

A Systematic Review on Stress and Coping Strategies of Nursing Students

Toboso, Devon Chester A.¹, Guerra, Joesin Paul F.², Gabat³, Gerald⁴, Jake G. Gabat Co-, Ban⁵, Salvacion G⁶.

Central Philippine Adventist College School of Nursing

*devonarcd@gmail.com**

*jepguerra@gmail.com**

*jakeboygabat@gmail.com**

*bansally@cpac.edu.ph**

ABSTRACT

Stress is a pervasive phenomenon that impacts people’s emotional and professional well-being, as well as their physical and mental health. It affects the retention and patient outcomes of care. It has also severely affected healthcare finances. McCarthy et al. (2018) stated that although stress is an unavoidable aspect of academic life, not all stress is bad. This qualitative study on Systematic Review of Stress and Coping Strategies aims to identify sources and levels of stress experienced by undergraduate nursing students and their employed coping strategies. Review analyses of the 25 relevant studies published between 2016 and 2023 through database selection, securing credible access to academic databases containing medical literature and Francis Online, ResearchGate, ScienceDirect, Cochrane Library, and EBSCOhost. Common stressors shifted based on the student year. Three primary stressors were identified: heavy workloads, negative interactions with clinical instructors and healthcare staff, and patient care concerns, including fear of mistakes. Interestingly, fourth-year heaviest workloads; second- and third-year students identified patient care concerns; and most of the studies indicated that participants experience moderate to high levels of stress during initial clinical placements and exposure to the healthcare environment. Participants employed varied coping strategies, such as focused coping, problem-solving strategies, emotion-focused strategies, a combination of problem-focused and emotion-focused strategies, and avoidance coping. This study aims to address students’ sources of stress, enhance workload management and communication skills, and promote healthy coping mechanisms through workshops for participants to not only cope with stress but thrive amidst the different challenges of nursing life.

INTRODUCTION

Stress is a ubiquitous phenomenon affecting the physical and mental health of individuals' professional and personal well-being. It undermines nursing patients' outcomes of care and retention and even hurts the healthcare finances. Although not all stress is negative, It is an inevitable part of academic life, McCarthy et al. (2018). Studies by Saleh et al. (2018) reveal alarmingly high rates of stress-related psychological distress (72.9%), anxiety (86.3%), and depression (79.3%) among French college students. Taniguchi and Kato (2018) suggest that interpersonal stress is more detrimental to mental health compared to financial, work-related, or other non-interpersonal stressors.

This qualitative study on the systematic review methodology aims at synthesizing existing research on a specific topic, allowing for a comprehensive understanding of the current evidence from existing studies (Ganeshkumar & Gopalakrishnan, 2013).

Three primary stressors were identified: heavy workloads, negative interactions with clinical instructors and healthcare staff, and patient care concerns, including fear of mistakes. Interestingly. Common stressors shifted based on the student year. Fourth-year heaviest workloads; second- and third-year students identified patient care concerns; and most of the studies indicated that participants experience moderate to high levels of stress during initial clinical placements and exposure to the healthcare environment. Participants employed varied coping strategies, such as focused coping, problem-solving strategies, emotion-focused strategies, a combination of problem-focused and emotion-focused strategies, and avoidance coping. This study aims to address students' sources of stress, enhance workload management and communication skills, and promote healthy coping mechanisms through workshops for participants to not only cope with stress but thrive amidst the different challenges health care challenges in the future.

LITERATURE REVIEW

Stress is a ubiquitous phenomenon affecting the physical and mental health of individuals' professional and personal well-being, especially nurses, which unfortunately can overflow into patient outcomes. It undermines nursing retention and can hurt a healthcare organization's finances. Although not all stress is negative, it is also an inevitable part of academic life, McCarthy et al. (2018). Studies by Saleh et al. (2018) reveal alarmingly high rates of stress-related psychological distress (72.9%), anxiety (86.3%), and depression (79.3%) among French college students.

Although perceived stressors may differ between different courses, stress levels may be similar between different courses. In the studies they cited, an average of 26% of students experienced stress, and within their own data gathering, they have concluded that those in the medical courses experience higher levels of stress, depression, and anxiety than those in other courses. In a study of Italian medical students by Leombruni et . al. (2022), they reported that 55.2% and 16.9% reported experiencing moderate to high levels of stress, respectively; and in a cited Russian study, 69.1% and 4.9% of students reported experiencing moderate to high

levels of stress, respectively. Research has consistently highlighted various aspects of academic stress, such as excessive workload, competition, fear of failure, and high expectations from professors and parents (Smith et al., 2016).

Nursing students face a unique stress profile. Labrague et al. (2016) identified academic and clinical placements as major sources of stress during clinical exposure perceived by nursing students at all levels. However, individuals experiencing high stress often resort to avoidance, focusing on negative emotions rather than addressing the source of stress (Coiro, Bettis, & Compas, 2017). Coping strategies play a crucial role in managing stress and maintaining mental health in college students. These strategies can be categorized as problem-focused—aimed at resolving the stressors—or emotion-focused—aimed at managing the emotional response to stress. Effective coping mechanisms can significantly influence their susceptibility to psychological distress (Saleh et al., 2017).

With the entrance of the COVID-19 pandemic, many studies were done during the pandemic on students and their perceived stress, particularly focusing on how the transition from in-person classes to an online environment affected their mental and emotional well-being. Hathaway, Peyer, and Doyle's (2023) study revealed that roughly 61% of male university students experienced moderate to high levels of stress and that roughly 77% of female university students experienced moderate to high levels of stress. In a study by Labrague (2018), detailing the coping styles of student nurses during the second wave of the COVID-19 pandemic, she concluded that the main way of coping that student nurses employed was to seek information and consultation. Hu and Sun (2023) investigated the mediating role of coping strategies to COVID-19 stressors and aggressive behavior, and they concluded that 2 avoidance coping strategies proved to have a positive mediating role between aggressive behavior and stressors of COVID-19: avoidance strategy and self-punishment, and they also found that no strategy that can be considered as either emotion-focused or problem-focused had a positive mediating role between stressors of COVID-19 and aggressive behavior.

In regard to coping strategies commonly employed by college students, In a study conducted This study has a common pattern in which students with higher rates of use of problem-focused coping strategies had lower instance rates of negative effects or outcomes, while those that relied on avoidance coping strategies had higher instance rates of negative effects or outcomes. In a study by Anbumalar et.al. (2017), it investigated the variations in stress levels and coping mechanisms based on gender among college students. The findings revealed that female students reported higher levels of perceived stress and tended to rely more on emotion-focused coping strategies, while male students demonstrated higher engagement in problem-focused coping strategies.

A systematic review is a type of qualitative study in which various studies and research outputs is reviewed to determine whether the information presented agrees with each other. In nursing practice, systematic reviews need to be conducted on a regular basis to ensure that best possible care and treatment were attained. It addresses different aspects of nursing practice, such as effectiveness of interventions, accuracy of diagnostic tests and measurement

instruments (Pollock & Berge, 2018). These studies also aim to identify any weaknesses in current nursing practice, find ways to improve protocols and policies in order to ensure the best patients outcome of care. In an article by Pati and Lorusso in (2018), they discussed systematic review is the process of collecting, critically evaluating, and presenting findings from various research studies about a specific topic. It provides a method to assess the quality and magnitude of updated evidence related to a question or phenomenon. It helps adheres to standardized methods and guidelines of searching, filtering, reviewing, critiquing, interpreting, synthesizing, and reporting of the findings from multiple studies about the topic of interest.

Stress is a universal phenomenon affecting both physical and mental health to which every single individual, especially student nurses undergoing extensive clinical training programs. This study explores the important factors contributing to stress and identifies effective coping management strategies used by nursing students. The study will also provide a helpful guide for students in planning stress management interventions to produce more resilient future nurses.

METHODS

This qualitative study employed a systematic review methodology of studies published between 2016 and 2023 (inclusive) to achieve its goals. It includes valuable tools for synthesizing existing research on a specific topic, allowing a comprehensive understanding of the current evidence shown in the different studies (Ganeshkumar & Gopalakrishnan, 2013).

This systematic review included studies that met the following criteria: 1. Studies must involve student nurses enrolled in a Bachelor of Science in Nursing (BSN) program, specifically those in their 1st to 4th year of study. 2. Focus. The research topic must directly address stress and coping mechanisms among student nurses. 3. Publication Date. It utilizes a combination of keywords and boolean operators. Candidate keywords include: stress, coping, clinical practice, student nurse, and nursing student.

Data analyzing and gathering processes involve rigorous data analysis, such as: Initial Screening: Studies were initially screened by title using EBSCOhost and The Cochrane Library; 2. Abstract review: abstracts of shortlisted studies were assessed for relevance to the research question; 3. Full-text screening: a full-text review was conducted on studies meeting the initial criteria to ensure a comprehensive understanding of the methodology, results, and conclusions.

Then, data collection and analysis utilizing Colaizzi's (1978) through the following steps: reading the transcriptions to obtain a general sense of the whole content and extracting significant statements for each transcript that pertains to the studies.

RESULTS AND DISCUSSION

All 25 studies included in the review revealed that student nurses experienced moderate to high levels of stress (Shdaifat et al., 2018) among the 184 participants. Two studies reported

a range of low to moderate/high stress. Onieva-Zafra et al. (2020) found that first-year students of 192 participants experienced lower stress related to clinical rotations but higher stress regarding lack of knowledge and skills. Conversely, students in later years reported moderate stress with theoretical classes but higher stress with clinical rotations as they progressed to more specialized units.

Utilizing Colaizzi’s thematic analysis revealed three main sources of stress for nursing students: the amount of assignments and heavy workloads, negative interactions or communication problems with teachers and healthcare staff, and taking care of patients.

Table 1.

Stress Factors and Perception

Author/s and Year Published	Title of the Research Study	Participants of the Studies/Country	Country	Stress Factors and Perception
Labrague, et al. (2017)	A literature review on stress and coping strategies in nursing students	13 Studies published within the years 2000 to 2015 using the keywords “stress”, “coping strategy”, “nursing students”, “clinical practice”	England	Examinations Relations with Friends Clinical Practice Reports
Shdaifat, Jamama, Al Amer (2018)	Stress and Coping Strategies among Nursing Students	184 Student nurses of the College of Nursing of the University of Dammam in Saudi Arabia	Saudi Arabia	Assignments and workload Negative interactions with teachers and nursing staff Care of patients Peers and daily life
Gurkova and Zelenikova (2018)	Nursing students’ perceived stress, coping strategies, health and supervisory approaches in clinical practice: A Slovak and Czech perspective	300 1 st , 2 nd , or 3 rd year Nursing students from 2 universities in the Czech Republic and Slovakia;	Czech Republic and Slovakia	Clinical practice Teachers and Nursing staff Examinations
Liu, et al. (2022)	Stress and coping styles among nursing students during the initial period of the clinical practicum: A cross-section study.	158 Nursing students in a tertiary hospital in Zhejiang Province, China	China	Need for knowledge and skills Teaching arrangements for clinical practicum Nature and content of work Supervision and evaluation Patient’s status Environment and equipment of wards
Ching, Cheung, Hegney, Rees (2020)	Stressors and coping of nursing students in clinical placement: A qualitative study contextualizing their resilience and burnout	24 undergraduate final-year nursing students	Not Stated	Meeting the nurses’ expectations of speed and accuracy in practice Diversity of practice Optimizing Patient Care
Zhang, Cherniak, Hallet (2017)	Relationship Issues Among College Nursing Students: Associations With Stress, Coping, Sleep, and Mental Disorders	242 undergraduate nursing students at a public university in the northeast USA	USA	Relationships (“concern for troubled friend or family member” and “relationship difficulty” ranked among the top 10 reported health impediments to academic performance by college students)
Bhurtun, Turunen, Estola, Saaranen (2020)	Changes in stress levels and coping strategies among Finnish nursing students	253 Nursing students from 5 Universities of Applied Sciences in the eastern region of Finland	Finland	Stress factors differed from the 2 points of time the data was taken. M1 data concurs that the main stressor was “taking care of patients” and “unable to provide appropriate responses to doctors’, teachers’, and patients’ questions”.

				M2 data concurs that the main stressor was “unfamiliar with medical history and terms” and “lack of experience and ability in providing nursing care and in making judgments”
Yildirim-Hamurcu & Terzioğlu (2022)	Nursing students’ perceived stress: Interaction with emotional intelligence and self-leadership.	341 nursing students were enrolled in this descriptive correlational study	Turkey	<ul style="list-style-type: none"> Assignments and workload Taking care of patients Lack of professional knowledge and skills Teachers and Nursing staff
Uzziel Perez-Gress, Maya-Sanchez, Lopez-Nolasco, Cano-Estrada. (2021)	Influential Factors on the Stress Level Among Students of Bachelor’s Degree in Nursing.	332 students from different semesters of the bachelor’s degree in Nursing.	Mexico	<ul style="list-style-type: none"> Assignments and workload Teachers and nursing staff Individual life events
Hassan, Algamal, Fadlalmola (2023)	Stress among Undergraduate Nursing Students at Governmental Nursing Faculties in Sudan	286 Nursing students from all four levels (1-4) including repeat and upgrade students.	Sudan	<ul style="list-style-type: none"> Faculty environment / Teachers and nursing staff Academic workload Time management
Lavoie-Tremblay, Sanzone, Aubé, Paquet. (2022)	Sources of Stress and Coping Strategies Among Undergraduate Nursing Students Across All Years.	26 undergraduate students attending a university in Montreal, Canada	Canada	<ul style="list-style-type: none"> Course workload Multiple and overlapping assignment deadlines Preparations for examinations Negative teacher and nursing staff interactions Preparations for graduation/employment
Chaabane, Chaabna, Bhagat, et al. (2021)	Perceived stress, stressors, and coping strategies among nursing students in the Middle East and North Africa: an overview of systematic reviews.	7 Systematic Reviews and 42 primary studies	Middle East-North Africa region	<ul style="list-style-type: none"> Patient care Teachers and nursing staff Assignments and workload Peers and daily life Lack of professional knowledge and skills Physical and intrapersonal stressors outside of training periods
Majrashi, Khalil, Nagshabandi, Majrashi. (2021)	Stressors and Coping Strategies among Nursing Students during the COVID-19 Pandemic: Scoping Review.	13 studies that addressed stressors and and copign strategies of Nursing students during the COVID-19 pandemic.	and Switzerl	<ul style="list-style-type: none"> Distance learning Assignments and workload Clinical training COVID-19 Infection
Kacan, Pallos. (2021)	Global Problem of Nursing Students: Nursing Education Stress: A Sample From Turkey	431 nursing students at a nursing department of a university in Turkey	Turkey	<ul style="list-style-type: none"> Academic-related stress <ul style="list-style-type: none"> Assignments and workload Constant preparation for exams Fears of unfair evaluation Communication problems with faculty Practice-related stress <ul style="list-style-type: none"> Communication problems with healthcare professionals and patients Fear of giving care to patients with complex health problems Fear of making mistakes in care Characteristics of the clinical setting
Hwang, Kim, Shin. (2021)	Initial Clinical Practicum Stress among Nursing Students: A Cross-Sectional Study on Coping Styles.	191 college nursing students who had completed their initial clinical practicum in university nursing programs.	Korea	<ul style="list-style-type: none"> Clinical practicum Lack of experience and competence in patient care Situational judgement Being unfamiliar with medical history and terminology Differences between theory and practice Practical education environment Practical work burden Undesirable role model

Table 1 highlights the common stressors identified among undergraduate nursing students. These stressors, such as academic workloads, include demanding assignments and academic pressure, and supported by the study of Hwang et al. (2021), students reported feeling overwhelmed by coursework.

Negative interactions with teachers, instructors, and healthcare professionals emerged as another prevalent stressor in 14 studies. These interactions may involve communication issues, unfair evaluations, or anxieties about meeting faculty expectations.

Teachers and healthcare professionals negative interactions or communication problems with teachers and healthcare staff were reported in 14 studies. For instance, Al-Gamal et al. (2017) found that negative interactions with faculty and hospital staff ranked as the second highest source of stress for student nurses. Similar results were reported by Kacan and Pallos (2021), where a majority of students expressed dissatisfaction with the nursing faculty. These stressors may include fears of unfair grades or negative evaluations from instructors and healthcare professionals.

Clinical competency and skill development: Eleven studies identified the need to develop specialized knowledge and skills during clinical placements as a major source of stress, particularly for first- and second-year students embarking on their initial clinical experiences. The study by Hwang et al. (2021) exemplifies this, where students expressed anxieties related to a lack of competency and experience in providing patient care.

Eleven studies identified patient care during clinical placements and rotations as a significant source of stress. The study by Hwang et al. (2021) highlights this: caring for patients during initial clinical practice was highly stressful due to students' lack of professional knowledge and skills, unfamiliar medical terminology, and observed discrepancies between theoretical learning and practical application.

Table 2. Stress Management and Coping Mechanisms or Strategies

<i>Author/s and Year Published</i>	<i>Title of the Research Study</i>	<i>Participants of the Studies/Country</i>	<i>Country</i>	<i>Coping Strategies/Management</i>
Rafati, et al. (2017)	Coping strategies of nursing students for dealing with stress in clinical setting: A qualitative study	18 Undergraduate Nursing students of the Razi Nursing and Midwifery College of the Kerman University of Medical Sciences in Iran	Iran	<p>Problem-focused</p> <ul style="list-style-type: none"> • Develop professional competency • Correcting wrong intervention • Facing stressful situation purposefully • Reflection on stressful situation • Use of communication skills in controlling stressful interactions <p>Emotion-focused</p> <ul style="list-style-type: none"> • Deviation and stop thinking • Realism • Positive Thinking/optimism • Use of Herbal or chemical medicines • Reducing physiological symptoms • Releasing emotions • Praying <p>Avoidance</p> <ul style="list-style-type: none"> • Avoiding the stressful situation • Giving up
Bodys-Cupak, Majda, Kurowska, Ziarko, Zalewska-Puchala (2021)	Psycho-social components determining the strategies of coping with stress in undergraduate Polish nursing students.	450 Full-time undergraduate nursing students at the Jagiellonian University Medical College	Poland	<p>Problem-Focused</p> <ol style="list-style-type: none"> 1. Active Coping 2. Planning <p>Emotion-focused</p> <ol style="list-style-type: none"> 1. Seeking Emotional Support 2. Seeking Instrumental Support 3. Positive Reinterpretation 4. Acceptance

				5. Use of psychoactive substances Avoidance 1. Denial 2. Discontinuation of Activities
Hamadi, <i>et al.</i> (2021)	Stress and Coping Strategies among Nursing Students in Clinical Practice during COVID-19	160 Nursing students of the Nursing Department of a private University	Not Stated	Problem-focused 1. Problem-solving behaviour Emotion-focused 1. Staying Optimistic 2. Transference
Alsolais, <i>et al.</i> (2021)	Risk perceptions, fear, depression, anxiety, stress and coping among Saudi Nursing students during the COVID-19 pandemic	1057 2 nd to 4 th Nursing students of 4 Universities	Saudi Arabia	Problem-focused 1. Active Coping / Problem-solving behaviour 2. Planning Emotion-focused 1. Use of Emotional Support 2. Religion 3. Acceptance 4. Use of Instrumental Support 5. Self-Distracton 6. Humor 7. Venting 8. Positive Reframing / Optimism Avoidance Behaviour 1. Behavioural Disengagement 2. Denial 3. Self-blame
Waled & Badria (2019)	Nursing students' stress and coping strategies during clinical training in KSA	125 Nursing students enrolled in clinical training at any academic level of Albaha University	Saudi Arabia	Problem-focused 1. Problem-solving approach Emotion-focused 1. Staying optimistic 2. Transference Avoidance 1. Avoid difficulties during clinical practice 2. Expect miracles so one does not face difficulties / Wishful thinking Expect others to solve the problem
Labrague, McEnroe-Pettite, De los Santos, Edet. (2018)	Examining stress perceptions and coping strategies among Saudi nursing students: A systematic review.	11 articles gathered from SCOPUS, CINAHL, PubMed, and Ovid	Saudi Arabia	Problem-focused 1. Problem-focused approach 2. Preparing to solve the problem 3. Formulating plans and priorities to resolve problems 4. Employing previous experience to solve the problem
Alanazi, <i>et al.</i> (2023)	Clinical environmental stressors and coping behaviors among undergraduate nursing students in Saudi Arabia: A cross-sectional study	332 Female Saudi undergraduate nursing students	Saudi Arabia	Problem-Focused 1. Problem-solving behaviour Emotion-focused 1. Staying Optimistic 2. Transference
Al-Gamal, Alhosain, Alsunaye (2018)	Stress and coping strategies among Saudi nursing students during clinical education.	121 female Saudi undergraduate nursing students in King Saud bin Abdulaziz University for Health Sciences	Saudi Arabia	Problem-focused 1. Problem-solving approach 2. Objective perspective 3. Set up objectives to solve the problem 4. Find the meaning of the stressful event 5. Adopt different strategies to solve the problem 6. Time management of sleep to better face stress 7. Make plans, list priorities, and solve stressful events 8. Apply past experience to solve the problem Emotion-focused 1. Having confidence in overcoming difficulties 2. Optimism 3. Transference Avoidance 1. Attribute problem to fate 2. Avoid difficulties during clinical practice

				<ol style="list-style-type: none"> 3. Expect others to solve the problem 4. Avoid teachers and nursing staff
Kupcewicz, Grochans, Kadučáková, Mikla, Józwick (2020)	Analysis of the Relationship between Stress Intensity and Coping Strategy and the Quality of Life of Nursing Students in Poland, Spain and Slovakia.	1002 students of the first degree–undergraduate, full-time studies in the programme of nursing at the University of Warmia and Mazury in Olsztyn, the Pomeranian Medical University in Szczecin (Poland, 404 students), the University of Murcia in Murcia (Spain, 208 students) and the Catholic University in Ružomberok (Slovakia, 390 students).	Poland, Spain, and Slovakia	<p><i>Polish</i> Problem-focused</p> <ol style="list-style-type: none"> 1. Active Coping 2. Planning <p>Emotion-focused</p> <ol style="list-style-type: none"> 1. Seeking emotional support <p><i>Slovakian</i> Emotion-focused</p> <ol style="list-style-type: none"> 1. Positive Reframing <p><i>Spanish</i> Emotion-focused</p> <ol style="list-style-type: none"> 1. Humor 2. Religion/Prayer 3. Seeking emotional support <p>Avoidance</p> <ol style="list-style-type: none"> 1. Substance Abuse 2. Cessation of Actions <p>Self-blame</p>
Onieva-Zafra, et. al. (2020)	Anxiety, perceived stress and coping strategies in nursing students: a cross-sectional, correlational, descriptive study	190 nursing students enrolled in the Nursing Faculty of Ciudad Real University in Spain.	Spain	<p>Problem-focused</p> <ol style="list-style-type: none"> 1. Problem-solving behaviour 2. Social Support 3. Cognitive Restructuring <p>Avoidance</p> <ol style="list-style-type: none"> 1. Wishful thinking 2. Self-criticism 3. Social withdrawal 4. Problem avoidance
Chaabane, Chaabna, Bhagat, et al. (2021)	Perceived stress, stressors, and coping strategies among nursing students in the Middle East and North Africa: an overview of systematic reviews.	7 Systematic Reviews and 42 primary studies	Middle East-North Africa region	<p>Problem-focused</p> <ol style="list-style-type: none"> 1. Active coping / Problem-solving approach 2. Seeking social support for instrumental purposes <p>Emotion-focused</p> <ol style="list-style-type: none"> 1. Positive reinforcement 2. Religion <p>Avoidance Behaviour</p> <ol style="list-style-type: none"> 1. Mental disengagement 2. Behavioural disengagement
Majrashi, Khalil, Nagshabandi, Majrashi. (2021)	Stressors and Coping Strategies among Nursing Students during the COVID-19 Pandemic: Scoping Review.	13 studies that addressed stressors and and copign strategies of Nursing students during the COVID-19 pandemic.	Switzer land	<p>Problem-focused</p> <ol style="list-style-type: none"> 1. Seeking information and consultation <p>Emotion-focused</p> <ol style="list-style-type: none"> 1. Staying optimistic 2. Transference 3. Social support from peers

Table 2 revealed that studies the most common coping strategies employed by undergraduate nursing students to manage stress. The following are coping strategies: problem-focused coping, which emphasizes directly addressing the source of stress. Students utilized problem-solving skills, sought guidance from teachers, mentors, or parents, or leveraged past experiences to overcome challenges.

Emotion-focused coping. This approach focuses on managing emotional responses to stress. Common strategies include maintaining optimism and self-confidence, seeking solace in religion, engaging in self-care activities like napping, bathing, or meditation, or turning to religion identified as transference. These strategies help students regulate their emotions and prevent emotional distress. It revealed a variety of coping mechanisms employed by students, as explained in the following: mixed strategies. Some studies found students used combinations of problem-focused and emotion-focused coping mechanisms.

Avoidance coping. The study by Onieva-Zafra et al. (2020) identified avoidance coping as a strategy used by some students. This approach involves behaviors aimed at avoiding the

stressors, such as denial, procrastination, or substance abuse. Unlike problem-focused or emotion-focused coping, avoidance coping does not address the source of stress or manage emotional responses but attempts to escape the situation altogether.

Problem-focused coping was employed by student nurses in six studies. This approach involved actively addressing the source of stress. A study by Al-Gamal et al. (2017) exemplifies that students used problem-solving strategies like planning, prioritizing, and drawing on past experiences to manage stressful situations. Liu et al. (2022) reported that emotion-focused coping was more prevalent than problem-focused coping, with some students resorting to avoidance strategies like wishful thinking or procrastination as a minority coping mechanism. Two studies found mixed strategies were employed, like a combination of problem-focused and emotion-focused strategies. Further, one study found out that students used avoidance coping. Onieva-Zafra et al. (2020) linked higher stress levels with avoidance behaviors such as wishful thinking, social withdrawal, and problem avoidance.

CONCLUSION, IMPLICATION, SUGGESTION, AND LIMITATIONS

The findings suggest that stress is a significant concern among the undergraduate nursing students. That nursing programs and educators should consider implementing strategies to address the cause of students' stresses, including workload management, communication skills workshops, and promoting healthy coping mechanisms. While this systematic review gathered its data from 25 studies retrieved from the Cochrane Library, Taylor & Francis, and Research Gate, its limitations lie in the 10 studies that failed to mention being peer-reviewed or with unknowns to have been peer-reviewed. Further, the authors created this study to explore better understanding of the causes of stress and coping strategies of nursing students, thus potentially limiting the generalizability of the findings to all nursing programs worldwide.

Future research should be conducted in a larger sample size and broader geographic scope to enhance the generalizability. Moreover, causes of stress should be investigated aside from the effect of the COVID-19 pandemic. Further research is needed to explore the specific impact of COVID-19 on student stress levels and coping mechanisms. Moreover, the findings of this review can inform educators and program developers in designing interventions to address student stress in nursing programs. Additionally, this review may serve as a foundation for future research on stress and coping mechanisms among students in various disciplines within tertiary education.

ACKNOWLEDGEMENT

This endeavor would not be realized without the constant guidance of Our Heavenly Father for His constant guidance and provision of wisdom to the researcher throughout the research process.

My sincerest appreciation for the unwavering support of family and friends who have supported us throughout and stood by our sides during this academic journey. Their encouragement,

understanding, and motivation deserve acknowledgement. We would also like to express our sincere gratitude to our vice president of academic administration, Dr. Julie Joy R. Lacificar, for her insight and guidance in the early workings of the study.

Finally, we would like to thank the Central Philippine Adventist College School of Nursing faculty and staff for their continued guidance and mentoring of us throughout the period of research.

REFERENCE

- Al-Gamal E, Alzayyat A, Ahmad MM. Prevalence of Internet Addiction and Its Association With Psychological Distress and Coping Strategies Among University Students in Jordan. *Perspectives in Psychiatric Care*. 2016;52(1):49-61. doi:10.1111/ppc.12102
- Anbumalar C., Dorathy A. P., Jaswanti V.P., Priya D., Reniangelin D. (2017). Gender Differences in Perceived Stress levels and Coping Strategies among College Students. *The International Journal of Indian Psychology*. 2017;4(4). doi:10.25215/0404.103
- Auerbach, R. P., Alonso, J., Axinn, W. G., Cuijpers, P., Ebert, D. D., Green, J. G., ... & Bruffaerts, R. (2016). Mental disorders among college students in the World Health Organization world mental health surveys. *Psychological medicine*, 46(14), 2955-2970.
- August, R. and Dapkewicz A. (2021). Benefit finding in the COVID-19 pandemic: College students' positive coping strategies. *Journal of Positive School Psychology*. :5(2);73-86. doi:10.47602/jpsp.v5i2.245
- Coiro MJ, Bettis AH, Compas BE. (2017) College students coping with interpersonal stress: Examining a control-based model of coping. *Journal of American College Health*. 2017;65(3):177-186. doi:10.1080/07448481.2016.1266641
- Colaizzi, P. (1978). Psychological research as a phenomenologist views it. In: Valle, R. S. & King, M. *Existential Phenomenological Alternatives for Psychology*. Open University Press: New York.
- Ganeshkumar, P., & Gopalakrishnan, S. (2013). Systematic reviews and meta-analysis: Understanding the best evidence in primary healthcare. *Journal of Family Medicine and Primary Care*, 2(1), 9. <https://doi.org/10.4103/2249-4863.109934>
- Hathaway ED, Peyer KL, Doyle KA.(2023) A first look at perceived stress in southeastern university students during the COVID-19 pandemic. *Journal of American College Health*.;71(2):329-332. doi:10.1080/07448481.2021.1895809

- Huang, L, Lei, W, Xu F, Liu, H, Yu L. (2020) Emotional responses and coping strategies in nurses and nursing students during Covid-19 outbreak: A comparative study. *PloS one.*;15(8):e0237303. doi:10.1371/journal.pone.0237303
- Hu W, Sun M.(2023) COVID-19 Stressors and Aggression among Chinese College Students: The Mediation Role of Coping Strategies. *International journal of environmental research and public health.* ;20(4). doi:10.3390/ijerph20043171
- Hwang E, Kim M, Shin S. (2021) Initial Clinical Practicum Stress among Nursing Students: A Cross- Sectional Study on Coping Styles. *International journal of environmental research and public health.* 2021;18(9). doi:10.3390/ijerph18094932
- Johnson, A., Davis, M. D., Yi, R., & Horst, S. J. (2018). An exploration of stressors experienced by college students: variation by gender and ethnicity. *Journal of Student Affairs Research and Practice*,55(2),196-211.
- Kacan CY, Pallos (2021). A. Global Problem of Nursing Students: Nursing Education Stress: A Sample from Turkey. *International Journal of Caring Sciences.*;14(2):1193-1203. <https://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=153590747&site=ehost-live>
- Leombruni P, Corradi A, Lo Moro G, et al. (2022) Stress in Medical Students: PRIMES, an Italian, Multicenter Cross-Sectional Study. *International journal of environmental research and public health.*;19(9). doi:10.3390/ijerph19095010
- Liu J, Yang Y, Chen J, Zhang Y, Zeng Y, Li J.(2022) Stress and coping styles among nursing students during the initial period of the clinical practicum: A cross-section study. *International Journal of Nursing Sciences.*;9(2):222-229. doi:10.1016/j.ijnss.2022.02.004
- McCarthy B, Trace A, O DM, et al. (2018). Nursing and midwifery students' stress and coping during their undergraduate education programmes: An integrative review. *Nurse Education Today.* 2018;61:197-209. doi:10.1016/j.nedt.2017.11.029
- Onieva-Zafra MD, Fernández-Muñoz JJ, Fernández-Martínez E, García-Sánchez FJ, Abreu-Sánchez A, Parra-Fernández ML.(2020). Anxiety, perceived stress and coping strategies in nursing students: a cross-sectional, correlational, descriptive study. *BMC medical education.*;20(1):370. doi:10.1186/s12909-020-02294-z
- Pati D and Lorusso LN.(2018). How to Write a Systematic Review of the Literature. *HERD: Health Environments Research & Design Journal.* 2018;11(1):15-30. doi:10.1177/1937586717747384
- Pollock A, Berge E.(2018). How to do a systematic review. *International Journal of Stroke.* 13(2):138-156. doi:10.1177/1747493017743796

- Saleh D, Camart N, Romo L. (2017). Predictors of Stress in College Students. *Frontiers in psychology*. 2017;8:19. doi:10.3389/fpsyg.2017.00019
- Shdaifat E, Jamama A, Al Amer M.(2018). Stress and Coping Strategies among Nursing Students. *Global Journal of Health Science*,;10(5). doi:10.5539/gjhs.v10n5p33
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2016). The brief resilience scale: assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 194-200. doi:10.1080/10705500802222972.
- Taniguchi H, Kato T. (2018). The Frequencies and Effects of Interpersonal Stress Coping with Different Types of Interpersonal Stressors in Friendships on Mental Health and Subjective Well-Being among College Students. *The Japanese Journal of Personality*. 27(3):252-258. doi:10.2132/personality.27.3.8
- Valladolid, V. C. (2021).The Role of Coping Strategies in the Resilience and Well-Being of College Students during the COVID-19 Pandemic. *Philippine Social Science Journal*. :4(2);30-42. <https://doi.org/10.52006/main.v4i2.342>
- Zepp, P., Potter, D., Haselwood, C., & Britt-Lutter, S. (2018). The Influence of Coping Strategies on College Students' Grade Point Averages. *Family and Consumer Sciences Research Journal*.:47(1), 73–86. doi:10.1111/fcsr.12274