

Priscila Larangeira Carvalho¹

Doutora em Ciências, Laboratório de Psicologia Ambiental e Desenvolvimento Humano (Universidade Federal de São Paulo - campus Baixada Santista). E-mail: profpriscilalcarvalho@gmail.com

Fernanda Ribeiro de Araújo²

Doutora em Ciências, Laboratório de Psicologia Ambiental e Desenvolvimento Humano (Universidade Federal de São Paulo - campus Baixada Santista). E-mail: fernanda.ribeiroaraujo@gmail.com.

Fernando Ramos Martins³ Doutor em Geofísica Espacial,

Universidade Federal de São Paulo. E-mail: fernando.martins@unifesp.br.

Rodolfo Eduardo Scachetti⁴ Doutor em Sociologia, Universidade Federal de São Paulo, E-mail: rodolfo.scachetti@unifesp.br.

Nancy Ramacciotti de Oliveira-Monteiro⁵ Pós Doutorado em Psicologia

Social, Universidade Federal de São Paulo. E-mail: nancy.unifesp@gmail.com.

Revista Interdisciplinar de Estudos em Saúde da UNIARP ISSN: 2238-832X

INTERNALIZING AND EXTERNALIZING PROBLEMS IN STUDENTS

PROBLEMAS INTERNALIZANTES E EXTERNALIZANTES EM ESTUDANTES UNIVERSITÁRIOS

ABSTRACT

National and international studies point to psychological difficulties in university students, people that face their own developmental challenges in the transition to adulthood. The study aimed at identifying Externalizing and Internalizing psychological problems in undergraduate students from different areas of knowledge. The Adult Self-Report was used to investigate 1,336 students between 18 and 59 years old, being 59.1% of them women, from universities in the state of São Paulo Brazil. Descriptive and inferential statistical analysis was performed. Results indicated borderline/clinical ranges in Internalizing problems for 34.55% of men and 51.83% of women; in Externalizing problems for 24.71% of men and 35.23% of women. Problems reached higher scores in the Social Sciences, Journalism and Information area. Results related to anxiety and depression in university students were according to literature, indicating greater vulnerability among female students. New studies are suggested to investigate whether such problems are due to insertion in higher education.

KEYWORDS: Adults, Students, Mental health.

RESUMO

Estudos nacionais e internacionais apontam dificuldades psicológicas em estudantes universitários, grupo que enfrenta desafios próprios do desenvolvimento na transição à fase adulta. O objetivo deste estudo foi avaliar problemas psicológicos externalizantes e internalizantes em graduandos de diferentes cursos universitários. Com uso do Adult Self-Report, foram avaliados 1.336 estudantes (18 a 59 anos) de universidades do estado de São Paulo, 59,1% mulheres. Analisados por estatística descritiva e inferencial, dados indicaram faixas limítrofe/clínica em problemas externalizantes para 34,55% dos homens e 51,83% das mulheres, e em problemas externalizantes para 24,71% dos homens e 35,23% das mulheres. Estudantes de cursos da área Ciências Sociais, Jornalismo e Informação apresentaram maiores escores de problemas. Os resultados relacionados à ansiedade e depressão nas universitárias foram concordantes com a literatura, apontando maior vulnerabilidade entre estudantes mulheres. Novos estudos ficam sugeridos para investigar se tais problemas são decorrentes da inserção no ensino superior.

PALAVRAS-CHAVE: Adultos, Estudantes, Saúde Mental.



INTRODUCTION

As a current theme of relevance and social interest, the understanding of mental health has been referred to and expanded through numerous researches that advance in a variety of scenarios. Such investigations cross territories, age groups, sex (men and women), diagnoses and nomenclatures, in a variety of instruments for surveying and processing data. National and international investigations have been conducted indicating the presence of psychological difficulties in university students. University students represent an important contingent of these individuals, as young people in training to develop skills and competences focused on multiple tasks in adult life, including those associated with the world of labor (MARTÍNEZ CLARES *et al.*, 2018). In the Brazilian scenario, there are publications and epidemiological studies that favor the contextualization of such difficulties.

Andrade *et al.* (2012) investigated 5,037 individuals in the metropolitan region of the city of São Paulo, Brazil, in a survey on mental health. The Composite International Diagnostic Interview assessed participants, and the results showed that 29.6% of the sample presented a mental disorder in the 12 months prior to the survey. The most commonly found disorders were Anxiety Disorders (19.9%), followed by Mood Disorders (11%), Impulse-Control Disorders (4.3%), and Use of Substances Disorders (4.3%). Anxiety Disorders, Major Depressive Disorders, and Dysthymia Disorders occur more frequently in women, while Impulse-Control Disorders, Conduct Disorders, Attention Deficit Disorders and Hyperactivity Disorder were more frequent in men.

Bonadiman *et al.* (2017) analyzed epidemiological data from Brazilian adults of all units of the federation, from 1990 and 2015 and presented the results at the Institute for Health Metrics and Evaluation. They showed that mental disorders were responsible for the third largest burden of disease in Brazil, and the severity of such disorders increased between the years researched. Anxiety and Depression Disorders were prevalent in women, while Schizophrenia, Alcohol and Drug Use Disorders, and Attention Deficit Hyperactivity Disorder were most frequent in men. For both temporal references analyzed (1990 and 2015), Conduct Disorders were more frequent in men. Kohn *et al.* (2018) investigated the prevalence of mental disorders, the use of mental health services and global burden of disease in the Americas. The results indicated the prevalence of mental disorders, followed by the USA (26.2%), Colombia (21%), Canada (18.7%), Chile (17%), Argentina (14.8%), Peru (13.5%), Mexico (12.1%) and Guatemala (7.2%).

Regarding university adults, there are studies showing a diversity of mental problems, including increased anxiety (VICTORIA *et al.*, 2013), emergence of stress disorders (VIANA *et al.*, 2014), and alcohol and drug use (SILVA; TUCCI, 2018). Pressures for academic performance, financial weaknesses, separation from family of origin, career decisions, work and study together, and also sleep deprivation and social activities are related to increased concerns and are considered as frequent university student's stressors (AMARAL; SILVA, 2008; SILVEIRA *et al.*, 2011; PEDRELLI *et al.*, 2015).

The Fórum Nacional de Pró-Reitores de Assuntos Estudantis (FONAPRACE) presented a report with data from 2018 (FONAPRACE, 2019), that assessed health and quality of life aspects of 1,200,300 students from 65 federal Brazilian higher education institutions. Results indicated that 32.4% of students were in psychological care during the assessment. Regarding the emotional difficulties found in the report, 83.5% answered to have some of them, of which anxiety affected six out of 10 students, the idea of death affected 10.8% of them, and suicidal thinking accounted for 8.5%. An evaluation conducted by the American College Health Association12 involving 88,178 students from 140 universities in



the United States showed results similar to the Brazilian results. Of all students interviewed, 30.2% were diagnosed or sought specialized care for some mental disorder, in which anxiety (22.1%) and depression (18.1%) were the most common, especially among female students. They reported emotional difficulties such as "feeling very sad" (68.7%), "being extremely anxious" (63.4%) or "being angry" (42.1%), and female students exhibited higher rates.

Victoria *et al.* (2013) studied levels of Anxiety and depression in undergraduate students at the State University of Rio de Janeiro, according to sex, course and area of knowledge. They conducted an evaluation with random sampling of 637 mid-course students (neither incoming nor graduating). Anxiety and depression were assessed using Beck Scales (Beck Anxiety Inventory and Beck Depression Inventory). They found significant differences in relation to the sex of the students, and women presented higher scores for Anxiety and Depression. In accordance with the study of Ibrahim et al. (2013), Costa and Moreira (2016), also conducted a Brazilian research that revealed that Anxiety and Depression were more incident in the university population than in general population. In addition, other disorders were common among college students, from stress to psychosomatic disorders.

As presented, there is a diversity of titles, classifications, and assessment instruments within these investigations' scope in the multidisciplinary field of mental health. The terms "mental disorders", "mental suffering", "minor mental disorders", "psychological suffering", "stress" and "anxiety" constitute a nomenclature that appears in several papers, but it tends to have similarities and also specificities, although they all intersect the field of psychological problems.

Within this variation of instruments and terminologies used in mental health studies, which results from various underlying theoretical and methodological frameworks, a classification has been widely used in research on psychological difficulties. Such classification entails a division of psychological problems between two natures: Internalizing psychological problems and Externalizing psychological problems – which is the terminology we adopted in this article. The terms "Internalizing problems" and "Externalizing problems" were introduced to the literature in 1966 to describe groupings of problems found in children presenting clinical demands. Since then, this terminology has been used in more than 75,000 articles, becoming accepted worldwide in the scientific literature to classify of psychological problems (ACHENBACH *et al.*, 2016).

Internalizing problems are defined as emotional and affective problems, which refer to the individual's internal world. Such problems are manifested as depression, fear, anxiety, insecurity and shyness. On the other side, Externalizing problems refer to another group of psychological problems, the behavioral ones. They are manifested in the individual's external world by agitation, impulsivity, hyperactivity, aggressiveness and antisociality problems (ACHENBACH *et al.*, 2016).

Achenbach created instruments to assess Internalizing and Externalizing problems, which constitute the Achenbach System of Empirically Based Assessment (ASEBA). The instruments have been adapted, over the years, to different age groups and types of informants, in different societies (IVANOVA *et al.*, 2014; 2015; RESCORLA *et al.*, 2016; 2017). Despite not being instruments for diagnostic purposes, but for screening, the evaluation with ASEBA instruments allows correlations with syndromes guided by the Diagnostic and Statistical Manual of Mental Disorders (DSM) (ACHENBACH *et al.*, 2016).

Rescorla *et al.* (2016) researched psychopathologies in 8,203 adults from 14 different societies using Adult Self-Report for Ages 18-59 (ASR), from ASEBA, and found statistically relevant values for Internalizing problems in women, while men presented higher values for Externalizing problems. Along 2009 and 2010, Oliveira, Lucena-Santos and Bortolon (2013) also using the ASR investigated 170 adults from the Southern region of Brazil in a screening process of a Psychology clinic-school. They found clinical levels of Internalizing problems in



58.2% in the sample (a majority of men presented such level), while Externalizing problems presented clinical levels for 22.1% of the sample with no gender differences. Also using the ASR, Oliveira-Monteiro *et al.* (2015) investigated Externalizing problems in 239 Brazilian adults, from different economic classes and educational levels, finding no gender differences in the sample.

The expansion of mental health studies is relevant because they are a constitutive part of the search for a better understanding of integral health in different human development stages. Previous studies have shown uncertain results regarding the prevalence of gender in the occurrence of internalizing and externalizing problems in adults. This work aimed at identifying the occurrence of internalizing and externalizing problems in adults' mental health enrolled in university courses grouped by knowledge areas, in public and private institutions in the Baixada Santista, located 80km from São Paulo, the largest metropolis in South America.

METHOD

This research performed a quantitative and cross-sectional design, and it was carried out to evaluate Internalizing and Externalizing problems in students from one public and two private universities (CARVALHO *et al.*, 2021). The research followed ethical standards for investigation with human beings in Brazil, based on two studies that obtained approval opinions from the Research Ethics Committee of Universidade Federal de São Paulo (Opinions 1,481,521 and 1,979,853).

PARTICIPANTS

A total of 1,336 undergraduate students from public and private universities located in the Metropolitan area of Baixada Santista, a coastal region around 80 km from São Paulo city, the largest city in Latin America, answered the questionnaire of the research. Most of them are women (789 or 59.1%). Regarding the institution, 999 students were enrolled in the private universities (Carvalho *et al*, 2021) and 337 were in a public university. The student's age ranged between 18 and 59 years (mean = 25.47, standard deviation = 7.385). The most frequent students (20.2%) were 20 years old, but 68.6% were up to 25 years old.

The students were attending undergraduate courses of five knowledge areas, according to the Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP, 2019) classification, namely: 1) Health and well-being (35.1% of the sample; represented by the Physical Education, Physiotherapy, Nursing, and Social Work courses; 152 men and 317 women); 2) Business, Administration and Law (28.7% of the sample; represented by Law, Accounting and Business Administration courses; 170 men, 214 women); 3) Natural Sciences, Mathematics and Statistics (25.2% of the sample; represented by an Interdisciplinary Bachelor's Degree; 151 men, 186 women); 4) Engineering, Manufacturing and Construction (6.7% of the sample; represented by the Production Engineering and Civil Engineering courses; 62 men, 27 women); and 5) Social Sciences, Journalism and Information (4.3% of the sample; represented by Psychology and International Relations courses; 12 men, 45 women). The only area of knowledge investigated in the public university was Natural Sciences, Mathematics and Statistics.

INSTRUMENT

The Adult Self-Report for Ages 18-59 years (ASR) of the ASEBA system (ACHENBACH; RESCORLA, 2010) was used to identify internalizing and externalizing problems of the students. In Brazil, Lucena-Santos, Moraes and



Oliveira (2014) conducted the ASR scale factor analysis study, and it obtained multicultural validation (IVANOVA *et al.,* 2014; 2015).

ASR is a self-administered instrument, composed of 126 questions and divided into two broad sections (each composing its scale): 1) adaptive functioning (contains different questions about the relationship with family, friends, spouse, and work colleagues) and 2) problems (113 inquiries regarding human behavior and the respondent must choose between "true", "somewhat or sometimes true" or "not true" alternatives). The mental condition scale is classified into Internalizing and Externalizing problems. Internalizing problems include Anxiety/depression, Withdrawn and Somatic complaints. Externalizing problems include Aggressive behavior, Rule-breaking behavior, and Intrusive. Two other subscales are placed without taking part in the group of Internalizing Problems or Externalizing Problems, as follows: Thought problems and Attention problems. Finally, there is a wide-scale called Total Problems. The scores of Internalizing Problems, Externalizing Problems, and Total Problems scales are classified as borderline/clinical functioning (in need of clinical intervention). For major scales (Internalizing problems, Externalizing problems and Total problems), T-score values above 60 are considered borderline/clinical; for subscales (Anxiety/depression, Withdrawn, Somatic complaints, Aggressive behavior, Rule-breaking behavior and Intrusive), T-score values of 65 and above are classified as borderline/clinical.

PROCEDURES OF DATA COLLECTION AND ANALYSIS

The data collection was carried out by a trained team from the Laboratory of Environmental Psychology and Human Development, coordinated by the last author of this article. As explained in Carvalho et al. (2021), the survey took place in classrooms from 2016 to 2019, collectively, with the approval of professors and coordinators of undergraduate courses. Participants read and signed an Informed Consent Form (ICF) before answering the ASR.

The analysis of the ASR responses was based on proprietary software ADM to correct the ASEBA instruments. A trained team fed the ADM with the questionnaire's responses, and its outputs were the T-score value (numerical variable ranging from 50 to 95). The T-score values were categorized in the nonclinical and borderline/clinical ranges (categorical variable, indicating the need or not for clinical intervention).

The ADM's output data were organized and manipulated in digital spreadsheets and analyzed using descriptive and inferential statistics of SPSS 20.0. The graduation courses were grouped for analyzes according to the classification of knowledge areas in Brazil (INEP, 2019). Mann-Whitney test was used for gender comparisons (man and woman) and Kruskal Wallis test with Games-Howell posttest to compare knowledge areas. Principal Component Analysis (PCA) was performed using varimax rotation with Kaiser normalization based on the mental problems' T-scores. We aimed to conduct a statistical analysis to examine subscale mental potential diseases across rating scores. Identifying specific subscale clusters may help understand how to develop actions focused on supporting higher education students to deal with their university life strains.

RESULTS AND DISCUSSION

Results for Internalizing problems and Externalizing problems, and all the subscales evaluated, according to areas of knowledge and gender, are shown in Table 1. The Mann-Whitney comparison test pointed out significant difference (p < 0.01) between T-scores frequency distribution attained for the male and female participants in almost all mental health problems and its subscales evaluated, except for Intrusive, Thought problems, and Attention problems. The frequency was higher in women than in male students, in line with the most recurrent



Brazilian and international recent literature findings. The period of university life, which involves academic loads and stress, geographical distancing from the family home, and new identity development elements, is related to the emergence of mental problems (PEDRELLI *et al*, 2015). In this investigation, the results of Total Problems scale in borderline/clinical ranges, were 23.58% for male and 35.99% for female students. Such results are in agreement with data related to researches focusing on populations in general, as well as with those focusing exclusively on undergraduate students. However, there were significant differences between the T-scores for most of the mental problems evaluated by the ASR.

In comparison with research on psychological problems and considering the limitations involved in different terminology nomenclature, concepts and methodologies employed (some aimed at diagnostics, and others for screening emotional aspects), in the following discussion are commented on both works investigating general populations and works researching exclusively students.

Ávila et al. (2019) and Charlson et al. (2019) point out that research with selfreport instruments, such as the ASR, may be more sensitive to ascertain Internalizing Problems (such as Anxiety/depression) than Externalizing Problems, since the former is part of the individual's internal world, and thus are more noticeable to the interviewed people. Even so, Andrade et al. (2012) used a diagnostic assessment interview focused on the general population and concluded that 29.6% of the participants had at least one mental disorder in the 12 months prior to the research evaluation. This number is higher than the male students' number for this research but lower than female students', reinforcing the higher incidence of psychological problems in women. Victoria et al. (2013) also found significant differences regarding the gender of students. They found that women presented higher scores for anxiety and depression than men. Bonadiman et al. (2017), in turn, pointed out that the most common type of disorder in the population they studied was depression. Once again, women had a considerably higher frequency of depressive and anxiety disorders than men. In summary, there is a recurrence of findings highlighting the prevalence of psychological problems among women, both in the general population and undergraduate students.

Andrade *et al.* (2012) pointed out such findings, indicating that among mental disorders, Anxiety Disorders were the most common (19.9% of participants) followed by Mood Disorders (11%). Anxiety Disorders were more frequent in women, and in the group of Mood Disorder, Depressive Disorder and Dysthymia were also prevalent in women. Among Impulse-Control Disorders, Conduct Disorder and Attention Deficit Hyperactivity Disorder were prevalent in men. Defiant Oppositional Disorder and Intermittent Explosive Disorder did not differ between genders.

Some studies have not pointed out significant differences between genders for psychological problems, which preclude the generalization of results suggesting associations between sex and the type of psychological problems. Pinto *et al.* (2015), for example, make up this picture concerning Anxiety, Depression and Stress, finding no significant differences. Dealing specifically with students in the health field, Facundes and Ludemir (2005) state the prevalence of Common Mental Disorders (Anxiety, Depression and Somatoforms) in 34.1% of their universe of participants (a value close to that found for students in this sample). Thus, once again there are no significant differences between the sexes.

For anxiety and depression, most research results indicate prevalence in women, while some of them did not find differences between genders. However, other results from this sample with undergraduates for some problem profiles can be considered sui generis. For example, in Attention problems, the prevalence among men that appears in Andrade *et al.* (2012) was not confirmed in our research, as the rates were 14.26% for male students and 21.67% for female students. The only group in which male students presented a higher percentage,



10.6% against 8.36% (considered a significant difference) was Rule-breaking behavior. We can also observe that Andrade *et al.* (2012) evaluated the population in general and did not identify differences between gender for Defiant oppositional disorder (in parallel with Externalizing problems, such as Rule-breaking behavior).

The achieved ASR results here also pointed out the prevalence of mental problems in female students for Aggressive behavior, Externalizing problems, Internalizing problems, Somatic complaints, Withdrawn and Intrusive. Kokko *et al.* (2014), in a study with adolescents and adults, found no significant differences in Aggressive behavior between sexes. Oliveira-Monteiro et al. (2015) studied adults in general and did not find significant differences in Externalizing problems between the sexes. Here, on the other hand, there were frequency distribution differences between the sexes for Externalizing problems and Aggressive behavior. The Aggressive behavior was observed in 0.6% of male participants and 14.57% of women.

Moreover, the results of research using the ASR (RESCORLA *et al.*, 2016; 2017) pointed to the prevalence of men in some problem profiles, such as Externalizing problems, Withdrawn, Attention problems, Rule-breaking behavior and Intrusive (results from the 2016 study). The same outcomes did not happen in this study with undergraduates. Our results showed prevalence in male participants only in Rule-breaking behavior. However, there is an additional factor here: both studies by Rescorla et al. evaluated young people and adults, and the youngest were more prone to psychological problems, which is in line with studies that point to a higher incidence of mental disorders among students (RESCORLA *et al.*, 2016; 2017).

Another level of stratification of the results of this research suggested that students in the area of Social Sciences, Journalism and Information had higher scores among all areas for Internalizing problems, Anxiety/depression, Rule-breaking behavior, Thought problems and Total problems. In contrast, students in the Engineering, Manufacturing and Construction area had the lowest T-scores of all Externalizing problems and Rule-breaking behavior. These results do not coincide, but they follow the same line as those of Victoria *et al.* (2013), who pointed out the Education and Humanities area as the one with the highest T-scores for Anxiety/depression, followed by the Biomedical, Social Sciences area and, finally, with the lowest T-scores of the sample, Technology and Science.

The PCA was performed, and the results are shown in Figure 1. The PCA was performed for the three knowledge areas presenting the largest number of students: the Health and Well-being (n = 469), Business, Administration and Law (n = 384) and Natural Sciences, Mathematics and Statistics (n = 337) areas, totaling 1,190 participants. The PCA results achieved by the male and women students from these areas of knowledge are shown in Figure 2. The confidence level was 95%.

The PCA results indicated two orthogonal components representing around 40% and 24% of the explained variance for higher education students' psychological problems. The first component comprises the subscales of Internalizing problems (Anxiety/depression, Withdrawn and Somatic complaints), Attention problems, and Thought problems, indicating a marked correlation between them in all student groups. The second component holds Intrusive and Rule-breaking behavior in all three knowledge areas as well.

The PCA results were similar when students were grouped by sex. For male students, PCA results showed small differences concerning the knowledge areas. In the area of Natural Sciences, Mathematics and Statistics, the second component comprises the Aggressive behavior not observed in students of the Health and Well-being area.

The PCA results for the female students showed a pattern quite independent of the area of knowledge. In general, the first component comprises the Internalizing problems (Anxiety/depression, Withdrawn and Somatic complaints),



Thought problems and Attention problems. The Externalizing problems (Aggressive behavior, Rule-breaking behavior and Intrusive) always appear in the second component except for the female students of the Natural Sciences, Mathematics, and Statistics. For this knowledge area, the Aggressive Behavior, Anxiety/depression and Somatic complaints comprises the second component.



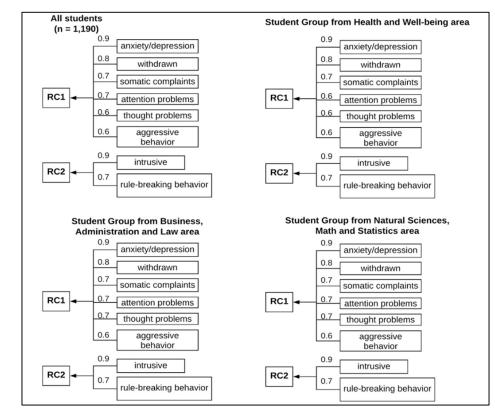
Table 1 - Results for problems according to knowledge area. % = percentage with scores in borderline/clinical range

	Health and Well- being (n=469)		Business, Administration and Law (n=384)		Engineering, Manufacturing and Construction (n=89)		Social Sciences, Journalism and Information (n=57)		Natural Sciences, Mathematics and Statistics (n=337)		Men (n=547)		Women (n=789)	
	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%	Mean	%
Internalizing problems	58.68	45.2	59.28	47.91	55.91	38.2	65.65	64.91	58.27	38.87	56.66	34.55	60.39	51.83
Anxiety/depression	59.68	22.81	60.43	27.08	57.9	15.73	67.35	49.12	60.7	25.81	58.63	17.91	61.56	30.67
Withdrawn	58.88	28.14	59.09	27.86	57.46	17.98	62.28	42.1	58.79	26.41	57.98	19.74	59.66	32.95
Somatic complaints	57.08	18.55	57.11	17.71	55.25	12.36	62.07	35.09	56.31	13.65	54.75	6.76	58.53	24.71
Externalizing problems	53.34	24.09	53.94	28.64	49.15	10.11	59.77	43.86	58.83	34.12	53.77	24.71	55.67	35.23
Aggressive behavior	55.77	11.09	56.36	13.02	53.39	4.49	58.75	22.81	55.31	8.6	54.70	0.6	56.55	14.57
Rule-breaking behavior	55.21	8.1	55.75	10.42	53.28	2.25	60.56	28.07	55.46	8.3	55.32	10.6	55.68	8.36
Intrusive	55.02	12.58	55.22	13.54	53.24	4.49	57.70	28.07	54.05	10.38	54.77	9.87	54.87	14.19
Thought problems	56.41	14.71	57.04	19.53	55.34	12.36	61.61	38.6	56.55	16.91	57.06	15.35	57.06	19.01
Attention problems	58.36	15.99	58.59	17.98	56.89	7.86	63.65	38.6	60.30	22.55	53.59	23.58	59.66	21.67
Total problems	55.74	33.47	56.23	34.37	52.73	19.1	62.79	59.65	52.62	21.66	53.59	23.58	56.30	35.99

Source: Authors



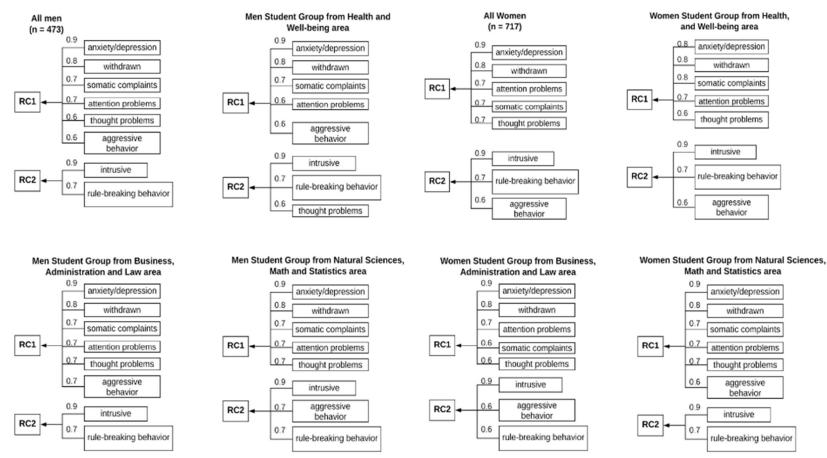
Figure 1 - Principal Component Analysis for all sample. Note: RC1 = explains 60% of sample variance; RC2 = explains 40% of sample variance



Source: Authors







Source: Authors

v.13, n. 1 (23) 2024



FINAL CONSIDERATIONS

As limitations of this study, there were size differences in the distribution of the sample in each knowledge areas since the sample was constructed using convenience and accessibility as criteria. Data acquisition was in all classrooms whose educational institutions, coordinators and teachers involved allowed, as the research focused on the greatest number of students available during the period of data collection. Another limitation that restricted analysis possibilities is the characteristic of the courses/professions themselves of being more likely to have men or women, which did not contribute to the balance between sexes. Still, as a limitation of the research is the possibility of comparing the results found with the literature, since the investigations on mental health can be measured by a variety of instruments, methodologies and base theories.

The purpose of this article was to produce observational information on the mental health conditions of undergraduate students using an instrument that allows dialogue among theories, conceptions and measures of mental health problems to a certain extent, but with restrictions. Nevertheless, it is an attempt to contribute to the literature, as well as a planning effort to organize interventions to prevent and mitigate threats for students during their university lifetime. Again, new research is suggested, such as a comparison with a control group of young adults who are not students to understand better the interaction between student statuses, the evolving tasks related to the transition to adulthood and the burden of being man or woman in such contexts.

REFERENCES

ACHENBACH, T. M. *et al.* Internalizing/externalizing problems: Review and recommendations for clinical and research applications. **Journal of the American Academy of Child & Adolescent Psychiatry**, vol. 55, n. 8, p. 647-656, 2016. DOI: 10.1016/j.jaac.2016.05.012

ACHENBACH, T. M.; RESCORLA, L. A. (2010). **Multicultural supplement to the manual for the ASEBA preschool forms & profiles**. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.

ANDRADE, L. H. *et al.* Mental disorders in megacities: Findings from the Sao Paulo megacity mental health survey. **PLoS ONE**, vol. 7, n. 2, e31879, 2012. DOI: 10.1371/journal.pone.0031879

AMARAL, A. P.; SILVA, C. F. Estado de saúde, stress e desempenho académico numa amostra de estudantes do ensino superior. **Revista portuguesa de pedagogia**, p. 111-133, 2008. Disponível em: http://impactum-journals.uc.pt/rppedagogia/article/view/1230. Acesso em: 21 nov. 2020.

AMERICAN COLLEGE HEALTH ASSOCIATION. **National College Health Assessment II**: Reference Group. Executive Summary Spring 2018. Silver Spring, MD: Autor, 2018. Disponível em: https://www.acha.org/documents/ncha/NCHA-II_Spring_2018_Reference_Group_Executive_Summary.pdf. Acesso em: 21 nov. 2020.

ÁVILA, A. C. *et al.* Associação entre autoavaliação e análise de informantes sobre sintomas psicopatológicos em uma amostra adulta. **Contextos Clínicos**, vol. 12, n. 3, p. 902-920, 2019. DOI: 10.4013/ctc.2019.123.10



BONADIMAN, C. S. C. *et al.* The burden of disease attributable to mental and substance use disorders in Brazil: Global burden of disease study, 1990 and 2015. **Revista Brasileira de Epidemiologia**, vol. 20, supl. 1, 2017. doi: 10.1590/1980-5497201700050016

CARVALHO, P. L. *et al*. Competências genéricas auto referidas por universitários brasileiros. **Education Policy Analysis Archives**, vol. 29, n. 14, 2021 (no prelo).

COSTA, M.; MOREIRA, Y. B. Saúde mental no contexto universitário. **Seminários Sobre Ensino em Design**, vol. 2, n. 10, p. 73-79, 2016. DOI: 10.1016/despro-sed2016-009

CHARLSON, F. *et al.* New WHO prevalence estimates of mental disorders in conflict settings: a systematic review and meta-analysis. **The Lancet**, vol. 394, n. 10194, p. 240-248, 2019. DOI: 10.1016/S0140-6736(19)30934-1

FACUNDES, V. L. D.; LUDERMIR, A. B. Common mental disorders among health care students. **Revista Brasileira de Psiquiatria**, vol. 27, n. 3, p. 194-200, 2005. DOI: 10.1590/S1516-44462005000300007

FÓRUM NACIONAL DE PRÓ-REITORES DE ASSUNTOS ESTUDANTIS (FONAPRACE). **V Pesquisa Nacional de Perfil Socioeconômico e Cultural dos(as) Graduandos(as) das IFES** – 2018. Uberlândia: Autor, 2019. Disponível em: http://www.andifes.org.br/wpcontent/uploads/2019/05/V-Pesquisa-Nacional-de-Perfil-Socioecon%C3%B4mico-e-Cultural-dos-as-Graduandos-as-das-IFES-2018.pdf. Acesso em: 21 nov. 2020.

IBRAHIM, A. K. *et al*. A systematic review of studies of depression prevalence in university students. **Journal of Psychiatric Research**, vol. 47, n. 3, p. 391-400, 2013. DOI: 10.1016/j.jpsychires.2012.11.015

INSTITUTO NACIONAL DE ESTUDOS E PESQUISAS EDUCACIONAIS ANÍSIO TEIXEIRA (INEP). **Sinopse Estatística da Educação Superior 2018**. Brasília: Autor, 2019. Disponível em: http://inep.gov.br/sinopsesestatisticas-da-educacao-superior. Acesso em: 21 nov. 2020.

IVANOVA, M. Y. *et al.* Syndromes of self-reported psychopathology for ages 18–59 in 29 societies. **Journal of Psychopathology and Behavioral Assessment**, vol. 37, n. 2, p. 171-183, 2014. DOI: 10.1007/s10862-014-9448-8

IVANOVA, M. Y. *et al.* Syndromes of collateral-reported psychopathology for ages 18-59 in 18 Societies. **International Journal of Clinical Health and Psychology**, vol. 15, n. 1, p. 18-28, 2015. DOI: 10.1016/j.ijchp.2014.07.001

KOHN, R. *et al*. Mental health in the Americas: an overview of the treatment gap. **Revista Panamericana de Salud Publica**, vol. 42, n. 165, 2018. DOI: 10.26633/RPSP.2018.165

KOKKO, K. *et al.* Country, sex, and parent occupational status: Moderators of the continuity of aggression from childhood to adulthood. **Aggressive Behavior**, vol. 40, n. 6, p. 552-567, 2014. DOI: 10.1002/ab.21546

LUCENA-SANTOS, P.; MORAES, J. F. D.; OLIVEIRA, M. S. Análise da estrutura fatorial das escalas sindrômicas do ASR (Adult Self-Report). **Revista Interamericana de Psicologia**, vol. 48, n. 2, p. 252-262, 2014. Disponível em: https://www.redalyc.org/articulo.oa?id=28437897002. Acesso em: 21 nov. 2020.



MARTÍNEZ CLARES, P. *et al.* Competencias para la empleabilidad: un modelo de ecuaciones estructurales en la Facultad de Educación. **Revista De Investigación Educativa**, vol. 37, n. 1, p. 57-73, 2018. DOI: 10.6018/rie.37.1.343891

OLIVEIRA, M. S.; LUCENA-SANTOS, P.; BORTOLON, C. Clientela adulta de serviço psicológico: características clínicas e sociodemográficas. **Psicologia: teoria e prática**, vol. 15, n. 2, p. 192-202, 2013. Disponível em: http://pepsic.bvsalud.org/pdf/ptp/v15n2/15.pdf. Acesso em: 21 nov. 2020.

OLIVEIRA-MONTEIRO, N. R. *et al.* Problemas externalizantes e prósocialidade em adultos. **Aletheia**, vol. 47-48, p. 155-168, 2015. Disponível em: http://pepsic.bvsalud.org/pdf/aletheia/n47-48/n47-48a13.pdf. Acesso em: 21 nov. 2020.

PEDRELLI, P. *et al.* College students: mental health problems and treatment considerations. **Academic Psychiatry**, vol. 39, n. 5, p. 503-511, 2015. DOI: 10.1007/s40596-014-0205-9

PINTO, J. C. *et al*. Ansiedade, depressão e stresse: um estudo com jovens adultos e adultos portugueses. **Psicologia, Saúde & Doenças**, vol. 16, n. 2, p. 148-163, 2015. DOI: 10.15309/15psd160202

RESCORLA, L. A. *et al.* Collateral reports and cross-informant agreement about adult psychopathology in 14 societies. **Journal of Psychopathology and Behavioral Assessment**, vol. 38, p. 381–397, 2016. DOI: 10.1007/s10862-016-9541-2

RESCORLA, L. A. *et al.* Problems and adaptive functioning reported by adults in 17 societies. **International Perspectives in Psychology: Research, Practice, Consultation,** vol. 5, n. 2, p. 91-109, 2017. DOI: 10.1037/ipp0000046

SILVA, E. C.; TUCCI, A. M. Correlação entre ansiedade e consumo de álcool em estudantes universitários. **Revista Psicologia: Teoria e Prática**, vol. 20, n. 2, p. 93-106, 2018. DOI: 10.5935/1980-6906/psicologia.v20n2p107-119

SILVEIRA, C. *et al.* Saúde mental em estudantes do ensino superior: Experiência da consulta de Psiquiatria do Centro Hospitalar São João. **Acta Médica Portuguesa**, vol. 24, n. S2, p. 247-256, 2011. Disponível em: https://www.researchgate.net/profile/Antonio_Roma-

Torres/publication/230628002_Mental_health_of_college_students_experien ce_of_the_university_psychiatric_outpatient_clinic_of_Hospital_de_Sao_Joa o/links/09e415053c7594a832000000/Mental-health-of-college-students-experience-of-the-university-psychiatric-outpatient-clinic-of-Hospital-de-Sao-Joao.pdf. Acesso em: 21 nov. 2020.

VIANA, G. M. *et al.* Relação entre Síndrome de Burnout, ansiedade e qualidade de vida entre estudantes universitários de Ciências da Saúde. **Revista da Universidade Vale do Rio Verde**, vol. 12, n. 1, 2014. DOI: 10.5892/ruvrd.v12i1.1471

VICTORIA, M. S. *et al.* Níveis de ansiedade e depressão em graduandos da Universidade do Estado do Rio de Janeiro (UERJ). **Encontro: Revista de Psicologia**, vol. 16, n. 25, p. 163-175, 2013. Disponível em: https://revista.pgsskroton.com/index.php/renc/article/view/2447. Acesso em: 21 nov. 2020. **Recebido em:** 24-11-2020 **Aceito em:** 15-02-2024