STRESS TRIGGERS IN THE EDUCATIONAL ENVIRONMENT FROM THE PERSPECTIVE OF NURSING STUDENTS

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ABSTRACT

Objective: to identify stress triggers in the educational environment as perceived by nursing students.

Method: descriptive-exploratory, quantitative study, conducted with 146 nursing students to whom the Stress Assessment Scale was applied, between august and September 2013. Descriptive statistics, analysis of variance and linear regression were used to analyze the data.

Results: the most important stress triggers identified was lack of time to be with friends/family and to take part in leisure activities or to rest. Additionally, difficulties faced in relationships between professors and students were directly related to poor academic performance and perceived poor knowledge acquisition.

Conclusion: identifying and understanding the factors that stress trigger among nursing students can enable better management of stressful situations, contributing to improved academic performance and, consequently, improved quality of life among students.

DESCIPTORS: Nursing students. Stress. Nursing education. Nursing.

FATORES PERCEBIDOS PELOS ACADÊMICOS DE ENFERMAGEM COMO DESENCADEADORES DO ESTRESSE NO AMBIENTE FORMATIVO

RESUMO

Objetivo: identificar os fatores percebidos pelos acadêmicos de enfermagem como desencadeadores do estresse no ambiente formativo.

Método: estudo quantitativo, do tipo exploratório-descritivo, realizado com 146 estudantes de enfermagem, mediante aplicação da Escala de Avaliação de Estresse, entre agosto e setembro de 2013. Para análise dos dados utilizou-se a estatística descritiva, análise de variância e análise de regressão linear. Identificou-se como maior desencadeador do estresse universitário a falta de tempo para estar com amigos/familiares e realizar atividades de lazer ou descansar. **Resultados:** identificou-se também que as dificuldades existentes nas relações estabelecidas entre estudantes e professores apresentaram relação direta com os sentimentos de baixa qualidade acadêmica e pouco conhecimento adquirido.

Conclusão: a identificação e compreensão dos fatores que levam o estudante de enfermagem ao estresse possibilitam um melhor manejo dessas situações, contribuindo para o aumento do rendimento acadêmico e consequentemente da qualidade de vida desses estudantes.

DESCRITORES: Estudantes de enfermagem. Estresse. Educação em enfermagem. Enfermagem.

FACTORES PERCIBIDOS POR LOS ESTUDIANTES DE ENFERMERÍA COMO DESENCADENTES DE ESTRÉS EN EL AMBIENTE FORMATIVO

RESUMEN

Objetivo: identificar los factores percibidos por los estudiantes de enfermería como causas de estrés en el ambiente de entrenamiento.

Método: estudio cuantitativo, exploratorio y descriptivo, realizado con 146 estudiantes de enfermería mediante la aplicación de la Escala de Evaluación de Estrés, entre agosto y septiembre 2013. La análisis de datos utilizó la estadística descriptiva, análisis de varianza y análisis de regresión.

Resultado: se identificaron como el principal desencadenante de la tensión en la universidad fue la falta de tiempo para estar con los amigos/familia y realizar actividades de ocio o de descanso. También se identificó que las dificultades existentes en las relaciones entre los estudiantes y los profesores estaban directamente relacionados con sentimientos de baja calidad académica y pocos conocimientos adquiridos.

Conclusión: la identificación y comprensión de los factores que conducen a la estudiante de enfermería destacar que existe una gestión eficaz de estas situaciones, contribuye a un mayor rendimiento académico y en consecuencia, la calidad de vida de estos estudiantes.

DESCRIPTORES: Estudiantes de enfermería. Estrés. Educación em enfermería. Enfermería.

INTRODUCTION

When we consider how an organism reacts in the face of a potentially threatening event,¹ we can verify that stress has always been part of the history of humankind. Perhaps one of the reasons we talk so much about stress and its effects being increasingly present in contemporary society is the fact that society exposes individuals to various factors that stress trigger, demanding constant physical, psychological and behavioral adaptation.²

Stress is understood as a process, a response to a given threatening event. One has to go through various assessment stages in order to select the most efficacious coping strategy. Hence, each individual copes with stressful events supported by her/his experiences, values and culture.³

There are various stress triggers to which individuals are increasingly exposed.² These triggers have easily perceptible origins, such as those related to urban violence, or financial and family crises, however, there are other less remarkable ways, such as daily events, which silently trigger stress.⁴

The responses presented by individuals in an attempt to defend themselves from stressors can be classified as biological, emotional or behavioral responses. All these responses present an important connection: they cannot be individually analyzed and the intensity of effects is directly proportional to exposure to causal factors.²

Biological responses are considered automatic and/or instinctive, such as a fight-or-flight response, characterized by physiological reactions like fear⁵ and physical symptoms like tachycardia, sweating, and tremors, followed by physical weakness.⁶ Behavioral responses, in turn, are strategies individuals use to cope with a threatening event and are classified as active or passive (avoidance) coping.

Finally, emotional responses are those in which the individual assesses the event's level of importance and whether it is potentially threatening.⁵ If the individual recognizes the event as threatening, emotional manifestations of panic, anxiety, solitude and abandonment, sorrow, demotivation, frustration, impotency or revolt, may occur.⁶ Exacerbation of these symptoms is proportional to the level of importance assigned to a given event.⁵

Factors that predispose an individual to stress can be determined by the singularity of each individual, encompassing factors based on one's personality, self-esteem and organic resistance.² Therefore, a stressor may be perceived differently by two people, showing that responses to stressful stimuli are individual and subjective, reflecting the adaptive capacity of each individual.¹⁻⁷

In this sense, an organism's response to stress is called General Adaptation Syndrome (GAS). This syndrome is divided into three phases: alarm reaction; stage of resistance; and stage of exhaustion. In the alarm reaction, the individual triggers a flight-or-fight response in an attempt to defend him/herself from a threat. When the stress-inducing factor is removed, the body tends to resume its initial balance.⁸

In the resistance stage, the stressing agent is constant and the body tries to adapt and reestablish balance. If the situation persists and the individual is not able to adapt, the third stage takes place. The stage of exhaustion is a situation in which the individual becomes exhausted due to being progressively disturbed by stressors, and feels completely depleted due to an excessive number of activities coupled with a constant lack of control of an emotional basis.⁸

If the exhaustion stage is not corrected and ended, physiological and psychological damage may become irreversible. The main sorts of damage include lower back pain, changed antibody

and immunoglobulin rates, increased production of cortisol, and opportunistic diseases associated with low immunity levels, depression, and other mental disorders.⁶⁻⁹

Stress may occur in various phases of life; however, entering college may lead many students to experience stress due to various changes and adaptations demanded by a new environment and context.² When an individual enters college, s/he starts a new stage in life, which leads to changes that require one to adapt to the new environment and new life circumstances, but students may find it difficult to deal with this new context.¹⁰⁻¹¹

Nursing is by nature a profession prone to stress because it directly deals with life and human finitude, with the possibility of suffering, delicate situations and complex decision-making that involves human beings in their wholeness. 12-13 This study is justified by the fact that nursing students are those who present the greater exacerbation of stress symptoms when compared to students in other fields, 6 nursing students are more frequently exposed to ethical conflicts that trigger high levels of stress. 14

Due to the multifactor nature of academic stress and a gap in the knowledge on the topic given the few scientific studies addressing undergraduates, the lack of knowledge concerning factors perceived by nursing students to be stressors in the academic environment was identified as a research problem. Hence, this study's aim was to identify stress triggers in the educational environment from the perspective of nursing students.

METHOD

This descriptive-exploratory, quantitative study¹⁵ was developed with nursing students from a public university in the south of Brazil. The activities of the nursing program are developed over the course of nine semesters, with an enrollment of 30 students per semester. The program has a workload of 4,055 hours distributed into mandatory courses, practical classes, supervised training and complementary activities.

A total of 146 nursing undergraduate students attending from the 1st to the 9th semester took part in this study. Non-probabilistic convenience sampling was used so that the participants were selected according to their presence and availability at the time and place of data collection.¹⁶

The Escala de Avaliação de Estresse em Estudantes de Enfermagem (AEEE) ¹⁷ [Stress Assessment in Nursing Students Scale] was used to collect data.

The scale's first part contains questions to characterize the sample. The instrument is composed of 30 questions assessed on a four-point Likert scale: 0 – "I do not experience this situation", 1 – "I do not feel stressed with this situation", 2 – "I feel a bit stressed with this situation", and 3 – "I fell very stressed with this situation". The dependent variable stress was obtained by calculating the average score of all constructs, which ranged from a minimum score of 0 to 1 (no stress) to a maximum score of 2 to 3 (stress). Similar to the dependent variable stress, each domain was assessed on a four-point Likert scale (from 0 to 3). The questionnaire was applied in the classrooms from August to September 2013.

The 30 original questions were submitted to exploratory factor analysis resulting in the questions being grouped into six constructs, totaling 20 variables. Ten out of the 30 questions from the original questionnaire were excluded because they presented low factor load (< 0.45) or because they did not present conceptual adherence to or coherence with the proposed dimensions. The six constructs were named: environmental and professional relationships; commuting; academic education; practical knowledge acquired; time and leisure; professional insecurity. The instrument's level of reliability was verified using Cronbach's alpha, which was 0.791. The Cronbach's alphas of the constructs were between 0.63 and 0.80, confirming the reliability of the categories generated.¹⁶

SPSS (Statistical Package for Social Sciences) version 22.0 was used to analyze data, which were submitted to three different analyses: 1) descriptive statistics using the Chi square test and frequency distribution of constructs and respective indicators (identifying the intensity or frequency with which they experience phenomena; 2) analysis of variance (ANOVA), performed among different groups of respondents, according to the sample's characteristics, to verify potential significant differences among the phenomenon's dimensions and sociodemographic and academic variables. The sociodemographic and academic variables such as age, sex, current grade, number of courses, satisfaction, and relationship with professors, were taken into account; and 3) regression analysis was intended to assess the factors that had greater effect on the individuals' perceptions regarding the phenomenon under study.

This study is part of the macro project "Patient advocacy and coping in nursing: possibilities to exercise power in the face of moral suffering" (CNPq's call for papers from 2012). The study followed Resolution N. 466/12 from the National

Council of Health and the project was assessed by and approved by the local Institutional Review Board (report No. 2013-52).

RESULTS

In regard to sociodemographic data, there were 146 students, 130 (89%) of which were female and 16 (11.0%) were male, aged 24.91 years on average, ranging from 17 to 52 years old; 23 years old was the median with a frequency of 11.6%. Most students were single (72.6%), 82,9% reported no children; 43.8% lived with their parents.

Among the students, 24,7% had an average income between two and tree times the minimum wage, 67,8% took part in extra curricular activities and 56,24% received a scholarship. Most students reported no paid jobs (73.3%), while, 21.2% reported having a job in the health field.

In regard to sociodemographic data, most students (92.5%) had Internet access and 54.8% used public transportation, while 27.4% reported no consumption of alcohol and 24.0% reported sporadic alcohol consumption. Only 5.5% reported being smokers, while 54.1% reported no exercise and 76.0% reported some kind of leisure activity.

In regard to academic characteristics, the third semester of the program concentrated the highest number of students (15.8%). Most reported (59,6%) a good relationship with professors and 51,4 with classmates. Nursing was the first option for 72.6% of the participants, while 52.1% reported satisfaction with their choice; 41.8% chose nursing because they identify themselves with the profession, while 52.1% reported having an interest in the health field; 50.0% reported they never considered quitting the program.

In regard to the results obtained in the descriptive analysis (Table 1), we identified that the Time and Leisure dimension presented the highest mean (2.28), showing the students perceived this factor to be the most important source of stress. The questions that composed this construct also presented the highest means among the instrument's variables: E26 "lack of time for leisure" (2.22) and E30 "lack of time to rest" (2.34).

The Academic Education dimension presented the second highest mean for the instrument (1.88) followed by the practical knowledge acquired (1.84). The construct Commuting obtained a mean of (1.48), while the construct Environmental and Professional Relationships presented a frequency of (1.41). Finally, the dimension Professional Insecurity presented the lowest mean among the constructs (1.34). The dependent variable stress presented a mean of 1.63, indicating the students perceived themselves to be stressed.

Table 1 - Factors that trigger academic stress from the perspective of nursing students. Rio Grande, RS, Brazil, 2014

Factors	n	Mean
Environmental and professional relationships	145	1.41
e-06 Communication with other professionals in the supervised training unit	145	1.10
e-07 The environment in the supervised training clinical unit	145	1.30
e-08 Communication with the professionals of other sectors in the supervised training facility	145	1.10
e-16 Perceiving the difficulties that involve relationships with other professionals in the field	144	1.52
e-19 Perceiving professional responsibility when working under a supervised training context	145	1.77
e-20 Observing conflicting attitudes from other professionals	144	1.80
e-25 Experiencing the activities as a nurse receiving training in a supervised training context	143	1.36
Commuting	145	1.48
e-11 Distance between college and home	145	1.42
e-22 Public transportation used to get to college	145	1.67
e-24 Distance between most supervised training facilities and home	144	1.43
e-29 Public transportation to get to supervised training facility	144	1.44

Factors	n	Mean
Academic education	145	1.88
e-10 Method adopted to assess theoretical content	143	1.82
e-14 Degree of difficulty performing extra class activities	145	1.68
Practical knowledge acquired	145	1.84
e-21 Feeling little knowledge has been acquired for the practical test	144	2.06
e-27 Perceiving the relationship between theoretical knowledge acquired in the program and future professional performance	145	1.84
e-28 Assimilating theoretical-practical content provided in classroom	145	1.63
Time and leisure	145	2.28
e-26 Lack time for leisure	144	2.22
e-30 Lack time to rest	144	2.34
Professional insecurity	145	1.34
e-04 Perform care procedures in general	144	1.19
e-05 New situations that you may experience in clinical practice	143	1.51
General stress	145	1.63

Analysis of variance ANOVA (Table 2) showed potential differences among the groups of data by analyzing the means of the constructs of the variable stress. When relating stress dimensions with socio-academic variables, we verified that students from early semesters were less stressed than those in later semesters.

In regard to socio-academic items, the students who enrolled in a smaller number of courses

presented the highest levels of stress. Students who reconcile a job and school also presented a higher perception of stress, while stress was even greater among those working in the health field. Stress was more intensively perceived among students who had children. These students considered dropping out of the program, did not have a good relationship with their professors, and did not have Internet access or an appropriate place to study.

Table 2 - Relationship among stress dimensions and sociodemographic and academic variables. Analysis of variance ANOVA. Rio Grande, RS, Brazil, 2014

Environmental and professional relationships			
Current semester	n	Mean	ρ
5 th to 9 th semester	70	1.57	0.08
1st to 4th semester	73	1.27	
No. of courses	n	Mean	ρ
≥5	70	1.27	0.12
<5	73	1.56	
Appropriate place to study	n	Mean	ρ
No	32	1.34	0.02
Yes	111	1.44	
	Commuting		
Lives with:	n	Mean	ρ
Partner, family or friend	128	1.46	0.50
Alone	17	1.64	

Smokes No	n 137	Mean 1.46	ρ 0.03
Yes	8	1.84	
Acad	demic training		
Children	n	Mean	ρ
No	120	1.82	0.27
Yes	25	2.18	
Works	n	Mean	ρ
No	106	1.75	0.20
Yes – health field	31	2.32	
Yes – other field	7	1.80	
Considered dropping out school	n	Mean	ρ
No	73	1.71	0.05
Yes	69	2.08	
Relationship with professors	n	Mean	ρ
Regular, poor, or very poor	15	2.77	0.01
Great or good	128	1.79	
Internet	n	Mean	ρ
No	9	2.55	0.01
Yes	134	1.85	
Appropriate place to study	n	Mean	ρ
No	32	2.11	0.46
Yes	111	1.83	
Practical l	knowledge acquired		
Appropriate place to study	n	Mean	ρ
No	32	1.86	0.06
Yes	111	1.83	
Considered dropping out school	n	Mean	ρ
No	73	1.65	0.34
Yes	69	2.02	
Relationship with professors	n	Mean	ρ
Regular, poor, or very poor	15	2.48	0.49
Great or good	128	1.76	
Tin	ne and leisure		
Lives with:	n	Mean	ρ
Partner, family or friend	128	2.30	0.25
Alone	17	2.17	
Profes	sional insecurity		
Considered dropping out school	n	Mean	ρ
No	73	1.19	0.44
Yes	69	1.53	
Current semester	n	Mean	ρ
5 th to 9 th semester	70	1.47	0.16
1 st to 4 th semester	73	1.26	

Note-All the variables presented in the table were significantly different at a 5% level.

The results of the linear regression analysis indicated significant effects of the six constructs on stress, at 5% level. The adjusted coefficient of

determination for the regression model was 0.99, that is, the questionnaire explained 99% of academic stress-related causal factors.

Table 3 - Regression analysis of the stress variable. Rio Grande-RS, Brazil, 2014

Variable	ΒΕΤΑ (β)	SIGMA (ρ)
Environmental and Professional Relationships	.435	.000
Commuting	.415	.000
Academic education	.311	.000
Practical knowledge acquired	.228	.000
Time and leisure	.184	.000
Professional insecurity	.160	.000

Note: significant differences at 5% level.

Hence, regression analysis shows that the students perceive the stress dimensions Practical knowledge acquired and Academic education as the factors with the highest impact on the perception of student stress, triggered by the sociodemographic variable Relationship with professors, as represented in figure 1.

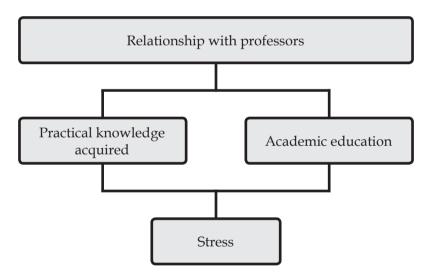


Figure 1 - Representation of sociodemographic and academic factors that contribute to the perception of academic stress

DISCUSSION

In regard to the causes of academic stress, we verified that nursing students experience various stressful academic situations. These stressful situations to which students are exposed may decrease quality of life and academic performance, impacting the physical and psychological health of these future professionals from the health field.¹⁷

Considering that stress is a multifactor phenomenon, identifying its variables is necessary to manage, handle and control events, seeking to improve the quality of life of these students. Among situations perceived by students as stress triggers, the Time and Leisure dimension stood out so that lack of time to rest and performing leisure activities was identified as the main cause of academic stress,

which may be explained by the program's extensive workload and extra-class activities.

Not having time to be with family, relatives or to take part in leisure activities causes a stress overload leading to physical and emotional exhaustion. ¹⁹ In this sense, other studies addressing academic stress report the presence of psychological symptoms, such as irritation, anxiety, and low self-esteem, mostly caused by an excessive number of daily activities and a lack of time for leisure. ¹⁰⁻²⁰

Academic demands coupled with lack of time to be with family, to rest or for leisure cause a stress overload that, consequently, leads to physical and emotional exhaustion. This study identified senior students as experiencing the highest levels of stress, a fact that may be explained by the replacement of theoretical and practical classes with supervised training, which decreases the number of courses but increases workload, a characteristic of the program's final semesters. Similar results were found in other studies addressing this same population, reinforcing the representativeness of this factor in regard to the causes of academic stress. ²⁰

Making time to rest and for leisure was one of the strategies used to prevent stress.²¹ An excessive number of tasks will overload students and prevent them from having time to rest and/or for leisure, which plays an important role in the emergence of stress.²²⁻²³ At the same time, difficulty managing time to perform daily activities negatively impacts the students' quality of life, as excessive dedication to studies may hinder the maintenance of interpersonal relationships with friends and family, causing physiological changes in sleep patterns, decreasing exercise, increasing irritability, which will be reflected in psychological health and social relationships.²⁴

Another factor that interferes in the management of time is Commuting and the consequent financial expenditure to travel from home to college or to supervised training facilities, as well as the use of public transportation, which the students identified as stress factors. The difficulties faced to get to supervised training facilities or to the campus are seen as factors that cause stress.²⁵ Likewise, one study verified that the time spent in commuting to college influences one's perception of stress.²² This factor is more frequently observed among those semesters with supervised training, the facilities

of which are located off the campus premises or in outlying neighborhoods, in primary health care units or other facilities distant from the campus, demanding better time management and organization on the part of students.²²

Other situations perceived to be stressors concern the Practical Knowledge Acquired. The students perceive that the low level of theoretical and practical knowledge acquired over the course of the undergraduate program is a stress trigger factor that leads to a feeling of insecurity regarding professional prospects. Feelings of insecurity and lack of preparedness in regard to professional practice, generated by inexperience, insecurity and inefficiency of knowledge acquired during the program, collaborate in the emergence of stress.²¹⁻²⁵

Professional Insecurity is also a stress factor. Feeling unprepared and too inexperienced to perform care practices show that the population under study feels insecure in relation to their professional prospects. Concerns and fear of the job market demands coupled with insecurity concerning their academic training are considered events that lead to stress.²⁵

In this context, when initiating practical activities, students feel unprepared because they are expected to associate theoretical with practical knowledge to provide quality care. This is a time in which students feel tense, when insecurity and uncertainty escalate in the face of new situations that demand skill and experience.²⁶

It is not, however, only at the beginning of academic life that feelings of unpreparedness affect students. These results are reported by another study that shows professional qualification can trigger insecurity among senior students, once they assume their roles as nurses and experience the challenges and responsibilities of professional life.²⁷

The feelings of insecurity senior students experience emerge from their perceptions of a lack of ability to meet the demands of professors in regard to practical activities. Professors' demands concerning level of knowledge lead students to perceive their practice as insufficient, leading them to consider dropping out of the program, as they believe they will not be able to meet their professors' expectations. Professors' expectations.

Students who need to reconcile a job and college also sometimes consider quitting the program, especially those in the health field, possibly due to the overload of activities, which is coupled with uninterrupted contact with issues of health and disease, both in their academic and professional lives. Students feel physically and psychologically exhausted when they try to reconcile work and their studies, which leads to stress.²⁵ Difficulty in reconciling work and studies may lead students to become less involved with academic activities, which may lead to dissatisfaction and, consequently, to the possibility of quitting the program.²⁰

There are also issues related to Academic Education that address academic demands, such as the complexity of academic tasks/projects, and how the institution assesses knowledge; these constitute important sources of stress. The students perceive the assessment systems to be exhausting, which leads to an overload of tasks and, consequently, to a lack of time to perform other academic activities. 18-19

The complex assessment systems and level of difficulty demanded in both tests and tasks, as well as theoretical and practical characteristics, are considered sources of stress in the academic environment.²² Additionally, the relationship between teaching methods and the theoretical content of classes, ²⁷⁻²⁸ together with a daily overload of tasks and a lack of time to perform all the activities required, are important sources of academic stress.²⁹

Environmental and professional relationships were also perceived by this study's participants as stress triggers due to the characteristics of the clinical environment, as well as communication and interaction difficulties experienced with professionals during supervised training and practical activities. Various studies report these difficulties faced in the interpersonal relationships of students with their classmates and working teams in the hospital environment as important causes of academic stress.^{2-18,20-22,25-29}

Interpersonal relationships in the academic environment are potential stressors, however, difficulties faced in social interactions are not restricted to the professionals and colleagues of a professional environment. ²⁹ Not having a good relationship with professors was also identified as an aggravating factor in the perception of the academic environment

as a stress trigger. Factors related to instruction and guidance provided by professors to deal with situations faced under supervised training conditions are perceived as stress triggers. This situation is highlighted as the second most important cause of stress among college students, preceded only by their concerns with tests.²

The relationships established in the academic environment play an important role in the quality of care provided by the students. ²⁸Therefore, academic situations perceived by nursing students to be stressors vary in intensity according to socio-academic variables, which are correlated. Hence, students perceive they lack time to be with friends or to take part in leisure activities as the most important causes of academic stress.

These difficulties in regard to managing time to perform daily activities negatively affect the students' quality of life, as excessive dedication to studies hinders their interpersonal relationships with friends and family, causing physiological changes in sleep patterns, decreased exercise, increased irritability, impacting their psychological health and social relatinships.²⁴ In this sense, these students need to learn how to manage stress to improve their quality of life and, consequently, the quality of care delivery.

CONCLUSION

This study identified the factors that trigger stress in the academic environment from the perspective of nursing students by identifying stressful academic situations. The students perceive the Time and leisure dimension to be the most important cause of academic stress. Lack of time to rest, to take leisure and socialize may overload students and lead to emotional burden, so they perceive stress more intensively.

We highlight that association between the variable Relationship with professors and the dimensions Practical knowledge acquired and Academic Education, shows that relationship difficulties experienced between professors and students lead them to perceive these dimensions as potential stress triggers. Demands arising in the academic environment regarding knowledge coupled with a constant dissatisfaction on the part of faculty members lead

students to perceive that they have acquired a low level of knowledge and their practices are insufficient because they believe they do not meet their professors' expectations.

In this sense, universities and faculty members need to review their practices in order to contribute to quality academic education, considering the important role they play in recognizing and understanding the students' psychological needs during their formal education. Therefore, support projects need to be designed to support students and provide opportunities for dialogue and professional support, so that signs of stress are detected early and properly managed, avoiding, correcting or minimizing its effects.

This study's limitations include the fact that it was performed in a specific population of students from a public university in the south of Brazil, and for this reason results cannot be generalized. Other studies are needed to explore this subject more deeply and obtain further evidence concerning the causes of academic stress in the educational environment of nursing.

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