

4-2023

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Mental Health of University Nursing Students: A Literature Review

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HNR 499: Honors Senior Project

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April 20, 2023

Mental Health of University Nursing Students: A Literature Review

Abstract

This paper explores the ongoing issue of mental health, specifically in nursing students. In addition to maintaining good academic status through exams, assignments, and papers, nursing students must also endure the stressful environment of a clinical setting. Through summarizing research and drawing overall conclusions, this paper examines the contributing and alleviating factors to poor mental health in this population. Data was obtained from studies published from 2017 to 2023 in the CINAHL database, and 11 studies were retrieved from a data collection process to be included in this review. Multiple studies show a low deviation in mental health levels, healthy behaviors, and resilience levels when examining nursing student populations. Topics such as resilience, mindfulness, yoga, and university courses and assignments demonstrated changes in levels of anxiety, depression, and stress in nursing students. Further exploration of ways to improve mental health in nursing students is necessary to ensure the future nursing workforce can take care of themselves and provide excellent care in their future careers.

Introduction

As a nurse it is necessary to manage complex cases in an adaptive, stressful, environment while maintaining compassion. Nurses are more successful in promoting health in patients when they have healthy lifestyles themselves (Evans et al., 2019). Based on this evidence, it is necessary to target improving the mental health of the future nursing workforce: nursing students. Nursing students are at risk for higher stress levels when compared to students pursuing other careers due to a large workload, fear of making mistakes in the clinical setting, and fear of unknown situations (Onan et al., 2019). Ongoing stress levels can influence the mental health of

students, especially when adapting to academic settings after a pandemic. Data involving the well-being and mental health in university students in relation to the COVID-19 pandemic indicated that 63 percent of students reported their mental health has deteriorated since the fall 2020 term (Morton, 2022). There is a need for research and interventions to combat the continuously rising rates of mental health issues. Maintaining adequate mental health not only includes the absence of a depression and anxiety diagnosis, but also being resilient, employing healthy coping mechanisms, and having self-compassion (Jenkins et al., 2019). This review of literature will explore the prevalence of mental health issues in nursing students along with successful interventions that can be applied to the population. The following review aims to answer these questions: How prevalent are mental health issues in nursing students? What coping mechanisms and lifestyles do nursing students have? What interventions decrease mental health issues in nursing students?

Methods

A comprehensive electronic search was conducted in the Cumulative Index to Nursing and Allied Health Literature (CINAHL) database in January 2023. The CINAHL database covers nursing and allied health literature dating back to 1982. The database's citations, abstracts, and data collection instruments were utilized in this review. The inclusion eligibility criteria for the review included studies published in between 2017 and 2023, English language, and peer reviewed academic journals. Key search terms used were "nursing student" and "mental health." Studies were automatically excluded if they did not meet the inclusion criteria mentioned above to provide recent and reliable sources. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) diagram (Figure 1) depicts the steps used to screen, retrieve, abstract, and evaluate data. Each article was screened using the inclusion criteria, retrieved,

abstracted by making notes of key pieces of information, and evaluated to determine relevance. Types of data collected include quantitative and qualitative studies with a cross-sectional, quasi-experimental, and posttest design. Common variables included age, gender, race, and academic status. Risk of bias that occurs across studies include population bias, self-reporting bias, and where the study occurred.

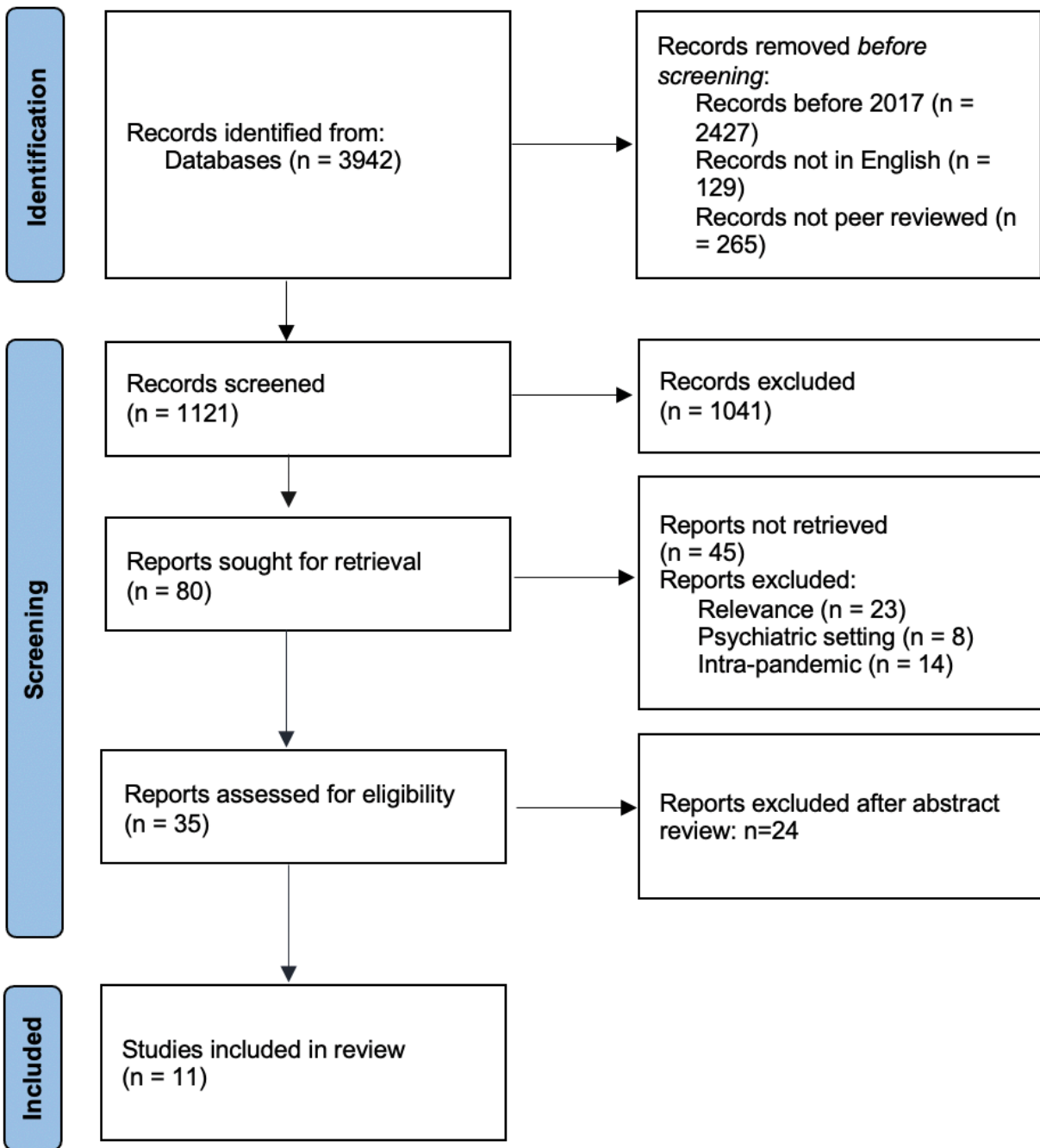
Results

The flow of information through the identification, screening, eligibility, and inclusion phases of the review are shown in Figure 1. The initial search yielded a result of 3,942 articles prior to applying the inclusion criteria. After the criteria was met, 1,121 records were screened and 80 were sought for retrieval based on the study's title. There were 45 records not retrieved after further evaluation due to lack of relevance, the study took place in a psychiatric setting, or the study occurred during the COVID-19 pandemic. After the exclusion criteria was applied, 35 reports were thoroughly read and assessed for eligibility resulting in a total of 11 studies to be included in the review. Table 1 provides the framework, methodologies, interventions, and findings of the 11 studies chosen.

Common themes found include low mental health rates in the nursing student population and lack of resources for students to utilize. Some studies aimed to discover the health habits and lifestyle of nursing students along with their self-perceived mental health and resiliency. Austin et al. (2022) found the obesity rates high and the physical activity levels low in a nursing student population. This is congruent with the findings in Evans et al. (2019) that show nursing students have unhealthy behaviors such as binge drinking, smoking, and poor diet. In addition, studies included in the review contained successful interventions to combat mental health. For example, Erkin et al. (2021) implemented a yoga course to a group of 47 nursing students. Through using

Figure 1

PRISMA Diagram



an in-person pretest and posttest method, students' mindfulness and self-compassion levels were higher after the course. Similar effective interventions in the review include a stress coping course, teaching mindfulness strategies, a self-care assignment, and a mental health course (Abuhammad et al., 2022; Jenkins et al., 2019; Matthes et al., 2022; Onan et al., 2019).

The main risk of bias found in these studies were small population sizes limited to one university and self-reporting bias. In addition, multiple studies took place in a country outside of the United States which may reduce the generalizability to nursing students in the United States.

Discussion

Findings

The findings in the 11 articles can be divided into three categories: mental health levels and resiliency, health behaviors and coping mechanisms, and effective interventions to combat mental health. In relation to mental health levels of nursing students, McDermot et al. (2021) discovered high symptoms of stress and feelings of rejection and inadequacy. This was a common theme among the studies due to the pressure nursing students may feel in the clinical setting (Melnyk et al., 2021). In addition, the resilience scores and perceived mental health scores retrieved from Hand et al. (2022) were lower in nursing students compared to the general United States population. Factors that contributed to low resilience in this study were heavy workloads, thoughts of giving up, and being several semesters into the nursing program. This demonstrates a need to create interventions specific to this vulnerable population.

When evaluating the health habits and coping mechanisms in the nursing student population there is possibility for improvement. Majority of a nursing student population was overweight or obese with low levels of physical activity (Austin et al., 2022). In this same population, majority of nursing students were aware of the benefits of exercising and eating

healthy, but price and availability of fresh foods was the main barrier for them. In a different anonymous self-report questionnaire about health behaviors, smoking, diet, sleep practices, and binge drinking were problem areas in a group of nursing students (Evans et al., 2019). This data demonstrates ineffective coping mechanisms seen in the target population in addition to more unhealthy behaviors. Stigma was found to be the main barrier when seeking support for mental health concerns in the nursing school population, so instead of seeking professionals, students relied on friends and ineffective coping mechanisms (Morton, 2022)

Due to the prevalence of mental health concerns in nursing students, several studies examined the effectiveness of interventions including a variety of courses and assignments. The stress coping course conducted by Onan et al. (2019) was a two hour a week elective that included concepts such as the physiology of stress, stressors, work stress and burnout, and coping methods. The course was provided through lectures, experience sharing, games, homework, and role play. The study concluded that the course was effective in increasing resilience and provided resources for students to use throughout nursing school. In addition, a self-care assignment was used as an intervention in a study conducted by Jenkins et al. (2019). The assignment was a paper or creative project exploring stress and stressors that created no additional work to the students. Overall, the assignment provided stress-free points and allowed students to identify stressors and increase wellbeing.

Limitations

Mental health is a well-researched topic that is continuing to grow; however, it is not thoroughly explored in the nursing student population. Consequentially, the sample sizes and populations in the 11 studies chosen were relatively small. Many studies were limited to a single university which confines the findings to a very specific population. In addition, the nursing

profession is predominantly women, so several studies expressed low male student data. The countries where studies occurred in this literature review include Jordan, England, Turkey, Scotland, Canada, and the United States. The large variety in culture, demographics, and the nursing scope of practice in these countries limit the generalizability of the data. Lastly, majority of the 11 studies utilized a self-reporting tool to gather data which puts the results at risk for internal bias.

Implications for practice

As the mental health problems continue to rise, there is a need for nursing programs to develop interventions and strategies to support their students. Based on the review of literature, further studies should be conducted to evaluate the effectiveness of courses and assignments that target self-care, mindfulness, coping strategies, and improving mental health overall. Studies show it is possible and effective for nursing students to have the option of a stress/coping course as an elective in a nursing program. If further research solidifies the effectiveness of courses, universities can integrate such classes into their program. Nursing school provides a glimpse into the stressful nursing occupation, so by providing resources stress, anxiety, burnout, and doubts of pursuing the career may substantially decrease in students. In conclusion, for the nursing profession to continue to grow and thrive, universities and hospitals need to put the mental health of nursing students as a priority

Table 1

Review of Literature Article Grid

Author, year	Theory/ conceptual framework	Variables	Design and methodology	Type/Mode of intervention	Sample	Intervention and/or measurements	Data collection and attrition rate	Data analysis techniques	Major findings	Limitations
Abuhammad, S., et al. (2022)	–	Gender, age, employment status, and marital status	A pretest-posttest design, Quantitative	Mental Health Course	n=205 nursing students	The Attitudes Toward Seeking Professional Psychological Help (ATSPPH) scale	In person survey before and after intervention. 100% response rate	The Statistical Package for Social Sciences Version 25	A significant difference was found in Attitudes Toward Seeking Professional Psychological Help subscales before and after the course	Different country (Jordan), self report tool
Austin, D., et al. (2022)	Cognitive basis of motivation and desire	Gender, age, race	Cross-sectional, Quantitative		n=154 first year nursing students	Likert scales, checkboxes, and free text responses. Alcohol Use Disorders Identification Test (AUDIT). Stunkard's figure rating scale (FRS)	Online and In-class questionnaires 34% (of n=458) response rate.	Means and standard deviations	Majority of student nurses were overweight or obese and only 41% met the recommended levels of physical activity. Majority want to improve diet and to exercise more	Different country (England), limited to one university, small response rate
Erkin, Ö., et al. (2021)	Mindfulness	Previous experience with yoga, age, gender	Quasiexperimental single-group pretest–posttest design study, Quantitative	Yoga course	n=47 nursing students	Personal Data Form, the Mindful Attention Awareness Scale (MAAS), Self-Compassion Scale (SCS), Reliable	In person form. 100% participation rate	Descriptive statistics, Pearson's correlation analysis, and the Wilcoxon test	Mindfulness and self-compassion levels were both higher after the yoga course. The higher the mindfulness level, the higher the self-compassion level	Different country (Turkey), limited to one university, self reporting, absence of a control group, time of posttest
Evans, J. M., et al. (2019)	–	Gender, age, traditional vs nontraditional student status	Non-experimental study, Quantitative		n= 207 first year nursing students	Warwick-Edinburgh mental wellbeing scale (WEMWBS), self report questionnaire	Data collected through in person questionnaire. 88% response rate (of n=235)	SPSS v21.0 programme, subgroup analyses	Smoking, diet, sleep practices and binge-drinking were identified as priority areas for health education and intervention	Different Country (Scotland), self reporting, limited to one university, small sample size,
Hand, M. W., et al. (2022)	Resiliency	Program level, age, gender, race	Cross-sectional descriptive study, Quantitative		n=199 nursing students	Connor Davidson Resiliency Scale, Patient Reported Outcomes Measurement Information System Global Health Short Form, Reliable and valid	Online survey questionnaire. Response rate of 24.8% (of n=802)	Stata/MP 14.0 statistical software. Linear regression analysis. One-sample t test	Resilience was positively correlated to self-perception of physical and mental health	Low response rate, limited to four schools, pre-COVID-19

Jenkins, E., et al. (2019)	Bloom's Cognitive, Psychomotor, and affective learning domains	Gender, age, level of education	Cross-sectional, Quantitative and qualitative	Self care assignment	n=89 nursing students	16-question survey with closed and open ended response fields	Data collected through surveys. 49% response rate	Quantitative data were analyzed using SPSS, and qualitative data from the open-ended questions were analyzed in Microsoft Word.	The assignment was found to support wellbeing and increased the ability to identify and manage stressors	Different country (Canada), limited to one university
Matthes, J., et al. (2022)	–	Gender, age, ethnicity	Posttest design, Qualitative	Mindfulness strategies	n= 54 nursing students	Guided meditation, positive mantras, and study music were implemented	Data collected from convenience sample through survey. 48% response rate (of n=112)	Percentages of responses	University should incorporate mindfulness with intent and provide multiple options for students to practice	Small sample size, low response rate
McDermot, R. C., et al. (2021)	Positive Psychology	gender, age, and year in school, United States	Non-experimental study, Quantitative		N=18312 undergraduate students n=1399 nursing students	Patient Health Questionnaire-9, Generalized Anxiety Disorder-7, Flourishing Scale	Data was gathered through the National Healthy Minds Study. No information on response rate	Chi-square tests, Mplus Version 7.31	Majority of nursing students reported significantly higher levels of specific anxiety symptoms and certain psychological strengths compared to students in other professions	Low diversity in race and gender, self report measures
Melnyk, B. M., et al. (2021)	–	Age, gender, degree, race, discipline,	A cross-sectional correlational study design, Quantitative		n=869 faculty and n=1087 students	The Patient Health Questionnaire 2, The Generalized Anxiety Disorder 2 scale, The Perceived Stress Scale 4, Reliable and valid	Data collected from survey sent out via email. Unknown response rate	Descriptive statistics, chi-square tests, One-way analysis of variance, independent-samples t-tests, multiple linear regression models. All using SAS software	There are suboptimal levels of healthy behaviors and high levels of stress. Students reported higher levels of depression, anxiety, and stress compared to faculty	Not specific to nursing students, causality cannot be inferred
Morton, C. (2022)	–		Systematic review of literature			Systematic searches conducted in March 2019 on the PsycInfo, MEDLINE, and Cumulative Index to Nursing and Allied Health databases		Thematic synthesis approach	Nursing students who seek support for their mental health go to friends and family rather than professional support. Stigma is the main barrier to seeking support	
Onan, N., et al. (2019)	Psychological resilience	Age, living situation, smoking, drinking	Pretest/posttest design, Quantitative	Stress coping course	n= 78 nursing students	Stress Self-assessment Checklist and the Psychological Resilience Questionnaire (PRQ), Valid and reliable	In person questionnaires. 69% (of n=113)	Frequency, percentage, the Wilcoxon signed-rank test, and correlation analysis.	There was significant increase in the subscales of self-perception and social resources following the course	Different country (Turkey), small sample size, small number of male students, self reporting

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