



STRESS AND COPING AMONG NURSES OF HEMATO-ONCOLOGIC UNITS*

ESTRESSE E COPING ENTRE ENFERMEIROS DE UNIDADE HEMATO-ONCOLÓGICA

ESTRÉS Y ESTRATEGIAS DE ENFRENTAMIENTO ENTRE ENFERMEROS DE UNIDADES HEMATONCOLÓGICAS

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We analyzed stress and *Coping* strategies used by Hemato-Oncology Unit nurses of a Rio Grande do Sul University Hospital. This is a descriptive, cross-sectional and quantitative study, conducted between March and April 2010. We applied a Form to sociodemographic characterization, Nurses Stress Inventory and Occupational *Coping* Scale in 18 nurses. We identified 55.55% of nurses in low stress. "Intrinsic Factors for Job" and "Feel emotional distress with work" represented higher stress for nurses. Control was the factor more used to deal with stressors and, in this factor, "I try to do what i think is expected of me" the action more used to manage them. Nurses use problem-centered *Coping* strategies, considered more effective to deal with stressors. Therefore, they can have evaluated work in hemato-oncology unit as low-stress.

Descriptors: Oncologic Nursing; Stress, Psychological; Occupational Health.

Analisou-se estresse e estratégias de *Coping* utilizadas por enfermeiros de Unidade Hemato-Oncológica de um Hospital Universitário do Rio Grande do Sul. Trata-se de um estudo descritivo, transversal e quantitativo, realizado entre março e abril de 2010. Aplicaram-se um Formulário para caracterização sociodemográfica, o Inventário de Estresse em Enfermeiros e a Escala de *Coping* Ocupacional em 18 enfermeiras. Identificou-se 55,55% dos enfermeiros em baixo estresse. Os "Fatores Intrínsecos ao Trabalho" e "Sentir desgaste emocional com o trabalho" representaram maior estresse aos enfermeiros. O Controle foi o fator mais utilizado para o enfrentamento dos estressores e, nesse fator, "Me esforço para fazer o que eu acho que se espera de mim" a ação mais utilizada para administrá-los. Os enfermeiros utilizam estratégias *Coping* centradas no problema, consideradas mais efetivas para enfrentar os estressores. Por isso, podem ter avaliado o trabalho na unidade hemato-oncológica como de baixo estresse.

Descritores: Enfermagem Oncológica; Estresse Psicológico; Saúde do Trabalhador.

Se analizaron estrés y estrategias de enfrentamiento utilizadas por enfermeros de Unidad de hematoncológicas de Hospital Universitario del Rio Grande do Sul, Brasil. Estudio descriptivo, transversal, cuantitativo, llevado a cabo entre marzo y abril de 2010. Se aplicaron formulario para caracterización sociodemográfica, el Inventario de Estrés en Enfermeras y la Escala de Afrontamiento Ocupacional en 18 enfermeras. Se identificaron 55,55% de enfermeros bajo estrés. Los "Factores intrínsecos al trabajo" y "Sentir tensión emocional con el trabajo" representaron mayor estrés a los enfermeros. Control fue el factor más utilizado para administrar los estresores y, en este factor, "Trato de hacer lo que creo que se espera de mí" la acción más utilizada para eso. Los enfermeros utilizaban estrategias centradas en el problema, consideradas las más efectivas para afrontar los estresores. Por eso, pueden tener evaluado el trabajo de unidad hematoncológicas como de baja tensión.

Descritores: Enfermería Oncológica; Estrés Psicológico; Salud Laboral.

Integrating survey of a sub-project resulting from the project Stress, Coping and Presenteeism in Hospital nurses registered in the Comitê de Ética e Pesquisa(CEP) of the referred institution.

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INTRODUCTION

The chronic-degenerative diseases, among them cancer, are responsible for growing rates of morbidity and mortality in the world context, they have been the target of studies and have aroused especial interest for reaching important population contingences, besides representing high social and economical costs⁽¹⁾. In Brazil, the estimates for the year 2013 show approximately 518,510 occurrences of new cases of cancer, strengthen the magnitude of the question of cancer in the country⁽²⁾.

On this pathology, despite the recent advance in its diagnosis and treatment with a possibility of remission and possible cure, it is still a pathology with stigmas and related to hopelessness, pain, fear and death⁽³⁾. Furthermore, in many cases, it is an irreversible process and full of meanings for the patient and the health team. For the patients, such meanings are established from socio-cultural experiences, myths and uncertainties formed since the diagnosis, persisting during the treatment and the possible confrontation of the terminality⁽⁴⁾. Regarding the health team, especially the nursing team, one must consider that the demand for care to the patients with cancer is not limited to physiopathological or prognostic aspects, once it also covers the human nature in its dimensions, expressions and evolutionary phases.

In this context, under the assistance of the nursing professionals in hemato-oncologic units, the nurse must be prepared to provide assistance to the emotional, psychological and social commitments, and also to help in the adaptations to the limitation resulting from the evolution and/or treatment of the disease, preconizing an integral assistance to the patient. The care to terminal patients as well as the need of procedures and interventions of high complexity like the situations that are frequently faced by these professionals in the assistance for these patients. These professionals, many

times, experience submission, control and authoritarianism of some health organizations⁽⁴⁾.

Under this perspective, the work of the nurse in the hemato-oncologic assistance units is characterized by uncertainties, instabilities and immediateness and by the need of confronting the situations of emergency and instability, due to the requirements, as well the specificity of the tasks and diversity of the functions performed⁽⁵⁾. These questions are strengthened when organizational aspects are revealed, such as work, overload, lack of control, insufficient reward and conflict of values. This can influence in the performance of hospital working activities and consequently in the quality of the assistance provided⁽⁶⁻⁸⁾. Besides that, the technological innovations, frequent in the assistance in hemato-oncologic units, are perceived as conditions which, when altering the labor dynamics, can affect the health of the worker to an extent in which they surpass the capacity of adaptations of these health professionals.

So, the conditions related to the assistance to patients with cancer can be evaluated as stressors and lead the nurse to occupational stress, resulting from the interaction of working conditions with the characteristics of the worker in which the demand of the work exceeds the abilities of the confrontation of the worker⁽⁹⁾. In this sense, the working environment is approached as a determinant context for the evaluation of the specific stressors related to occupational demands⁽¹⁰⁻¹²⁾.

Furthermore, the stress is a complex phenomenon which through the stimulus and the interaction of the subject with the internal and external environment can cause physiological, psychological, emotional and behavioral changes. So, the confrontation to the occupational demands is necessary. For such, the subject must use the strategies of *Coping*, considered as any individual attempt of adaptation to adverse circumstances considered stressing, whether or not it is successful in the result⁽⁷⁾.

So, with the identification of the occupational stress and the strategies of confrontations used in this process, it is possible to plan the measures for the promotion and the protection of health and welfare of the health professional involved in the assistance to the patients especially those hospitalized in hemato-oncologic units.

After the above statements, the stress and the strategies of *Coping* analyzed among the nurses of a hemato-oncological units of a University Hospital in Rio Grande do Sul.

METHOD

This is a descriptive cross-sectional study with quantitative approach developed at a hemato-oncologic unit of a University Hospital in Rio Grande do Sul, in Brazil.

The nurses, who are civil servants of the permanent staff and were in the direct assistance to the patients, were included. The health professionals who were away due to a working leave of any nature in the period of the data collection were excluded. Once all the nurses who worked at the unit in the period of the data collection followed the criteria of eligibility proposes, the population of access was made up of 18 nurses who agreed to participate in the survey signing the Informed Consent Form.

The data collection was made in March and April 2010. For that, the nurses were contacted in team meetings at a previously agreed time between the surveyor and the coordinator of area, when the study proposal was presented and the invitation to the professionals made. The protocol of the survey was made by a Form for the sociodemographic characterization of the subjects, by the Inventory of Stress in Nurses (ISN) and by the Occupational *Coping* Scale (OCS). These instruments were given to the subjects who accepted to participate in the research and its filling happened outside the working environment and

its return was with an appointment with the surveyors according to the availability of each health professional.

The Form for sociodemographic characterization was answered by the subject of the survey and involved the following variables: age range, sex, marital status, presence and number of children.

The Inventory of Stress in Nursing (ISN), constructed and validated⁽⁹⁾ in Brazil in 2000 allows to measure the general occupational stress of the nurse and the translator. It is a self-applicable instrument composed of 38 items in a Likert-type scale of 5 points in which: one is marked for 'never', two 'rarely', three 'sometimes', four 'many times', five 'always'. So, the punctuation attributed to each item refers to the frequency with which the stressors are experienced by the nurses in their daily work.

The 38 items make up the three domains of ISN, as follows: Interpersonal Relations (items 2, 3, 11, 13, 19, 20, 21, 22, 23, 24, 25, 27, 28, 33, 35, 37, 38); Stressors Roles of the Career (items 15, 16, 17, 18, 26, 29, 30, 31, 32, 34, 36); and Factors Intrinsic to the Work (items 1, 4, 5, 6, 7, 8, 9, 10, 12, 14)⁽⁹⁾. In the first domain, the interpersonal relations in the work environment were approached, that is, the relations with other professionals of the health team, patients and their family members, students and with the family of the nurse. The second domains refer to questions such as lack of recognition, autonomy, and the indefiniteness of the profession, impotence facing the situations, aspects of the physical environment and institutional organization. The latter deals with the working functions performed such as working hours and inadequate resources⁽⁹⁾.

The Scale of Occupational *Coping* (SOC) was translated, adapted and validated in 2003⁽¹³⁾ in order to identify the strategies of *Coping* used in the occupational environment. The SOC is a self applicable instrument composed by 29 items that are distributed in the Likert-type scale of five points in which: one is marked for 'I

never do this', two 'I rarely do this', three 'I sometimes do this', four 'I frequently do this' and five, 'I always do this'⁽¹³⁾. These items reflect the way how people deal with the possible stressor in the working environment and they compose the three factors of the SOC, as follows: Control Factor, composed by 11 items (1,2,3,4,5,6,7,8,9,10,11) referring to the actions and reevaluations of proactive cognitive character; Avoidance Factor, with nine items (12,13,14,15,16,17,18,19,20) related to the actions and reevaluations which suggest escape or avoidance; Management of Symptoms Factors, formed by nine items (21,22,23,24,25,26,27,28,29) related to the strategies used by the subjects to administrate situations of stress including relaxation or physical activities⁽¹³⁾.

The data were organized and stored in an electronic spreadsheet in the Microsoft Excel 2010 Program and, later, electronically analyzed with the help of the Statistical Package for the Social Sciences software (SPSS – version 17.0). The qualitative variables were described by means of absolute (n) and relative (%) frequencies; and the qualitative variables by means of descriptive measures: minimum and maximum values, average(\bar{x}) and standard deviation (\pm).

For the analysis of ISN, the general average of the population was calculated and, forms this measure; the subjects were classified in 'high' and 'low' stress. Furthermore, the domain of highest average for the nurses was identified and the higher the average of the domain, the higher the stress that it represented to these professionals presented. In order to identify the stressor of the highest intensity, the average of each item of the ISN for the population was calculated. So, the higher the average of the item, the higher the stress it represents for the health professional.

For the analysis of the OCS, the averages of each factor were calculated. In this sense, the factor which presented the highest average was considered the more used factor for the confrontation of the stressor by the nurses⁽¹³⁾. The internal consistency of the instruments was evaluated by means of Cronbach's alpha coefficient.

In accordance with the guidelines of the Resolution 196/96 of the National Health Council, the present study was sent to and approved by the Committee of Ethics in Survey of the institution under protocol no. 0312.0.243.000-09. The participants signed the Informed Consent Form (ICF).

RESULTS

In the evaluation of the reliability of the instruments, Cronbach's alpha was 0.964 for the 38 items of the ISN, 0.929 for the domains 'Interpersonal Relations', 0.895 for the 'Factors Intrinsic to the Work' and 0.859 for the 'Stressors Roles of the Career'. As to the OCS, the Alpha was 0.877 for the 29 items of the scale, 0.720 for the factor 'Control', 0.845 for 'Avoidance' and 0.776 for 'Management of Symptoms'. The values of Alpha above are considered satisfactory to attest reliability of the data for the nurses of the hemato-oncologic units⁽¹⁴⁾ and they are close to those verified in the studies which validated these instruments in the Brazilian reality^(5,13).

Regarding the sociodemographic characteristic of the nurses, it was noticed that there were health professionals of the female sex (88.9%), married (77.8%), with children (55.6%) and in the age range of 41 to 50 (50%). The descriptive measures for the ISN and its domains are presented in Table 1.

Table 1 – Descriptive measures for the 38 items of ISN and its domains among the nurses of the Hemato-Oncologic Unit. Santa Maria, RS, Brazil, 2010.

Instruments ISN/Domains	Minimum	Maximum	Average	Sd*
General ISN	1.18	4.36	2.55	0.54
Interpersonal Relations	1.18	3.94	2.42	0.65
Factors Intrinsic to the Work	1.20	4.20	2.68	0.70
Stressors Roles of the Career	1.45	4.36	2.55	0.59

*Standard Deviation

It was noticed that the domains 'Factors Intrinsic to the Work' (\bar{X} 2.68; Sd= 0.70) represents a higher stress to the nurses of the hemato-oncologic unit. In this domain, the situations regarding the occupational environment of the highest average, that is, which represents more emotional distress are: 'To feel emotional distress with the work' (\bar{X} 3.06; Sd= 1.00),

'Lack of material necessary to the work' (\bar{X} 3.00; Sd= 0.97) e 'Lack of human resources' (\bar{X} 2.94; Sd= 0.87). Based on the general average of the ISN, it was observed that 55.55% of the nurses presented low stress and 44.45% high stress.

As to Occupational Coping Scale, its descriptive measures are presented in Table 2.

Table 2 – Descriptive measures for the domains of the OCS among the nurses of the hemato-oncologic unit. Santa Maria, RS, Brazil, 2010.

OCS/Domains	Minimum	Maximum	\bar{X}	Sd*
Control	3.00	4.45	3,66	0,42
Avoidance	1.20	4.10	2,29	0,69
Management of symptoms	1.44	3.78	2,31	0,58

*Sd- Standard deviation

It is observed that the factor of the highest average for this population is Control (\bar{X} 3.66; Sd= 0.42), that is, it is the most used by the nurses for the confrontation of the stress. In this factor, the items of the highest average, that is, which represent the most employed actions by this population to administrate the stressor of the occupational environment are: 'I make an effort to do what I think is expected from me' (\bar{X} 4.06; Sd= 0.73), 'I talk with my colleagues who are also involved in the problem' (\bar{X} 3.94; Sd= 0.80) and 'I try to modify the factors which causes the situation' (\bar{X} 3.83; Sd= 0.79).

taking intensive and prolonged care, being close to the family of the patient. So, some aspects related to the work can be evaluated as stressors by these professionals.

In this sense, it was noticed that the Factor Intrinsic to Work, among them, to feel emotional distress with the work, lack of material necessary to work and human resources represent the highest distress to the nurses of the hemato-oncologic unit. In a survey with the nurses of oncology, the following stressors were highlighted as the most frequent ones⁽¹⁵⁾: the death of the patients (28.6%), the situations of emergency (16.9%), the problems of relationship with the nursing team (16.9%) and the situation related to the process of work (15.5%).

So, the presence of situations, which are related to work of the nurses of a hemato-oncologic unit, which can

DISCUSSION

The practice of nursing in oncology implies in dealing with a serious disease, taking care of terminal patients, who are out of the therapeutic possibilities and

lead them to stress is evident, that is, they exceed the adaptive resources of this health professionals⁽¹⁶⁾. The definitions of these situations as stressors depend on the cognitive evaluation, according to which the subject finds the event in a series of evaluative categories and, from that, defines it as a threat, a challenge or as being irrelevant⁽¹⁶⁻¹⁷⁾.

In this regard, it was noticed that 44.45% of these subjects presented High stress. In an investigation⁽¹⁸⁾ among nurses of intensive therapy unit, in a unit specialized such as the hemato-oncology unit, there was a predominance of moderate stress. These results deserve attention due to the outcome of the stress to the health of the workers, among which the depression and the *Burnout*, whose occurrence has already been observed in different surveys involving health professionals⁽¹⁹⁻²⁰⁾. Consequently, there is reduction of the productivity, impact to the quality of life of the worker and to the care rendered by these health professionals to the patients assisted in the health services. Still, many times, the workers keep away or abandon the work, which interferes in the organizational and financial dimensions of the services of health^(17, 20-21).

On the other hand, it was observed that 55.55% of the nurses presented Low stress. In a survey among hospital nurses⁽¹⁷⁾, it was noticed that 55.25% of those professionals presented low stress. In an investigation among nurses of a unit of a surgical clinic, 55.56% presented low stress⁽²¹⁾. In this sense, once the subject can use strategies for the *Coping* of the stressors⁽¹⁶⁾, the predominance of low stress among the nurses in that investigation can be related to the use of strategies of effective *Coping* for the experienced situations. The choice of these strategies is made based on the nature of the stressor, on the circumstances in which it can reproduce itself on the previous experiences of the subject, that is, how he coped with the previous situations⁽¹⁶⁾.

In this context, it was observed that the most used

strategy of confrontation by the nurses of hemato-oncology is Control and for such, they adopt actions, like making an effort to do what people expect them to do, talk to their colleagues involved in the problem and modify the factor that caused the situation. In a survey among nurses of a surgical unit, using the Inventory of Strategies of *Coping*, the factor Resolution of Problems was the most used one by the nurses and the item with the highest average, that is, the most adopted actions for the confrontation were: *I made a plan of action and followed it, I refused to go back and I fought for what I wanted and I knew what should be done, therefore I doubled my efforts to do what was necessary*⁽²¹⁾. In an investigation with nurses of hemodialysis in the United States, using the *Ways of Coping Questionnaire*, the factor Resolution of Problems presented the highest average⁽²²⁾.

In the studies above and in this investigation, the factors (strategies of *Coping*) and the items of scales (actions to administrate the stressors) refer to the strategies of *Coping* centered on the problem. These are considered more effective for the confrontation of the stressors once the main worry is in the direct resolution of the stressor and the subject can direct them internally (redefinition of the element stressor) or externally (negotiate to solve the interpersonal conflict or to ask for practical help to third parties)^(16,21). About this matter, in a survey of nurses of a child oncology unit, it was observed that, instead of annulling or keeping the stressor away from their daily activities, the nurses chose to try to solve their problems and to modify their attitudes, thus being able to deal with the pressures of the people in the environment surrounding them⁽²³⁾. Facing this, the nurses of the hemato-oncologic unit in this survey used strategies of confrontation considered more effective (Centered on the Problem) which can result in low stress in the work environment, a fact which was verified in a parcel of this population.

CONCLUSION

It was noticed that the nurses presented low stress and they used Control as strategy of *Coping*. It consists in a type of *Coping* centered on the problem, considered more effective for the confrontation of the stressor in the work environment.

However, once 44.45% of the population presented high stress, the results of this study contribute to the advance of the knowledge on stressors, stress and Strategies of *Coping* in this population. This can help in the development of the solutions which minimize the effects of the stress and make the work process in nursing less weary.

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

So, we stand out the need of studies with analytical character and with other delineations in order to analyze the above mentioned relation and to verify the influence of the strategies of *Coping* for the minimization of the stress among the nurses of a hemato-oncologic unit, bearing in mind their unfolding to the health of the worker and the quality of the care rendered.

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