

COPING STRATEGIES USED BY NURSING PROFESSIONALS IN NEONATAL INTENSIVE CARE

ESTRATÉGIAS DE COPING UTILIZADAS POR TRABALHADORES DE ENFERMAGEM EM TERAPIA INTENSIVA NEONATAL

ESTRATEGIAS DE AFRONTAMIENTO UTILIZADAS POR EL PERSONAL DE ENFERMERÍA EN CUIDADOS INTENSIVOS NEONATALES

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ABSTRACT

This was a quantitative, cross-sectional and descriptive study developed with 23 nursing workers in order to identify the coping strategies used by them at a neonatal intensive care unit. Data were collected in September and October 2012 by means of a form for sociodemographic/ functional characterization and Inventory coping Strategies. The project was approved by the Research Ethics Committee, CAAE 06163312.8.0000.5346. After analyzing the results, it was found that the factors inventoried most commonly used by workers were self-control, positive reappraisal and social support. These strategies, which focus on the emotion and on the problem, are considered active strategies because they lead to decision-making in resolving the stressful situation. It was concluded that identifying coping strategies used by intensive care nursing staff may enable the knowledge on how stressful situations are faced and may favor the planning of continuing education activities to raise awareness and equip workers for the effective use of coping.

Keywords: Stress, Psychological; Adaptation, Psychological; Nursing; Intensive Care Units; Occupational Health.

RESUMO

Estudo quantitativo, transversal e descritivo desenvolvido com 23 trabalhadores de enfermagem com o objetivo de identificar as estratégias de coping utilizadas por trabalhadores de enfermagem de uma unidade de terapia intensiva neonatal. Os dados foram coletados em setembro e outubro de 2012 por meio de formulário para caracterização sociodemográfica/funcional e Inventário de Estratégias de Coping. Projeto aprovado por Comitê de Ética em Pesquisa, CAAE 06163312.8.0000.5346. Após análise dos resultados verificou-se que os fatores do inventário mais utilizados pelos trabalhadores foram autocontrole, reavaliação positiva e suporte social. Essas estratégias, centradas tanto na emoção quanto no problema, são consideradas ativas, pois conduzem para a tomada de decisão na resolução da situação estressora. Concluiu-se que identificar as estratégias de coping utilizadas pelos trabalhadores de enfermagem de terapia intensiva pode possibilitar o conhecimento de como as situações estressoras são enfrentadas e favorecer o planejamento de ações de educação permanente, para sensibilizar e instrumentalizar os trabalhadores para o uso efetivo do coping.

Palavras-chave: Estresse Psicológico; Adaptação Psicológica; Enfermagem; Unidades de Terapia Intensiva; Saúde do Trabalhador.

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RESUMEN

Estudio cuantitativo, descriptivo, transversal desarrollado con 23 trabajadores de enfermería con el fin de identificar las estrategias de afrontamiento utilizadas por el personal de enfermería de una unidad de cuidados intensivos neonatales. Los datos se recogieron en septiembre y octubre de 2012, a través de un formulario para caracterización sociodemográfica / funcional y del Inventario de Estrategias de Afrontamiento. Proyecto aprobado por el Comité Ético de Investigación, CAAE 06163312.8.0000.5346. Tras el análisis de los resultados se encontró que los factores del inventario más utilizados por la mayoría de los trabajadores eran autocontrol, reevaluación positiva y apoyo social. Estas estrategias, centradas tanto en la emoción como en el problema, son consideradas activas porque conducen a la toma de decisión en la solución de la situación estresante. Llegamos a la conclusión que es importante identificar las estrategias de afrontamiento utilizadas por el personal de enfermería de cuidados intensivos pues pueden enseñar a manejar situaciones estresantes y favorecer la planificación de actividades de educación permanente con miras a sensibilizar y dotar a los trabajadores de herramientas para el uso efectivo del afrontamiento.

Palabras clave: Estrés Psicológico; Adaptación Psicológica; Enfermería; Unidades de Cuidados Intensivos; Salud Laboral.

INTRODUCTION

Neonatal intensive care unit (NICU) is an environment that offers appropriate technical conditions for the provision of expert assistance to comprehensive care to newborns (NBs) under serious or potentially serious situation and encompasses physical facilities, equipment and specialized professionals.¹ Currently, the NICU is a multidisciplinary space permeated by different technologies and knowledge that demand scientific knowledge, technical skill and competence from the professionals to perform the evaluation and careful management of patients.²

Since the creation of NICUs, the use of new technologies and the improvement of care have contributed to decrease the mortality among neonates, especially preterms. Regarding nursing, care is realized through different skills, such as manuals and technical abilities, critical thinking, clinical reasoning, knowledge and intuition.³ Besides providing assistance to the NB, the team interacts continuously with the family and, thus, the creation of bonds takes place, that is, professionals share the entire process, from admission to discharge or death, a period that can consist in a few days or may last for months.

This daily contact triggers different feelings in the team. These include joy and satisfaction or frustration and stress in the face of suffering and failure, which may have negative repercussions on the health of these workers and hinder the assistance provided by them.⁴ In addition, the work process and the particularities of NICUs such as the fast pace of work, double shifts of some professionals, relationships with the multidisciplinary team and the provision of care for NBs under severe or potentially serious situations and for their families can be perceived as stressful situations. Thus, the complexity of the procedures performed there, the use of sophisticated technical equipment and the own dynamics of the unit are factors that lead to inferred that NICUs are environments permeated by stressful situations.⁵

It is well known that most nursing professionals who work in NICUs feel satisfaction in providing care. However, the need to carry out meticulous and painful procedures to the new-

born, and the complexity and precision required to perform all activities free of any error, may cause anxiety and stress. In addition, care to NBs is permeated with paradox: on one hand, the evolution of the assistance offered in NICUs has resulted the survival of increasingly premature babies and NBs with malformations that were incompatible with life in previous times; on the other hand, the survival of these NBs imposes the challenge to the team of returning to the family and to society a child able to develop its affective, cognitive, and productive potential to the fullest.⁶

Given this situation, nursing workers develop *coping* strategies to handle stressful situations, such as the imminence of death, in their daily practice. These *coping* strategies represent the cognitive and behavioral efforts that are constantly altered in order to control, win, tolerate or reduce specific internal or external demands that are assessed as beyond the person's resources.⁷ This definition implies that strategies are deliberate actions and, therefore, can be learned, used and discarded. In this sense, the way a person deals with stressful situations plays an important role in the relationship between stress and the health-disease process.

It is noteworthy that *coping* can be divided into two categories: those focused on the problem and those focused on emotion. When using the *coping* focused on the problem, individuals seek to control the stressors and actions are directed to reduce or eliminate these situations. This is considered the most resolute strategy and includes efforts to identify the problem, define alternative solutions, evaluate costs and benefits of actions, adopt postures to change what can be changed and learn new skills in relation to the desired or expected result.^{7,8} *Coping* focused on emotion corresponds to strategies that stem from a defensive processes in which individuals avoid to confront the threat.^{7,8} By using this strategy, individuals modulate emotions before the stressful situation and, thus, reduce the unpleasant sensation caused by stress.⁷ Given these considerations, it stands out that, although they are different, the strategies focused on the problem and on the emotion complement each other and can be used at the same time.

It is noteworthy that the interactions between the worker and the work environment, the conditions of the organization as well as personal characteristics, needs, experiences and worldview are factors that affect the relationship between stressors and *coping*.⁹ Thus, it is understood that identifying the *coping* strategies used by the nursing staff in NICUs is important, since the use of these strategies can minimize the effects of stressors, prevent worsening of stress and interfere with the well-being and health of professionals. Moreover, given the lack of research on this topic, this study will contribute to build knowledge and instigate new studies.

Given the above and the assumption that the care provided in NICUs has multiple dimensions and that nursing professionals who work there experience stressful situations in the everyday life and they use *coping* strategies, the present research aims to identify the *coping* strategies used by nursing workers at a neonatal intensive care unit.

MATERIALS AND METHOD

This was a cross-sectional and descriptive study with quantitative approach, developed in a neonatal and pediatric ICU of a private hospital in the northwest of Rio Grande do Sul, Brazil. The study population comprised five nurses and 18 nursing technicians, totaling 23 participants. Nursing professionals operating in the unit for a period exceeding three months were included; nursing workers on vacation, or away, on leave of any kind (two professionals) were excluded.

Data were collected in September and October 2012 by means of a form for socio-demographic and functional characterization and the of *coping* Strategies Inventory (CSI) of Lazarus and Folkman.^{7,10} The form was developed by the researchers and included quantitative variables (age, number of children, time after graduation, length of service in the institution and on the current unit, and salary) and qualitative variables (sex, marital status, position held, work shift, if the person chose to work in this unit, if the person received training to work in this unit, and what type of training, if the person has other activity, municipality of residence, time spent to get to work, if the person practices physical or leisure activities).

The IEC7 adapted and validated for the Brazilian reality consists of 66 items covering thoughts and actions used to deal with internal or external demands of a stressor.¹⁰ The instrument items are distributed among eight factors, namely: confrontation (items 6, 7, 17, 28, 34, 46), disconnection (items 12, 13, 15, 21, 41, 44), self-control (10, 14, 35, 43, 54, 62, 63), social support (8, 18, 22, 31, 42, 45), acceptance of responsibility (9, 25, 29, 51), escape-avoidance (11, 16, 33, 40, 47, 50, 58, 59), problem solving (1, 26, 39, 48, 49, 52) and positive reappraisal (20, 23, 30, 36, 38, 56, 60). Items 2, 3, 4, 5, 19, 24, 27, 32, 37, 53, 55, 57, 61, 64,

65 and 66 do not comprise a factor and do not contribute to the evaluation score. As response options, a Likert scale (zero – “I do not use the strategy”, one – “I use it a little”, two – “I use it sometimes”, three – “I use it very often”).

For analysis of the IEC, the scores given to a particular item of the instrument were summed and divided that by the number of study participants, obtaining the average of the item for the population. This process was repeated for each item of the IEC. Items with the highest average represent the strategies most commonly used by nursing professionals. In addition, to identify the average per IEC factor, the scores assigned to the items of a given factor were summed, divided by the number of items composing that factor, obtaining the average for each professional in each factor of the instrument. The sum of these means divided by the number of participants resulted in the average of each factor of the IEC for the population. Thus, the factors with highest average were considered the most used to face stressors in the workplace.

After collection, a database on *Excel for Windows* was built, with independent double typing, and descriptive analysis was carried out in the program *Statistical Package for Social Science Software* (SPSS), version 21.0. The evaluation of the reliability of the IEC was performed by analyzing the internal consistency of the items that comprise it. This was done through Cronbach's alpha coefficient. Qualitative variables were presented as absolute values and percentages and quantitative variables, through the following descriptive measures: mean, standard deviation, minimum and maximum value.

This study is part of the project “Stress and *coping* among nursing workers in hospitals”, which attended the Resolution 196/96 of the National Health Council¹¹ and it was approved by the Ethics Committee of the Federal University of Santa Maria/RS, CAAE 06163312.8.0000.5346, under the Opinion Embodied nº 74051/2012.

RESULTS

Descriptive analysis defined the profile of NICU professionals in terms of percentage. Thus, data are presented in four tables: tables 1 and 2 refer to the analysis of socio-demographic and functional characteristics and tables 3 and 4, to the descriptive analysis of the *coping* strategies.

The prevalent age group was 20 to 29 years (47%) and female professionals accounted for 95% of the total. Among participants, 65% were married and 56% had no children. The average time of professional experience in the area for 47% of professionals was six to 10 years, featuring a young team. It is noteworthy that 69.57% of the professionals chose to work in the NICU and participated in training before starting the activities in the sector.

Table 1 - Distribution of nursing professionals regarding sociodemographic characteristics – Ijuí/RS, 2016

Variable	N	%
Sex		
Female	22	95.65
Male	01	4.35
Marital situation		
Married	15	65.22
Single	08	34.78
Children		
None	13	56.52
One child	08	34.78
Two children	02	8.70
Age group		
20 to 29	11	47.83
30 to 39	09	39.13
40 to 49	03	13.04
Total	23	100.00

Source: research data.

It is noteworthy that, among professionals, 56.52% have another activity, either as paid professionals in other sectors or as students. As for the journey to work, 95.65% live in the same county of the NICU they are working, and 86.96% take less than 30 minutes to reach the hospital. Regarding physical activity, 43.48% answered that they perform some activity and 69.57% reported to enjoy leisure activities.

Table 2 - Distribution of nursing professionals regarding functional characteristics – Ijuí/RS, 2016

Variable	N	%
Professional category		
Nurse	05	21.74
Nursing technician	18	78.26
Time passed after graduation		
Up to 5 years	08	34.78
From 6 to 10 years	11	47.83
From 11 to 15 years	03	13.04
From 16 to 20 years	01	4.35
Time of experience in the institution		
From 6 months to 1 year	02	8.70
From 1 to 2 years	09	39.13
From 2 to 4 years	03	13.04
From 4 to 6 years	03	13.04
More than 6 years	06	26.09

Continue...

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Table 2 - Distribution of nursing professionals regarding functional characteristics – Ijuí/RS, 2016

Variable	N	%
Time working in the current unit		
From 6 months to 1 year	03	13.04
From 1 to 2 years	20	86.96
Work shift		
Morning	06	26.09
Afternoon	06	26.09
Total	23	100.00

Source: research data.

In the analysis of reliability of the 66 items, Cronbach's alpha was 0.922. This proves satisfactory internal consistency of the IEC for this population. The analysis of the IEC results showed that the factors that obtained higher average, considered the most used factors, were self-control, positive reappraisal and social support, as explicit in Table 3.

Table 4 shows the *coping* factors and their descriptive measures according to functional category of the neonatal NICU nurses.

As described in Table 4, when the highest average in the different professional categories analyzed, it was found that self-control, disconnection and problem solving were the more used by nurses. The factors most commonly used by nurses were self-control, social support and positive reappraisal.

DISCUSSION

The results related to socio-demographic and functional characterization outlined a predominantly female staff. This finding converges with a study carried out with a nursing staff engaged in the care of newborns, hospitalized in intensive care, which was composed entirely by women.¹² Probably because the characteristics of the NICU, which includes meticulous and delicate care, the female gender still predominates in this space, particularly in some specialties. Also, figures from the Federal Nursing Council confirm that the Brazilian nursing is characterized by the female workers.¹³

The predominant age group in the sample was 20 to 29 years, which accounted for 47% of the workers. The profile analysis of professionals conducted by COFEN showed predominant age of 25 to 35 years in Brazil, as well as in Rio Grande do Sul.¹³ The participants of this study were young women, mostly married (65%), without children (56%), with further paid activity or student activity, and, therefore, they face a triple journey every day, what may negatively influence the productivity and promote stress.

Table 3 - Descriptive measures of the factors and strategies of the IEC used by nursing professionals – Ijuí/RS, 2016

Factor (mean ± standard deviation)	Most used strategy (mean ± standard deviation)	Least used strategy (mean ± standard deviation)
Self-control (1.87 ± 0.36)	I mentally analyzed what to do and what to say (2.18 ± 0.65).	I did not let other people know about the true situation (1.31 ± 0.46).
Positive reappraisal (1.79 ± 0.43)	I prayed (2.43 ± 0.79).	I found new beliefs (1.00 ± 0).
Social support (1.79 ± 0.53)	I spoke to someone who could do something concrete about the problem (1.90 ± 0.68).	I looked for a friend or relative for advice (1.63 ± 0.70).
Disconnection (1.69 ± 0.36)	I tried to forget the unpleasant situation (2.05 ± 0.77).	I agreed with the fact, I accepted my fate (1.20 ± 0.40).
Problem solving (1.68 ± 0.35)	I focused on what should be done then, the next step (1.85 ± 0.65).	I made a plan of action and followed it (1.60±0.58). I found some different solutions to the problem (1.20 ± 0.40).
Escape-avoidance (1.66 ± 0.49)	I wished that the situation ended or that somehow disappeared (2.05 ± 0.72).	I directed my anger to other person(s) (1.20 ± 0.40).
Acceptance of responsibility (1.63 ± 0.27)	I promised myself that things would be different the next time (1.82 ± 0.57).	I realized that I was the one who caused the problem (1.15 ± 0.36).
Confrontation (1.44 ± 0.34)	I tried to find the person responsible to change his ideas (1.71 ± 0.80).	I showed the anger I felt for the people who caused the problem (1.25 ± 0.43).

Source: research data.

Table 4 - Descriptive measures of factors of the Coping Strategies Inventory according to functional category – Ijuí/RS, 2016

Factor of the IEC	Nursing Technicians (Mean ± standard deviation)	Nurses (Mean ± standard deviation)
Self-control	2.01±0.43	1.83±0.32
Positive reappraisal	1.79±0.43	1.74±0.45
Social support	1.80±0.61	1.79±0.50
Disconnection	1.91±0.31	1.63±0.35
Problem solving	1.87±0.38	1.63±0.32
Escape-avoidance	1.56±0.30	1.68±0.52
Acceptance of responsibility	1.57±0.08	1.65±0.30
Confrontation	1.44±0.28	1.44±0.35

Source: research data.

Regarding stress, the double shift can be a triggering factor, especially when associated with the female gender, since the working day of women includes further responsibilities besides work.⁴ On the other hand, there is also a factor that can positively contribute to *coping* with stress: women were mostly married and, in this context, their having a companion may represent a social support on a daily basis. A study conducted with 344 active nurses in an ICU found that marital status was a variable associated to *coping* control and behaved as a protective factor. This points to the importance of a companion for support, security and encouragement to face the stressors at work.¹⁴ However, divergent results have been found in the literature. This have shown a significant association between *coping* and marital status, but married nurses used less coping strategies than single nurses.¹⁵ These results point to the subjectivity of the process of evaluation

of stressors and use of *coping* strategies, which depends on labor and individual factors.

Another significant mitigating characteristic of participants is that 69% of them chose to work in this unit and received training to start activities. This is a factor that influences stressful situations because the worker feels qualified for the activities¹⁴. This enhances self-confidence, reduces the possibility to make mistakes and positively contributes on productivity and in situations that require technical and psychological control.

Whereas the NICU is a place with significant emotional burden in relation to other hospital settings, the work there can become a burden for the team, bringing disappointment, fear, aggression and ultimately, diseases. Therefore, it is understood that the *coping* strategies prevent the development of stress and suffering. In this scenario, people find ways to react and keep the hope that the situation will be changed.⁷

The *coping* factor mostly used by participants, in general, was self-control. This refers to an active strategy that is modulated to avoid acting impulsively or prematurely. It means that the person is trying to deal with the problem, but has a passive effect because the self-control requires a time for self-organization in which the individual is facing his reactions while not he is acting.¹⁶ The professional quickly analyzes the situation while deciding what to do and what to say in that particular circumstance and, this way, prevents hasty and unnecessary actions that may become cause for blame and consequent suffering.

The positive reappraisal was the second most used strategy. This is considered the acceptance of reality in which the individual tries to discover aspects that mitigate the situation and focuses on the positive aspects of it in order to reduce the emotional burden of the event, and this way the person resizes the stressor.⁷ It can be said that this strategy is the resizing of the stressor from the change of the emotional state and, although this strategy is not aimed directly at solving the problem, it allows the individual to reach an emotional balance that is often necessary as a previous step to action.¹⁶

Reconnecting the considerations of the authors to the analyzed reality, it appears that in the strategy "I prayed", which was the most used, the worker seeks to reframe the event in order to find positive aspects, to soften the severity of the situation and focus on positive aspects. It is considered that, in situations that require decision making and immediate action of the nursing staff, the strategy of praying can be used to seek, in spirituality, strength to face the stressor.¹⁷

Social support was the third most common factor. A similar result was found in a study that examined *coping* strategies used by the nursing staff in an adult ICU when facing stressors.¹⁸ This strategy is defined as the existence or availability of people who can be trusted to demonstrate commitment, appreciation and affection. In this perspective, it is important both the size of the social network and the commitment to it, that is, the return that a person has when it needs help and the resources available around the person.⁷ Social support was used by subjects in different studies, which means that individuals use the social environment in an attempt to get emotional support.^{19,20}

Given this scenario, it is emphasized that the use of different *coping* strategies may be favored because the ICU, in its dynamic environment, allows wide verbal communication and it is a source confidence and structure for the multidisciplinary team. This strengthens relationships and stimulates the awareness that the experience is essential to make resolute decisions regarding the care provided to the patient and the family.²¹ From the moment that the team manage to use strategies in order to foster the unity of the group, an essential factor for labor activity, its use is considered positive, indicating the essence of support in the group.

When the factors with highest averages were analyzed in the different professional categories, it was found that self-control, disconnection and problem solving were mostly used by nursing technicians, while the factors with highest average for nurses were self-control, social support and positive reappraisal. As for the influence of training in the choice of strategies to be used, the study found that the higher the academic *status*, the greater the use of problem solving in dealing with stressors.²² However, other researchers found no significant correlations between the professional category and the *coping* factors.²³ In this regard, it is noteworthy that *coping* strategies depend on individual characteristics of the professional and of the situations experienced in the occupational environment.

Retaken the *coping* strategies used by the nursing staff, it is stated that all IEC factors were used with reasonable frequency, both focused on the problem and on the emotion. This finding is supported by a research that showed that strategies focused on the problem and on the emotion were employed equally among 484 nurses from different regions of Latvia, since there are minimal differences in their mean values, and the predominant factors for this sample were problem solving, self-control and positive reappraisal.²⁴ Thus, the *coping* can be seen as a process determined by the cognitive assessment and it is conditioned to the framework in which the individual is inserted, dependent on his present and previous experiences. In addition, socio-demographic and functional characteristics interfere in the development and definition of the strategy that will be used.

Thus, it is considered that *coping* can be learned and that strategies can be effective or not. It is, therefore, important that nursing workers be trained on this construct in order to promote the choice of more effective strategies for *coping* with stressors in the workplace, respecting the cognitive characteristics of each professional. For this, the combination of organizational conditions and individual effort is critical to the proper *coping* with occupational stressors.

CONCLUSIONS

The IEC factors that are mostly used by workers were self-control, positive reappraisal and social support. These strategies, focused on emotion and on the problem, are considered active strategies because even those centered on emotion, in its assumption, lead to decision making in resolving the stressful situation or event with potential stressor.

Identifying *coping* strategies used by nursing workers acting in intensive care can raise knowledge on how stressful situations are faced by different professionals and may favor the planning of continuing education activities in order to raise awareness and train workers to use strategies that minimize stress at work.

Some limitations of the study should be considered. The scarcity of studies on this topic in neonatal intensive care conditioned the analysis of the results from the theoretical construct and general studies; the number of participants limited statistical analysis. However, in order to minimize this aspect, nursing professionals of the investigated NICU were included the population of the study; the cross-sectional design does not allow to establish cause-and-effect relations and enables low generalizability. However, the results of this study are an important advance for nursing, because the analyzed data coincide with literature information and contribute to the construction of knowledge about coping strategies used by nursing professionals in neonatal intensive care.

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