

# DISTRESSE E BEM-ESTAR PSICOLÓGICO EM ESTUDANTES DA GRADUAÇÃO EM ENFERMAGEM DO BRASIL E PORTUGAL

# DISTRESS AND PSYCHOLOGICAL WELL-BEING OF UNDERGRADUATE NURSING STUDENTS FROM BRAZIL AND PORTUGAL

# ANGUSTIA Y BIENESTAR PSICOLÓGICO DE ESTUDIANTES UNIVERSITARIOS DE ENFERMERÍA DE BRASIL Y PORTUGAL

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## RESUMO

**Objetivo:** Avaliar e comparar os níveis de distresse e bem-estar psicológico dos estudantes da graduação de Enfermagem do Brasil e Portugal. **Método:** Trata-se de um estudo transversal, realizado com 267 estudantes do primeiro ao quarto ano de graduação de enfermagem, no Brasil e Portugal. Para análise dos dados, utilizou-se frequência absoluta, frequência relativa e média. A associação entre as variáveis qualitativas, pelo teste Qui-Quadrado. **Resultados:** Os estudantes brasileiros são mais ansiosos, depressivos e perdem com maior frequência o controle emocional, enquanto os estudantes de Portugal apresentam maior bem-estar psicológico. Estudantes do início do curso, brasileiros e do sexo feminino apresentavam maior média para a variável distresse. **Conclusão:** Esforços são necessários para auxiliar os estudantes, no gerenciamento dos níveis de distresse, a partir do planejamento acadêmico, estímulo à inserção em atividades de laser e a lidar de forma resiliente com o universo acadêmico. **Descritores:** Enfermagem; Educação Superior; Transtornos Mentais; Saúde Mental.

## ABSTRACT

**Objective**: To evaluate and compare the levels of distress and psychological well-being of undergraduate nursing students from Brazil and Portugal. **Method**: This is a cross-sectional study conducted with 267 undergraduate nursing students from the first to the fourth year in Brazil and Portugal. For data analysis we used absolute frequency, relative frequency and mean. The association between qualitative variables was carried out using the Chi-square test. **Results**: Brazilian students are more anxious, depressed and lose emotional control more often, while students from Portugal present better psychological well-being. Students from the beginning of the course, Brazilian and female had a higher average for the variable distress. **Conclusion**: Efforts are needed to assist students in managing distress levels, through academic planning, encouraging insertion in leisure activities, and dealing resiliently with the academic universe.

Descriptors: Nursing; Higher Education; Mental Disorders; Mental Health.

## RESUMEN

**Objetivo**: Evaluar y comparar los niveles de angustia y bienestar psicológico de estudiantes de pregrado de enfermería de Brasil y Portugal. **Método**: Este es un estudio transversal realizado con 267 estudiantes desde el primero hasta el cuarto año de enfermería de pregrado en Brasil y Portugal. Para el análisis de los datos usamos frecuencia absoluta, frecuencia relativa y media. La asociación entre las variables cualitativas con la prueba de Chi-cuadrado. **Resultados**: Los estudiantes brasileños están más ansiosos, deprimidos y con mayor frecuencia pierden el control emocional, mientras que los estudiantes de Portugal tienen un mayor bienestar psicológico. Desde el comienzo del curso, los estudiantes brasileños y del sexo femenino tuvieron un promedio más alto para la angustia variable. **Conclusión**: Se necesitan esfuerzos para ayudar a los estudiantes a manejar los niveles de angustia de la planificación académica, alentar la inserción en actividades láser y tratar de adaptarse al universo académico. **Descriptores**: Enfermería; Educación Superior; Trastornos Mentales; Salud Mental.

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## INTRODUCTION

The transition from adolescence to adulthood is marked by a set of transformations that affect people's physical and mental health <sup>(1-2)</sup>. In addition to biological and cognitive changes, there is a need to acquire skills and abilities necessary to enter the labor market <sup>(1)</sup>. Notably, in nursing education, the University has stood out as a fundamental structure for educational transition to the professional world, certifying the egress for the performance of the profession<sup>(1-3)</sup>.

Given the transitional characteristics of this phase of life and the insertion in the academy, it is not uncommon for nursing students to increase responsibilities, to separate from the family, the fulfillment of the demands of the academic universe, such as high study load, need for abdication of hours of sleep and leisure and reconciling theoretical and practical classes. Thus, physical with the high and emotional investments, psycho-affective problems are often detected in this population, such as psychological distress <sup>(3-4)</sup>.

Psychological distress is a state of mental distress, characterized by adaptive difficulty perceived in everyday events. This process, linked to individual characteristics, can increase vulnerability to anxious and depressive behaviors <sup>(2,5)</sup>.

In contrast, psychological well-being is a protective mechanism against psychological distress, as it gathers adaptive resources to stressors, such as the use of support networks, leisure activities, with a positive influence on mental health <sup>(2,5).</sup>

Studies <sup>(3-4,6-7)</sup> have highlighted that health students are susceptible to predictive factors of distress, such as high stress levels, greater proximity and permanence to patients with different health problems.

A research <sup>(8)</sup> conducted with 455 nursing students from Ceará showed that the prevalence of psychological distress reaches up to 64% of the students, being associated with factors such as gender, age, year of the course, among others.

It is worth mentioning that the literature has a relevant quantity of studies on the subject, comparing students from the same place/region, lacking, on the other hand, studies that evaluate the profile of nursing students of different nationalities and its association with distress and psychological well-being. Thus, this study aimed to evaluate and compare the levels of distress and psychological well-being of undergraduate nursing students from Brazil and Portugal. **METHOD** 

This is a cross-sectional study that included undergraduate nursing students from first to fourth year, from the Federal University of Juiz de Fora, Brazil and the University of Algarve, Portugal. In both institutions, teaching activities take place during the day full time. In Brazil, 80 students are admitted per year through the Mixed Selective Admission Program (Pism) and the Unified Selection System (Sisu) of the Ministry of Education. In the Portuguese institution, 35 students are admitted per year, through admission exams on themes like Geology, Biology, Physics and Chemistry, and performance evaluation during secondary education.

Data collection at both institutions was conducted between August 2017 and February 2018. In Brazil, the study population consisted of 254 students and in Portugal, 130 students with active enrollment. It should be noted that the Brazilian student population was 254 and not 320, as expected, as there is a tendency of dropping out or course changing at the very beginning of the undergraduate program.

Inclusion criterion was being a nursing undergraduate student at the Federal University of Juiz de Fora, Brazil or the University of Algarve, Portugal. Students who did not complete all fields of the questionnaire or those who were away from the course for any reason during the data collection period were excluded.

The sample was established by simple finite population sampling, with 95% confidence, 5% error and considering proportion estimate equal to 50%. A minimum sample size of 154 was obtained for Brazilian students and 98 for Portuguese students.

All researchers participated in the data collection and were previously trained. They had access to the class schedules through the course coordination and, with the consent of the teachers, used the initial 15 minutes of the class to explain the research and invite students to participate in the survey. For the students who agreed to participate, the researchers presented the free and informed consent form (FIC) that was read and signed, a sociodemographic questionnaire with information on age, gender, race, income, religion, year of the course and the reduced version in Portuguese of the Mental Health Inventory (MHI-5), containing five questions, with Likert-type answers, ranging from "all the time" to "never" <sup>(9).</sup>

Among the existing scales, the MHI-5, a reduced version of the MHI is one of the most widely used scales to identify probable cases of depressed and anxious people, being therefore an appropriate instrument in clinical and nonclinical samples, and was validated for Portuguese with an alpha reliability index greater than 0.80 <sup>(9-10).</sup>

MHI-5 was used because it enables the evaluation of two dimensions: psychological distress and psychological well-being. Psychological distress is composed of three questions that evaluate depression, anxiety, and of loss emotional/behavioral control, respectively) while Psychological Well-being, is composed by two guestions that evaluate overall positive affection/emotional ties. The complete instrument consists of 38 questions distributed in the five scales mentioned above, which converge in the two major dimensions. From this instrument, the MHI-5 scale applied in the present investigation was extracted to assess anxiety, depression and psychological well-being. Considering the characteristic of the questionnaire, the distress scores could range from 1 to 15 points, with the higher the score the more distress. Regarding psychological wellbeing, the scores could range from 1 to 10 points, and the lower the score, the higher the psychological well-being. However, the scale application protocol recommends that the final score should be converted into grades ranging from "0" to "100". To do this, the following algorithm should be used: new score =  $100 \times (\text{gross score} - \text{lowest possible score}) / (\text{score variation})$ . Thus, it was considered for this study that a value greater than 57 would represent distress and a value less than or equal to 56 would represent psychological well-being.

The data obtained through the answers to the questionnaires were tabulated in an Excel spreadsheet - Microsoft Office 2010 and then transferred for analysis in the Statistical Package For Social Science (SPSS) version 21 software.

Data analysis was performed by absolute frequency, relative frequency and mean. The association between dependent and independent qualitative variables was tested by Chi-square test.

The research met all ethical precepts and was approved by the Research Ethics Committee of the Federal University of Juiz de Fora, Minas Gerais, under number CAAE 79766417.4.0000.5147, report number. 2.450.660.

## **RESULTS AND DISCUSSION**

A total of 267 students participated in the study, 155 from Brazil and 112 from Portugal (Table 1).

Table 1 - Sociodemographic characterization	of the population	(n: 267). Juiz de Fora,	MG, Brazil and
Algarve, Portugal, 2017-2018.			

VARIABLES	BRAZIL		PORTUGAL	P	
	Ν	%	Ν	%	
Gender					
Female	141	91.0	91	81.3 0.020	
Male	14	9.0	21	18.7	
Race					
White	89	57.4	109	98.2 0.000	
Black	22	14.2	0	0	
Brown	43	27.7	2	1.8	
Yellow	01	0.7	0	0	
Family Income*					
1 - 5 minimum wage	117	75.4	106	95.5 0.000	
5 - 10 minimum wage	30	19.4	04	3.6	
More than 10 minimum wage	08	5.2	01	0.9	
-			"con	tinued on next page'	

VARIABLES	BR	BRAZIL		Р*	
	N	%	Ν	%	
Period of Course					
Up to 4 <sup>th</sup> period From 5 <sup>th</sup> period	57	36.8	57	50.9 0.021	
From 5 <sup>th</sup> period	98	63.2	55	49.1	

Source: Research Data.

\*Chi-square test

It is possible to observe that the groups are not similar regarding sociodemographic characteristics (p < 0.05). This aspect and other cultural characteristics should be taken into account in the association analysis process when comparing different cultures in relation to distress and psychological well-being <sup>(2)</sup>. The average age of students in Brazil was 22.8 years and in Portugal, the average age was 21.3.

In both countries, the sample of students studied consisted mainly of women, white, with family income of up to 5 salaries, distributed between the first and fourth year of the course. These aspects corroborate investigations that show that between 55.3% and 93.4% of nursing graduates are female, young, white and with family income with up to 5 minimum wages <sup>(10-12)</sup>.

When categorizing factors that may cause distress or well-being stratified by country of origin, it is possible to observe that students in Brazil are more likely to lose emotional control "almost always" and "most of the time" compared to students from Portugal (p = 0.05) (Table 2).

Table 2 - Evaluation of distress and psychological well-being factors according to students' answers (n: 267).	
Juiz de Fora, MG, Brazil and Algarve, Portugal, 2017-2018.	

Variable	Brazil		Portugal	p*	
	Ν	%	Ν		%
Anxiety					
Never	18	11.6	11	9.8	0.369
Almost never	30	19.4	17	1	.5.2
For some time	41	26.5	22	1	.9.6
Most of the time	53	34.2	49	4	3.8
Often	13	8.4	13	1	.1.6
Depression					
Never	12	7.7	02	1.8	0.292
Almost never	16	10.3	13	1	.1.6
For some time	18	11.6	16	1	.4.3
Most of the time	74	47.7	30	26.8	
Often	03	20.6	02	1.8	
Loss of emotional control					
Never	03	1.9	01	0.9	0.050
Almost never	11	7.1	05	4	4.5
For some time	16	10.3	09	8.0	
Most of the time	54	34.8	31	27.7	
Often	52	33.5	35	3	1.3
Emotional ties					
Often	19	12.3	14	12.5	0.780
Most of the time	28	18.1	26	23.2	
For some time	49	31.6	37	33.0	
Almost never	52	33.5	31	27.7	
Never	07	4.5	04	3	3.6
Positive affection					
Often	25	16.1	28	25.0	0.659
Most of the time	37	23.9	26	2	3.2
For some time	50	32.3	36	3	2.1
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Variable	Br	Brazil		р*	
	Ν	%	Ν	%	
Positive affection					
Almost never	28	18.1	16	14.3	
Never	05	3.2	02	1.8	

Source: Research Data.

\*Chi-square test

No significant differences were observed between students from Portugal and Brazil regarding the conditioning factors of psychological well-being. Regarding distress factors, such as anxiety and depression, no significant differences were found either, but there was marginally significant variation (p = 0.05) for loss of emotional control. In terms of prevalence, Brazilian students are more anxious, depressed and more often lose emotional control, while students in Portugal have higher psychological well-being.

Similar to the findings, a study conducted with nursing students in Teresina, Piauí, found that 30.2% had some degree of depression and 62.9% of anxiety<sup>(11)</sup>. While a Portuguese study described 33% of distress among university students in the country, with anxiety ranging from moderate to high and few symptoms of depression and loss of emotional control <sup>(13)</sup>.

A Portuguese study <sup>(14)</sup> observed that nursing students more satisfied with the course tend to have a higher degree of psychological well-being and a lower degree of distress. Thus, satisfaction with academic life can be an important predictor for the mental health of nursing students. However, the increase in mental disorders among college students in several countries has been a challenge for educational institutions and health services, as they may interfere with physical/mental well-being and academic/professional performance <sup>(15)</sup>. In health care, the exacerbation of stress, mainly related to adaptive difficulties, competitive educational environment and dealing with sick people, can be the main trigger of mental problems.

For the undergraduate population, the accentuation of distress, to the detriment of psychological well-being, has been associated with separation from family, increasing volume of information, difficulties in reconciling academic and personal life and being female, in view of cultural factors and greater exposure to hormonal oscillation <sup>(2,11)</sup>. In addition, national and international studies conducted with health students have pointed to the relationship of psychic problems with high workload in practical activities and contact with finitude and sick people <sup>(7, 11,13,15)</sup>.

When the mean of distress and well-being are evaluated, differences between the groups can be observed, as shown in Table 3.

Variable	N	Distress Mean	SD*	Well-being	SD*	
				Mean		
Semester completed						
Up to 4 <sup>th</sup> period	114	77.77	2.94	76.22	1.82	
From 5 <sup>th</sup> period	153	69.57	3.04	66.77	2.26	
Country of origin						
Brazil	155	77.64	3.013	72.11	2.14	
Portugal	112	71.78	3.05	69.00	2.10	
Gender						
Male	35	72.57	2.40	64.44	2.32	
Female	232	85.50	3.07	71.77	2.08	

Table 3 - Mean of distress and well-being and variables of interest (n: 267). Juiz de Fora, MG, Brazil and Algarve, Portugal, 2017-2018.

Source: Research Data.

+Standard Deviation

When students were stratified into a group that completed up to half of the course and a group that completed more than half of the course, it was possible to observe that the first group showed a higher mean for distraction, whereas students who attended more than half of the course had a higher mean for psychological well-being.

The same can be seen among students from Brazil who had a higher mean of distress

compared to students from Portugal. In addition, female students have a higher mean of distress compared to male students.

Therefore, it was found that students from the beginning of the course, Brazilian and female, had a higher mean for the distress variable. On the other hand, a higher average for psychological well-being was identified among students in the final periods of the course.

Similar to these findings, studies with health students have identified a higher prevalence of mental disorders than students from other areas and the general population <sup>(11,16)</sup>. On average, the proportion of mental disorders in college students for the general population is 4: 1 <sup>(11)</sup>. On the other hand, as onserved in this investigation, the literature corroborates that, as the course progresses during, there is a tendency to decrease the level of distress, demonstrating greater adaptation to academic life <sup>(17-18).</sup>

Specifically related to nursing students, studies reiterate a high prevalence of anxiety and depression associated with gender, course period, quality of sleep and leisure <sup>(8,13,16-18)</sup>. These variables in educational institutions become important indicators for early screening and interventions in partnership with health services. In this sense, efforts are needed to assist students in managing distress levels, based on academic planning, encouraging insertion in leisure activities and dealing with the academic universe in an adaptive way, recognizing individual limits <sup>(18)</sup>. These actions can help in the design of preventive strategies and early identification of students vulnerable to mental disorders during training <sup>(7,19-20)</sup>.

A limitation of the study is the crosssectional design, linking the reverse causality that may occur in cross-sectional studies. In addition, the application of MHI-5<sup>(9)</sup>, a reduced version of the original test, allowed the synthetic assessment of inventory dimensions, which implies restricted correlations. It is known that other factors are associated with distress and psychological well-being, so other variables such as spirituality, leisure, support networks, among others, should be investigated.

# CONCLUSION

The evaluation and comparison of distress levels and psychological well-being of undergraduate nursing students from Brazil and Portugal allowed us to identify conditioning factors compatible with the literature. There was a prevalence of responses that characterized Brazilian students as more anxious, depressive and vulnerable to loss of emotional control. In addition, students from the beginning of the course, Brazilian and female had a higher mean for the variable distress. The present study contributes to delineate the profile of students at higher risk of distress and psychological wellbeing in Brazilian and Portuguese institutions. In addition, it contributes to the still scarce literature on the subject, allowing the acquisition of information, establishment of strategies and actions for the prevention and tracking of cases.

Longitudinal studies to determine causeand-effect relationships for distress and psychological well-being, as well as intervention studies that assess the impact of early screening and mental disorder prevention strategies on undergraduate nursing and health students are recommended.

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