

Coping strategies of nursing students for dealing with university stress

Estratégias de coping de acadêmicos de enfermagem diante do estresse universitário Estrategias de afrontamiento de los estudiantes de enfermería diante del estrés universitario

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ABSTRACT

Objective: to identify the coping strategies used by nursing students in a university in southern Brazil, establishing the relationship between the sociodemographic and academic variables examined. **Method**: an exploratory, descriptive, quantitative study, carried out with 146 nursing students, through application of the Coping Strategies Inventory. For the data analysis, descriptive statistics, analysis of variance and regression analysis were used. **Results**: it was found that the coping strategy most used by nursing students is *escape*. A connection was also detected between the academic dissatisfaction variable and the use of negative coping strategies. **Conclusion**: it was noted that students satisfied with the course used positive coping strategies targeting the problem, whereas dissatisfied students used negative strategies focusing on the emotion. **Key words:** Nursing Students; Psychological Adaptation; Nursing Education.

RESUMO

Objetivo: identificar as estratégias de *coping* utilizadas pelos acadêmicos de enfermagem de uma Universidade no Sul do Brasil, estabelecendo relação entre as variáveis sócio-demograficas e acadêmicas pesquisadas. **Método**: estudo quantitativo, do tipo exploratório-descritivo, realizado com 146 estudantes de enfermagem, mediante aplicação do Inventário de Estratégias de *coping*. Para análise dos dados utilizou-se a estatística descritiva, análise de variância e análise de regressão. **Resultados**: evidenciou-se que a estratégia de *coping* mais utilizada pelos estudantes de enfermagem foi a *fuga da realidade*. Identificou-se também associação entre a variável insatisfação acadêmica e a utilização de estratégias de *coping* negativas. **Conclusão**: verificou-se que estudantes satisfeitos com o curso utilizam estratégias de *coping* positivas e centradas no problema, enquanto que estudantes insatisfeitos usam estratégias negativas e focadas na emoção.

Descritores: Estudantes de Enfermagem; Adaptação Psicológica; Educação em Enfermagem.

RESUMEN

Objetivo: identificar las estrategias de afrontamiento utilizadas por estudiantes de enfermería en una universidad en el sur de Brasil, estableciendo una relación entre las variables sociodemográficas y académicas estudiadas. **Método**: estudio cuantitativo, exploratorio y descriptivo, realizado con 146 estudiantes de enfermería, mediante la aplicación de lo inventario de Estrategias de Afrontamiento. Análisis de datos utilizó la estadística descriptiva, análisis de varianza y análisis de regresión. **Resultados:** fue evidente que la estrategia de afrontamiento más frecuentemente utilizadas por los estudiantes de enfermería fue escapar de la realidad. También se identificó una asociación entre la variable de insatisfacción académica y el uso de estrategias de supervivencia negativas. **Conclusión**: los estudiantes insatisfechos con el curso utilizan estrategias de afrontamiento positivo y centrado en el problema, mientras que los estudiantes insatisfechos utilizan estrategias negativas y centradas en la emoción. **Palabras clave:** Estudiantes de Enfermería; Adaptación Psicológica; Educación en Enfermería.

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INTRODUCTION

We are currently living in a society that is rapidly changing and requires continual adaptations to new lifestyles. This constant instability obliges individuals to adapt daily to new situations, resulting in transformations that can lead to stress⁽¹⁾. When confronted with a threatening situation, individuals may react by using coping strategies in order to handle and adapt to a new situation⁽²⁾. Therefore, coping is defined as the ability to confront and adapt, enabling people to react to behaviors, thoughts, and emotions caused by stressful events⁽³⁾.

It was noted in the literature that nursing students are more exposed to stressful events than students from other courses, because they are continually embroiled in situations of responsibility for the lives and health of patients⁽¹⁾. Thus, stress is something inherent to nursing, for both professionals and students, due to the numerous demands and excessive workloads, the lack of adequate support for the pressures experienced daily in performing their activities, the ever-changing nature of the work and having to deal with death, all of which contribute to high levels of stress in the nursing profession⁽⁴⁾.

Consequently, the proper use of coping strategies can alleviate some levels of stress and enhance the quality of life of these students⁽⁵⁾. Coping is a term used to explain the reactions of an organism when faced with a stressful situation⁽⁶⁾ and may be considered as a set of physical or psychological strategies that can be learned, used, or discarded. Coping, which is triggered in response to a stressor, is directed toward this internal or external event that exceeds the individual's adaptive capabilities, as a way of dealing with the situation viewed as stressful⁽²⁾.

To define the coping resources needed to face a stressful situation, a process called cognitive evaluation can be used. In this process, the individual should evaluate the level of stress that a situation may generate, taking into account his or her personal perception of this situation, social influences, and coping strategies available⁽²⁾.

When the coping strategies used by the individual are effective, the stress may possibly be overcome, indicating that a way was found to adapt to the situation. If the strategy used does not solve the problem, a reevaluation process and a change in coping strategies may occur until the problem is overcome or the individual reaches the point of exhaustion^(1,7).

It should be noted that when individuals are aware of the strategies they are using and are able to evaluate the context they are facing, they can adjust the coping strategy according to the reality they are experiencing, seeking the strategy that best fits their particular situation⁽⁸⁾. However, in the case of negative adaptation caused by the use of negative coping strategies, individuals may not be able to adapt to or reevaluate the situation in order to modify the measures being used to confront the situation. As a result, an intense feeling of withdrawal may occur, manifested in feelings of apathy and lack of motivation to engage in academic activities⁽⁹⁻¹⁰⁾.

For most students, starting university often means learning how to manage their activities on their own. However, this change in the social, family, and school environment can, in some cases, generate feelings of anxiety that may bring on stress⁽¹¹⁾. Changes in the *social support* network can cause students to withdraw and isolate themselves, because they do not find or recognize the necessary social support, inducing them to use coping strategies considered negative, such as defensiveness and social isolation⁽⁶⁾.

The objective of this study was to identify the coping strategies used by nursing students, correlating them with the sociodemographic and academic variables. It was based on the need to learn about these students' stress coping mechanisms and identify the strategies used in order to determine a more effective response for management of stressors.

METHOD

This was an exploratory, descriptive, cross-sectional, quantitative study, carried out with nursing students from a public university in southern Brazil. The subjects were comprised of 146 students from the undergraduate course in nursing, enrolled from the first to ninth semester of the course. Non-probabilistic sampling by convenience was used; that is, the subjects were selected according to their presence and availability at the site when the data collection occurred, in August and September 2013. The instruments were given to those students who agreed to participate in the study by signing the Free and Informed Consent Form.

The Coping Strategy Inventory designed by Lazarus and Folkman⁽²⁾, adapted to Portuguese by Savóia⁽¹⁴⁾, was used as the data collection instrument. Questions characterizing the sample were added to the beginning of the instrument. It was composed of 66 questions evaluated on a Likert-type four-point scale, with 0 for "I didn't use this strategy," 1 for "I used it a little," 2 for "I used it quite a bit," and 3 for "I used it a great deal."

First, a confirmatory factor analysis was performed on the original 66 questions from the instrument, based on the dimensions established by Lazarus and Folkmann⁽²⁾, with 46 validated items being grouped into eight factors: *confrontation, distancing, self-control, social support, accepting responsibility, escape-avoidance, problem solving,* and *positive reappraisal.*

Of the 66 questions in the original questionnaire, 29 were excluded because they had a factor loading below 0.400. Then an evaluation was performed regarding the conceptual adherence to the definition of the theoretical dimensions in relation to the items from the scale. After completion of the confirmatory factor analysis and application of Cronbach's Alpha, the constructs were established for seven factors consisting of 37 items, with alpha ranging from 0.600 to 0.853. The seven factors were: *positive reappraisal, planning/resolution, escape-avoidance, distancing/distraction, acceptance/resignation, denial of the problem,* and *feelings and social support*. For storage and data analysis, the statistical software SPSS (*Statistical Package for Social Sciences*) Version 22.0 was used,

The data underwent three different analyses: 1) descriptive statistics, through using means and frequency distribution of the constructs and their indicators (identifying the intensity or frequency with which the phenomena are experienced); 2) analysis of variance, using ANOVA among the different groups of respondents, according to the sample characteristics, in order to verify possible significant differences among the dimensions of the phenomenon studied and the socio-demographic and academic variables examined. The following variables were taken into account: sociodemographic and academic; age; gender; current semester; number of courses; satisfaction and relationship with professors; and 3) multiple regression analysis, in order to evaluate which factors had a greater effect on the subjects' perception of the phenomenon being investigated.

This study is part of the macro project "Patient advocacy and coping in nursing: possibilities to exercise power through experiences of moral suffering" called Universal 2012. The study adhered to the recommendations of Resolution No. 466/12 of the National Health Council, and the project was evaluated and approved by the local Ethics Committee for Research, via Opinion No. 2013-52.

RESULTS

In relation to the sociodemographic data, there were a total of 146 students, of whom 130 (89%) were female and 16 (11%) were male. The mean age was 24.91, ranging from 17 to 52 years of age. Most students said they were single (72.6%) and without children (82.9%).

It was also noted that 43.8% lived at home with their parents, 67.8% participated in extracurricular activities, and 21.2% worked in the area of health. Most of the students (92.5%) had Internet access, 54.8% used public transport, and 76% said they engaged in some kind of leisure activity.

In terms of academic characteristics, the highest concentration of students (15.8%) was in the third semester of the course. The majority had a good relationship with their professors (59.6%) and colleagues (51.4%). They reported having chosen nursing as their first course option (72.6%) and 52.1% were satisfied with their choice. They chose the course because they identified with the profession (41.8%) or were interested in the area of health (52.1%); 50% said they had never considered dropping out of the course.

In relation to the descriptive analysis of the coping strategies used by the students (Table 1), the study showed that the *escape-avoidance* dimension had the highest mean in the questionnaire (1.91), indicating that this type of strategy is the one most used by nursing students. The questions from this dimension also attained higher means, particularly questions C-51, "I promised myself that things would be different next time" (2.11), and C-62 "I went over in my mind what I would say or do" (2.22).

The *positive reappraisal* dimension attained the second highest mean among the factors (1.67), followed by the *planning/resolution* (1.47) and *social support* (1.43) dimensions. It could be identified that students try to resolve the situation somehow, focusing on the problem or on control or management of their emotions. The constructs that had the lowest means among the strategies used were *distancing/distraction* (1.40), *acceptance/resignation* (1.29), and *denial of the problem/feelings* (1.18), demonstrating that the strategies

Table 1 - Coping strategies used by nursing students, Rio Grande, Rio Grande do Sul, Brazil, 2014

n	X
146	1.67
143	1.69
144	1.95
146	1.94
145	1.50
146	1.47
145	1.60
146	1.33
141	1.51
143	1.91
143	1.99
142	1.88
141	1.75
	143 144 146 145 146 145 146 141 143 143 142

Table 1 (cont.)

Factors	n	X
Escape	143	1.91
c-57 I daydreamed or imagined a better place or time than the one I was in	143	1.74
c-51 I promised myself that things would be different next time	141	2.11
c-62 I went over in my mind what I would say or do	143	2.22
c-56 I changed something about myself	141	1.72
Distancing	146	1.40
c-04 I let time pass; the best thing I could have done was wait; time is the best remedy	145	1.37
c-32 I tried to forget the situation by resting or taking a vacation	146	1.05
c-16 I slept more than usual	145	1.48
c-03 I turned to work or another activity to take my mind off things	142	1.73
Acceptance/resignation	146	1.29
c-18 I accepted people's sympathy and understanding	145	1.72
c-64 I tried to see things from the other person's point of view	143	1.55
c-65 I reminded myself how much worse things could be	143	1.76
c-11 I hoped for a miracle	146	0.60
c-12 I accepted the situation, because nothing could be done	146	0.97
c-24 I waited to see what would happen before doing anything	144	1.20
Denial of the problem and feelings	146	1.18
c-14 I tried to keep my feelings to myself	146	1.55
c-37 I maintained my pride and kept a stiff upper lip	143	1.08
c-43 I kept others from knowing how bad the situation was	142	0.96
c-28 I let my feelings out somehow	146	1.65
c-40 I generally tried to avoid people	143	0.94
c-44 I made light of the situation; I refused to get too serious about it	141	0.87
Social support	146	1.43
c-07 I tried to persuade the person responsible to change his or her mind	146	1.05
c-08 I talked with another person(s) about the situation to try to find out more about it	145	1.99
c-31 I talked to someone who could do something concrete about the situation	146	1.49
c-42 I asked a friend or relative for advice	143	1.76
c-45 I talked to someone about how I was feeling	143	1.82
c-22 I sought professional help	142	0.53

less used by students are those that involve passively abandoning the situation and surrendering to the problem.

ANOVA (Table 2) enabled an analysis of the existence of possible differences in the means of the dimensions of the coping strategies used by the nursing students, taking into account their social and academic characteristics. As far as the relationship between the *positive reappraisal* dimension and the sociodemographic variables, significant differences were found with respect to the variables of leisure, adequate location, and satisfaction with the course.

Younger students who engaged in leisure activities, had an adequate location for their studies, and were satisfied with the course were those who most used the *positive reappraisal* strategy. A significant difference was also detected between the *planning/resolution* dimension and the variables of first course option, choice factors, and leisure, leading to the conclusion that students who engaged in a leisure activity, identified more with the course, and chose nursing as their first option used the *planning/resolution* strategy more.

In terms of *escape*, students who did not engage in leisure activities and did not have Internet access had a higher mean as far as the use of this strategy. For the *distancing/distraction* and *acceptance/resignation* constructs, the *choice factors*

Table 2 -Analysis of Variance (ANOVA) between coping factors and socio-academic variables, RioGrande, Rio Grande do Sul, Brazil, 2014

Positive reap	praisal		
Age ≥26 <26	n 45 96	Ř 1.65 1.67	р 0.06
Satisfaction Yes No	n 129 15	Ř 1.70 1.45	p 0.39
Smoking No Yes	n 138 8	Ř 1.67 1.61	р 0.01
Leisure No Yes	n 32 11	Ř 1.51 1.72	р 0.35
Appropriate location No Yes	n 33 111	Ř 1.52 1.72	p 0.04
Planning/res	olution		
First option Nursing Medicine	n 106 21	X 1.44 1.33	p 0.12
Choice factors Other Identification with course or area	n 7 137	Ř 1.33 1.47	р 0.12
Leisure No Yes	n 32 111	Ř 1.32 1.51	р 0.03
Escape/avoi	dance		
Leisure No Yes	n 135 8	Ř 2.11 1.84	р 0.22
Has Internet No Yes	n 9 132	Ř 1.79 1.90	р 0.18
Distancing/dis	straction		
Has siblings No Yes	n 28 117	Ř 1.49 1.39	р 0.13
Choice factors Other Identification with course or area	n 7 137	Ř 1.78 1.38	p 0.00
Acceptance/res	signation		
Choice factors Other Identification with course or area	n 7 137	Ř 1.71 1.27	р 0.02
Denial of the proble	m and fee	lings	
Considered giving up No Yes	n 73 70	X 1.04 1.33	р 0.50
Satisfied with the course Yes No	n 129 15	Ř 1.14 1.54	р 0.14

Denial of the problem and feelings				
Leisure No	n 32	X 1.34	р 0.13	
Yes Has Internet No	111 n 9	1.14 X 1.25	р 0.01	
Yes	135	1.18		
Has children	Social support	v		
No Yes	n 121 25	X 1.46 1.31	р 0.31	

Note: Significance level at 5%

variable had the highest mean, indicating that students who

did not identify with the profession were those who most used those strategies.

In relation to *denial of the problem* and *feelings*, the variable with the highest mean was satisfaction with the course, suggesting that students who were not satisfied with the course used this strategy more. Finally, the variable with the highest mean in the *social support* dimension corresponding to having children, demonstrating that students who did not have children used social support strategies more.

In assessing the effects of the seven dimensions of the coping strategies (Table 3), the regression analysis established the dependent coping variable in relation to the constructs. The results identified a relationship of significance at a level of 5% for all of the factors. An adjusted determination coefficient of 0.98 was attained through the test, representing a 98% explanation for the coping strategies used by the nursing students when faced with stressful situations at university.

Table 3 -Regression Analysis for the coping variable, Rio
Grande, Rio Grande do Sul, Brazil, 2014

Variable	Beta (β)	Sigma (ơ)
Positive reappraisal	0.163	0.000
Planning/resolution	0.143	0.000
Escape/avoidance	0.341	0.000
Distancing/distraction	0.196	0.000
Acceptance/resignation	0.234	0.000
Denial of the problem and feelings	0.238	0.000

Note:

Significance level at 5%

Through statistical analyses, it can be seen that there is a strong correlation between the academic satisfaction variable and the use of coping strategies such as *positive reappraisal*, *planning/resolution*, *denial of the problem and feelings*, *distancing/distraction*, and *acceptance/resignation*, as illustrated in Figure 1.

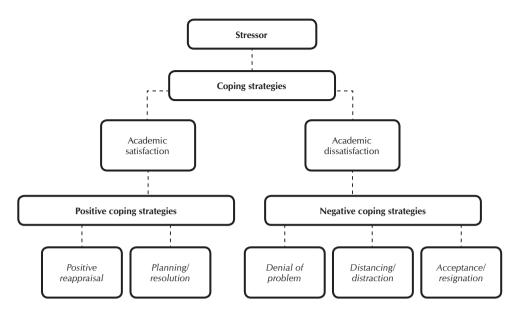


Figure 1 - Representation of the sociodemographic and academic factors that contribute toward the use of coping strategies

DISCUSSION

The study found that most of the strategies used by the students in order to try and manage the emotional tension generated by the problem are those that focus on emotions. Only the *planning/resolution* factor was a strategy that focused on the problem and sought to actively resolve it through confrontation. Different authors have reported that coping strategies that focus on the problem are more frequently used by nursing students^(1,12-14).

It was possible to identify that the coping strategies comprising the *escape/avoidance* factor had a higher mean among the responses, demonstrating that students try to escape problems in illusory or imaginary ways, fantasizing situations and minimizing the seriousness of the situation, also characterized as a strategy that focuses on emotions. This strategy is used more often by students who reported not engaging in leisure activities, showing that this leads, consequently, to decreased social interaction and progressive isolation, causing the student to use negative strategies focused on emotions⁽¹³⁻¹⁶⁾.

Emotional involvement with a stressful reality can lead to the use of defensive mechanisms of distancing from reality, which are ineffective for managing or resolving the stress⁽²⁾. By disconnecting from the reality, the individual adapts negatively to the situations being experienced, which can lead to feelings of isolation and, consequently, to apathy and lack of motivation to perform academic activities⁽⁹⁾.

One study suggests that this form of adaptation is not effective, because the students who used escape-avoidance strategies to cope with stress were those who attained the highest stress means in all of the domains⁽¹⁴⁾. This conclusion is corroborated by another study which found that there is an inversely proportional relationship between the escape-avoidance strategy and stress management/resolution. That

is, the more students use the escape-avoidance factor, the greater the mean stress noted⁽¹⁵⁾.

However, students do not use only negative strategies. Planning/resolution was the second most used factor by the students in their efforts to manage stressful situations in the academic environment. After reflecting on the circumstances, the student performed an analysis of the situation, made plans, and executed actions to resolve the problem⁽²⁾. In this dimension, it was also possible to show that students who had chosen nursing as a first option used the planning/resolution strategy more often compared to other students. Therefore, when students

are not studying their first course option, this should be taken into account, because it can easily result in the student losing interest or abandoning their studies, adopting compensatory behaviors such as the use of alcohol or drugs in an attempt to escape the unpleasant situation⁽¹⁶⁾.

Coping strategies that focus on the problem are effective for dealing with stressful situations, as seen in a study that found that nursing students who used coping strategies focused on resolving problems had lower means of stress compared to those who used strategies targeting emotions⁽¹⁵⁾.

Another factor used by students to manage stressful situations was *positive reappraisal*, wherein they sought to find positive meaning or something that could be learned from the situation. With this coping factor, cognitive strategies involving acceptance of reality and the situation are used. In such cases, the individual tries to restructure the event in order to find aspects that are personally beneficial, or they go over it in their mind to reduce the seriousness, or they concentrate on positive aspects of the situation⁽²⁾.

It was also noted that younger students who are satisfied with the course are those who most use the *positive reappraisal* strategy. Students not satisfied with the course show themselves to be disinterested, discouraged, or wobbly about their choice of profession, being negatively influenced by the adversities they encounter⁽¹⁶⁾. It can be concluded that students satisfied with their future profession tend to confront difficulties by making the necessary adaptations, do not get discouraged in the face of difficulties, and seek to change themselves by adjusting positively to the situation⁽¹⁷⁾.

In contrast, the fourth type of strategy used by the subjects in this study was *denial of the problem/feelings*, where the student denies the existence of the problem, ignores and hides his or her feelings, withdraws from people and uses, therefore, a negative strategy, resulting in abandoning the situation and surrendering to the problem. Individuals negate their feelings by suppressing reactions and impulses, thus avoiding the exacerbation of their feelings in an attempt to control their emotions⁽²⁾.

However, one study conducted among university students found that *social support* was the coping strategy most used by nursing students. This may be due to the specificity of the course, which has a human dimension involving cooperation, listening, and relationships, making it easier to resort to outside help for problem solving⁽⁶⁾. Seeking support and information in their social network was another one of the strategies used to cope with situations.

Other studies have shown that the *social support* factor is an important coping strategy for confronting and handling stressful situations, demonstrating that this dimension effectively contributes toward the management and handling of stress⁽¹⁸⁻¹⁹⁾.

The constructs that had the lowest means among the strategies used were *distancing/distraction* and *acceptance/resignation*, indicating that the students in this study try to somehow solve the situation by focusing on the problem or through control or management of the emotions, avoiding strategies that entail passively abandoning the situation or surrendering to the problem.

After trying to negatively adapt to a stressful situation, some students react passively, remaining apathetic in the face of the stressor. This interferes with their psychological, biological, and behavioral balance, leading to a decline in academic performance and undermining their quality of life. This overload of tasks and consequent decreased productivity causes students to abstain from certain personal activities in an effort to prevent being further worn down and overloaded with work. This reaction can be seen as harmful because, for the most part, the activities that the students discontinue are related to leisure and times of social interaction⁽⁹⁾.

Finally, the *acceptance/resignation* dimension had the smallest mean among the nursing students. In this scenario, the student lets go of the situation, decides that the problem is unalterable, and learns to live with it. This factor had the

highest mean number of responses in the student group that does not identify with the profession. The student assumes that the reality of the situation is due to the wrong choice of course and recognizes his or her responsibility for what happened, believing that nothing can be done to change it, and passively accepting the state of affairs⁽²⁾.

It can be identified that one characteristic of coping strategies is that they try to manage the physical, psychological, and social effects caused by stressful events⁽²⁰⁾. Thus, coping plays a vital role in the stress adjustment process, because the proper use of effective strategies leads to an adjustment of the situation and a normalization of emotions⁽²⁰⁾. On the other hand, the use of inappropriate strategies negatively affects the health of individuals and intensifies the negative effects of stress⁽²⁰⁾.

CONCLUSION

The coping strategy most used by nursing students was *escape*. This strategy focuses on emotions, solves little, and is not very effective in managing the stressor. There was an association between the academic satisfaction variable and the coping strategies used by the nursing students. This fact warrants attention, because students who are satisfied with the course use positive coping strategies for the most part. In contrast, students who are dissatisfied with the nursing program use negative coping strategies focused on emotions rather than on the problem.

This study endeavors to provide a better understanding of the coping strategies used by nursing students, and their effectiveness, through a process of self-awareness. This process seeks to make students aware of the possibility of adjusting or replacing the strategies being used, according to the needs of the situations they are experiencing. This may result in an appropriate management process and subsequent positive adaptation to the threatening situation through the use of effective coping strategies. The limitations of this study are that it was conducted with a specific population of students from a public university in southern Brazil and, consequently, it is not possible to generalize the results.

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