.04. One aimed to identify associations between certification or not of the hospitals and the degree of perceived/self-reported stress by nurses of these hospitals, by calculating the odds ratio and the respective confidence intervals and comparison of proportions, using the chi-square test for assessing

the statistical significance, critical level of \( p < 0.05 \) and confidence interval of 95%.

The study was approved by the Ethics Committee in Research of the Lauro de Souza Lima Institute under N\° 14/2010 and 17/2010.

**RESULTS**

Out of the 262 nurses who participated in the study, 226 (86.3\%) were female, 126 (48.1\%) were married or living in a stable relationship. One hundred and forty (53.4\%) had more than four years of graduation, 196 (74.8\%) were specialists, the weekly workload was less than 40 hours for 169 (64.5\%), 189 (72.1 \%) worked in the healthcare area and 198 (75.6\%) had only one job. Among the nurses of the accredited hospital, 68 (52.7\%) were single and 72 (55.8\%) had up to four years of graduation, while from the non-accredited hospitals 72 (54.1\%) were married or had a stable relationship and 75 (56.4\%) had more than four years of graduation.

The analysis of the category related to Intrinsic Factors to Work showed a statistically significant difference among hospitals in the following situations: perceived/self-reported stress due to the lack of material \((p<0.001, \ OR \ 0.14 \ CI \ 0.08-0.26)\) and lack of human resources \((p=0.010, \ OR \ 0.42 \ and \ CI \ 0.20-0.87)\), and in these cases, working at an accredited hospital was a protective factor, ie, nurses from accredited hospitals perceived/self-reported less stress on these situations. To perceived/self-reported stress related to “administer or supervise the work of others,” working at an accredited hospital was a risk factor \((p=0.025, \ OR \ 1.85 \ and \ CI \ 1.04-3.31)\), and the others there were no differences (Table 1). One should also notice that over 70\% of the nurses from the two types of hospitals reported emotional exhaustion due to work as a potential source of stress.

**Table 1** - Intrinsic Job Factors potentially generators of stress/tension for nurses according to the situation of the hospital regarding accreditation. Bauru, Marilia, SP, Brazil, 2011

<table>
<thead>
<tr>
<th>Potentially stressful situation</th>
<th>Accredited n (%)</th>
<th>Non-accredited n (%)</th>
<th>( p )</th>
<th>OR (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making physical effort at work</td>
<td>61 (48.0)</td>
<td>64 (48.5)</td>
<td>0.941</td>
<td>0.98 (0.59-1.65)</td>
</tr>
<tr>
<td>Doing activities beyond their job</td>
<td>80 (66.7)</td>
<td>84 (64.1)</td>
<td>0.672</td>
<td>1.12 (0.64-1.95)</td>
</tr>
<tr>
<td>Having working hours bigger than they should</td>
<td>73 (57.0)</td>
<td>69 (52.3)</td>
<td>0.441</td>
<td>1.21 (0.72-2.04)</td>
</tr>
<tr>
<td>Taking work home</td>
<td>35 (27.6)</td>
<td>45 (34.6)</td>
<td>0.221</td>
<td>0.72 (0.41-1.26)</td>
</tr>
<tr>
<td>Working with lack of material</td>
<td>47 (37.0)</td>
<td>105 (80.8)</td>
<td>&lt;0.001</td>
<td>0.14 (0.08-0.26)</td>
</tr>
<tr>
<td>Working with lack of human resources</td>
<td>97 (76.4)</td>
<td>115 (88.5)</td>
<td>0.010</td>
<td>0.42 (0.20-0.87)</td>
</tr>
<tr>
<td>Emotional exhaustion with work</td>
<td>91 (72.2)</td>
<td>100 (76.3)</td>
<td>0.450</td>
<td>0.81 (0.44-1.47)</td>
</tr>
<tr>
<td>Running simultaneously different jobs</td>
<td>93 (72.7)</td>
<td>88 (67.2)</td>
<td>0.336</td>
<td>1.30 (0.74-2.29)</td>
</tr>
<tr>
<td>Having more than one function</td>
<td>66 (52.0)</td>
<td>75 (59.5)</td>
<td>0.226</td>
<td>0.74 (0.43-1.25)</td>
</tr>
<tr>
<td>Managing or supervising the work of others</td>
<td>95 (76.0)</td>
<td>82 (63.1)</td>
<td>0.025</td>
<td>1.85 (1.04-3.31)</td>
</tr>
</tbody>
</table>

In the category Interpersonal Relationships at Work (Table 2), one verified that there was a statistically significant and unfavorable difference to the accredited hospital for the situations: dealing with work and family situations \((p=0.045, \ OR \ 1.67 \ and \ CI \ 0.98-2.87)\); care for severe patients \((p=0.028, \ OR \ 1.76 \ and \ CI \ 1.03-3.01)\) and care for family members \((p=0.010, \ OR \ 1.90 \ and \ CI \ 1.12-3.22)\). It is also important to notice that the most referred situation in the two groups of nurses as potential stressors was attending the family members.

The analysis of the category Stressful Roles in Career (Table 3), in which the issue of inadequate infrastructure is located, showed that working in an accredited hospital was a protective factor against perception/self-reference of stress ($p$<0.001, OR 0.22 and CI 0.13-0.38) for this situation. Working with untrained people was the most referred situation as potentially generator of stress in both groups of nurses: 78.1% and 76.0% in accredited and non-accredited hospitals, respectively.

Table 3 - Stressful Roles in Career potentially generator of stress/tension for nurses according to the hospital’s situation regarding accreditation. Bauru, Marília, SP, Brazil, 2011

<table>
<thead>
<tr>
<th>Potentially stressful situation</th>
<th>Accredited n (%)</th>
<th>Non-accredited n (%)</th>
<th>P</th>
<th>OR (CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working in an atmosphere of competitiveness</td>
<td>84 (65.6)</td>
<td>84 (63.6)</td>
<td>0.737</td>
<td>1.09 (0.64-1.87)</td>
</tr>
<tr>
<td>Distance between theory and practice</td>
<td>66 (52.0)</td>
<td>72 (55.0)</td>
<td>0.629</td>
<td>0.89 (0.53-1.49)</td>
</tr>
<tr>
<td>Powerlessness due to the tasks</td>
<td>74 (58.3)</td>
<td>54 (48.2)</td>
<td>0.119</td>
<td>1.50 (0.87-2.59)</td>
</tr>
<tr>
<td>Blurred role of nurses</td>
<td>60 (48.4)</td>
<td>67 (51.1)</td>
<td>0.659</td>
<td>0.90 (0.53-1.51)</td>
</tr>
<tr>
<td>Inability to attend the patient</td>
<td>71 (55.9)</td>
<td>63 (48.1)</td>
<td>0.209</td>
<td>1.37 (0.81-2.30)</td>
</tr>
<tr>
<td>Working with untrained people</td>
<td>100 (78.1)</td>
<td>98 (76.0)</td>
<td>0.681</td>
<td>1.13 (0.61-2.11)</td>
</tr>
<tr>
<td>Working in inadequate facilities</td>
<td>42 (32.8)</td>
<td>91 (68.9)</td>
<td>&lt;0.001</td>
<td>0.22 (0.13-0.38)</td>
</tr>
<tr>
<td>Working in an unhealthy environment</td>
<td>52 (42.6)</td>
<td>66 (50.4)</td>
<td>0.216</td>
<td>0.73 (0.43-1.24)</td>
</tr>
<tr>
<td>Having little time to fulfill orders</td>
<td>86 (67.7)</td>
<td>83 (62.9)</td>
<td>0.413</td>
<td>0.81 (0.47-1.39)</td>
</tr>
<tr>
<td>Having restricted autonomy</td>
<td>85 (67.5)</td>
<td>84 (63.6)</td>
<td>0.518</td>
<td>0.84 (0.49-1.46)</td>
</tr>
<tr>
<td>Suffering from interference of the institutional policy</td>
<td>86 (67.7)</td>
<td>74 (56.5)</td>
<td>0.063</td>
<td>0.62 (0.36-1.06)</td>
</tr>
</tbody>
</table>

DISCUSSION

Several aspects evaluated were mentioned by more than 70% of the respondents as a potential source of stress, revealing a worrying situation both in accredited and non-accredited hospitals.

Acting in an accredited hospital was a protective factor for perception/self-reference of stress related mainly to the lack of material and in environments with inadequate facilities (OR 0.14 and 0.22, respectively) and a risk factor for perceived stress due to dealing with work and family issues, caring for the critically ill patients, caring for family members and managing or supervising the work of others (OR 1.67, 1.76, 1.90 and...
1.85, respectively).

These results seem to indicate that, at least in the studied region, working at an accredited hospital only protects from the perception/self-reference of stress related to resources (material, human and physical), and is an adverse factor to the emotional health of nurses when considering relational aspects and complexity of the work.

Inadequate working conditions form a set of interdependent factors, that besides acting directly on the work itself, affect people’s quality of life\(^5\).

Other Brazilian studies\(^5,11\) have also detected situations related to the category "Intrinsic Job Factors" as potentially generators of stress in nurses of non-accredited hospitals and were related to the lack of resources in health institutions. When looking for certification, hospitals improve their structure in general, since from the most basic levels of accreditation that aspect is considered.

One starts from the assumption that, for quality care, it is essential both the quantitative and qualitative adequacy of material, human and environmental resources. Thus, in non-accredited hospitals, the limitation or lack of these resources, which is quite common, can maximize the risk to the clients assisted, damage legally the institution due to failures and generate stress in healthcare professionals\(^6\). The need for adaptation and improvisation of materials affects negatively the health of nurses who start to show, among other signs and symptoms, fear, anxiety, irritation, pain, headache and tiredness\(^14\).

The hospital accreditation program requires a proactive action from organizations, of voluntary nature, to search for quality standards that are compatible with external references. To receive certification from the ONA, health institutions should have technological resources essential to attend patients. Thus, in the certification process there is a critical evaluation, checking if equipment, medications and supplies are compatible with the structure and profile of the service; if there is planning and about the quality of the incoming resources in the organization and if the processes are effective. The institutions need to follow technical criteria for standardization of materials, plan their acquisition according to those criteria and institutional profile and monitor their use\(^15\).

In the present study, it was verified that, possibly due to the prioritization of the requirements concerning physical structure and material resources for the accreditation of the hospital, the non-certification was a risk factor only for the perception/self-reference of stress related to such aspects.

Regarding the category Interpersonal Relationships at Work, being accredited was a risk factor for perception/self-reference of stress due to the difficulty of dealing with work and family issues. A possible explanation for this fact, to be tested in future studies, may be the level of requirement of accredited hospitals.

The standardization of procedures and continuing education, which must occur in accredited hospitals, did not result in greater safety for their employees. It was hoped that the actions mentioned, when adopted, would result in security to attend any patient, including more severe ones. However, in the case of this study, acting in an accredited service was associated with a higher proportion of nurses who reported stress perception for assisting critically ill patients and their family members. New studies similar to this one could determine whether this result is due to a particular situation or if it is a frequent problem in accredited hospitals.

The stress is characterized by an adaptive response of the body against something threatening and this occurs in unusual, new situations, and psychophysiological changes arising from them depend on the frequency and intensity of stressful situations\(^6\).

It is believed that the presence of stress in nurses from the accredited hospital has a relation to the constant quality requirement for maintaining the certification, plus the stress due to the action with
severe patients, as described in the literature\(^{(16)}\), since it is a reference hospital for patients in this condition.

The hospital accreditation aims to develop strategies to support excellence\(^{(3)}\). Thus, aspects regarding the employees’ satisfaction also need to be considered and the use of an instrument to identify stressors can be useful for enabling interventions aimed at reducing changes caused by the stressor\(^{(17)}\).

Because it is a voluntary process, the institutions with interest in receiving the evaluation and the certification must be willing to change, which is often necessary. In this research, it became evident the need of the accredited hospital to revise, especially aspects of the working process related to interpersonal relationships and enforcement of complex work, such as that required in situations where the patient is in a serious condition.

The underlying study hypothesis was that nurses working at the accredited hospital perceived/self-declared more work-related stressors, which was confirmed.

Research with professionals on perceived stress may contribute to a rethinking of the working process, with subsequent implementation of actions aimed at their management.

One used an instrument that was built to identify the individual’s perception of potentially stressful situations, there were no questions that could assist in the diagnosis of stress, and this was a limitation identified in the study. The use of qualitative methods in future research can contribute to understand the phenomena involved with stressors.

The results should be understood as a warning to managers of institutions involved in the process of obtaining and/or revalidation of hospital accreditation. One suggests that the requirements for reaching the accreditation may interfere with the occupational health of their workers.

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**COLLABORATIONS**

Higashi P participated in the creation, collection, analysis, interpretation of data and final approval of the version to be published. Carvalhaes MABL and Spiri WC participated in the interpretation of data, drafting of the article and final approval of the version to be published. Simonetti JP and Parada CMGL participated in the creation, analysis, interpretation of data, drafting of the article and final approval of the version to be published.

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