## ANALYSIS OF THE COMPLEXITY DEGREE OF CARE, STRESS AND COPING OF NURSING IN A HOSPITAL IN RIO GRANDE DO SUL<sup>1</sup>

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- <sup>1</sup> Article extracted from the thesis Relationship between the degree of complexity of patient care, stress level and coping in the nursing professionals of the Clinical Hospital of Porto Alegre, presented to the Postgraduate Program in Nursing, *Universidade Federal do Rio Grande do Sul* (UFRGS), Rio Grande do Sul in 2017.
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#### **ABSTRACT**

**Objective**: to verify the relationship between the degree of complexity of patient care, stress level and coping in nursing professionals in adult hospitalization units of a university hospital in Porto Alegre.

**Method**: quantitative cross-sectional study, developed in three clinical hospitalization units, totaling 89 nursing professionals, of which 28 (31.5%) were nurses and 61 (68.5%) were nursing auxiliaries and/or technicians. The degree of complexity of patient care was obtained through the Perroca Patient Classification System instrument. The evaluation of stress and coping levels was performed through the Nursing Stress Inventory and Coping at Work Response Inventory instruments.

Results: when comparing the levels of complexity of the semi-intensive and intensive care among the units, it was found that unit B presented higher values than A and C, being that these presented similar degrees (p<0.001). Both in relation to the total stress level (p=0.180) and the use of coping strategies (p=0.315), there was no difference between the professional categories. When comparing the stress level according to the work unit, it was observed that the professionals of unit B had higher levels of stress (2.87±0.66, p=0.030). When evaluated on the use of coping strategies, unit B showed no difference in the total score compared to the other two units.

**Conclusion**: the professionals who provided cared to patients with a higher degree of care complexity were exposed to the highest stress level. **DESCRIPTORS**: Nursing team. Stress. Workload. Occupational health. Psychological adaptation.

# ANÁLISE DO GRAU DE COMPLEXIDADE DO CUIDADO, ESTRESSE E COPING DA ENFERMAGEM NUM HOSPITAL SUL-RIOGRANDENSE

#### **RESUMO**

**Objetivo**: verificar a relação entre grau de complexidade do cuidado de pacientes, nível de estresse e *coping* nos profissionais de enfermagem em unidades de internação adulto de um hospital universitário de Porto Alegre.

**Método**: pesquisa quantitativa transversal, desenvolvida em três unidades de internação clínica, totalizando 89 profissionais de enfermagem, sendo 28 (31,5%) enfermeiros e 61 (68,5%) auxiliares e/ou técnicos de enfermagem. O grau de complexidade do cuidado dos pacientes foi obtido através do instrumento do Sistema de Classificação de Pacientes de Perroca. A avaliação dos níveis de estresse e *coping* foram por meio dos instrumentos Inventário de Estresse em Enfermeiros e Inventário de Respostas de Coping no Trabalho.

Resultados: ao compararmos os níveis de complexidade dos cuidados semi-intensivo e intensivo entre as unidades, obtivemos que a unidade B apresentou valores mais altos que a A e C, sendo que estas apresentaram graus semelhantes (p<0,001). Tanto em relação ao nível de estresse total (p=0,180) quanto à utilização das estratégias de *coping* (p=0,315), não houve diferença entre as categorias profissionais. Ao comparar o nível de estresse conforme a unidade de trabalho observou-se que os profissionais da unidade B apresentaram maiores níveis de estresse (2,87±0,66; p=0,030). Quando avaliada sobre a utilização de estratégias de *coping*, a unidade B não apresentou diferença no escore total comparada às outras duas unidades.

Conclusão: os profissionais que cuidavam de pacientes com maior grau de complexidade do cuidado estavam expostos ao maior nível de estresse.

DESCRITORES: Equipe de enfermagem. Estresse. Carga de trabalho. Saúde ocupacional. Adaptação psicológica

### ANÁLISIS DEL GRADO DE COMPLEJIDAD DEL CUIDADO, ESTRÉS Y COPING DE LA ENFERMERÍA EN UN HOSPITAL SUL-RIOGRANDENSE

#### RESUMEN

**Objetivo**: verificar la relación entre grado de complejidad del cuidado de pacientes, nivel de estrés y coping en los profesionales de enfermería en unidades de internación adulto de un hospital universitario de Porto Alegre.

**Método**: la investigación cuantitativa transversal, desarrollada en tres unidades de internación clínica, totalizando 89 profesionales de enfermería, siendo 28 (31,5%) enfermeros y 61 (68,5%) auxiliares y/o técnicos de enfermería. El grado de complejidad del cuidado de los pacientes fue obtenido a través del instrumento del Sistema de Clasificación de Pacientes de Perroca. La evaluación de los niveles de estrés y coping fue por medio de los instrumentos Inventario de Estrés en Enfermeros e Inventario de Respuestas de Coping en el Trabajo.

Resultados: al comparar los niveles de complejidad de los cuidados semi-intensivos e intensivos entre las unidades, obtuvimos que la unidad B presentó valores más altos que la A y C, siendo que estas presentaron grados semejantes (p<0,001). Tanto en relación al nivel de estrés total (p=0,180) en cuanto a la utilización de las estrategias de coping (p=0,315), no hubo diferencia entre las categorías profesionales. Al comparar el nivel de estrés según la unidad de trabajo se observó que los profesionales de la unidad B presentaron mayores niveles de estrés (2,87±0,66, p=0,030). Cuando se evaluó sobre la utilización de estrategias de coping, la unidad B no presentó diferencia en la puntuación total comparada a las otras dos unidades.

Conclusión: los profesionales que cuidaban de pacientes con mayor grado de complejidad del cuidado estaban expuestos al mayor nivel de estrés.

DESCRIPTORES: Grupo de enfermería. Estrés. Carga de trabajo. Salud ocupacional. Adaptación psicológica

#### INTRODUCTION

The advancement of medicine and the use of new technologies for diagnostics and treatments have contributed to increase the survival of the population. The impact of these transformations in the health area makes it necessary to make changes and the organization with the managers in the health institutions, in order to modernize their way of coordinating people and the work. The constant concern of health managers to guarantee quality standards in the care process refers to the frequent search for new strategies that enable to meet the patients' demands in terms of care.<sup>1</sup>

The recovery of patients with different types of pathology ends up generating an increase in the complexity of the demand for the care of hospitalized patients.<sup>2</sup> The need for patient care can be quantified through the Perroca Patient Classification System (PPCS). This instrument allows evaluating the care provided, considering the time spent by the professional to provide care to the patient, as well as their level of dependency and degree of care complexity.<sup>1-3</sup>

Therefore, the working conditions currently imposed to nursing professionals require more and more complex care. The workload is related to the working conditions and deals with a phenomenon in which three components remain interrelated: physical load, which refers to the interaction between the physical body and the work environment; mental load, referring to the cognitive processes involved in the activities; and psychic load, which covers the negative affective components that can be triggered or even aggravated by the work process.<sup>4-5</sup>

The increase in the demand for work in the institutions and the higher severity of the condition in which the patients are when they seek the hospitals can also influence the exposure of the professionals to several risk factors for the development of psychosocial stress. Stress occurs in two forms: the acute one, characterized by being intense and disappearing rapidly; and the chronic one, which, although not so intense, lasts for longer periods of time.

Thus, stress at work is the result of a set of symptoms that show up in the body, which can affect t health and present different responses among individuals. 6-8 Some of the symptoms that can be observed in professionals when they are being influenced by a stress load are slowness in work activities, disinterest in work, energy reduction, apathy, difficulty concentrating, as well as recurrent negative thinking, with loss of the planning capacity and change of judgment. These are strong evidences of human suffering, which indicate that the individual is suffering from occupational stress, and they may lead, in severe cases, to depression and possible suicide risk.9

Workers exposed to the same stressors may develop their own coping mechanisms to deal with these situations, in the face of individual internal resources. <sup>10</sup> These strategies form a set of cognitive and emotional efforts developed by the individual in order to manage internal and external resources to deal with stressful situations, called coping or coping strategies. Thus, coping is usually defined as the cognitive and behavioral efforts consciously used by individuals - or health professionals - to manage stressful situations. On the other hand, unconscious and unintentional defense mechanisms cannot be

considered coping strategies.<sup>11</sup> In view of this, the person uses the coping mechanisms in an attempt to neutralize or eliminate the stress situation, either by facing it or moving away from it, but with the purpose of restoring their psychic balance.<sup>12-13</sup>

Coping strategies can be divided into the following focuses: *problem-centered* coping and *emotion-centered* coping. <sup>11</sup> Regarding the first, it is sought to solve the situation through information about the stressful event and the analysis of an alternative action, in order to choose what is considered the most appropriate one. It occurs when the stress situation is assessed as easy to change and is associated with a lower stress load. Emotion-centered coping strategies carry high emotional load and are derived from self-defense processes. They include mechanisms of detachment, escape and avoidance, which serve as a shield, avoiding that the individual confronts the stressor, to try to modify the reality and the unpleasant sensations arising from it. <sup>11-13</sup>

Thus, the hypothesis of this study is that if the increase in the degree of complexity of the care provision to the patients contributes to the increase of the levels of stress in the professionals, then, they use many coping strategies. The study seeks to answer the following research question: what is the relationship between the degree of complexity of care, level of stress and coping used by nursing professionals who provide care for adult patients hospitalized in a university hospital? Thus, the objective of the study is to verify the relationship between the degree of complexity of care, stress level and coping in the nursing professionals of the hospitalization units of a university hospital in Porto Alegre.

#### **METHOD**

A cross-sectional quantitative study, developed in a public university hospital in the city of Porto Alegre, from June to August 2016. Three clinical hospitalization units, composed of 45 beds each, were included in the study. These units were chosen because they have the same characteristics of environment, infrastructure and staff, as well as the type of patient care.

For the calculation of the sample size for assessment of stress levels and use of coping adaptation strategies, the Winpepi® program, version 11.43, with the support of the statistics professional of the

institution was used. Considering the power of the test of 80%, level of statistical significance ( $\alpha$ ) of 0.05 and correlation of 0.3, it was reached the total sample size of 90 participants. The sample consisted of 61 nursing auxiliaries and technicians\* and 28 nurses, distributed into three hospitalization units. Of the 90 selected nursing professionals, one refused to participate in the study.

The inclusion criteria of the nursing professionals were: to be active in the institution and acting in the direct care provision to the hospitalized patient in the clinical hospitalization units for adults. The sample selection was random and proportional to the professional categories allocated to the clinical hospitalization units A, B and C, respectively, during the data collection period.

In order to evaluate the degree of complexity of patient care, the Perroca patient classification system was used, <sup>14</sup> whose data were obtained through the institution's electronic system. These data are provided by the nurses according to the daily routine of work.

A total of 2,007 records were included in the system of units A, B and C, according to the inclusion criteria of the study. Each month, 225 patient records were viewed on five days of the week, closing in 3 months the collection of 675 records in the system. The occupational stress was investigated through the identification of stressors at work, using the Inventory of Stress in Nurses (ISN),<sup>15</sup> and the assessment of the coping strategies was analyzed through the Coping at Work Response Inventory (CWRI).<sup>16</sup>

The quantitative variables were described by mean and standard deviation or median and interquartile range. The categorical variables were described by absolute and relative frequencies. The analyzes were performed using the chi-square or Fisher's exact test, for comparison of the categorical variables; Student's t test was used for independent samples, when compared to a quantitative variable of symmetrical distribution between two groups; and Pearson's correlation, for the association of two quantitative variables.

For the purpose of interpreting the Pearson's correlation coefficient (r),<sup>17</sup>it is emphasized that this can be evaluated qualitatively as follows: if  $r \le 0.30$ , there is weak linear correlation; if  $r \le 0.90$ , there is strong

<sup>\*</sup> In Brazil, nursing is divided into three categories: nurse, nursing technicians and nursing auxiliaries, being the highest level is a nurse, followed by technicians and auxiliaries. Translator's note.

linear correlation; if  $r \le 1.00$ , there is very strong linear correlation. Thus, the closer to 1 (independent of the -1 or +1 sign), the higher the degree of linear statistical dependence between the variables; in contrast, the closer to zero, the lower the strength of this relationship. The level of statistical significance adopted was 5% (p < 0.05).

The research was approved by the Research Ethics Committee of the institution (CAAE: 51556115.0.0000.5327), in accordance with the institutional and national legislation for the approval of research involving human beings. To ensure anonymity, the hospitalization units were named A, B and C.

#### **RESULTS**

Of the 89 professionals studied, 31.5% were nurses and 68.5% were nursing technicians/auxiliaries; 84.3% were female, with a mean age of 42.4 years old, and 67.4% had a partner and one child (Table 1).

Table 1 - Frequency distribution of the characterization variables of the nursing professionals. Porto Alegre, RS, Brazil, 2016. (n=89)

Variables	n=89
Age (years)*	42.4±8.8
Gender†	
Male	14 (15.7)
Female	75 (84.3)
Marital status†	
Has a partner	60 (67.4)
No partner	29 (32.6)
Number of children†	
0	26 (29.2)
1	35 (39.3)
2 or more	28 (31.5)
Religion†	
Has	70 (78.7)
Does not have	19 (21.3)
Unit†	
A	30 (33.7)
В	30 (33.7)
C	29 (32.6)

Variables	n=89
Professional category†	
Nurse	28 (31.5)
Nursing auxiliaries/technician	61 (68.5)
Postgraduate Course†	
Yes	26 (29.2)
No	63 (70.8)
Work shift†	
Morning	20 (22.5)
Afternoon	29 (32.6)
Evening	40 (44.9)
On extra hours/bank of hours regimen†	41 (46.1)
Extra hours/ bank of hours in the last week‡	12 (6-13)
Has another job†	8 (9.0)
How satisfied the person feels about the profession*	8.3±1.5

<sup>\*</sup>average±sd; †n (%); ‡median (p25 - p75)

The degree of complexity in the level of semiintensive care to the patients was similar in the three units. When comparing the levels of intensive care complexity among the units, it was observed that unit B presented higher values than A and C, which did not differ among themselves (p<0.001) (Table 2).

Table 2 - Frequency distribution of the complexity of patient care, according to the units in the months of June, July and August/2016. Porto Alegre, RS, Brazil, 2016. (n=2007)

Complexity	A	В	С
	n (%)	n (%)	n (%)
Minimal Care	35 (5.2)	7 (1.1)	35 (5.2)
Intermediate Care	141 (21.0)	97 (14.5)	134 (20.0)
Semi-Intensive Care	386 (57.5)	351 (52.3)	380 (56.6)
Intensive Care	109 (16.2)	210 (31.6)	122 (18.2)

<sup>\*</sup> Friedman's Test

The description of the ISN domains scores showed that only factors intrinsic to work contribute to increase the level of stress in nurses in relation to nursing technicians and auxiliaries (p=0.019) (Table 3).

Table 3 - Association of the inventory of stress in nurses according to professional category. Porto Alegre, RS, Brazil, 2016. (n=89)

<b>Inventory of Stress in Nurses</b>	Total sample*	Nurses*	Auxiliaries	P value†*
			Nursing Technician*	
Interpersonal relations	2.74±0.85	2.75±0.80	2.73±0.89	0.888
Career stressing roles	$2.61 \pm 0.72$	2.76±0.76	2.54±0.69	0.184
Intrinsic factors of work	2.64±0.65	2.88±0.70	2.53±0.61	0.019
Total	2.66±0.65	2.79±0.65	2.60±0.64	0.180

<sup>\*</sup>average±sd; †T-student's testfor independent samples

The average of the coping strategies used by the study participants was 70.9 ( $\pm$ 16.7). By professional category, the nurses had 68.2 ( $\pm$ 14.1) and the nursing auxiliaries/technicians, 72.1 ( $\pm$ 17.7).

It was observed that the assistant/nursing technician category (7.8 $\pm$ 3.3) used more evasive rationalization strategies than the nurses (6.1 $\pm$ 3.1), with a statistically significant difference in this comparison (p=0.027) (Table 4).

Table 4 - Association of coping according to the professional category. Porto Alegre, RS, Brazil 2016. (n=89)

Coping	Total sample*	Nurses*	Auxiliaries Nurs- ing Technician*	P value†
Coping Responses (0-72)	44.1±9.6	43.6±8.2	44.3±10.3	0.757
Logical Reasoning (0-18)	10.8±2.6	11.2±2.0	10.6±2.8	0.299
Positive reassessment (0-18)	10.7±3.2	9.8±3.2	11.0±3.1	0.092
Guidance/support (0-18)	10.2±3.2	10.3±2.8	10.2±3.4	0.885
Decision-making (0-18)	12.4±2.6	12.3±2.5	12.5±2.7	0.731
Avoidance Responses (0-72)	26.8±9.1	24.6±8.8	27.8±9.1	0.127
Elusive rationalization (0-18)	7.3±3.3	6.1±3.1	7.8±3.3	0.027
Resigned acceptance (0-18)	5.6±3.1	5.5±3.4	5.7±3.0	0.776
Compensatory alternatives (0-18)	10.1±3.3	9.4±3.2	10.4±3.3	0.175
Emotional extravasation (0-18)	3.8±2.6	3.6±2.7	3.8±2.6	0.662
Total (0-144)	70.9±16.7	68.2±14.1	72.1±17.7	0.315

<sup>\*</sup>average±sd; †T-student's test for independent samples

In this sample, there was a positive and moderate correlation between the total stress level and the total score of coping strategies use (r=0.417; p < 0.05).

The factor that stood out was that of the interpersonal relationships, which presented a moderate correlation with the total coping score (r=0.441; p < 0.05), with the category of avoidance responses (r=0.429, p <0.05) (Table 5).

Table 5 - Correlation between the categories of coping strategies used and levels of stress (Nursing Stress Inventory) in nursing professionals. Porto Alegre, RS, Brazil, 2016. (n=89)

	Inventory of Stress in Nurses				
Coping	Interpersonal relations	Career stressing roles	Intrinsic factors of work	Total	
Coping Responses (0-72)	0.361*	0.261*	0.293*	0.356*	
Logical reasoning (0-18)	0.294*	0.247*	0.309*	0.326*	
Positive reassessment (0-18)	0.375*	0.239*	0.180	0.315*	
Guidance/support (0-18)	0.329*	0.288*	0.292*	0.351*	
Decision-making (0-18)	0.177	0.072	0.195	0.171	
Avoidance responses (0-72)	0.429*	0.334*	0.225*	0.390*	

Elusive rationalization (0-18)	0.302*	0.116	0.016	0.182
Resigned acceptance (0-18)	0.348*	0.226*	0.181	0.298*
Compensatory alternatives (0-18)	0.306*	0.301*	0.215*	0.320*
Emotional extravasation (0-18)	0.301*	0.360*	0.272*	0.358*
Total (0-144)	0.441*	0.332*	0.291*	0.417*

\*statistically significant p value at 5% significance; †Pearson's correlation coefficient: 0=null; weak: 0 H 0.3; moderate: 0.3 H 0.7; strong: 0.7 H 0.9; very strong: 0.9 H 1.0

#### **DISCUSSION**

The hypothesis in this study was confirmed, meeting the proposed objectives of verifying the relationship between the degree of complexity of care, level of stress and coping in nursing professionals.

The quantification of the variables showed, through the instruments of analysis, a high level of complexity of care in the patients of the clinical hospitalization units, as well as a high index of occupational stress factor in the professionals. These data suggest that nurses and nursing auxiliaries/technicians make conscious use of the coping strategy to better adapt to stressful situations.

Control is necessary for the maintenance of the well-being and the search for resources that minimize the adversity of the labor organization in the workplace. With the increase of the severity of the patients, these indexes also end up increasing; due to the progressive modification in the complexity of the care, consequently there is a greater demand in the care. In the current sample, there is a great need for semi-intensive and intensive care in the clinical units.

A study carried out in hospitalization units with surgical patients identified that 2.3% required minimal care, followed by 32.0% of intermediate care, 51.3% of semi-intensive care and 14.4% of intensive care.<sup>18</sup>

These high indexes found in the two studies already cited demonstrate an increase in the care complexity, which may indicate a growth curve over the years, as well as a change in the profile of these patients who are currently seeking care in the institution. For this increase in the demand for care that the patient needs, there is a need for greater availability of materials for urgency and technologies that are not available in the hospitalization units, as well as an increase in human resources for excellence in care, since these patients, as observed in the indexes presented previously, often need intensive care. In another study carried out in a hospitalization unit, the data were lower than those found in the sample, in which 50.3% required

minimal care, 45.90% intermediate care, and 3.80% semi-intensive care.<sup>19</sup>

It was observed among the three units analyzed that the hospitalization unit B presented 31.57% of intensive care and 14.5% of intermediate care, expressive value when compared to A and C. This high rate is due to the type of patient attended and the specificities presented. Unit B is part of a project linked to the Ministry of Health, being a reference in the institution to attend patients after a stroke. These receive the first emergency care and, after stabilization, are transferred to the special care unit (SCU), following the treatment with other multiprofessional teams.

A study performed in a hospital in Fortaleza with patients who had suffered a stroke, using the Perroca PCSI, revealed data lower than those found in the sample, in which 58% of the patients required intermediate care and only 2% intensive care. <sup>20</sup> Due to the increase in the demand for work because of the high levels of care complexity for patients, the health professional is faced with stressful situations in the work environment, being more exposed to occupational stress. This stress is perceived by the professional as something negative from the inability to face these daily sources of pressure.

It was observed that nurses experience more stressing situations in their environment and more frequently in their professional lives. This may be associated to the high degree of control characteristic of the position and also to the requirements of the managers for maintaining the quality of care, when compared to the nursing auxiliaries/technicians in the intrinsic factor domain to the work.

Among the ISN factors, the domain in the total sample of the study that most affected nursing professionals was the interpersonal relations factor. A study carried out found that when the stress intensity was evaluated, it was observed that the interpersonal relations represented the factor of greater stress for the nurses, and the item that represented the highest stress factor to the professionals was the relationship with the manager. In this context, the relationship with team members

stands out among the stressors related to the interpersonal coexistence in the work environment and is pointed out as exhausting for the nursing professionals. Thus, the domain career stressor roles was the highest in nurses, scoring an intermediate level of occupational stress, while in nursing auxiliaries/technicians, the domain with the highest degree was the interpersonal relations.

In a study arried out at the "Hospital de Campinas" (SP), with 57 nurses, using the ISN, the main stressors pointed out were work with unprepared people, lack of human resources, administration or supervision of other people's work, relationship with management and lack of material needed to work.<sup>21</sup> In another study, it was verified that the domain factors intrinsic to the work presented an average of 2.68 which represents highest stress levels to the professionals.<sup>8</sup>

Nurses end up taking on greater demands, in addition to direct patient care, such as management issues, human resources management, conflict resolution and administrative work. Nursing auxiliaries/technicians, in turn, do not get involved with these issues and end up focusing on direct patient care. Due to the work process and the peculiarities of everyday life, nursing is considered to be a stressful profession.<sup>22</sup>

Thus, factors intrinsic to work relate to functions performed and that are sometimes challenging, with the workday and inadequate resources being under the control of the individual.<sup>15</sup> Nursing auxiliaries and technicians can understand their work as routinely and therefore, they end up not getting involved with other elements within the work environment.<sup>23</sup>

The excess of commitment at work is considered an intrinsic dimension of the individual commitment of each worker, pointed as a factor that interacts with the effort-reward disequilibrium, potentializing its effects and bringing risks to health.<sup>4</sup> The psychosocial factors at work are associated with the interaction among environment, working conditions and individual duties, taking into account all their characteristics and demands, including those outside the work environment.<sup>23</sup>

These results suggest that the higher the coping score among nursing professionals, the lower the results of occupational stress in the work environment. Similar results were also described in another study, in which *coping* scores were higher among professionals regarding health and work items, relating to lower stress scores, originating especially from the interpersonal work relations.<sup>13</sup>

Data observed in the correlation of the coping questionnaire with that of stress showed a statistically significant positive association between coping and avoidance responses with all three stress factors. In a study carried out with intensive care nurses at a public hospital in Rio Grande do Sul, it was observed that the nurses face stress situations proactively in the work environment, that is, they promote cognitive reassessments about the stressors and how to respond to them. It is also highlighted that the coping consists in an intentional action, of physical and psychic order, directed to extrinsic or intrinsic circumstances in response to a verified stressor agent.<sup>8</sup>

When analyzing the coping strategies, it is important to point out that the process can include both positive and negative responses regarding the stressor agent. It should also be highlighted that a coping strategy cannot be considered intrinsically adaptive, making it necessary to consider the nature of this agent, the availability of resources and the result of the individual effort.<sup>21-23</sup>

When mentioning the correlation between the use of coping strategies and stress, it is observed that the use of coping increases as the total level of stress increases in the work environment. As a consequence, it can develop in the worker a physical and psychological wear and tear.<sup>8-9</sup>

It is important to emphasize that the different stress situations can influence the choice of strategies used, that is, depending on the agent and its evaluation, an answer or the union of two or more strategies that can be used together will be determined by the individual.<sup>8</sup>

The findings in the sample suggest that the nursing team surveyed in the study chose to use coping strategies focused on solving problems in the work environment, being these positive responses for the growth of the team as a professional and personal. These ideas demonstrate that these strategies allow mobilizing efforts to better adapt to the stressful situations, thus reducing the occurrence of occupational stress in the work environment. Therefore, when these strategies are used effectively, nursing professionals tend to reduce or solve the problems caused by stressors.<sup>21-23</sup>

It is highlighted as a limitation of the study the reduced number of investigations with the same instruments in the population used here, which made it difficult to compare data from this study with those found in other studies.

### **CONCLUSION**

The evaluation of the degree of complexity through the classification of patients and analysis of nursing care helps to this purpose, when it identifies and groups these patients into categories according to the needs of care performed by the nursing team. Thus, it is possible to say that the instrument used in the study demonstrates evidence to be applied in nurses' managerial practice, since it presents subsidies to evaluate the need for care.

Regarding the relationship between stress and the coping levels on the health of nursing professionals and nursing auxiliaries/technicians, it is suggested that the conscious use of these coping strategies can minimize the harmful effects of work while maintaining physical and mental health.

It was observed that the nurses presented higher averages of stress. This result is associated with the characteristic control of the position and also with the requirements of the managers for maintaining the quality of care. When using problem-centered coping strategies, it is considered that this strategy is more effective in coping with stress in the work environment.

Considering this complexity of nursing care, it is concluded that joint measures could be taken to improve the working conditions of these professionals evaluated, as the a re-adaptation of the professional condition for reduction of exposure and development of programs to strengthen coping strategies, thus improving the coping capacity of stressful situations, in order to maintain the quality standards of the process of caring for patients. It is also possible to work with the teams ways of reducing the stress levels and measures for professional valuing, to compensate their sources, as well as encouraging moments of social interaction among the teams.

Thus, even if stressful situations are present in daily work, nurses and nursing auxiliaries/technicians seek to cope with such situations, which can be considered positive in relation to a potentially exhausting routine. It is believed that knowing these stressors can help the institution, the managers and the professionals of the team to rethink their work process.

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