

Coping strategies of nurses in hospital emergency care services

Estratégias de enfrentamento dos enfermeiros em serviço hospitalar de emergência

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Descritores

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Abstract

Objective: To identify the coping strategies of nurses in hospital emergency services, and relate them to socio-demographic and professional variables.

Methods: Cross-sectional study with 89 nurses. Research instruments included a form to characterize the research subjects and the Ways of Coping Questionnaire by Folkman and Lazarus.

Results: The most commonly used coping strategies were problem solving and positive reappraisal, whereas the least used was confrontation. The strategies of confrontation, positive reappraisal and escape-avoidance were associated with the male sex, not having a partner and working night shifts, respectively.

Conclusion: Coping strategies can be aided by listening, monitoring, educational programs and creation of a space for discussion of work-related difficulties.

Resumo

Objetivo: Identificar as estratégias de enfrentamento dos enfermeiros em serviço hospitalar de emergência e relacioná-las às variáveis sociodemográficas e profissionais.

Métodos: Estudo transversal com 89 enfermeiros. Os instrumentos de pesquisa foram: formulário para caracterização dos sujeitos e o Inventário de Estratégias de Enfrentamento de *Folkman e Lazarus*.

Resultados: As estratégias de enfrentamento mais utilizadas foram: resolução de problemas e reavaliação positiva; a menos utilizada, foi o confronto. As estratégias confronto, reavaliação positiva, e fuga e esquivas foram associadas ao sexo masculino, não ter um companheiro e trabalhar em período noturno, respectivamente.

Conclusão: As estratégias de enfrentamento podem ser auxiliadas por acompanhamento escuta, programas educacionais e um espaço para discussão das dificuldades relacionadas ao trabalho.

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Introduction

In recent decades, the implications and consequences of transformations in the workplace have drawn attention to the relevance of studies on psychosocial risks at work, which were identified as one of the greatest contemporary challenges for health and safety at work, related to problems such as stress.⁽¹⁾

The World Health Organization (WHO) recognizes stress as a global epidemic, affecting more than 90% of the world population. Stress is responsible for a decline in quality of professional performance, the satisfaction and well-being of individuals, as well as stagnation of personal development, work absenteeism, decreased quality of services provided, increased errors and high financial costs.⁽²⁾

Emergency care units are characterized by a large number of patients at imminent risk of death, unpredictable events, long working hours, lack of human and material resources, inadequate infrastructure, pressure from management, requests from family members, reduced time to perform care and daily contact with the process of death and dying.^(3,4)

Thus, pain, suffering, helplessness, grief, fear, hopelessness and a sense of abandonment and loss permeate emergency care units, and constitute psychological demands with possible deleterious effects on health and the worker's quality of life.⁽⁴⁾

In recent years, there has been an increase in patient demand for emergency care services as well as the complexity of cases,⁽⁵⁾ situations that require quick and assertive behavior from the healthcare team, which needs to be guided by scientific knowledge, skill, self-control and efficiency.⁽⁶⁾

Urgent and emergency nursing care is regarded as a trigger of physical and emotional wear and stress, since the environment in which it operates is comprised of joint actions by a multidisciplinary team committed to the requirements of the work process, and responsible for the well-being and life of the patient.⁽⁴⁾

Separately or together, these factors can lead to losses in job performance, work overload and

stress, and interfere with the mental health of these people. Several studies have demonstrated the low job satisfaction and high levels of stress among nursing staff who work in emergency care services.^(4,7,8)

The stressors are coped with according to the meaning they have for those involved. Coping with a problem means trying to overcome what is causing stress, redirecting the meaning attributed to the difficulties, guiding the life of the individual, and maintaining stable physical, psychological and social states.⁽⁹⁾

These stressors must be identified so that coping measures are taken, in order to minimize illness and promote the well-being of workers, their quality of life and motivation to work, therefore resulting in better patient care.

Knowledge about the coping strategies that individuals use to adapt to stress can direct the actions of nurses and managers to mitigate and cope with stressors, leading to a healthier work environment with fewer problems.

The objective of this study was to identify the coping strategies of nursing professionals in the emergency care services units of a large hospital in the interior of São Paulo, and relate them to socio-demographic and professional variables.

Methods

This was a cross-sectional study conducted in a teaching hospital in the interior of São Paulo state, in southeastern Brazil, which had 720 beds, and was a reference for the care of more than 2 million inhabitants at the time of study. This hospital has one of the largest emergency rooms in the interior of São Paulo, providing care to 12 thousand patients per month.

The study population consisted of professional nursing staff members of the emergency care units of the Brazilian Unified Health System (SUS, as per its acronym in Portuguese) and private healthcare providers in the period between September and November 2013 (n = 119). The sample consisted of 89 nursing pro-

professionals working in the emergency care unit for ≥ 3 months, in the morning, afternoon or night shift. Nursing professionals who were on sick or maternity leave, and who refused to participate in the study, were excluded.

Data collection was performed by means of two instruments: a socio-demographic and professional characterization of the nursing team and the Ways of Coping Questionnaire by Folkman and Lazarus.⁽⁹⁾

The Ways of Coping Questionnaire encompasses thoughts and actions that people use to deal with internal or external demands of a specific stressful event, and consists of 66 items which are responded to on a four-point Likert scale (0: does not apply and/or not used; 1: used somewhat; 2: used quite a bit; 3: used a great deal). The scale does not show the total score as sum for evaluation, since the items should be assessed by the mean scores of each factor.⁽⁹⁾

The instrument was translated into and validated in Brazilian Portuguese, demonstrating the correspondence between the original English and the translated version, thereby permitting its application in other studies. In the original study, Cronbach's alpha coefficient ranged from 0.56 to 0.85 among the factors. The items of this instrument are divided into eight factors: confrontation, distancing, self-control, social support, acceptance of responsibility, escape-avoidance, problem solving and positive reappraisal.⁽¹⁰⁾

These factors were classified into two categories: (1) functional strategies, comprising self-control, social support, problem solving and positive reappraisal; (2) dysfunctional strategies, corresponding to confrontation, distancing, escape-avoidance and acceptance of responsibility.⁽¹¹⁾

A pre-test was carried out with five subjects from the data collection site to adjust, refine and measure the duration of application of the instruments proposed for data collection, which did not result in any change to either.

The instruments were distributed to the nursing professionals personally by the researcher, enabling the provision of necessary instructions before it was filled out. In order not to compromise the profes-

sionals' work activities, completed instruments were collected 24 to 48 hours after delivery to the study participants.

Data were processed and analyzed using the program Statistical Package for the Social Sciences (SPSS), version 19 for Windows, IBM Company Copyright 2010. For descriptive data analysis, position and variability measurements were used for continuous variables, and simple frequency for categorical variables.

For evaluation of coping strategies, mean scores, standard deviation and median scores were obtained for each factor. The mean scores were calculated according to the number of items in each factor. The internal consistency of the items of the Ways of Coping Questionnaire was verified by Cronbach's alpha.

For analysis of the mean scores of the association between coping strategies and socio-demographic and professional variables, the non-parametric Mann-Whitney test was used for comparison of two groups, and the Kruskal-Wallis test with post-hoc Dunn's test was used for comparing more than two groups. Significance was established at 5%.

The development of this study complied with national and international ethical guidelines for research involving human subjects.

Results

The study included 89 nursing professionals from the urgency and emergency care unit, most of which were female (62%). Study subjects' ages ranged from 19-51 years, with a mean of 34.5 years, median 33 years and standard deviation of 7.61 years. Most subjects reported living in São José do Rio Preto (73.0%) and having a partner (39.3% were married and 13.5% were in a stable relationship).

Regarding the subjects' professional category, the majority were nursing technicians (66.3%), followed by nurses (23.6%) and nursing aides (10.1%), working in the morning (29.2%), afternoon (31.5%), night (34.8%), and morning and

afternoon (4.5%) shifts, who had been working in the unit for more than four years (56.2%).

The coping strategy most commonly used by the nursing professionals in the urgency and emergency care unit was problem solving, and the least used was confrontation. Internal consistency of the factors of the Ways of Coping Questionnaire, measured by Cronbach's alpha coefficient, ranged from 0.34 to 0.61 (Table 1).

Table 1. Coping strategies

Coping strategies	Mean score	Standard deviation	Median	Cronbach's alpha
Confrontation	0.78	0.87	0.50	0.50
Distancing	1.02	0.91	1.00	0.57
Self-control	1.41	0.97	1.20	0.34
Social support	1.50	0.91	1.50	0.42
Acceptance of responsibilities	1.44	0.92	1.57	0.60
Escape-avoidance	1.15	0.95	1.00	0.61
Problem solving	1.85	0.924	2.00	0.53
Positive reappraisal	1.55	0.952	1.66	0.60

There was a significant association between the variables sex and confrontation ($p = 0.018$), indicating that male subjects used this strategy more often, which is classified as dysfunctional. Professionals who reported not having a partner indicated greater use of the strategy positive reappraisal ($p = 0.024$), and those who worked at night were associated with the strategy escape-avoidance ($p=0.010$) (Table 2).

The use of coping strategies varied among professionals of different age groups, with the functional coping strategies predominating in subjects aged 19-30 years. Nurses had higher scores in all coping strategies when compared to nursing aides and technicians. Functional strategies had higher scores than dysfunctional ones, regardless of the work shift. However, significant results were not obtained between coping strategies and age group, professional category and work shift (Table 2).

Discussion

The results of this study were limited because of its non-experimental design, which had the disadvantage of failing to reveal causal relationships conclu-

sively. However, important information that differentiates the study participants from the general population was found.

There have been few studies on the experience of nursing professionals in emergency and urgency care units and their ways of coping with stressors, especially with the use of a specific theoretical framework such as the Ways of Coping Questionnaire by Folkman and Lazarus. The results obtained in this study allowed us to understand how these professionals faced working in a highly complex environment with patients in distress, and which strategies were involved in the process.

The results showed that participants were not limited to using only one coping strategy, and functional strategies (problem solving, positive reappraisal and social support) had the highest scores. Functional strategies are positive ways to cope with problems, whereas dysfunctional strategies are negative ways of coping.⁽¹¹⁾

The problem solving strategy is directed to change a situation by means of a critical and detailed assessment of the problem, in order to obtain satisfactory results.⁽¹²⁾ Instead of canceling or removing the stressor from their daily lives, the person chooses to resolve their problems and modify their attitudes, being able to handle the pressures around them, reducing or eliminating the situation causing the stress.⁽¹³⁾

Positive reappraisal describes efforts to create positive meanings from problems, and provide personal growth.⁽¹²⁾ It is the control of emotions related to sadness that serves as a way to reframe, learn and change from a situation of conflict.

Social support is a functional strategy in which the person is committed to seeking social, professional and emotional support (friends, family and co-workers),⁽¹²⁾ and can help nurses to deal with the unwanted effects of stress by expressing an appropriate response to the situation.⁽¹⁴⁾

Studies conducted with nurses working in different settings corroborate the results of this research: general and specialized care units,⁽¹⁵⁻¹⁷⁾ and a hospital emergency service in Iran.⁽¹⁸⁾

Table 2. Coping strategies according to socio-demographic and professional variables

Socio-demographic variables of family	Mean of the WCQ factors							
	Confrontation	Distancing	Self-control	Social support	Acceptance of responsibilities	Escape-avoidance	Problem solving	Positive reappraisal
Sex								
Male	0.95 (0.83)	0.94 (0.86)	1.42 (1.40)	1.54 (1.67)	1.50 (1.57)	1.22 (1.50)	1.88 (1.75)	1.66 (1.66)
Female	0.71 (0.67)	1.05 (1.00)	1.40 (1.40)	1.48 (1.50)	1.40 (1.28)	1.13 (1.00)	1.86 (2.00)	1.49 (1.55)
p-value*	0.018	0.217	0.881	0.470	0.467	0.514	1.000	0.142
Age group								
19-30	0.84 (0.67)	0.94 (1.00)	1.42 (1.40)	1.61 (1.67)	1.47 (1.35)	1.14 (1.00)	1.86 (1.75)	1.59 (1.55)
31-40	0.76 (0.75)	1.01 (0.93)	1.36 (1.30)	1.48 (1.50)	1.41 (1.42)	1.22 (1.25)	1.89 (2.00)	1.49 (1.44)
41-51	0.72 (0.67)	1.16 (1.00)	1.47 (1.40)	1.34 (1.33)	1.39 (1.28)	1.08 (1.00)	1.83 (1.75)	1.57 (1.66)
p-value*	0.791	0.351	0.541	0.166	0.893	0.904	0.849	0.530
Has a partner								
Yes	0.70 (0.67)	0.98 (0.86)	1.40 (1.40)	1.40 (1.33)	1.36 (1.42)	1.24 (1.50)	1.80 (1.75)	1.44 (1.44)
No	0.87 (0.83)	1.06 (1.00)	1.42 (1.30)	1.61 (1.67)	1.50 (1.49)	1.07 (1.00)	1.93 (2.00)	1.65 (1.66)
p-value**	0.064	0.415	0.986	0.079	0.252	0.262	0.478	0.024
Professional category								
Nurse	0.96 (0.86)	1.04 (1.00)	1.49 (1.40)	1.62 (1.83)	1.58 (1.71)	1.38 (1.50)	1.78 (1.75)	1.59 (1.66)
Nursing technician	0.75 (0.67)	1.03 (1.00)	1.38 (1.40)	1.47 (1.50)	1.38 (1.28)	1.08 (1.00)	1.91 (2.00)	1.56 (1.55)
Nursing aide	0.55 (0.67)	0.90 (0.86)	1.35 (1.60)	1.35 (1.33)	1.42 (1.28)	1.16 (1.00)	1.72 (1.50)	1.30 (1.33)
p-value*	0.057	0.699	0.865	0.191	0.281	0.311	0.460	0.212
Working time								
4 -11 months	0.93 (1.00)	0.96 (0.93)	1.52 (1.60)	1.62 (1.58)	1.47 (1.35)	0.68 (0.75)	1.93 (1.87)	1.38 (1.33)
1-3 years	0.74 (0.67)	1.08 (1.00)	1.41 (1.40)	1.53 (1.50)	1.54 (1.57)	1.04 (1.00)	1.88 (2.00)	1.59 (1.55)
4-6 years	0.69 (0.67)	0.91 (0.86)	1.30 (1.20)	1.56 (1.67)	1.39 (1.28)	1.44 (1.50)	1.63 (1.50)	1.59 (1.55)
7-10 years	0.77 (0.75)	0.95 (0.93)	1.55 (1.40)	1.44 (1.58)	1.40 (1.35)	1.12 (1.25)	1.91 (1.75)	1.64 (1.83)
11 years or more	0.87 (0.83)	1.07 (1.00)	1.36 (1.20)	1.38 (1.33)	1.30 (1.28)	1.31 (1.50)	1.97 (2.25)	1.42 (1.44)
p-value*	0.795	0.847	0.541	0.687	0.546	0.191	0.519	0.476
Work shift***								
Morning	0.81 (0.67)	1.02 (1.00)	1.33 (1.20)	1.62 (1.67)	1.38 (1.28)	0.88 ± 1.00 ^{ab}	1.93 (2.00)	1.56 (1.55)
Afternoon	0.87 (0.83)	1.04 (1.00)	1.57 (1.60)	1.46 (1.41)	1.52 (1.57)	1.19 ± 1.25 ^{ab}	1.76 (1.75)	1.59 (1.60)
Night	0.70 (0.67)	1.03 (1.00)	1.30 (1.20)	1.46 (1.50)	1.42 (1.42)	1.46 (1.50)	1.91 (1.75)	1.51 (1.44)
Morning and afternoon	0.62 (0.58)	0.78 (0.86)	1.60 (1.50)	1.25 (1.17)	1.24 (1.28)	0.37 ± 0.25 ^b	1.75 (1.75)	1.24 (1.44)
p-value*	0.459	0.685	0.079	0.373	0.483	0.010	0.578	0.698

*p-value as regards the Kruskal-Wallis test with Dunn's multiple comparison test ($p < 0.05$); **p-value as regards the Mann-Whitney test ($p < 0.05$); ***Different letters in the same column differ significantly according to Dunn's multiple comparison test ($p < 0.05$). The work shift influences the escape-avoidance score, with a significant difference between the night (higher scores, letter a) and morning and afternoon (lower score, letter b) shifts; WCQ - Ways of Coping Questionnaire by Folkman and Lazarus

The use of these strategies can strengthen the individual and the nursing team in coping with stressors, facilitating interaction among its members, developing skills and promoting motivation and satisfaction at work.

The strategies of confrontation and distancing were less commonly used. Confrontation is a form of aggressive coping that an individual chooses to change a situation, for example, the expression of anger and lack of flexibility.⁽¹²⁾ The strategies involved in confrontation do not always lead to positive results.⁽¹³⁾

In distancing, the individual tries to get away from the stressful circumstances,⁽¹²⁾ without changing the situation that led to stress.⁽¹³⁾ Thus, the professional may have defensive behaviors such as not expressing their views to colleagues, and accepting an imposed behavior, in order to avoid

stress. The use of these strategies may be related to avoiding personal suffering, as these units have high turnover, and working in them entails close proximity to death, both of which hinder the creation of bonds.⁽³⁾ In addition, such strategies can lead to problems not being solved, increased stress, troubled interpersonal relationships and professional dissatisfaction.

Acceptance of responsibility, a dysfunctional strategy, was the fourth most frequently used among the nursing staff who participated in the study. In this strategy, the individual recognizes their role in the problem,⁽¹²⁾ accepts the reality and engages in the process of dealing with the stressful situation.⁽¹³⁾

Self-control refers to efforts made to control one's own feelings and actions in response to stressful stimuli.⁽¹²⁾ To exercise the strategy of self-con-

trol, one must realize and understand their own emotions, and be able to manage their behavior. On many occasions, emotional impulses dominate reason, and the result may not be satisfactory for the individual or the healthcare team. The self-control strategy is of paramount importance in the emergency care unit, as most situations are unforeseen, and decision-making should be quick and effective.

Cronbach's alpha estimates the reliability of an instrument. In this study, the scores ranged from 0.34 to 0.61, being considered low. There are several factors that can influence the reliability of an instrument, for example, the number of items, size of the sample and the tendency to value some items over others.⁽¹³⁾ Cronbach's alpha values obtained in other studies that used the Ways of Coping Questionnaire by Folkman and Lazarus had values slightly above those found in this study: from 0.66 to 0.81 among nurses working in a hospital,⁽¹⁹⁾ and 0.49 to 0.72 among spouses of patients undergoing coronary artery bypass surgery.⁽¹³⁾

Men used the strategy confrontation more often in comparison to women ($p = 0.018$). Several studies show that the strategies most commonly used by men are focused on the problem,^(20,21) which involve a plan that includes definition of the problem, development of alternative solutions and decision-making as to the best approach to be undertaken.⁽¹²⁾

Women scored higher than men in only two strategies: distancing and problem solving. Although the number of male nursing professionals is growing, most of them are female.

Studies show that women undergoing an extended work day that includes professional activities, housework and caring for children are more susceptible to physical and mental wear, and consequently, to illnesses,^(22,23) a factor that can make it difficult to identify ways of coping with problems.

Because the sample for this study is made up of professionals of different ages, one can assume that such variability is not sufficient to permit the development of important associations be-

tween them, corroborating the results of other studies.^(20,21)

Individuals who reported not having a partner used more coping strategies than those who did; however only positive reappraisal had significant association ($p = 0.024$). These results corroborate another study about coping by patients with cardiovascular disease.⁽²¹⁾

Nurses had higher scores on seven factors of the Ways of Coping Questionnaire compared to the nursing technicians and aides. This may be related to the higher level of education of professionals in that category. Higher levels of education can have a positive influence on coping with stressful situations, helping the individual choose the focus of the problem.^(20,21)

The highest scores reported by subjects in relation to work shift were functional, regardless of the time working in the unit. However, there was no significant association among professional category, work shift, and different coping strategies.

Working the night shift was associated with the use of the escape-avoidance strategy. In this strategy, the person has fantastical behavior towards possible solutions to the problem, without, however, taking action to actually modify it, striving at all times to avoid the stressor.^(12,13)

The night shift is considered a risk factor for mental illness,^(22,24) since it can cause physiological changes caused by lack of synchronization between the professional's circadian rhythm and prolonged waking hours. Due to the limit between waking and rest faced by workers during a night shift, there may be impairment of ability to concentrate, and these workers may also suffer from the deprivation of coexisting with their family due to schedule incompatibility. The combination of these factors can trigger emotional and mental problems, and difficulties in establishing ways to address stressors.⁽²³⁾

There is no consensus among the authors regarding the variables that influence the choice of coping strategies used. However, the fact is that the adoption of various strategies is more effective than the use of only one, as the individ-

ual has more resources to deal with the stressful situation.⁽²⁵⁾

Nurses and managers should plan health care that includes the assessment and monitoring of professionals about their physical, emotional and professional difficulties through the perception and early recognition of problems or suffering that can change the work dynamics and influence patient treatment.

In the scenario of urgency and emergency care, monitoring, listening, educational programs and a space for discussion of work-related difficulties are potential tools for the prevention of disease and promotion of quality work.

Conclusion

The coping strategy most commonly used by the nursing professionals in the studied urgency and emergency care unit was problem solving and positive reappraisal. The confrontation, positive reappraisal and escape-avoidance strategies were associated with the male sex, with not having a partner and with working night shifts, respectively.

Collaborations

Ribeiro RM; Pompeo DA; Pinto MH and Ribeiro RCHM declare they contributed to the project design, analysis and interpretation of data, writing of the article, relevant critical review of its intellectual content and final approval of the version to be published.

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