Mental Disorders and Associated Factors in Nursing Students

Paula Parreira Filgueiras¹, José Dionísio de Paula Júnior¹*, Lucas de Souza da Silveira², Tays Aparecida da Silva³, Ronaldo Chicre Araujo¹, Sandra Maria Jannotti Quintão¹ and Risiel Cristine Pires Kouch Torres¹

¹President Antonio Carlos Foundation – FUPAC, Brazil

²Universidad Federal of Viçosa – UFV, Brazil

³Universidad Federal of Juiz de Fora – UFJF, Brazil

*Corresponding author: José Dionísio de Paula Júnior; Department of Nursing, Foundation President Antônio Carlos (FUPAC), Rua Lincoln Rodrigues Costa, No 165. Brazil

ARTICLE INFO

ABSTRACT

Objective: to describe the prevalence of common mental disorders and their related factors in undergraduate nursing students. Method: this is an analytical study with cross-sectional temporality with approaches of quanti-qualitative variables, carried out with 125 undergraduate students, 104 of them female, from an institution in the southeastern Minas Gerais, with the application of the Self-Reporting Questionnaire (SRQ-20).

Results: in the analysis of emotional conditions in nursing students, the predominance was female, with 69 women (66.35%) presenting indicators for CMD, while among men, 5 (23.80%) presented CMD while 16 (76.20%) did not. For females, only the physical activity variable was significant with p-value (0.02) with a ratio of 2.69, i.e., this means that the chances of a woman not practicing physical activity to present CMD is approximately twice as high as the practicing one. In the male gender, family income showed p-value (0.02) of significance, with a ratio of (14.39), which allows us to infer that family income higher than two salaries for men is 14 times more likely to present CMD compared to lower income.

Conclusion: the need for preventive and interventive actions related to the occurrence of common mental disorders in Brazilian college students of the nursing course, especially of the female gender, since it is clear the exposure to vulnerability factors.

Keywords: Mental Disorders; Students; Nursing; Education; Higher; Epidemiology

Abbreviations: SRQ: Self-Reporting Questionnaire; CMD: Common Mental Disorders; ICT: Informed Consent Term; WHO: World Health Organization; CEP: Committee for Research with Human Beings

Introduction

The university population has grown more and more in recent years, both in public and private institutions, despite the fact that the number of places is still not enough to meet the demand for admission of the population. This growth has generated more heterogeneous social strata in Higher Education Institutions, that is, different socioeconomic and cultural profiles, different age groups, different skills and academic experiences. Therefore, the need arises for universities to try to serve everyone equally. Thus, one of their biggest concerns is related to the academic failure of students, which is manifested in various ways, such as low grades, dropout, missing courses and pending subjects [1]. Faced with the new requirements of Higher Education in relation to High School, when entering college, the student goes through a process of academic adaptation. This adaptation to Higher Education can be costly, as the teaching methodology differs from that of high school, external demand decreases and responsibility, free-

dom and maturity increase. This experience is usually accompanied by personal questions in relation to several areas, including: ethical, vocational, social and academic. Academic experiences are defined as a composite of situations relevant to the context of university life [2].

Difficulties in adapting can be stressful for students, so they can use coping strategies, also called coping, to deal with these situations. These strategies are emotional, cognitive and behavioral resources that allow minimizing suffering and stress. Studies show that coping strategies can be divided into active or based on social support, which translates into a good adaptation to the academic context. On the other hand, behaviors based on escape or avoidance behaviors demonstrate a low index of adjustment to the institution [3]. During the beginning of their academic training, students encounter challenges that they must face in different aspects. As related to the institution and academic life, they require organization and commitment to learning, in addition to cognitive efforts. In the social aspects and aimed at personal development, there is the relationship to be established with other academics and professors, learning to deal with differences and with authorities in a mature way. To face the tasks of psychosocial and vocational development, autonomy, commitment and decision-making are essential [4].

The great milestone that is for many students to enter a Higher Education is followed by several stressful factors that make the adaptation complex, such as increased responsibilities, a new network of interpersonal relationships, financial and personal issues and, still for many, distancing from the family environment, which involves leaving home. Just the fact of entering college itself can generate anxiety and expectations, positive or negative. The way in which the academic deals with the different challenges encountered in this environment influences his personal maturation and his development as a future professional. During graduation, he will get to know the course better, discover better the functions of the chosen profession and acquire knowledge to later practice it [5]. The academic carries with him a variety of attributes, characteristics, previous student experiences and family traits. All this contributes to the student's expectations and their commitment to the institution and studies. When making decisions related to staying in college, what matters most is the feeling of belonging to something, being a member of a community. Integration with the environment based on interpersonal relationships and participation in activities, as well as interaction with professors, can be measured in the form of grades and in the development that occurs over the undergraduate years [4].

The character of undergraduate courses is of scientific and technical training, aiming at preparation for the job market, where the academic, in the end, is faced with the need to be concretized in an occupation, the mission of the institution must cover the integral development academic rather than focusing only on the strictly professional training of the student. The duration of the course should not be limited to formal education. Another point that must be taken into account is academic satisfaction, which changes throughout the course due to the experiences lived over time and the characteristics of the individual himself [6,7]. The quality of teaching must be based on three pillars, the faculty, the academics and the structure. And it is essential to understand the relationship of mutuality between the three factors so that there is quality of teaching in the subjects covered. Therefore, there must be a reassessment of old paradigms in order to create a motivating environment in the institution so that it is possible to make teaching effective, efficient and effective. In other words, it is necessary to adapt the physical structure of the institution, add new materials and equipment, train employees and ensure the seriousness of the selection process [8].

Interest in studies with university students and their experiences has grown and this interest is justified by the increase in the number of new students, as mentioned above. Thus, it became essential to know the academic reality, as a way of identifying possible factors of difficulties or dropping out of the course and the quality of life of academics, in addition to aspects related to the student's psychosocial development [9]. Quality of life aims to observe physical, mental and social well-being and also how the individual manages to organize himself in relation to self-improvement. Due to this, there is a growing increase in the number of studies on quality of life, and the results show that health professionals, the elderly, caregivers, public servants and prisoners have a deficit in this regard. Due to this fact, new research focused on the academic context has been carried out with the aim of measuring this factor, since a new and growing phenomenon is the student-worker who works to pay for their studies [10].

Therefore, it is essential that the institution can offer the most fragile academics a support service that promotes adaptation to the academic context. What commonly occurs is the fact that young entrants raise their expectations, usually somewhat unrealistic, about the institution can cause decreases in academic development. This need shows a higher level of success as academic experiences are better experienced. These experiences can be divided into four dimensions, academic, personal, social and vocational [11,12]. Common Mental Disorders (CMD) correspond to non-psychotic symptoms characterized by insomnia, fatigue, irritability, forgetfulness, difficulty concentrating and somatic complaints. Due to the importance of the topic, with the aim of promoting better support to the most fragile and unmotivated students and based on review studies and field studies found about academic experiences and the applicability of the SRQ-20. That way, oh the aim of the study is to describe the prevalence of common mental disorders and their related factors in undergraduate Nursing students.

Method

It is an analytical study with transversal temporality with approaches of quanti-qualitative variables related to emotional behavior. The research scenario took place in a Higher Education Institution in the city of Ubá, Minas Gerais, Brazil, with undergraduate students

in Nursing, from the first to fourth year of the course, with students regularly enrolled, present on the day of data collection and who are not consuming Psychopharmaceuticals. Data collection took place in the classroom, at a time predetermined by the pedagogical direction. Of the total of 158 students, only 125 participated in the research, according to the selection criteria, where the research objectives were explained to the students, the voluntary nature of participation and the confidentiality of their responses and identities. Thus, upon the reading and acceptance, they will sign the Free and Informed Consent Term (ICT).

For the collection of information, the Self-Reporting Questionnaire (SRQ-20), a self-administered instrument developed by the World Health Organization (WHO)composed of 20 questions that assess neurotic symptoms such as: anxiety, depression, psychosomatic reactions, irritation and mental fatigue, with dichotomous response scales (yes/no). Not establishing a specific diagnosis of the existing disease or condition. For the selection of the sample, we opted for the use of non-probabilistic methods to choose the participants, since they had to participate voluntarily and attend the Nursing course, at any time. The choice of periods is based on the differences in experience acquired during the academic training process over the five years of the course.

Affirmative responses to the questionnaire were added up with a cut-off point of 7/8 for CMD classification [13]. Fisher's Exact Test was performed in R software. (R Development Core Team, 2018)and verified the independence of variables (gender, marital status, family income, age, children, physical activity and semester attended) with classification of presence of CMD. This test aims to assess the independence of qualitative variables, especially in studies with little observed data [14]. as is the case with the number of men present in this study. According to Agresti14, the null hypothesis of this test is: The variables act independently. The p-value of Fisher's Exact Test was obtained to test this hypothesis. In cases where this value was greater than a significance level (5%), the null hypothesis was not rejected, indicating that the variables act independently, that is, the levels of a variable do not interfere with the presence or absence of TMC When the p-value was less than the significance level, the null hypothesis was rejected, indicating a dependence between the levels of the variable and the presence of CMD. For those cases in which the test was significant, the odds ratio was obtained, which allows us to infer about the dependence of the variable with the presence of CMD. H_0 $\alpha=0,05$ The work was approved by the Ethics Committee for Research with Human Beings (CEP) in accordance with Resolution No. 466, of December 12, 2012, which regulates ethics and research involving human beings, protocol 06/20.

Results

A total of 125 students participated in the research, with a predominance of females 104 (83.2%), with marital status of 93 (74.4%) as single. In an analysis of the emotional conditions in Nursing students, the predominance was the female gender, with 69 women (66.35%) presented indicators for CMD, while among men, 5 (23.80%) presented CMD while 16 (76, 20%) do not present. With the application of Fisher's Exact Test, a positive relationship between gender and presence of CMD was verified, with p-value (0.0004). Furthermore, the test also presented an odds ratio of 6.2103, that is, in this population studied, the chances of a woman having CMD is approximately 6 times greater when compared to men. Thus, with the dependence between the levels of the gender variable, the study describes the genders separately, see (Table 1). For females, only the physical activity variable was significant with p-value (0.02) with reason 2.69, that is, this means that the chances of a woman not practicing physical activity to present CMD is approximately twice as high as that of a practitioner.

Table 1: Analysis of Common Mental Disorders among male and female nursing students.

Genre	Variable	levels	Absence	Presence	p-value
Feminine	Marital status	Married/Stable union	4(22.22%)	14(77.78%)	0.41
		Single/Widow/Divorced	31(36.05%)	55(63.95%)	
	Family income	up to two salaries	23(34.85%)	43(65.15%)	0.83
		More than two salaries	12(31.58%)	26(68.42%)	
	Age	up to 25 years	26(34.21%)	50(65.79%)	1
		Over 25 years old	9(32.14%)	19(67.86%)	
	Children	No	27(33.33%)	54(66.67%)	1
		Yes	8(34.78%)	15(65.22%)	
	Physical activity	No	16(25.00%)	48(75.00%)	0.02*
		Yes	19(47.50%)	21(52.50%)	
	Semester	1st period-4th period	20(28.99%)	49(71.01%)	0.18
		5th period-8th period	15(42.86%)	20(57.14%)	

Male	Marital status	Married/Stable union	2 (50.00%)	2 (50.00%)	0.22
		Single / Widowed / Divorced	14(82.35%)	3(17.65%)	
	Family income	More than two salaries	3(42.86%)	4(57.14%)	0.02*
		up to two salaries	13(92.86%)	1(7.14%)	
	Age	up to 25 years	11(73.33%)	4(26.67%)	1
		Over 25 years old	5(83.33%)	1(16.67%)	
	Children	No	15(78.95%)	4(21.05%)	0.42
		Yes	1 (50.00%)	1 (50.00%)	
	Physical activity	No	9(64.29%)	5(35.71%)	0.12
		Yes	7(100.00%)	0 (0.00%)	
	Semester	1st period-4th period	11(78.57%)	3(21.43%)	1
		5th period-8th period	5(71.43%)	2(28.57%)	

Note: Fisher's exact test (p-value) of significance. α=0,05.

For the variables marital status, family income, age, children and semester, the p-values obtained were not significant for females. Thus, there is no type of association between the levels of these variables and the presence of CMD. Analyzing the male gender, family income showed p-value (0.02) of significance, with a ratio of (14,39), allows us to infer that a family income greater than two salaries of men is 14 times more likely to have CMD compared to a lower income. For the variables marital status, age, children, physical activity and semester, p-values were not significant for males.

Discussion

This study showed significant relationships between the variables gender, physical activity and family income with the prevalence of common mental disorders. As for the variables marital status, age, child(ren) and semester attended, there was no positive relationship for the presence of CMD. Considering the gender variable, we infer that most women (66.35%) had indicators for CMD. This fact was observed in the findings of other studies, in which female undergraduates, when compared to male students, have a higher prevalence of CMD [15-17]. Some authors argue that female students sometimes need to reconcile academic activities with housework and work. Other possible causes would be hormonal influences, neuronal aspects linked to mood and anxiety, as well as stressors linked to the social role of gender [15-17]. Some indicators lead us to highlight the reflection of the Brazilian sociocultural context in the university field, such as social inequalities, gender issues and health inequities [18].

Regarding the prevalence of CMD and the practice of physical activity, we observed that the chances of an inactive undergraduate student to present CMD is approximately twice as high as a practitioner. Similar data were also found in another cross-sectional study, carried out with 220 university students in the health area (biology, physical education, nursing, pharmacy, nutrition and dentistry), which showed a higher prevalence of CMD in students of the nursing course, considered inactive in the practice of physical activity [17]. This data can be correlated with another survey also carried out with students in the health area, in Rio Grande do Sul, which identified the second highest occurrence of CMD among nursing students [19]. We observed that health training is closely linked to mental suffering and to the loss of quality of life, given the academic overload, responsibilities of the profession, approximation with human suffering, high frequencies of stress, anxiety and depression [15,16,20,21]. As a result, it is observed that the most frequent complaints among health students are feeling nervous/tense/worried, sleeping poorly, getting tired easily, losing interest in things and having difficulty making decisions [15,20,22,23].

In this sense, the practice of physical activity can be used as a strategy to considerably increase the quality of life and mental health of undergraduates, as it is associated with better sleep quality, improved self-esteem, mood, cognitive functions and physical conditioning [17]. That is, a great protective factor to mitigate the impacts of stressors [18,21,22]. In this way, physical activity is considered a possible way to promote health and prevent CMD among nursing students [16]. Regarding the positive association of family income and the prevalence of CMD, analyzing the male gender, we infer that the higher the family income, the more likely the individual has to present CMD. What may have influenced this result is the small variability of family income presented among students. However, this finding may show an excess of professional activity that points to an exhausting routine, causing damage to rest and leisure activities and, consequently, loss of quality of life and mental health. A fact pointed out by the authors Silva [19], in a survey carried out with 88 nursing students at a college in the interior of São Paulo.

Contrasting this result, a literature review study pointed to CMD as more prevalent in low-income populations, with low levels of education and residing in underdeveloped or developing countries. In

addition, he described low income as one of the sociodemographic characteristics most associated with psychological distress among university students, considering discrimination and concern for personal safety as two major risk factors [18].

Another study associated per capita family income < R$ 2,000.00 with possible cases of CMD, at the beginning of the semester, with medical students from a public university in southern Brazil. In that same survey, "financial problems" appear as the third most cited cause (32.4%) among the stressors in students. It is argued that lower income results in difficulties for basic subsistence, acquisition of material, leisure activities, among other issues of social inequality that negatively impact students' mental health [22].

In addition, discrimination based on race, sex, sexual orientation or even with "quota" students, suffered within the academic institution, is closely linked to the psychic suffering of these individuals [18]. Such a situation can impair the adaptation to university, causing a greater probability of CMD occurrence in this population [24]. Another research evaluated the stress in academics, of American origin, who attended the university in Israel. Such research pointed out the double stress in these individuals due to the difficulty of cultural adaptation, even though Israel is considered a developed country and with one of the highest economies in the Middle East [25].

Considering such discussions and the results presented around the family income variable, it is worth highlighting the challenge of recent studies in relation to social determinants and health. Due to the impossibility of establishing a direct cause-and-effect relationship between the factors that affect the health of individuals, we cannot directly correlate the macro-indicators of a society's wealth with the health indicators. As a result, we found that a country with a high GDP will not always have more satisfactory levels of health indicators compared to a country with a lower GDP [26]. It is observed that "... it is not the richest societies that have better levels of health, but those that are more egalitarian and have high social cohesion" [19].

This understanding makes us reflect on the Dahlgren and Whitehead model in which individuals are permeated by issues of age, sex, hereditary factors, lifestyle, social and community networks, living and working conditions, in addition to macro-determining influences such as conditions economic, cultural and environmental aspects of society [26]. Furthermore, it is worth considering that globalization has increased poverty in some countries, as well as economic, social and health inequities (Buss, 2006). Thus, it is observed that the trajectory of academic life goes beyond the university area, affecting and being affected by the community and economic development of the country [20]. These, in turn, have a heavy impact on the health of individuals and the population as a whole [27].

This study had limitations such as the fact that it was carried out in a single institution of higher education and the methodological use of the cross-sectional view, which only assesses the association between variables, making it impossible to define the causal link. Therefore, the development of longitudinal studies with this population is recommended. However, the results may contribute to the identification of possible factors associated with CMD, considering that it addressed the entire universe of nursing students. In addition, it used specific, standardized and validated instruments.

Conclusion

Thus, the study described a predominance of CMD in females, a determining factor for behavioral changes and the need for preventive and interventional actions in the academic environment. Where some behavioral factors had an influence with mental health. The research involves constraints due to data collection, which was carried out in only one institution of higher education. Although, the importance of the exposed knowledge is highlighted to assist in the understanding of the development of common mental disorders among university students of the nursing course and in the planning of interventions, as well as investigations and respect for the theme that address the gaps pointed out in this study.

References

1. Igué E A, Bariani I C D, Milanesi P V B (2008) Vivência acadêmica e expectativas de universitários ingressantes e concluintes. Pico-USF 13(2): 155-164.

2. Matta C M B, Lebrão S G, Heleno M G V (2017) Adaptação, rendimento, evasão e vivências acadêmicas no ensino superior: revisão da literatura. Psicologia Escolar e Educacional 21(3): 583-591.

3. Carlotto R C, Teixeira M A P, Dias A C G (2015) Adaptação acadêmica e Coping em estudantes universitários. Psico-USF 20(3): 421-432.

4. Magalhães M O (2013) Sucesso e fracasso na integração do estudante à universidade: um estudo comparativo. Revista Brasileira de Orientação Profissional 14(2): 215-226.

5. Soares A B, Prette Z A P D (2015) Habilidades Sociais e Adaptação à Universidade: convergências e divergências dos construtos. Análise Psicológica 33 (2): 1-8.

6. Santos A A A, Polydoro S A J, Scortegagna S A, Linden M S (2013) Integração ao ensino superior e satisfação acadêmica em universitários. Psicologia: ciência e profissão 33(4): 780-793.

7. Lamas K C, Ambiel R A M, Silva B T A O L (2014) Vivências acadêmicas e empregabilidade de universitários em final de curso. Temas em Psicologia 22(2): 329-340.

8. Gil E S, Garcia E Y A, Lino F M A, Gil J L V (2012) Estratégias de ensino e motivação de estudantes no ensino superior. Vita et Sanitas 6(1): 57-81.

9. Silva E C, Heleno M G V (2012) Qualidade de vida e bem-estar subjetivo de estudantes universitário. Psicologia e saúde 4(1): 69-76.

10. Gonçalves M M, Simões M R, Almeida L S, Machado C (2003) Avaliação psicológica: instrumentos validados para a população portuguesa Coimbra: Quarteto 1: 103-130.

11. Mognon J F, Santos A A A (2013) Relação entre vivência acadêmica e os indicadores de desenvolvimento da carreira em universitários. Revista Brasileira de Orientação Profissional 14(2): 215-226.

12. Sarriera J C, Paradiso A C, Schülz F F, Howes G P (2012) Estudo comparativo da integração ao contexto universitário entre estudantes de diferentes instituições. Revista Brasileira de Orientação Profissional 13(2): 163-172.

13. Gonçalves D M, Stein A T, Kapczinski F (2008) Avaliação de desempenho do Self-Reporting Questionnaire como instrumento de rastreamento psiquiátrico: um estudo comparativo com o Structured Clinical Interview for DSM-IV-TR. Cadernos de Saúde Pública 24(2): 380-390.

14. Agresti A (2010) Analysis of ordinal categorical data. John Wiley & Sons pp. 656.

15. Santos L S, Ribeiro J S, Boery E N, Boery R N S O (2017) Qualidade de vida e transtornos mentais comuns em estudantes de medicina. Cogitare Enferm 22 (4): 1-7.

16. Silva P L B C, Silva B F F, Chagas K K A C R, Tortola M B A, Caldeira R L R (2019) Transtorno mental comum entre estudantes de enfermagem e fatores envolvidos. Revista de Enfermagem do Centro Oeste Mineiro 3191(9): 1-7.

17. Silva A O, Cavalcante J L Neto (2014) Associação entre níveis de atividade física e transtorno mental comum em estudantes universitários. Motricidade 10 (1): 49-59.

18. Graner K M, Cerqueira A T A R (2019) Revisão Integrativa: sofrimento psíquico em estudantes universitários e fatores associados. Ciência e Saúde Coletiva 24(4): 1327-1346.

19. Silva R S, Costa L A (2012) Prevalência de transtornos mentais comuns entre estudantes universitários da área da saúde. Encontro: Revista de Psicologia 15 (23): 105-112.

20. Carleto C T, Moura R C D, Santos V S, Pedrosa L A K, (2018) Adaptação à universidade e transtornos mentais comuns em graduandos de enfermagem. Rev Eletr Enf 20(20): 1-11.

21. Souza M R, Caldas T C G, Antoni C (2017) Fatores de adoecimento dos estudantes da área da saúde: uma revisão sistemática. Rev. Psicol Saúde e Debate 3 (1): 99-126.

22. Ferreira C M G, Kluthcovsky A C G C, Cordeiro T M G (2016) Prevalência de transtornos mentais comuns em estudantes de medicina: um estudo comparativo. Revista Brasileira de Educação Médica 40 (2): 268-277.

23. Oliveira E B, Zeitoune R C G, Gallasch C H, Pérez E F Jr, Silva A V, Souza T C (2020) Transtornos mentais comuns em acadêmicos de enfermagem do ciclo profissionalizante. Rev Bras Enferm 73 (1): 1-6.

24. Cabral J, Róias C, Pereira C, Benevides J, Teixeira M, Barreto Carvalho C (2017) O Grilo Interior no Ensino Superior: Análise do auto-criticismo e da auto-compaixão em estudantes universitários. Revista de Estudios e Investigación en Psicología y Educación (14): 168-173.

25. Abramovitch H, Schreier A, Koren N (2000) American medical students in Israel: Stress and coping-a follow-up study. Med Edu 34 (11): 890-896.

26. Buss P M (2006) Globalização, pobreza e saúde. Ciência e Saúde Coletiva 12 (6): 1575-1589.

27. Buss P M, Pellegrini A Filho (2007) A saúde e seus determinantes sociais. PHYSIS: Rev. Saúde Coletiva 17 (1): 77-93.
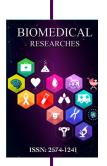
Assets of Publishing with us

- Global archiving of articles
- I*mm*ediate, unrestricted online access
- Rigorous Peer Review Process
- Authors Retain Copyrights
- Unique DOI for all articles

https://biomedres.us/