

Depressive symptomatology in nursing students: integrative review

Sintomatologia depressiva em estudantes de enfermagem: revisão integrativa

Sintomatología depresiva en estudiantes de enfermería: revisión integrativa

RESUMO

Objetivo: Identificar os principais sinais e sintomas de depressão em estudantes de enfermagem, bem como entender os fatores relacionados. Métodos: Revisão integrativa realizada a partir das bases de dados Pubmed, MEDLINE, BDNF e LILACS, realizada entre agosto e outubro de 2023. Os descritores utilizados foram: Saúde Mental; Estudantes de Enfermagem; Saúde do Estudante; Transtornos Mentais, extraídos dos DeCS e MeSH. Resultados: Os principais sintomas depressivos entre estudantes de enfermagem de diferentes países, incluindo Japão, México, Brasil, Marrocos, Grécia, Espanha e outros, destacaram-se o estresse, ansiedade, medo, nervosismo, insônia e irritabilidade. Foi evidenciado também que durante a pandemia da Covid-19, outros sintomas associados à depressão foram notados com maior gravidade, como por exemplo, ansiedade grave e medo da morte. Considerações finais: Considerando que durante a graduação os estudantes experimentam sentimentos depressivos é extremamente importante que as instituições de ensino forneçam apoio incluindo acesso a aconselhamento e programas de apoio emocional.

DESCRITORES: Saúde Mental; Estudantes de Enfermagem; Depressão.

ABSTRACT

Objective: To conduct an integrative review to identify the main signs and symptoms of depression in nursing students, as well as to understand the factors related. Methods: Integrative review conducted using the Pubmed, MEDLINE, BDNF, and LILACS databases, conducted between August and October 2023. The descriptors used were extracted from DeCS and MeSH: "Mental Health"; "Nursing Students"; "Student Health"; "Mental Disorders". Results: The main depressive symptoms among nursing students from different countries, including Japan, Mexico, Brazil, Morocco, Greece, Spain, and others, were stress, anxiety, fear, nervousness, insomnia, and irritability. It was also evidenced that during the Covid-19 pandemic, other symptoms associated with depression were observed with greater severity, such as severe anxiety and fear of death. Conclusions: Considering that during the undergraduate course, students experience depressive feelings, it is extremely important for educational institutions to provide support, including access to counseling and emotional support programs.

DESCRIPTORS: Mental Health; Nursing Students; Depression.

RESUMEN

Objetivo: Identificar los principales signos y síntomas de depresión en estudiantes de enfermería, así como comprender los factores relacionados. Métodos: Revisión integrativa realizada a partir de las bases de datos Pubmed, MEDLINE, BDNF y LILACS, realizada entre agosto y octubre de 2023. Los descriptores utilizados fueron extraídos de los DeCS y MeSH: 'Salud Mental'; 'Estudiantes de Enfermería'; 'Salud del Estudiante'; 'Trastornos Mentales'. Resultados: Los principales síntomas depresivos entre estudiantes de enfermería de diferentes países, incluyendo Japón, México, Brasil, Marruecos, Grecia, España y otros, fueron el estrés, la ansiedad, el miedo, la inquietud, el insomnio y la irritabilidad. También se evidenció que durante la pandemia de Covid-19, otros síntomas asociados a la depresión se observaron con mayor gravedad, como por ejemplo, la ansiedad grave y el miedo a la muerte. Conclusiones: Teniendo en cuenta que durante la carrera los estudiantes experimentan sentimientos depresivos, es extremadamente importante que las instituciones educativas brinden apoyo, incluyendo acceso a asesoramiento y programas de apoyo emocional.

DESCRIPTORES: Salud Mental; Estudiantes de Enfermería; Depresión.

RECEBIDO EM: 12/11/2023 **APROVADO EM:** 17/11/2023

How cited: Rodrigues MVM, Maester LCG, Novais Ramos KLA, Silva HS, Araújo CM, Nogueira LEFL, Evangelista DM, Nascimento JCC. Depressive symptomatology in nursing students: integrative review (Edição Brasileira) [Internet]. 2023 [acesso ano mês dia];13(88):13401-13426. Disponível em:

DOI: 10.36489/saudecoletiva.2023v13i88p13401-13426

- ID** **Melissa Vitória Messias Rodrigues**
Nursing Student at Centro Universitário Estácio de Goiás. ORCID: 0009-0004-1880-4493
- ID** **Luiza Cristina Gonçalves Maester**
Nursing Student at Centro Universitário Estácio de Goiás. ORCID: 0009-0005-3131-9975
- ID** **Kadja Lúcia Alves Novais Ramos**
Nursing Student at Centro Universitário Estácio de Goiás. ORCID: 0009-0008-2021-3165
- ID** **Higor Siqueira da Silva**
Master in Health Care. Nurse. Teacher and coordinator of the Nursing Course at Centro Universitário Estácio de Goiás. ORCID: 0000-0001-6330-6822
- ID** **Caroline Marinho de Araújo**
Master in Nursing. Nurse. Professor of the Nursing course at Centro Universitário Estácio de Goiás. ORCID: 0009-0009-3706-4490
- ID** **Luzana Eva Ferreira Lopes Nogueira**
Doctorate student in Nursing. Master in Public Health. Nurse, Municipal Health Department of Goiânia, Professor of the Nursing Course at Centro Universitário Estácio de Goiás. ORCID: 0009-0009-3706-4490
- ID** **Dariel Machado Evangelista**
Master's student in Health Care. Nurse, Municipal Health Department of Goiânia. ORCID: 0009-0001-9795-8893
- ID** **Júlio César Coelho do Nascimento**
Master in Health Care and Assessment, Nurse, Professor of the Nursing Course at Centro Universitário Estácio de Goiás. ORCID: 0000-0002-1783-842X

INTRODUCTION

Mental health represents a complex public health problem of international dimension. Numerous studies indicate that it is a growing problem prevalent in different age groups. According to Gaiotto et al¹ Mental illness is the second biggest cause of mortality among young people aged 15 to 29. Period corresponding to the entry and stay of students in higher education, according to the National Institute of Educational Studies and Research Anísio Teixeira (INEP - *Instituto Nacional de Estudos e Pesquisas*).²

In Brazil, according to Graner and Cerqueira³, Health students present a variable rate of 18.5% to 44.9% of mental disorders ranging from anxiety to depression, evidenced by the presence of different symptoms such as insomnia, fatigue, irritability, forgetfulness and difficulty concentrating.

According to Faro et al⁴, the concern about the mental health of you-

ng university students grew during the pandemic scenario, as, especially during this period, they presented significantly higher levels of depression, anxiety and stress.

According to the World Health Organization⁵, the number of people facing mental health-related problems is more than 264 million. The main mental illnesses are linked to depression and anxiety. The latter affects countless students, since throughout their academic life, they need to deal with stressful situations that generate anxiety and other psychopathologies, requiring psychological and emotional resources to manage the demands during their training.⁶

Many students experience symptoms of anxiety during graduation, generated by numerous factors, such as disappointment between the expectations generated at the beginning of the course and the course of training.⁷ Many students experience symptoms of anxiety during graduation, generated by

numerous factors, such as disappointment between the expectations generated at the beginning of the course and the course of training. Bernardelli et al⁸ highlight that higher education is based on the reality of the job market and the student's development to live in the community.

In addition to anxiety and depression, students can face stress and this initial symptom can allow the individual to even develop Burnout syndrome.³

Regarding nursing students Souza, Souza and Santos⁹ state that they face greater exposure to symptoms that can trigger depression due to the responsibility inherent in care and the need to deal emotionally with suffering. Considering the challenges faced by students, this study aimed to identify the main signs and symptoms of depression in nursing students, as well as understand the related factors.

METHOD

This is an integrative review prepared in six stages, which include: a) identification of the topic and formulation of the research question; b) establishment of inclusion and exclusion criteria for the selection of studies; c) collection of data to be extracted from studies; d) critical analysis of selected studies; e) interpretation of results; f) presentation of the established synthesis and review of the contents.

In the first stage, the following guiding question was prepared considering the acronym PECO: P (Population); E (Exposure); C (Comparator); O (Outcome). What are the signs and symptoms, incidence and associated factors of mental disorders in nursing students?

Articles published in English, Spanish and Portuguese between 2019 and 2023 were included. The searches were carried out independently by three reviewers between the months of August and November 2023 in the virtual databases: MEDLINE, BDNF, LILACS and Pubmed. The descriptors used were extracted from the Health Science Descriptors (DeCS) and Medical Subject Headings (MeSH): “Mental health”, “Nursing students”, “Student Health” and “Mental disorders”.

Initially, the words in the titles, abstracts and keywords were identified. In the second stage, the search was carried out combining the keywords. Only observational studies that addressed the signs and symptoms and associated factors of mental disorders in nursing students were considered eligible.

Articles were selected based on the abstract and title, followed by review of the full text version. Those that addressed mental illness in students from other areas and those that did not contain a summary and were not available free of charge were excluded. Finally, the results were imported into Mendeley, which removed duplicate studies. For articles that met the inclusion criteria, an analytical and exploratory reading was carried out, followed by data categorization.

RESULTS

Initially, 2500 studies were found on symptoms of depression in nursing students. After applying the inclusion and exclusion criteria, only 26 articles were included in the study, as shown in the figure below.

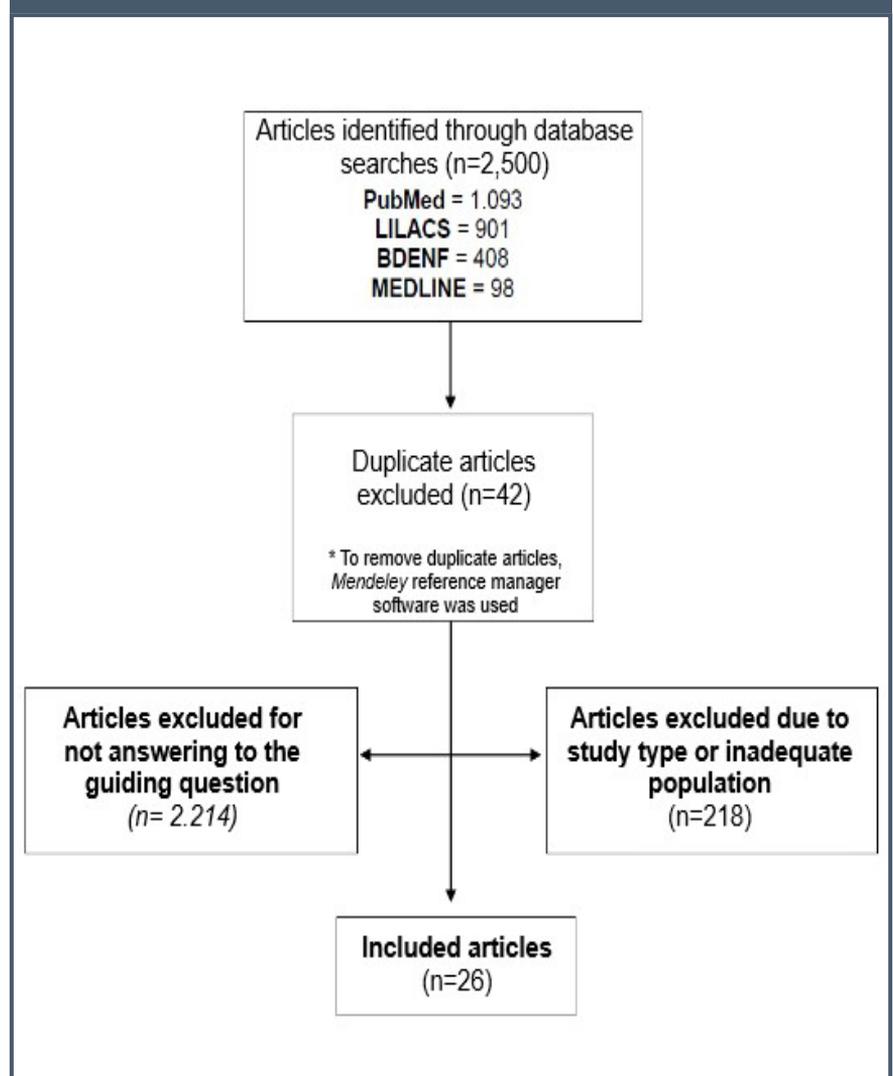
The studies that made up the final sample were organized according to the databases researched and categorized according to their authors, year of publication, title, main symptoms of mental illness presented, type of study, sample and main conclusions (Chart 1).

DISCUSSION

The results showed that mental illness among nursing students is intrinsically linked to environmental pressures, including exposure to high-stress situations and the challenging nature of work in the healthcare sector.

In the studies by Auerbach et al.¹⁰ carried out with 14,371 students, including nursing students, in Australia, Belgium, Germany, Mexico, Northern Ireland, South Africa, Spain and the United States, it was found that 35% had symptoms of at least one mental di-

Table 1: Characterization table of studies found in the databases, Goiânia-GO, 2023



Quadro 1: Quadro de Caracterização dos estudos encontrados na bases de dados, Goiânia-GO, 2023.

Author	Year	Database	Title of the article	Study Type	Sample	Symptoms presented	Main conclusions
Mohebbi et al	2019	Pubmed	State of Mental Health and Associated Factors in Nursing Students from Southeastern Iran	Cross-sectional study	130 students from the Faculty of Nursing and Midwifery affiliated with the Shiraz University of Medical Sciences (Iran)	It was found that 7.7% had somatic symptoms, 13.8% symptoms of anxiety and sleep disorders, 52.3% social dysfunction and 6.2% depression.	There is a high proportion of nursing students with mental health disorders. Demographic and academic factors are related to students' mental health.
Hsiung et al	2019	Pubmed	Screening nursing students to identify those at high risk of poor mental health: a cross-sectional survey	Cross-sectional design with purposive sampling.	2,779 participants aged between 19 and 45 years old.	Five mental health risks identified: increased risk of ultra-high risk, supposed states of pre-psychosis, high trait anxiety, high state anxiety with genetic risk and depression.	Identified risk of mental health problems among nursing students and examined relationships. Development of effective monitoring and intervention for nursing students at risk for mental health symptoms is recommended.
Santangelo et al	2019	Pubmed	Nursing students and depressive symptomatology: an observational study in University of Palermo	Observational study	493 nursing students from the University of Palermo	Stress Anxiety Depression	The study estimated the prevalence and examined the sociodemographic correlates of depressive symptoms in nursing students at the University of Palermo. The results showed that the risk of having depressive symptoms (moderate, severe or very severe) is associated with female sex.
Diaz-Godiño et al	2019	Pubmed	Lifestyles, Depression, Anxiety, and Stress as Risk Factors in Nursing Apprentices: A Logistic Regression Analysis of 1193 Students in Lima, Peru	The research was descriptive, cross-sectional and prospective.	1,193 nursing students from Chorrillos, Ica and Chincha	Moderate anxiety (19.7%), mild (14.2%), severe (2.5%) and extremely severe (2.4%). Depression (61.2%) and 59.9% stress.	Peruvian students presented moderate and extremely severe levels of anxiety.

Pinheiro et al	2020	Pubmed	Quality of life, minor depressive and psychiatric symptoms in nursing students	Cross-sectional study	242 Nursing students, from the 1st to the 8th semester of a Federal University in Southern Brazil.	25% of students had severe depressive symptoms and 54% of students had minor psychiatric disorders.	Nursing students showed a high prevalence of depressive symptoms, indicating the importance of implementing actions to promote and prevent mental health.
Liu et al	2021	Pubmed	The prevalence of fatigue among Chinese nursing students in post-COVID-19 era	Multicenter and cross-sectional study	1,070 nursing students from five Chinese universities.	The prevalence of fatigue was 67.3% anxiety symptoms	A fadiga era comum entre estudantes de enfermagem na era pós-COVID-19. Os autores recomendaram exames rotineiros de saúde física e mental para estudantes de enfermagem.
McDermott et al	2021	Pubmed	Characteristics of negative and positive mental health among nursing students in the United States	Estudo Transversal	1.399 estudantes de graduação em enfermagem de 100 Faculdades e universidades dos EUA.	Ansiedade; Nervosismo; Preocupação; Dificuldade para relaxar; Irritabilidade.	Fatigue was common among nursing students in the post-COVID-19 era. The authors recommended routine physical and mental health screenings for nursing students
kako et al	2021	Pubmed	Impact of the COVID-19 pandemic on mental health of nursing students in Japan: protocol for a cross-sectional study	Cross-sectional study	1,300 nursing students from eight universities in Japan	Anxiety; Depression; Insomnia	The study assessed the mental health of nursing students during the COVID-19 outbreak. However, this is a study in progress and some gaps were highlighted by the authors, such as low adherence, since the study initially set out to evaluate mental health in a multi-institutional way to obtain representative data for Japan.
Reverté-Villarroya et al	2021	Pubmed	Psychological Well-Being in Nursing Students: A Multicentric, Cross-Sectional Study	Cross-sectional descriptive and correlational study.	1,368 nursing students from three nursing schools in Spain (University of Lleida-UdL, University RoviraVirgili-URV, University of Girona-UdG) and one in Chile (University of La Frontera-UFRO).	Stress; Anxiety; Insomnia; Social dysfunction; Depression	Despite the high level of stress due to teaching methodologies in all courses, being a final year student demonstrated better psychological well-being when compared to first year students.

Revisão Integrativa EN

Melissa V.M. Rodrigues, Luiza C.G. Maester, Kadja L.A.N. Ramos, Higor S. da Silva, Caroline M. de Araújo, Luzana E.F.L. Nogueira, Dairiel M. Evangelista, Júlio C. C. do Nascimento
 Depressive symptomatology in nursing students: integrative review

Peréz-Pérez et al.	2021	LILACS	Stress, anxiety, depression and family support among Mexican university students during the COVID-19 pandemic	Cross-sectional, quantitative study	105 nursing students from Universidad Veracruzana	Depression (85.8%); Anxiety (84%); Stress (77.4%)	Anxiety, stress and depression disorders gradually affect different spheres of students' personal action, therefore, timely and preventive intervention is relevant.
Coelho et al	2021	LILACS	Symptoms of depression and anxiety in nursing students are associated with their sociodemographic characteristics	EAnalytical cross-sectional study, carried out with students from the Faculty of Nursing at the Federal University of Juiz de Fora	192 students with an average age of 21.44 (± 3.56) years.	Depression 22.40 (± 12.35); Anxiety 17.56 (± 11.98).	There was an association between symptoms of depression and anxiety related to the variables sex and psychotropic drugs.
Machado et al.	2021	LILACS	Coping strategies in anxiety situations for nursing students	Cross-sectional, correlational study	135 nursing course graduates from a university in northern Paraná Brazil	66% of students presented anxiety and symptoms compatible with anxiety disorders in the domain called Trait (n=10) and 31.8% (n=43) of 1st grade students presented symptoms compatible with anxiety, followed by 26.6% (n=36) of 4th grade students	Coping strategies were used less frequently, showing that the further along the series goes, the less students use them. However, the level of anxiety remained high. It is recommended to create projects, meditation groups, therapies and the like, with the aim of helping students minimize stress as a student and practice using coping in their daily lives
Mohammadi et al.	2022	Pubmed	Death anxiety, moral courage, and resilience in nursing students who care for COVID-19 patients: a cross-sectional study	Cross-sectional study	420 final year nursing students (nursing interns) affiliated with Southern Iran University of Medical Sciences	Death anxiety	The results showed high death anxiety, moral courage and resilience among students. Given this, the authors recommend adopting measures to preserve and improve the physical, mental and spiritual health of nursing students.

Cobo-Cuenca et al	2022	Pubmed	Longitudinal Study of the Mental Health, Resilience, and Post-Traumatic Stress of Senior Nursing Students to Nursing Graduates during the COVID-19 Pandemic	A prospective longitudinal study	296 students at a university in China	14.11% of students presented depression and 32.61% presented anxiety, 22.2% presented irritability, 27.8% presented sadness.	During the pandemic, students in their final year of the nursing course had a higher incidence of depression symptoms. Later, when they entered professional practice in hospitals, the symptoms of anxiety and depression decreased, although they continued to present mental health problems.
Bai et al.	2022	Pubmed	Network analysis of anxiety and depressive symptoms among nursing students during the COVID-19 pandemic	Cross-sectional research	983 nursing students from four Chinese universities: Peking University, Jilin University, Lanzhou University and Capital Medical University	Irritability; Uncontrollable worry; Difficulty relating; Depressed mood; Nervousness; Anhedonia.	The authors concluded that timely, systemic interventions at multiple levels, targeting core symptoms and bridge symptoms, may be effective in alleviating co-occurring experiences of anxiety and depression in this population.
Mendez-Pinto, Antuña-Casal e Mosteiro-Diaz.	2022	Pubmed	Psychological disorders among Spanish Nursing students three months after COVID-19 lockdown: A cross-sectional study	Descriptive, quantitative and transversal design.	304 students from two Nursing Faculties in the Principality of Asturias (Northern Spain).	Fear (19.4%); Stress (60.9%). Anxiety and depression: mean of 7.02 (SD ± 3.893) and 4.01 (SD ± 3.265). Anxiety (60.2%) Depression (84.5%)	Nursing students who participated in the study showed a notable psychological impact due to the COVID-19 pandemic and some factors contributed to this, such as concern about the pandemic scenario and, above all, lack of knowledge about the disease.

Revisão Integrativa EN

Melissa V.M. Rodrigues, Luiza C.G. Maester, Kadja L.A.N. Ramos, Higor S. da Silva, Caroline M. de Araújo, Luzana E.F.L. Nogueira, Dairiel M. Evangelista, Júlio C. C. do Nascimento
 Depressive symptomatology in nursing students: integrative review

Dafogianni et al	2022	MEDLINE	Anxiety, Stress and the Resilience of University Students during the First Wave of the COVID-19 Pandemic.	Cross-sectional study carried out at five Greek universities	288 university nursing students	Depression (44.8%), anxiety (36.8%) and stress (40.3%)	Several students suffered serious mental disorders during the first period of the COVID-19 outbreak. Variables such as gender, year of study, age, positive and negative affect scores, life orientation test scores and coping strategies were identified as contributing factors to this situation. Special attention should be paid to female students, as they mentioned negative emotions more frequently than males.
Ito et al	2022	MEDLINE	Impact of the COVID-19 pandemic on the mental health of nursing students in Japan: a cross-sectional study.	Cross-sectional study	1,197 nursing students from eight universities in Japan	Anxiety Depression Insomnia Fear	Mental health-related symptoms among nursing students in Japan did not necessarily worsen with the spread of COVID-19, but were exacerbated by the intensity of changes in daily life and fear, which are psychosocial effects associated with the pandemic.
Macêdo et al	2022	BDEF	Impact of the pandemic on the mental health of nursing students in the context of COVID-19	Exploratory, analytical, cross-sectional study, with a quantitative approach.	164 nursing students from a private higher education institution.	51.2% have a high indication for post-traumatic stress disorder (PTSD), 14.0% have a clinical concern for PTSD.	The COVID-19 pandemic had an impact on the mental health of Nursing students, with a high classification of participants with a high indication for PTSD.

Gundim et al	2022	BDENF	Common Mental Disorders and academic routine in undergraduate Nursing: impacts of the COVID-19 pandemic	Descriptive, quantitative study, carried out with undergraduate Nursing students at a university in southern Bahia, Brazil.	146 students participated in the study, with an average age of 23.6 years	Anxiety, nervousness and/or despair, hopelessness, stress, deep sadness, loneliness, discouragement and/or feelings of weakness, difficulties in family life and recurring thoughts of death. The prevalence of CMD was 68.5%	The study showed a high prevalence of CMD among students, in the context of the pandemic, and describes ways of managing mental health with (possible) use of them, and can serve as a subsidy for the development of strategies to prevent psychological distress and promote mental health by universities.
Luna et al	2022	MEDLINE	Relationship between empathy, assertiveness, anxiety and depression in Mexican nursing students	Cross-sectional study	909 students	Mild to moderate level of depression, moderate level of anxiety. Profile 2: Highest level of assertiveness, mild level of anxiety, medium level of empathy, first year of academic training. Profile 3: High level of empathy, third year of academic training, severe level of depression and anxiety. Profile 4: Men, low level of empathy, fourth year of academic training, minimum level of depression and anxiety	A "functional" profile is detected with greater assertiveness, a medium level of empathy and mild anxiety. A low level of empathy is associated with minimal levels of anxiety and depression in men. Finally, low levels of assertiveness are associated with moderate levels of anxiety and depression in women.
Silveira et al	2022	BDENF	Symptoms of anxiety and depression in the academic environment: a cross-sectional study	Cross-sectional study	199 students from a public university in Fortaleza, CE	The prevalence of symptoms of severe anxiety and minimal depression was 119 (62%) and 59 (29.6%), respectively.	It is concluded that the conditions associated with symptoms of anxiety and depression were more related to academic and health variables. In this way, the importance of early identification and devising strategies related to the symptoms observed is clear

Revisão Integrativa

Melissa V.M. Rodrigues, Luiza C.G. Maester, Kadja L.A.N. Ramos, Higor S. da Silva, Caroline M. de Araújo, Luzana E.F.L. Nogueira, Daniel M. Evangelista, Júlio C. C. do Nascimento
Sintomatologia depressiva em estudantes de enfermagem: revisão integrativa

Sokratous et al,	2023	Pubmed	Mental health status and stressful life events among postgraduate nursing students in Cyprus: a cross-sectional descriptive correlational study	Cross-sectional descriptive correlational study	90 students from the Master's programs (Mental Health Nursing and Midwifery) at the Cyprus Technological University	Stress; 39% of students showed signs of moderate to severe depression	The high frequency of clinical symptoms of mental distress among postgraduate nursing college students and their correlation with stressful life events highlights the need for college counseling services to provide psychological support strategies to students.
AL Maqbali et al	2023	MEDLINE	Fear, stress, anxiety, depression and insomnia related to COVID-19 among undergraduate nursing students: An international survey.	Multicenter and cross-sectional study	918 undergraduate nursing students from Saudi Arabia, Oman, the United Kingdom and the United Arab Emirates participated in the study.	Stress (91.6%); Anxiety (69.1%); Depression (59.8%); Insomnia (73.2%).	Undergraduate nursing students experienced moderate to severe levels of COVID-19 fear, stress, anxiety, depression, and insomnia two years after the start of the COVID-19 pandemic. Psychological intervention and peer support are necessary to reduce the long-term adverse outcomes of mental health problems and insomnia. It is important to introduce education on infectious disease crisis management during pandemics into the nursing curriculum to increase students' knowledge and improve their preparedness for such emergencies.

<p>Manana et al</p>	<p>2023</p>	<p>MEDLINE</p>	<p>Prevalence and Risk Factors for Anxiety Symptoms among Student Nurses in Gauteng Province of South Africa.</p>	<p>Cross-sectional descriptive study</p>	<p>379 nursing students from Chris Hani Baragwanath and SG Lourens Colleges of Nursing in Gauteng Province, South Africa</p>	<p>The prevalence of anxiety symptoms was 74.7%</p>	<p>The prevalence of anxiety symptoms in this study is relatively high, being a nursing student in the fourth academic year and the current use of psychoactive substances were predictors of anxiety symptoms. The authors recommend the need to develop interventions and strategies to promote mental health assessments and management to prevent and reduce the problem of mental disorders among students.</p>
<p>Rammouz et al</p>	<p>2023</p>	<p>MEDLINE</p>	<p>Religiosity, stress, and depressive symptoms among nursing and medical students during the middle stage of the COVID-19 pandemic: A cross-sectional study in Morocco.</p>	<p>Cross-sectional study carried out at the Ibn Zohr University of Agadir, Morocco.</p>	<p>413 students participated in this study (Medicine 92 and Nursing 321)</p>	<p>Depressive symptoms (62.2%) and stress (66.8%).</p>	<p>Religiosity is a protective factor against depression and stress among nursing and medical students. This should improve the student's ability to deal with stressful situations during training. Prospective studies are needed to further investigate this association and how religiosity improves mental health.</p>

sorder and this contributed to the loss of academic performance.

McDermott et al¹¹ carried out a survey with 1,399 students at universities located in the USA, demonstrating that nursing students presented symptoms of anxiety, nervousness, worry, difficulty relaxing and irritability, symptoms characteristic of depression.

In Lima, Peru, Diaz-Godíño et al¹² carried out a cross-sectional survey with 1,193 nursing students and characteristic symptoms of depression were also identified, which included: moderate anxiety (19.7%), mild (14.2%), severe (2.5%) and extremely severe (2.4%) and 59.9% of students reported experiencing stress related to academic routines.

Studies have shown that symptoms of depression are more evident in stressful situations among nursing students. This highlights the numerous studies published regarding the mental health of students during the COVID-19 pandemic.

As students progress through the course, Cavalcante¹³ states that problems related to mental health are getting worse, especially feelings of anguish, fear, pressure, longing, loneliness and insecurity. In research carried out in Southern Iran by Mohammadi et al¹⁴, with 420 final-year Nursing students, who were carrying out internships and in contact with patients with COVID-19, showed a high level of anxiety related to fear of dying. Cobo-Cuenca et al¹⁵ also observed a high incidence of anxiety and depression among 296 students in Spain during the last year of the course in the same period.

It is observed that as the course progresses, students begin to take on responsibilities that significantly contribute to increased stress, anxiety and leave them vulnerable to the development of depression.

In Brazil, Pinheiro et al¹⁵ carried out a cross-sectional study with 242 nursing students from the first to the eighth semester of a public university and

showed that 25% of the students presented severe depressive symptoms and 54% presented minor psychiatric disorders. Although the majority of research pointed to a greater chance of mental illness as the course progresses, this research found that the highest prevalence of depression symptoms were in the initial grades. We can infer that these results are justified due to the transition and adaptation process of students in higher education and that they may have contributed to the incidence of stress and anxiety.

In the study conducted by Gundim et al¹⁷ with 146 nursing students from a university located in the south of Bahia, Brazil, investigated the presence of Anxiety and Depression Disorder (CMD) and its relationship with sociodemographic and academic variables and the effects of the COVID-19 pandemic. The results revealed the manifestation of symptoms, such as anxiety, nervousness, despair, hopelessness, stress, deep sadness, loneliness, discouragement, difficulties in family life and recurring thoughts of death in a significant portion of students.

AL Maqbali et al¹⁸, in a multicenter study with 918 undergraduate nursing students from Saudi Arabia, Oman, the United Kingdom and the United Arab Emirates showed stress in 91.6% of participants, anxiety (69.1%), depression (59.8%) and insomnia in 73.2%.

Symptoms of depression are present in all nursing students around the world. In South Africa, Manana et al¹⁹ identified the prevalence of anxiety symptoms at 74.7% in 379 nursing students. In Morocco, Rammouz et al²⁰, identified depressive symptoms (62.2%) and stress (66.8%) in four hundred and thirteen students. The same symptoms were found in Greece, in studies by Dafogianni et al.²¹ with two hundred and eighty-eight nursing students from five different universities.

In Japan Ito et al²² evaluated the prevalence of anxiety, depression and insomnia among nursing students during

the pandemic and determined the risk factors associated with such symptoms. The prevalence of anxiety, depression and insomnia was 4.8%, 12.4% and 18.0%, respectively. Showing that the Covid-19 pandemic had an impact on the mental health of Nursing students.

CONCLUSION

This study made it possible to identify the main signs and symptoms of depression in Nursing students, as well as understand the factors that are related to these manifestations. It was evident that the COVID-19 pandemic had a significant impact on students' mental health.

Several studies in different countries have shown signs of mental illness among nursing students. Among the main symptoms, anxiety, fear, insomnia, depression, nervousness and stress were highlighted. This study also demonstrated that as the course progresses, symptoms of depression become more evident. Therefore, it is concluded that it is extremely important for educational institutions to provide emotional support during the student's stay on the course.

REFERENCES

1. Gaiotto EMG, Trapé CA, Campos CMS, Fujimori E, Carrer FCA, Nichiata LYI, Cordeiro L, Bortoli MC et al. Resposta a necessidades em saúde mental de estudantes universitários: uma revisão rápida. *Rev Saúde Pública*. 2021; 55 (114):1-18.
2. Brasil. Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (Inep). Censo da Educação Superior 2022: notas estatísticas. Brasília, DF: Inep, 2023. [cited 2023 nov. 02] Available from: https://download.inep.gov.br/educacao_superior/censo_superior/documentos/2022/apresentacao_censo_da_educacao_superior_2022.pdf
3. Graner KM, Cerqueira ATAR. Revisão integrativa: sofrimento psíquico em estudantes universitários e fatores associados. *Cienc Saude Coletiva*. 2019; 24(4):1327-46.
4. Faro A, Bahiano MA, Nakano TC, Reis C, Silva BFP, Vitti LS. COVID-19 e saúde mental: a emergência do cuidado. *Estudos de Psicologia*. 2020; 37 (e200074): 1-14.
5. World Health Organization. (2019). The WHO special initiative for mental health (2019-2023): universal health coverage for mental health. World Health Organization. [cited 2023 nov. 04] Available from: <https://iris.who.int/handle/10665/310981>
6. Pereira HP, Pina ACR, Da Silva CVM. Saúde mental e educação: um relato de experiência em promoção de saúde na rede educacional de Vitória da Conquista-BA. *Cenas Educacionais*, 2021; 4: e12081.
7. Igue EA, Bariani ICD, Milanese PVB. Vivência acadêmica e expectativas de universitários ingressantes e concluintes. *Psico-USF*. 2008; 13(2), 155-164.
8. Bernardelli LV, Pereira C, Brene PRA, Castorini LDDC. A ansiedade no meio universitário e sua relação com as habilidades sociais. *Revista da Avaliação da Educação Superior*. 2022; 27 (1), 49-67.
9. Souza, QM, Souza RR, Santos SS. Ansiedade e o estudante de enfermagem. [Trabalho de conclusão de curso]. Feira de Santana. Escola de Saúde da Universidade Salvador; 2023.
10. Auerbach RP, Mortier P, Bruffaerts R, Alonso J, Benjet C, Cuijpers P, Demyttenaere K, Ebert, DD et al. WHO World Mental Health Surveys International College Student Project: Prevalence and distribution of mental disorders. *Journal of Abnormal Psychology*. 2018; 127 (7), 623-638.
11. Mcdermott RC, Fruh SM, Williams S, Hauff C, Sittig S, Wright T, Riley B, Swanzy D et al. Characteristics of negative and positive mental health among nursing students in the United States. *Journal of the American Psychiatric Nurses Association*. 2021; 27 (1), 44-53.
12. Diaz-Godiño J, Fernández-Henriquez L, Peña-Pastor F, Alfaro-Flores P, Manrique-Borjas G, Mayta-Tovalino F. Lifestyles, depression, anxiety, and stress as risk factors in nursing apprentices: a logistic regression analysis of 1193 students in Lima, Peru. *Journal of environmental and public health*. 2019; 7 pages.
13. Cavalcante RDO, Da Silva JLL, Ramos GFS Saúde mental dos discentes de Enfermagem mediante a pandemia do COVID-19: Revisão integrativa da literatura. *Research, Society and Development*. 2022; 11 (3), e24211326517
14. Mohammadi F, Masoumi Z, Oshvandi K, Khazaei S, Bijan M. Death anxiety, moral courage, and resilience in nursing students who care for COVID-19 patients: a cross-sectional study. *BMC nursing*. 2022; 21 (150), 1-7.
15. Cobo-Cuenca AI, Fernández-Fernández B, Carmona-Torres JM, Pozuelo-Carrascosa DP, Laredo-Aguilera, JA Romero-Gómez B, Rodríguez-Cañamero S et al. Longitudinal study of the mental health, resilience, and post-traumatic stress of senior nursing students to nursing graduates during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*. 2022. 19 (20), 13100.
16. Pinheiro JMG, Macedo ABT, Antonioli L, Dornelles TM, Tavares JP, Souza SBC de. Quality of life, depressive and minor psychiatric symptoms in nursing students. *Rev Bras Enferm*. 2020; 73: e20190134.
17. Gundim VA, Encarnação JP, Fontes SKR, Silva AAFreitas, Santos VTC, Souza RC. Transtornos Mentais Comuns e rotina acadêmica na graduação em Enfermagem: impactos da pandemia de COVID-19. *Revista Portuguesa de Enfermagem de Saúde Mental*. 2022; (27): 21-37.
18. Al Maqbali M, Madkhali N, Gleason AM, Dickens GL. Fear, stress, anxiety, depression and insomnia related to COVID-19 among undergraduate nursing students: An international survey. *PLoS ONE*. 2023 18 (10): e0292470.
19. Manana M, Ntuli ST, Mokwena K, Maaga K. Prevalence and Risk Factors for Anxiety Symptoms among Student Nurses in Gauteng Province of South Africa. *Behavioral Sciences*. 2023; 13 (8): 630.
20. Rammouz I, Lahlou L, Salehddine Z, Eloumary O, Laaraj H, Ouhamou M, Mouhadi K, Doufik J et al. Religiosity, stress, and depressive symptoms among nursing and medical students during the middle stage of the COVID-19 pandemic: A cross-sectional study in Morocco. *Front. Psychiatry*. 2023; 14: 1123356. doi: 10.3389/fpsy.2023.1123356
21. Dafogianni C, Pappa D, Mangoulia P, Kourti FE, Koutelekos I, Dousis E, et al. Anxiety, Stress and the Resilience of University Students during the First Wave of the COVID-19 Pandemic. *Healthcare*. 2022; 10 (12): 2573.
22. Ito Y, Kako J, Kajiwara K, Kimura Y, Kakeda T, Hamanishi S, Sasaki S, Yamanaka M. Impact of the COVID-19 pandemic on the mental health of nursing students in Japan: a cross-sectional study. *Environmental Health and Preventive Medicine*. 2022; 27 (40) 1-9