RESEARCH

PERCEIVED STRESS LEVEL OF NURSING STUDENTS AT A PUBLIC UNIVERSITY IN BRAZIL

NÍVEL DE ESTRESSE PERCEBIDO EM ESTUDANTES DE ENFERMAGEM EM UMA UNIVERSIDADE PÚBLICA DO BRASIL

NIVEL DE ESTRÉS PERCIBIDO EN ESTUDIANTES DE ENFERMERÍA DE UNA UNIVERSIDAD PÚBLICA DE BRASIL

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ABSTRACT

Objective: to identify the levels of stress perceived in undergraduate Nursing students at a public university in southern Brazil. Method: a descriptive, cross-sectional study with a quantitative approach. Data were collected between December 2018 and March 2019, using a Likert scale. Results: the participants of the study were 164 Nursing students from different stages of graduation from a public institution in the south of the country. Domains were projected from the PSS-10 issues, conflating positive and negative feelings. The students, in general, reached a mean level of perceived stress (25.4). In the positive domains, the established mean was 1.8 and in the negative domains, it was three. Students in the second, fourth and sixth stages reached higher levels when compared to the general mean. The students in the ninth stage, on the other hand, had the lowest mean of stress. Conclusion: the university is not the only source of stress for Nursing students, but it must be considered that stressors are present during training. The level of stress is an important indicator of mental health among students.
Keywords: Stress, Psychological; Students, Nursing; Education, Higher; Education, Nursing.

RESUMO

Objetivo: identificar os níveis de estresse percebido em estudantes de graduação em Enfermagem em uma universidade pública no Sul do Brasil. Método: estudo descritivo, transversal, de abordagem quantitativa. Os dados foram coletados entre dezembro de 2018 e março de 2019, por meio de escala tipo Likert. Resultados: participaram do estudo 164 estudantes de Enfermagem de diferentes fases da graduação de uma instituição pública do Sul do país. Projetaram-se domínios a partir das questões da PSS-10, confluindo sentimentos positivos e negativos. Os estudantes, em geral, alcançaram nível médio de estresse percebido (25,4). Nos domínios positivos a média estabelecida foi de 1,8 e nos negativos foi de três. Os estudantes da segunda, quarta e sexta fases alcançaram níveis mais elevados na comparação com a média geral. Já os estudantes da nona fase obtiveram a menor média de estresse. Conclusão: a universidade não é a única fonte de estresse para os acadêmicos de Enfermagem, porém há de se considerar que os estressores estão presentes durante a formação. O nível de estresse é um indicador importante de saúde mental entre os acadêmicos.
Palavras-chave: Estresse Psicológico; Estudantes de Enfermagem; Ensino Superior; Educação em Enfermagem.

RESUMEN

Objetivo: identificar los niveles de estrés percibido en estudiantes de licenciatura en Enfermería de una universidad pública del sur de Brasil. Método: estudio descriptivo, transversal con enfoque cuantitativo. Los datos se recolectaron entre diciembre de 2018 y marzo de 2019, utilizando una escala Likert. Resultados: participaron del estudio 164 estudiantes de Enfermería de diferentes etapas de egreso de una institución pública del sur del país. Los dominios se proyectaron a partir de los problemas de PSS-10, combinando sentimientos positivos y negativos. Los estudiantes, en general, alcanzaron un nivel medio de estrés percibido (25,4). En los dominios positivos, el promedio establecido fue de 1.8 y en los dominios negativos fue de tres. Los estudiantes de la segunda, cuarta y sexta fase alcanzaron niveles más altos en comparación con el promedio general. Los estudiantes de la novena fase, por otro lado, tuvieron el estrés promedio más bajo. Conclusión: la universidad no es la única fuente de estrés para los estudiantes de enfermería, pero se debe considerar que los factores estresantes están presentes durante la formación. El nivel de estrés es un indicador importante de la salud mental entre los académicos.
Palabras clave: Estrés Psicológico; Estudiantes de Enfermería; Educación Superior; Educación en Enfermería.

INTRODUCTION

Stress is a natural and necessary process by the body to react to danger. This adaptive process is always active, causing physical and emotional changes. Every time a threat is perceived by the organism, preventing the individual's well-being, and when its coping is not effective, there is a process of exhaustion, leading to suffering.[1]

Many studies have identified stress in workers due to high rates of depression, anxiety, and excessive tiredness. The evidence highlights that Nursing is one of the stressful professions in the health sector due to the work process established in the profession, which is complex and generates stress of different natures.[2]

In higher education institutions, there was an increase in research on the phenomenon, given the high probability of its interference in the teaching-learning process. A study conducted with 267 participants identified that Brazilian Nursing students show more emotional vulnerability than Portuguese students.[3] Students from the Philippines, Greece, and Nigeria report high levels of stress and impaired quality of life.[4] The student does not only deal with challenges academic, but with personal and social conflicts. Although there are many determinants of stress, the literature identifies that the family environment, socioeconomic factor, increased responsibility, extracurricular activities, and high clinical workload are associated with these high levels. The excesses of theoretical, practical, and research tasks have been emphasized in international studies as an important indicator that predisposes to tension.[5,6]

Since this environment favors challenging and complex experiences that generate stress, anxiety, distress, and fear, we tested the following hypothesis: there are high levels of stress in students at a higher education institution in southern Brazil and it is an aggravating factor for the teaching-learning process. For this event to be understood, we need to evaluate to understand to what extent it is perceived as relevant or threatening.

Given the above, this study aimed to identify the level of stress perceived by Nursing students at a public university in southern Brazil.

METHOD

This is a cross-sectional study with a descriptive design, carried out in a public institution in the southern region of Brazil. The undergraduate Nursing course is organized in 10 academic semesters. In 1978, it was proposed to develop a full-time Nursing degree, totaling 4,860 class hours (4,050 hours). In the year of the re-

search, there were 364 students enrolled. The exclusion criterion adopted was the impossibility of online contacts, such as an e-mail registration not registered at the course secretary, out of date, or returning to the sender.

We built an electronic form online using Google Forms®. This form was sent to all students of the Nursing course in 2018. The form sent had the Informed Consent Form as the initial screen. Upon acceptance, the student was redirected to the instrument. The participation of students was voluntary and the characterization of the people was based on the name and stage of the course.

The instrument used was the Perceived Stress Scale - PSS-10. The PSS-10 aims to quantify the levels of stress perceived in the person, which relates events and situations that have occurred based on the last 30 days. It has 10 items to evaluate using a five-point Likert scale. The results can vary from 0-40 score points, with no cutoff point. As stress is understood as a variant, the higher scores indicate the perceived stress. To avoid mistakes in filling out, the questions were addressed with specific instructions: "the more, the better" or "the less, the better" concerning the perception of stress.

After analyzing the PSS-10, the thoughts and feelings signaled in the content of each question were systematized, which were called "projected domains" (Figure 1). This classification occurred from the perspective of emotional intelligence.[7]

We entered the data into the Excel for Windows® 2010 program. First, we recorded positive items. Soon after, we added all the items. For data analysis, we used simple descriptive statistics. We calculated the mean and standard deviation of students' perceived stress.

The results are presented in three axes of analysis: a) analysis and elaboration of the domains projected in the feelings and thoughts from the questions of the PSS-10 instrument; b) level of stress perception of undergraduate Nursing students; c) stress perception score compared by stage/semester of the course. We discussed the findings based on the literature on the topic.

The guidelines of the Conselho Nacional de Saúde (BR), Resolution 466/2012 were respected, which deals with respect for human dignity and special protection for participants in scientific research involving human beings. This project was approved by the Human Research Ethics Committee, NP 2,228,998.

RESULTS

The people were characterized based on the name and stage of graduation. There were 164 Nursing stu-

dents in the study: six students from the first stage, five from the second stage, 29 from the third, 12 from the fourth, 14 from the fifth, 13 from the sixth, 21 from the seventh, 26 from the eighth, 14 from the ninth and 24 of the 10th stage.

Given the need for understanding, we projected the domains from the questions of the PSS-10 scale, conflating positive and negative feelings.

Analysis and elaboration of the domains projected in the feelings and thoughts from the questions of the PSS-10 instrument

The initial four questions of the PSS-10 instrument reinforce positive emotions, while the others project emotional aspects of the negative domain.

Level of perceived stress of undergraduate Nursing students

The application of the PSS-10 instrument in the set of stages (an indicator for all students of the course) resulted in the minimum and maximum means of 1.6 (SD = 0.9) and 3.3 (SD = 1.0), respectively. In the calculation of the general mean of perceived stress, the mean was 25.4 (SD = 6.2).

The applied PSS-10 has five points on a Likert-type scale (0-4), being dimensioned as follows: (0) never, (1) rarely, (2) sometimes, (3) infrequently, and (4) very frequent. In the questions of the positive domain (P1-P4), whose aspects referring to projected thoughts and feel-

ings are of the positive domain (P1-resilience, P2-satisfaction, P3-self-control, and P4-balance), the filling instructions "the more, the better" was performed since scoring less in these domains represents more perception of stress. In the undergraduate Nursing course, positive questions (P1, P2, P3 and P4) had an mean of 1.8, distributed as follows: P1-resilience: 1.6 (SD = 1.1); P2-satisfaction: 1.8 (SD = 1.0); P3-self-control: 1.6 (SD = 0.9); P4-balance: 2.2 (SD = 1.1).

Regarding the perceived stress from the negative domain questions (P5-P10), whose aspects related to projected thoughts and feelings are negative domain (P5-frustration, P6-incompetence, P7-impatience, P8-anxiety, P9 -tension, P10-impotence), the filling instructions were "the less the better". The mean presented by the participants was 3.0, distributed as follows: P5-frustration: 2.9 (SD = 1.0); P6-incompetence: 2.9 (SD = 1.1); P7-impatience: 3.3 (SD = 0.9); P8-anxiety: 3.3 (SD = 1.0); P9-tension: 3.0 (SD = 1.1); and P10-impotence: 2.6 (SD = 1.2).

Stress perception score by stage/semester of the course

In this stage, the mean and standard deviation (SD) of the stress perception per stage for the course were analyzed (mean = 25.4, SD = 6.2).

The mean perceived stress in the first stage was 23.9. In the scope of positive questions, we found a minimum score of 1.2 (SD = 1.0) in the domain P2-satisfaction, while in the domain P4-balance the maximum mean of 1.8 (SD = 1.2) was reached. Those of the in-

Figure 1 - Emotional aspects and domains projected, by the question, from PSS-10

	Emotional aspects of positive domain	
	Projected domain	Question
P1	Resilience	How often have you been confident in your ability to deal with your problems?
P2	Satisfaction	How often did you feel that things went the way you expected?
P3	Self-control	How often have you been able to control irritation in your life?
P4	Balance	How often did you feel that all aspects of your life were under control?
	Emotional aspects of negative domain	
	Projected domain	Question
P5	Frustration	How often were you upset about something that happened unexpectedly?
P6	Incompetence	How often have you felt that you have been unable to control important things in your life?
P7	Impatience	How often have you been nervous or stressed?
P8	Anxiety	How often did you think you couldn't handle all the things you had to do?
P9	Tension	How often have you been angry about things that were out of your control?
P10	Impotence	How often did you feel that the problems had accumulated so much that you would not be able to solve them?

verse domain had a score of 2.0 (SD = 1.3) in P10-impotence; in P8-anxiety, the mean was 3.3 (SD = 1.0).

The second stage obtained an overall mean of 29.4 (SD = 6.9) on the perceived stress scale. In the positive questions, the lowest score was in the domain P3-self-control (mean = 1.6 with SD = 1.1) and the highest score was in the domain P4-mean balance (mean = 2.4, SD = 1.5). In the negative questions, the lowest score was in the P6-incompetence domain with 3.2 (SD = 1.8). The highest score was in the P7-impatience domain (mean = 4.0 with SD = 0.0), which attests to the perception of nervousness and stress.

For students in the third stage, the perceived stress level was 25.7. The lowest mean domain was P3-self-control, with 1.5 (SD = 0.9); the strengthened domain was P4-balance with a mean of 2.2 (SD = 1.0). In the negative questions, the P6-incompetence domain had a minimum mean of 2.7 (SD = 1.1) and a maximum of 3.3 (SD = 0.9) in the P7-impatience domain.

The fourth stage had a perceived stress level of 28.9. In the positive domain, the perception of stress varied between 2.1 (SD = 0.7) in P3-self-control and 2.7 (SD = 0.9) in P4-balance, following the other stages of the course. The mean in the negative questions differed by a minimum of 3.0 (SD = 0.9) in P5-frustration and a maximum of 3.7 (SD = 0.7) in P8-anxiety.

In the fifth stage, the mean perceived stress was 26.0. In the positive domain variables, the mean established was 1.6 (SD = 0.9) in P3-self-control and 2.2 (SD = 1.1) in P4-balance. For the negative domains, the

scores differed by 2.6 (SD = 1.3) in P10-impotence and 3.5 (SD = 0.8) in P8-anxiety.

The sixth stage reached the perceived stress score of 28.6 (SD = 5.0). Regarding the positive domains, the P1-resilience obtained a mean of 1.6 (SD = 1.0), while the P4-balance reached a mean of 2.3 (SD = 1.0). In the negative domains, the score evidenced was in the P5-frustration and P10 impotence domains, which also reached a minimum mean of 3.2 (SD = 1.2). And in P7-impatience the mean was 3.8 (SD = 0.8).

For students in the seventh stage, the perceived stress level was 26.4 (SD = 4.8). In the positive questions, the domain P2-satisfaction obtained a score of 1.6 (SD = 0.8) and P4-balance reached a high score of 2.3 (SD = 1.2). The negative domains ranged from 3.0 (SD = 1.0) in P10-impotence to similar scores of 3.5 (SD = 0.9) in P7-impatience and P8-anxiety.

The perceived stress level of the eighth stage was 25.7 (SD = 5.4). Regarding the positive domains, P3-self-control with 1.8 (SD = 0.8) stands out, followed by P4-balance with a mean of 2.6 (SD = 0.8). In the negative domains, P1-impotence with a minimum mean of 2.3 (SD = 1.1) and P7-impatience with a high mean of 3.5 (SD = 0.9) were evidenced.

For students in the ninth stage, the stress level was characterized with a mean of 21.6 (SD = 7.2). In the positive domains, the scores obtained varied between 1.2 (1.1) in P1-resilience and 1.8 (SD = 1.1) in P4-balance. The minimum score obtained was in the P10-impotence domain, with a mean of 2.0 (SD = 1.3). The domains

Table 1 - Distribution of mean and standard deviation of perceived stress in Nursing students for the questions called "positive" in PSS-10 by stage of the course

	P1- resilience	P2- satisfaction	P3- self-control	P4-balance
Stage	Mean (±SD)	Mean (±SD)	Mean (±SD)	Mean (±SD)
1	1.7 (1.0)	1.2 (1.0)	1.7 (1.0)	1.8 (1.2)
2	2.4 (0.9)	2.0 (1.0)	1.6 (1.1)	2.4 (1.5)
3	1.9 (0.9)	2.0 (1.1)	1.5 (0.9)	2.2 (1.0)
4	2.5 (0.5)	2.2 (0.9)	2.1 (0.7)	2.7 (0.9)
5	1.9 (0.9)	1.6 (1.2)	1.6 (0.9)	2.2 (1.1)
6	1.6 (1.0)	1.9 (1.0)	1.7 (1.0)	2.3 (1.0)
7	1.6 (1.0)	1.6 (0.8)	1.7 (1.0)	2.3 (1.2)
8	1.8 (1.0)	2.0 (0.6)	1.8 (0.8)	2.6 (0.8)
9	1.2 (1.1)	1.8 (1.0)	1.3 (0.8)	1.8 (1.1)
10	1.2 (0.9)	1.6 (1.0)	1.4 (0.9)	1.9 (1.1)
	1.6 (1.0)	1.8 (1.0)	1.6 (0.9)	2.2 (1.1)

*SD Standard Deviation.

Table 2 - Distribution of mean and standard deviation of perceived stress by students for the questions called "the less, the better" in PSS-10 by stage of the course

	P5-frustration	P6-incompetence	P7-impatience	P8-anxiety	P9-tension	P10-impotence
Stage	Mean (±SD)	Mean (±SD)	Mean (±SD)	Mean (±SD)	Mean (±SD)	Mean (±SD)
1	2.7 (0.7)	3.0 (1.1)	3.2 (1.0)	3.3 (1.0)	3.3 (0.8)	2.0 (1.3)
2	3.4 (0.8)	3.2 (1.8)	4.0 (0.0)	3.6 (0.5)	3.4 (0.9)	3.4 (0.9)
3	3.1 (0.9)	2.7 (1.1)	3.3 (0.9)	3.1 (1.0)	3.0 (1.2)	2.9 (1.0)
4	3.0 (0.9)	3.2 (1.1)	3.4 (0.9)	3.7 (0.7)	3.1 (1.2)	3.0 (1.1)
5	2.9 (1.2)	2.9 (1.2)	3.4 (0.9)	3.5 (0.8)	3.4 (1.0)	2.6 (1.3)
6	3.2 (1.2)	3.3 (0.9)	3.8 (0.8)	3.8 (0.4)	3.7 (0.6)	3.2 (1.2)
7	3.1 (0.9)	3.1 (0.9)	3.5 (0.9)	3.5 (0.9)	3.3 (0.9)	3.0 (1.0)
8	2.8 (0.9)	3.0 (1.0)	3.5 (0.9)	3.2 (1.0)	2.7 (1.1)	2.3 (1.1)
9	2.5 (1.0)	2.8 (1.3)	2.9 (1.0)	2.9 (1.1)	2.5 (1.2)	2.0 (1.3)
10	3.0 (1.1)	2.9 (1.1)	3.4 (1.0)	3.1 (1.2)	2.5 (1.1)	2.1 (1.3)
	2.9 (1.0)	2.9 (1.1)	3.3 (0.9)	3.3 (1.0)	3.0 (1.1)	2.6 (1.2)

that achieved a high score were P7-impatience and P8-anxiety, with 2.9 (SD = 1.0 and SD = 1.1, respectively).

The stress level of students in the 10th stage was 23.1 (SD = 7.1). The positive proposed questions reached a different score, with a minimum mean of 1.2 (SD = 0.9) in P1-resilience and a maximum of 1.9 in P4-balance (SD = 1.1). Those with a negative approach reported a minimum mean of 2.1 (SD = 1.3) in P10-impotence and a maximum of 3.4 (SD = 1.0) in P7-impatience.

DISCUSSION

This research showed that the Nursing students of the researched institution have a mean level of perceived stress. Corroborating a study carried out in Fortaleza with 455 students, 64% of them experienced stress, and for some, this event was experienced with more intensity. In Singapore, some undergraduate periods stood out when reaching higher than mean values, equivalent to what we found in this study.[5,6]

Some authors address the complexity of assessing stress because, in addition to being multifactorial, it is unstable. The elaboration of the projected domains based on the questions of the PSS-10 instrument had the purpose of better understanding the questions, assisting in the interpretation of the question, feelings, and emotions that show the reader the purpose evaluated in the instrument. The instrument used for data collection is subject to different interpretations since it has positive and negative questions, in addition to what should not be used for the diagnosis of occupational stress or to identify the determinants of stress. Therefore, the projected domains corroborate the psychometric characteristics evaluated in the instrument.[8-10]

The undergraduate Nursing course of the researched public institution, according to the Course Pedagogical Plan (CPP) is well evaluated in terms of teaching quality. In the 2013 National Student Performance Exam (Exame Nacional de Desempenho de Estudantes - ENADE), the course was awarded four concepts and by the National Institute for Educational Studies and Research Anísio Teixeira (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira - INEP), concept five as a course of excellence by the Ministry of Education. The course has an innovative program, the Dual Diploma Program (Programa de Dupla Diplomação), which inserts the Nursing student in a cooperating university in another country, aiming at obtaining a double diploma, expanding the internationalization of teaching, allowing different experiences for the student. In this context, the expected profile of the graduates is generalist nurses, trained to care, manage, educate and research, able to intervene in the processes of human living. Upon entering the Nursing course, students are faced with a range of possibilities that stimulate their responsibility for their academic development and commitment. These factors, since they are inherent to the course, bring an emotional burden to incoming students and alumni, who can contribute to different ways of experiencing stress.[11-13]

Stress is understood as intrinsic to education, so we need to consider the several factors that interfere in this process. The literature from different cultural contexts correlates socio-demographic vulnerability factors such as gender, marital status, socioeconomic vulnerability, and

housing situation as predictors of stress. In the academic scenario, the current year, practical activities, professional communication, the environment, and professional training are characterized by stressful situations. Thus, when dealing with stress in the academic environment, it is necessary to recognize the student in its entirety.[10,14-16]

Regarding positive domains, the highest overall mean was in the P4-balance domain, expressing that students feel confident to control important aspects of their life. Self-confidence, once strengthened, affects the development of skills, personal and emotional growth to face different situations in graduation. The Nursing CPP mentions subjects such as Experiential Learning I, II, and III proposed in the first, third, and fifth stages of graduation and extension projects that favor self-knowledge and self-perception, transforming emotions and experiences and leading the student to reflect on social, academic and professional life. According to Diogo (2016), training strategies such as practices aimed at self-knowledge, reflective learning, exercises focused on the emotional issue and group dynamics lead the student to recognize his difficulties, to accept constructive criticism in a more relaxed way, leading to adaptation to new experiences and promoting autonomy and trust.[4,12,13,17]

On the other hand, students considered the domain P3-self-control as the least recognized, expressing the loss of emotional control over the irritations of life. Studies reveal that feelings such as demotivation, nervousness, anger, anxiety, and intolerance are obstacles to the self-control of stress. In a survey carried out in the South of Brazil with 146 students, the stressors of academic life, such as the lack of time for leisure and rest activities, lead to emotional exhaustion, perceiving stress more intensely. Thus, even if stress is experienced differently by each person, establishing the integration of scientific development with emotional development is essential for the student's teaching-learning process.[16,18,19]

As for the negative domains, most students showed the P7-impatience and P8-anxiety domains as the most frequent, reinforcing the other research results. These domains reflect feelings of incapacity and irritation when students have activities and obligations to fulfill since, in a society where multitasking is overvalued, the accomplishment of a single thing is a limitation. Thus, the Nursing course can influence the perception of high demand due to the requirements of higher education, raising these feelings. There are 4,980 hours of class, being distributed in internships, complementary and optional activities taken, which interferes in the student's learning and development full time. Studies indicate that problematic time management is the most stressful factor among Nursing courses. Academic activities and exams linked to internship hours, personal demands, such as research grants, work, and social life are goals outlined by the student and when not performed, it generates feelings such as frustration and self-recovery.[16,18]

Unlike the findings that bring a high level of stress in the last stages of graduation, this study confirms that students in the second stage, the first year of the course, obtain the highest level of perceived stress. The domain P7-impatience obtained the maximum score (4.0), concluding that in the last month Nursing students were frequently nervous and stressed.[12]

At this point in their training, students go through a range of course units considered basic in the general formation of Health Sciences, such as Anatomy, Histology, Biology, Pharmacology, and Physiology. In the study, these subjects are not directly linked to the Nursing course, being offered in other departments. This can be an element that raises the stress of students, as these subjects are developed in a way that is less integrated with the process of training in Nursing and course management. Although the Nursing CPP indicates a problematic, critical, reflective, and dialogical teaching process, the other subjects linked to other departments and courses are connected to other pedagogical trends that do not necessarily agree with the same course proposal, which can generate frustrations in these students.[18]

Considering the three highest means of perceived stress, together with the second stage, the fourth and sixth stages stand out, which follow specificities in the curriculum that may be related to the prevalent negative domains shown below, since the general positive domains are the same from those stages.

For students in the fourth stage, the most prevalent negative domain was P8-anxiety, showing that students feel distressed and worried, creating expectations for the different issues and problems. The transitions experienced, future thoughts, and the non-objectification of the fulfillment of certain tasks intensify feelings of restlessness and discomfort. These changes are frequently experienced by Nursing students, since each semester new scientific learnings and practical fields emerge, continuing until the end of the course. In the fourth curricular stage, the joining of Nursing procedures with clinical reasoning occurs since they spend more time in a practical environment, associating theoretical knowledge with the experience, which is essential to carry out critical and reflective care. The stimulation of clinical reasoning from the beginning of academic activities contributes to better

development of skills, helps in the decision-making process, and works on self-confidence, developing the construction of a nurse who remains impermanent, inquiring about his practice. The development process of clinical reasoning must occur gradually since it is complex and requires time. This is a challenge to students since the analysis reflects on the life and care of another person and the teachers are responsible, in addition to the stimulus, the use of different teaching strategies.[17]

For students in the sixth stage, the negative domain of greatest perception was P7-impatience, indicating that students often feel stressed and nervous when something becomes uncomfortable. In this stage, students provide care aimed at the health of women, newborns, children, and adolescents. According to the main axis, the student is inserted in primary and secondary care, passing through several internship fields to experience the situations in which the nurse is inserted. During this period, the diversification of the internship fields is identified, the student is inserted more in practice than in theory, relying on evaluation processes in each environment, which can become a stressful experience for the student. Reinforcing, a survey carried out in the Northeast of Brazil found that students of the sixth-period experience higher levels of stress than in other stages, showing more concern with their academic formation and professional future.[20]

The lowest rates of perceived stress were identified in the ninth, 10th, and third stages. Regarding the ninth stage, which obtained the lowest mean stress, the curriculum is based on clinical practice and preparation of the Final Thesis (FT). This shows that, despite the increased responsibility in clinical practice and diversity in the construction of research, the increase in academic maturity is a positive factor concerning coping with the experiences of stress. The students in this stage had the lowest overall index in the positive domain P2-resilience, which represents insecurity in dealing with personal problems (family, financial aspects, work, living alone). A study carried out in India with 102 students identified a negative relationship between resilience and stress, highlighting the need to strengthen the process of recovery and management of the phenomenon.[21]

Although studies do not advance the reflection on how stress levels interfere with learning, the stress experienced by the student constantly tends to highlight negative feelings. The different levels of stress, when analyzed by stage, open new perspectives for an assessment of the determinants of stress, a condition of extreme importance in teaching-learning.

CONCLUSIONS

The study indicated that students, in general, reached a mean level of perceived stress. The students of the second, fourth, and sixth stages reached higher levels than the general mean, while the students of the ninth stage had the lowest mean of stress. The level of stress is an important indicator of mental health in students but it needs to be evaluated and contextualized with other indicators to have meaning and representativeness.

Stress, being a complex, multifaceted, and multifactorial phenomenon, is influenced by several aspects that can enlarge or reduce its linear. The university is not the only source of stress for Nursing students, but it must be considered that stressors are present during training and influence the construction of the future Nursing professional.

We understand that quantitative research is a trigger for the theme, offering an overview of the researched phenomenon. In the case of this study, it was essential to identify the magnitude of the phenomenon in the students' lives and the way they deal with it. We believe that qualitative deepening can be an interesting resource for understanding in more depth.

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