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PERCEPTION OF STRESS IN NURSING ACADEMICS PERCEPÇÃO DE ESTRESSE NOS ACADÊMICOS DE ENFERMAGEM PERCEPCIÓN DE ESTRÉS EN LOS ACADÉMICOS DE ENFERMERÍA

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ABSTRACT

Objective: to evaluate the perception of stress as low, medium and high and the relationship between the perception of stress and sociodemographic characteristics in Nursing students. Method: a cross-sectional quantitative study of 136 nursing students from a private educational institution using the sociodemographic questionnaire and the Perceived Stress Scale (PSS-14). The results were submitted to statistical analysis using the SPSS program, version 17.0. The data was presented in tables. Results: the majority of academics (63 = 46.3%) presented mean perception of stress. The sociodemographic variables did not present a statistically significant association with the perception of stress. Conclusion: a significant number of university students present average perception of stress. It is observed that married and alcoholic students presented higher perception. Already performing physical activity assists in a lower perception of stress. It is important to note that the perception of medium or high stress found in this study is worrying considering the health of these participants and their professional future. The data from this study contributes scientifically to the provision of subsidies and helps to identify sociodemographic variables that may vulnerabilize academics in the perception of stress. Descriptors: Physiological Stress; Psychological stress; Nursing Student; Education, Nursing; Education; Learning.

Objetivo: avaliar a percepção de estresse em baixa, média e alta e a relação entre a percepção do estresse e características sociodemográficas em acadêmicos de Enfermagem. *Método*: estudo quantitativo, transversal, em que foram incluídos 136 acadêmicos de Enfermagem de uma instituição particular de ensino, com o uso do questionário sociodemográfico e a Escala de Estresse Percebido (PSS-14). Os resultados foram submetidos à análise estatística por meio do programa SPSS, versão 17.0. Os dados foram apresentados em tabelas. Resultados: a maioria dos acadêmicos (63=46,3%) apresenta média percepção de estresse. As variáveis sociodemográficas não apresentaram associação estatisticamente significativa com a percepção de estresse. Conclusão: número significativo de universitários apresenta média percepção de estresse. Observa-se que os acadêmicos casados e que ingerem bebida alcoólica apresentaram maior percepção. Já realizar atividade física auxilia em uma menor percepção de estresse. É relevante observar que a percepção de estresse média ou alta constatada neste estudo é preocupante considerando a saúde desses participantes e seu futuro profissional. Os dados deste estudo contribuem cientificamente com o fornecimento de subsídios e auxiliam a identificar variáveis sociodemográficas que podem vulnerabilizar os acadêmicos na percepção do estresse. Descritores: Estresse Fisiológico; Estresse Psicológico; Estudante de Enfermagem; Educação em Enfermagem; Educação; Aprendizagem.

RESUMEN

Objetivo: evaluar la percepción de estrés en baja, media y alta y la relación entre la percepción del estrés y características sociodemográficas en académicos de Enfermería. Método: estudio cuantitativo, transversal, en que se incluyeron 136 académicos de Enfermería de una institución particular de enseñanza, con uso del cuestionario sociodemográfico y la escala de estrés percibido (PSS-14). Los resultados se sometieron al análisis estadístico a través del programa SPSS, versión 17.0. Los datos se presentaron en tablas. Resultados: la mayoría de los académicos (63=46,3%) presentan una media percepción de estrés. Las variables sociodemográficas no presentaron asociación estadísticamente significativa con la percepción de estrés. Conclusión: número significativo de universitarios presenta media percepción de estrés. Se observa que los académicos casados y que ingeren bebida alcohólica presentaron mayor percepción. Ya la realización de actividad física auxilia en una menor percepción de estrés. Es importante observar que la percepción de estrés media o alta constatada en este estudio es preocupante considerando la salud de esos participantes y su futuro profesional. Los datos de este estudio contribuyen científicamente con el suministro de subsidios y ayudan a identificar variables sociodemográficas que pueden vulnerabilizar a los académicos en la percepción del estrés. Descriptores: Estrés Fisiológico; Estrés Psicológico; Estudiante de Enfermería; Educación en Enfermería; Educación; Aprendizaje.

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INTRODUCTION

In society, there has been growing concern about stress. Research on stress is observed in several types of studies, including those that highlight stress in workers and in academics.¹

The word stress has been widely used and is associated with feelings of discomfort increasing, each day, the number of people who define themselves as stressed or judges individuals, in the most adverse situations, as stressed people.²

The term stress has been used for years. But in health, the first time he appeared was due to studies done by Hans Selve in 1936, and was defined as a non-specific reaction on the body both mental and somatic. The stressor causes stress reactions in physical, individuals. mental, or emotional described the General Adaptive Syndrome (SAG) where adrenal cortex dilatation, lymphatic organ atrophy, gastrointestinal ulcers, weight loss and other changes are reactions that the body suffers when exposed to stressors. The syndrome is divided into three consecutive phases.³

Alarm phase: the organism presents a reaction of aggression or flight against the aggressor, being an adaptation behavior. Both reactions are understood as healthy, because it is possible to return to the equilibrium situation. Resistance phase: after the alarm phase, if there is still resistance, the body and concentrates changes the internal reaction in a single organ, which triggers Local Adaptation Syndrome (LAS). Exhaustion phase: the organism is exhausted, due to the excess of activities, occurring, then, the organ failure that was mobilized in the syndrome of local adaptation resulting in organic diseases.3

Later studies find another phase identified as almost exhaustion, staying between the stages of resistance and exhaustion, generating a feeling of exhaustion that increases the chance of emotional unrest in individuals. Not all people go through all levels and will only reach the stage of exhaustion when the stressor was very strong, and it is not possible to adapt the organism.⁴

Stress can be defined as a situation of acute or chronic tension, which produces a change in physical behavior and emotional state, and a response of psychophysiological adaptation, which may be negative or positive in the organism. Its effects on the individual can be described as unpleasant situations that provoke pain and suffering. It is characterized by an adaptive response to the new situations as the threatening ones and is considered an individual process, with variation on the perception of tension, that can produce

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several types of physical, psychic and cognitive symptoms that require prolonged adaptive responses to overcome or adapt environments with stressors.⁵

Stress responses encompass hormonal mechanisms that begin with the stimulation of the neuropophysis in the brain and countless events involving the adrenal glands, having action in the stomach, heart and lymphatic system and mainly affecting the immune system, which tends to be compromised, decreasing the levels of endorphin and serotonin, responsible for the elevation of the self-esteem of the human being.⁶

When the individual is exposed to a permanent or prolonged stress situation, it numerous physical lead to psychological consequences such as: increase in blood pressure and a greater susceptibility to Stroke; infection due to decreased immune response; gastrointestinal disorders such as diarrhea and constipation; food disorders; excessive gain or loss of weight; insulin resistance associated with type 2 diabetes and exacerbation of diabetes, and tension-type headache; insomnia; decreased sexual desire and temporary impotence in men; exacerbation of premenstrual tension in women. in addition to concentration; inhibition of learning; memory impairment, as well as exacerbation of skin lesions and depression.⁷⁻⁹ In the face of these harms, studies point to a concern with stress and, more and more, research is done. Among the many researches on stress, we highlight the ones that investigate the presence of stress in the academics.

It is observed, in the literature, the interest in stress in nursing students, who are frequently exposed to stressors. One of the reasons is that they are constantly placed in front of the new in the classroom, in the laboratory, in emergency care, in practical classes and stages, dealing with pain and death.¹⁰

Academics experience moments of stress stemming from various factors such as scientific and technological development, changes in the teaching / learning process, contexts of practice, differences between what they learn in theory and the reality they face, almost permanent submission to an evaluation process, among many others. Considering these factors, it is necessary to reflect on the situations generating stress during the Nursing course and how to overcome them.¹¹

The academic's perception of stress can influence their manifestations. Studies have already pointed out a strong relationship

between the perception and symptoms of stress. In the United States, we studied 28,753 people with some health problems and it was identified that there is a risk of death for those who have been under severe stress. However, it was observed that among those who had strong stress but did not believe that it was harmful to their health, the risk of death decreased.¹²

Another study in Cambridge, with 25 men women, and 25 randomly instructed participants to believe that a stressful situation would be beneficial and healthy to the body. After placing them in a stressful situation, which involved public speaking and arithmetic calculations in front of possible audience, it was to observe cardiovascular responses more adaptable to stress, with an increase in cardiac efficiency and a decrease in vascular resistance. Therefore, participants who came to believe that stress was important their stressed, performance were less more leading confident, to physiological and cognitive benefits. 13

In this way, the importance of perception of stress allows the individual to be aware of it, as well as to stimulate coping behaviors. Given this, there is a need for studies that propose to understand perception of these academics in relation to stress factors triggered during the academic life.3 Thus, stressful experiences involve different coping strategies, as a form adaptation and survival, however. vulnerability individual of the academic contributes to these experiences favoring his illness. 14

Considering the above, it is important the study that seeks to identify the perception that nursing students have about stress, given the damage that stress can cause in physical and mental health, as well as damages to the care performed by these in personal and professional life.

OBJECTIVE

• To evaluate the perception of stress in low, medium and high and the relation between the perception of the stress and sociodemographic characteristics in Nursing students.

METHOD

A quantitative, cross-sectional study carried out at a private higher education institution in Araçatuba, a city in the interior of São Paulo, in the northwest region of the State. The study was conducted between March and April 2016.

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In the course, 165 university students were enrolled. However, 136 were selected, according to the pre-established eligibility criteria, namely: to be enrolled regularly in the Nursing course; be present in the classroom at the time of collective application of the instrument and be at least 18 years old. Exclusion criteria: absence in the classroom.

Also, the Perceived Stress Scale (PSS-14) was used for the collection. The instrument measures the degree to which individuals perceive situations as stressful. This scale was initially presented with 14 items (PSS 14) and validated with ten (PSS 10) and four questions (PSS 4). In the study, the validated scale was used with 14 items.

The total of the scale is the sum of the scores of these 14 questions and the scores can range from zero to 56.15 The higher the score on the scale, the higher the level of perceived stress. Values above the 75th percentile should be considered indicative of a high level of stress.16 Therefore, although the instruments do not offer scores of the perception of stress, they only consider that the higher the values, the higher the perception and the level of stress, this considering the information above, chose to use the low, medium and high level of perceived stress according to the percentiles. Thus, the percentile below 25 was considered low level of perception. Percentiles between 25 and 75 were considered medium level of perception and the percentile above 75, high level of perceived stress. In this study, the low level of perception was in the scores below 24; the average level of perception, in the scores of 25 to 33 and the high level of perception, in the scores equal or above 34.

The application of the questionnaire was carried out in the classroom, through prior scheduling and authorization of the responsible teacher, so as not to interfere with the planned actions. The time taken to complete the instrument was approximately 20 minutes.

The study followed the norms and ethical procedures proposed in Resolution 466/2012 of the National Council of Ethics in Research involving human beings. The project was approved by the Research Ethics Committee under opinion No. 14.673.389 (CAAE: 54071016.0.0000.5379). All participants were informed about the purpose, research procedures, rights and possible risks and signed the Free and Informed Consent Form.

After collecting the questionnaires, the data were tabulated and stored in a spreadsheet (Microsoft Excel). The results

analysis was 5% (alpha = 0.05).

were submitted to statistical analysis through the Statistical Package for the Social Science (SPSS) program for Windows, version 17.0. In the data analysis, descriptive statistics were used for calculations of frequency, mean and standard deviation. The Chi-square test of Person (12) was applied to evaluate the association between sociodemographic variables and the perception of stress. The level of significance adopted throughout the

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RESULTS

This study aims to evaluate the perception of stress in nursing students through PSS 14 and its relation with sociodemographic characteristics. Academicians had a mean age of 24.15 (± 7.12) and, according to table 1, the sample was characterized mainly by women, with 118 (86.8%) participants.

Table 1. Sociodemographic variables of nursing students. Araçatuba / SP. Brazil.2016.

Brazil.2016.			
Variables			Total N(%)
		N(%)	
Sex	Male	18(13.2)	136(100)
	Female	118(86.8)	
Scholarship	No	80(58.8)	136(100)
	Yes	56(41.2)	
Marital Status	Single/divorced	100(73.5)	136(100)
	Married/with partner	36(26.5)	
Ethnicity	White	90(66.2)	136(100)
	Black	8(5.9)	
	Others	38(27.9)	
Works	No	65(47.8)	136(100)
	Yes	71(52.2)	
Lives with:	Family	129(94.9)	135(100)
	Others	6(4.4)	
Children	No	105(77.2)	136(100)
	Yes	31(22.8)	
Physical Activity	No	92(67.6)	136(100)
	Yes	44(32.4)	
Drinks alchohol	No	87(64.0)	136(100)
	Yes	49(36.0)	
Smokes	No	131(96.3)	136(100)
	Yes	5(3.7)	
Health problems	No	92(67.6)	136(100)
	Yes	44(32.4)	
Medication	No	81(59.6)	136(100)
	Yes	55(40.4)	
Leisure activity	No	56(41.2)	136(100)
	Yes	80(58.8)	

Regarding the perception of stress, the Nursing students of the study, in the application of PSS 14, presented an average of 28.76 (\pm 8.24). It was possible to observe that the majority (63 = 46.3%) presented average perception of stress, according to figure 1.

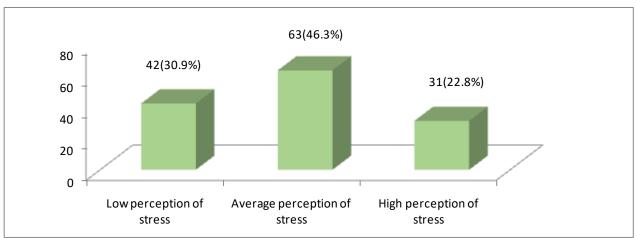


Figure 1. Classification of the perception of stress of nursing students. Araçatuba / SP. Brazil, 2016.

In table 2, it is possible to observe that the sociodemographic variables did not present a statistically significant association with the perception of stress. However, it is observed that in the married / partner group, the perception of high stress is higher (12 = 33.3%)

when compared to the single / divorced group (23 = 23.0%). It is observed that those who drink alcohol (15 = 30.6%) present a higher percentage in the high perception of stress in relation to those who do not drink (16 = 18.4%).

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Table 2. Distribution of sociodemographic variables of nursing students and association with the perception of stress. Araçatuba / SP. Brazil.2016.

Variables		Low perception of stress N (%)	Average perception of stress N (%)	High perception of stress N (%)	Total N (%)	Value of P
Sex	Male	5 (27.7)	6(33.4)	7(38.9)	18(100)	0.155
	Female	30(25.4)	64(54.2)	24(20.4)	118(100)	
Scholarship	No	22(27.5)	40(50.0)	18(22.5)	80(100)	0.850
	Yes	13(23.2)	30(53.6)	13(23.2)	56(100)	
Marital	Single/divorced	18(18.0)	59(59.0)	23(23.0)	100(100)	0.409
status	Married/with partner	7(19.5)	17(47.2)	12(33.3)	36(100)	
Ethnicity	White	26(28.9)	46(51.1)	18(20.0)	90(100)	0.666
	Black	1(12.5)	5(62.5)	2(25.0)	8(100)	
	Others	8(21.0)	19(50.0)	11(29.0)	38(100)	
Works	No	19(29.2)	30(46.2)	16(24.6)	65(100)	0.482
	Yes	16(22.5)	40(56.4)	15(21.1)	71(100)	
Lives with:	Familia	33(25.6)	66(51.1)	30(23.3)	129(100)	0.779
	Others	2(33.3)	3(50.0)	1(16.7)	6(100)	
Children	No	27(25.7)	53(50.4)	25(23.9)	105(100)	0.862
	Sim	8(25.8)	17(54.9)	6(19.3)	31(100)	
Drinks	No	27(31.1)	44(50.5)	16(18.4)	87(100)	0.094
alchohol	Yes	8(16.3)	26(53.1)	15(30.6)	49(100)	
Smokes	No	34(26.0)	67(51.1)	30(22.9)	131(100)	0.924
	Yes	1(20.0)	3(60.0)	1(20.0)	5(100)	
Leisure	No	11(19.6)	33(59.0)	12(21.4)	56(100)	0.289
activity	Yes	24(30.0)	37(46.2)	19(23.8)	80(100)	

DISCUSSION

In this study, it was possible to observe that nursing students presented considerable capacity for perceiving stress, with an average of 28.76 stress perception. This data is seen as a positive aspect, given that, in the literature, we observe studies conducted with academics with averages of perception higher than those of this study. A study carried out in India, with 180 nursing students, found an average of 43.33. ¹⁶ In a study carried out in France, 578 health academics were investigated and they presented an average of 42,30, ¹⁷

Regarding the sociodemographic variables, in this study, it was possible to observe that the majority is composed of women and presents average perception of stress. Studies indicate that women appear to be more vulnerable to perceived stress than men.17-8 Women suffer more from changes in university life, from leaving home, adjusting to the new mode of socialization, being a process of growth in which they feel more pressured, which influences the perception of stress. 19-20

Regarding the marital situation, it was possible to observe that the married / with partner present a higher percentage of perceived stress than the unmarried divorced. This data corroborates the literature where it is observed that, when comparing the percentages of stress in relation to marital status in university students, a predominance of stress among married people occurs due to increased responsibility, the concern to reconcile study and family expenses and to administer the time to take care of the house, children and the university responsibilities. 21-2

As to ethnicity, the majority of individuals with a mean perception of stress were predominant among blacks, and in the low perception of stress, the predominance of whites occurred. When compared to the literature, blacks are more exposed to stress because of their social allocation, hampering adaptive capacity and predisposing to a high level of stress.²³

Regarding to work or not, this study indicated that there was no difference in the perception of stress. In the literature, a study with Pedagogy scholars shows that academics who combine study with work show less attention, more fatigue, and occasionally a higher level of stress.²⁴

Living or not with relatives, in this study, demonstrated not to influence the different perceptions of stress, since both groups presented average perception. Already in the it is observed that family literature, interactions are of great importance in the quality of life of academics in relation to the perception of stress, since those who live with their relatives are more assisted supported in relation to the conditions of the own dwelling that involve responsibilities . In addition, in periods of greater stress such as stages, the presence of the family plays a very important role, as it assists the academic in overload, since the responsibility increases and the academic stays with patient situations that often involve, pain and death.²⁵

Regarding smokers, it was identified that smokers have a higher percentage in mean perception of stress than nonsmokers, as observed in the literature, where smokers also present higher perceptions of stress, taking

into account that stress is considered one of the factors that lead the individual to tobacco use. $^{26-7}$

Regarding those who have children, both groups present average percentage in the perception of stress. Already in the literature, in studies with nurses, the stress is lower in those who have children.²²

Study students who drink alcohol have a greater perception of stress than those who do not. Studies indicate that alcohol consumption follows the pattern of culture, linked to any situation related to a victory, a defeat, a reason for joy or sadness, and stress can be one of the reasons that lead to alcoholic drinks.²⁸

In leisure activity, it is observed that in the perception of stress, the highest percentage involves those who practice weekly leisure activity. The mean perception of stress had the highest percentage in those who did not, indicating that leisure activity decreases stress. These data corroborate the literature indicating that leisure activities, pleasurable social interactions, such as weekend travel, sports and lifestyle changes, cause a decrease in stress levels, causing students to have better performance and quality of life.29

Some limitations can be pointed out for this investigation, such as the evaluation of only one private educational institution of a medium-sized Brazilian municipality, thus restricting the evaluation of other realities. Therefore, new studies with an expanded sample are still necessary to know the relationship between self-esteem and stress in Nursing students.

The main scientific advances of this study provide subsidies and highlight the need for arrangements for the prevention of stressrelated health disorders, mainly pointing different levels of stress perception among students, according sociodemographic variables. This information can help in the discussions about the emotional problems present in the academic environment and, thus, improve the quality of life of the university students. In addition, the detailing study provides the percentages on the perception of stress in academics, which may aid in new studies.

CONCLUSION

It is concluded that, in this study, the majority of the students present average perception of stress. The sociodemographic variables did not present a statistically significant association with the perception of stress. However, it is observed that married

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and alcoholic drinkers present greater perception of stress, whereas physical activity helps in a lower perception of stress.

The main contributions of this study is that it helps to identify some sociodemographic variables that may make academics vulnerable to perceiving stress. Preventive measures are necessary to reduce the perception of stress, stimulating coping behaviors with psychological support, social and leisure activities, so that these future professionals do not enter the market work with health problems related to stress.

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