

University of Alabama in Huntsville

LOUIS

Honors Capstone Projects and Theses

Honors College

4-18-2022

The Use of Active Coping Compared to Self-Distraction to Reduce Perceived Stress in Upper Division Nursing Students

Grace Elizabeth Kimbro

Follow this and additional works at: <https://louis.uah.edu/honors-capstones>



Part of the [Occupational and Environmental Health Nursing Commons](#), and the [Psychiatric and Mental Health Nursing Commons](#)

Recommended Citation

Kimbro, Grace Elizabeth, "The Use of Active Coping Compared to Self-Distraction to Reduce Perceived Stress in Upper Division Nursing Students" (2022). *Honors Capstone Projects and Theses*. 714.
<https://louis.uah.edu/honors-capstones/714>

This Thesis is brought to you for free and open access by the Honors College at LOUIS. It has been accepted for inclusion in Honors Capstone Projects and Theses by an authorized administrator of LOUIS.

The Use of Active Coping Compared to Self-Distraction to Reduce Perceived Stress in Upper Division Nursing Students

by

Grace Elizabeth Kimbro

An Honors Capstone

submitted in partial fulfillment of the requirements

for the Honors Diploma

to

The Honors College

of

The University of Alabama in Huntsville

April 18th, 2022

Honors Capstone Director: Dr. Rebecca Davis

Project Director's title: Clinical Assistant Professor

Grace Kimbro 04/20/2021
Student (signature) Date

Rebecca Davis 04/21/2022
Director (signature) Date

Amelia S. Lang 04/26/2022
Department Chair (signature) Date

Honors College Dean (signature) Date

Property rights with the Honors College, University of Alabama in Huntsville, Huntsville, AL



Honors College
Frank Franz Hall
+1 (256) 824-6450 (voice)
+1 (256) 824-7339 (fax)
honors@uah.edu

Honors Thesis Copyright Permission

This form must be signed by the student and submitted as a bound part of the thesis.

In presenting this thesis in partial fulfillment of the requirements for Honors Diploma or Certificate from The University of Alabama in Huntsville, I agree that the Library of this University shall make it freely available for inspection. I further agree that permission for extensive copying for scholarly purposes may be granted by my advisor or, in his/her absence, by the Chair of the Department, Director of the Program, or the Dean of the Honors College. It is also understood that due recognition shall be given to me and to The University of Alabama in Huntsville in any scholarly use which may be made of any material in this thesis.

Grace Kimbro

Student Name (printed)

A handwritten signature in cursive script that reads 'Grace Kimbro'.

4/20/2022

Student Signature.

Date

Table of Contents

Dedication.....	3
Abstract	4
Introduction.....	5
Review of Literature.....	5
Theoretical Framework.....	9
Methodology.....	10
Results.....	12
Limitations	16
Discussion.....	16
Implications to Nursing Practice.....	17
Conclusions.....	18
Dissemination of Scholarly Work.....	19
References.....	20
Table 1: Review of Literature.....	22
Appendix A: IRB Letter of Approval.....	56
Appendix B: Recruitment Script.....	57
Appendix C: Study Participant Survey.....	58
Appendix D: Perceived Stress Scale.....	62
Appendix E: Mini-Cope Scale.....	63
Appendix F: Research Horizons Day 2022 Poster.....	65

Dedication

I would like to dedicate this paper to my family and all my professors for supporting me through this endeavor. I would also like to thank my friends for helping me get through college and this thesis while also enjoying the good times of the college experience. Dr. Rebecca Davis, thank you for being my mentor throughout this entire process and for being an integral part of this capstone getting finished. Thank you all.

Abstract

Background: Nursing school has been found to be one of the most stressful undergraduate education paths. Nursing has been found to be one of the most stressful professions. This stress in nursing school can lead to psychological symptoms, which can result in poor nursing school performance. Inevitably, this poor performance can lead to unprepared nurses who are at risk of harming their patients. While this stress is unavoidable, it can be managed through a variety of coping mechanisms. It has been shown that using an effective coping mechanism can help nurses function optimally and prevent stress-related injuries. On the other hand, if an ineffective coping mechanism is used, it can negatively affect the student and result in anxiety, depression, and negative outcomes for patients. This study looks at two of the most common coping mechanisms, active coping and self-distraction, since nursing students often choose these, and they have been shown to have different results.

Methods: A survey including the Perceived Stress Scale and the Mini-Cope instrument was sent out to upper-division nursing students at UAH. This survey also included a request for participants to agree to using an active coping strategy for a month while studying. After a month, a second survey was sent out with only the Perceived Stress Scale to assess the difference after the utilization of the active coping intervention.

Results: A total of five participants participated in both surveys and the intervention. From the data, perceived stress scores of four out of the five participants decreased with implementation of the intervention for a month. It was also found that these five participants used both active and distraction coping, with a higher Mini-Cope score for all five participants on active coping questions.

Discussion: From this study, no general conclusions can be made since there were only five participants. The results from this study do suggest that similar results will be obtained in future studies with a larger group of participants. Recommendation for further research is to perform the same study with a larger sample of participants.

Introduction

Enrollment in nursing school, especially undergraduate nursing school, can be a very stressful life experience for students. This stress can be caused by various things such as taking care of vulnerable populations, poor interactions with hospital staff, a steep learning curve, and complex course material. When a nursing student's perceived stress level is persistently high, it can result in poor personal outcomes, such as anxiety or depression, poor patient outcomes through unsafe practices, and/or poor hospital outcomes, such as loss of accreditation or loss of income. Since the results of this stress can become detrimental to many parties, it is important to learn how to reduce it. This can be done using coping mechanisms. There are a variety of coping mechanisms, but this study will look at what research has shown to be the most and least effective: active coping and distraction coping respectively.

The purpose of this study is to see the effect an active coping intervention will have on upper division nursing students' perceived stress levels. This will be done by analyzing perceived stress levels before and after participating in an active coping intervention to adapt study habits for a month. By performing this study, it will help nursing students learn how to manage their stress in a healthy manner, and it will educate nursing school professors on what types of stressors students commonly have and how to help teach students manage them effectively.

Review of Literature

Two databases were accessed to find evidence for this literature review. The first database used was PubMed. The keywords used for this database were "nursing students stress coping," which produced 586 results. Then a filter to show articles from 2017-2021 was applied and 182 results were produced from this modified search. The second database that was used was

Google Scholar. For Google Scholar, the following keywords were used: “nursing students,” “coping,” and “clinical practice.” This search yielded 5,320 results. These results were then put through a filter to show articles from 2017-2021, which produced 2430 results. Once these results were retrieved from both databases, the articles from both databases, 2612 total, were reviewed and chosen based on the PICOT question and its criteria. The evaluation of the articles can be found in the Appendix of this paper (Table 1).

In their study, (Ahmed, et al., 2019), a descriptive, cross-sectional study conducted at Alabaha University in Saudi Arabia aimed to assess the amount of stress experienced among nursing students in the clinical setting, what these stressors were, and the coping mechanisms they used to deal with this stress. A random selection of 125 nursing students was conducted at Albaha University. The participants completed a web-based questionnaire that assessed their stress and coping mechanisms through the Perceived Stress Scale and the Coping Behavior Inventory. These surveys were administered at the beginning of their clinical training to prevent extraneous variables affecting the results like stress from coursework or exam pressure. The authors found that nursing students experienced a moderate amount of stress in the clinical setting. Moreover, the biggest stressor was found to be peers and daily life, followed by assignments and capacity. The most used coping mechanism to deal with this stress was found to be those from a problem-solving approach. The strengths of this study were its use of peer-reviewed articles within their publication, the use of reliable and valid stress and coping mechanism assessment instruments, and its use of randomization for the subjects. The weaknesses of this article were that the study only focused on students from one university, the questionnaires were self-administered, and the sample size was somewhat small.

Similarly, in their descriptive, cross-sectional study (Bodys-Cupak, et al., 2019), the authors

examined difficulties in clinical experiences for first-year nursing students and how these students coped with these difficulties and stressors. This study included 786 first-year nursing students that filled out survey-style questionnaires that included the Perceived Stress Scale (PSS) and the Mini-COPE. The findings noted that the most difficult component of the students' clinical experience was reported to be contact with suffering patients. The findings also revealed that over half of the participants reported experiencing high levels of stress. The way that this stress was dealt with most frequently, according to the results of the Mini-COPE, was active coping. Notably, reported lower PSS scores were associated with the use of active coping, positive revalidation, and acceptance. The strengths of this study were the use of multiple universities in its data collection and the fairly large sample size. The weaknesses of this study were the majority of female students enrolled, the cross-sectional design, and that the researchers limited their examination to first-year students.

A systematic literature review of 13-peer reviewed publications between January 2007 and August 2018 was performed to examine major stressors of nursing students in clinical training and how they coped with these stressors. The researchers examined over 1,170 publications to select 13 peer-reviewed publications that were then used in their literature review. This review noted that most of the studies concluded that nursing students reported moderate levels of stress. The stressors that caused these stressors were found to be things like caring for patients, course assignments, and students' lack of knowledge. This review also noted that the most commonly reported coping strategy was staying optimistic, and the most effective coping mechanism was problem-solving. The strengths of this study were that it used the highest level of research, systematic review, that it included multiple different opinions, and that it had a good sample size for a systematic review. The weaknesses of this study were that it only focused on

the clinical setting and no other areas of nursing education. The reviewers selected publications written in English and included mostly cross-sectional studies.

In their descriptive correlational, cross-sectional design, Hamaideh, et al. 2017) aimed to identify stressors and coping mechanisms of nursing students during clinical experiences. Their study included a convenience sample of 100 nursing students at a private college in Saudi Arabia. The eligible students were given a copy of the questionnaire during their theoretical class sessions and instructed how the study would be carried out. If a student wanted to participate, they would simply complete the questionnaire and put it into a sealed box. These questionnaires included the Perceived Stress Scale and the Coping Behavior Inventory. In terms of the level of stress among nursing students in the clinical setting, the findings showed that these participants experienced moderate amounts of stress. The highest stressor in clinical training was reported to be the assignments and the workload. The most common coping mechanisms identified in this study were those from a problem-solving approach. The strengths of this study were the use of accredited assessment scales, clear purposes and aims of the study, and the inclusion of multiple peer-reviewed articles to substantiate the background and significance of the study. The weaknesses of this study were the cross-sectional design, convenience sampling, and self-reported data.

In another study, (Karaca et al., 2019), a cross-sectional, case-control study was conducted to investigate the mental health of Turkish nursing students and their experienced stress, coping mechanisms, self-esteem, social support, and individual factors. This study included 516 nursing students in a 4-year educational nursing program in Turkey during the 2014-2015 school year. A self-evaluation questionnaire was administered outside of class time and the participants were informed about the purpose of the study. The questionnaire contained

the Nursing Education Stress Scale, the Coping Behavior Inventory, the Multidimensional Scale of Perceived Social Support, the Rosenberg Self-esteem Scale, and the General Health Questionnaire. The researchers found that avoidance coping was associated with students who were at higher risk for mental health problems. The authors found that using optimistic, problem solving, and transfer coping mechanisms seemed to be a protective factor against mental illness. Higher self-esteem and social support were associated with a lower risk for mental illness. The strengths of this study were the large sample size, use of many multiple scales, and the examination of different aspects and contributors to stress and coping. The weaknesses of this study included students who were representative from only one university, correlational design, and lack of randomization for participant selection.

This literature review guided the development of this study out of a desire to see if their results actually worked in an experimental study. These studies only did a survey to see the perceived stress levels and then correlated the respondents' answers on how they coped to see which coping mechanism was most effective at reducing stress. This study was developed because the principal investigator wanted to actually see if these results would be true when an active coping intervention was employed, and the results were analyzed.

Theoretical Framework

Dorothea Orem's self-care deficit theory is crucial to understand when studying stress reduction strategies in nursing students. In her theory, Dorothea Orem described that meeting what she termed as universal and developmental needs is important in preventative care. Examples of these needs are preventing and managing circumstances that could lead to developmental, air, water, and activity/rest related deficits (Naz, 2017). These needs can be met by using coping strategies, especially with activity/rest. Nursing school requires several

demands; therefore, it is critical to take care of one's emotional, mental, and physical needs while keeping stress under control. Orem also says that in order to recover from whatever problem they are having, people need to take matters into their own hands and perform their own self-care (Naz, 2017). This principle may be applied to nursing students. Students may use active coping to deal with stress by approaching the stress head on. Therefore, nursing students need to use effective coping strategies that they practice themselves in order to recover from their stress. Overall, Dorothea Orem's self-care deficit theory relates directly to managing stress in nursing students through coping mechanisms, especially active coping.

Methods

Population, Sample and Setting

For this study, a convenience sampling technique was used. Participants were only selected on the basis that they were an upper division nursing student at UAH, male or female, with no age restriction. The maximum sample size was around 350 students because that is approximately how many upper division nursing students there were in the UAH College of Nursing at the time of the study and all of them were given the opportunity to participate. IRB approval was obtained, and it is included in the appendix of this study (Appendix A).

Data Collection

For this study, subjects were accessed by sending out a link to my survey through "groupme," a group messaging app that each class in upper division has their own individual group for which is run by the students. Subjects were identified by their mother's birthdate in order to match data from the before- and the after-intervention surveys without asking for easily identifiable personal information. Initial contact was made by the principal investigator, by asking someone within each class of upper division nursing to add me into the group message.

From there, the principal investigator sent the recruitment script into each group with a link to the Qualtrics survey. The principal investigator sent out a second message after a month's duration to ask the same participants to fill out the post-intervention survey, which was the same as the pre-intervention survey. There were two reminder messages sent out, one 2 days after the pre-intervention survey recruitment message was sent out, and another 2 days after the post-intervention survey message was sent out. The recruitment script is included in the Appendix (Appendix B).

Research Design

The type of research design used for this study was quantitative. This type of research design was used to measure perceived stress levels and the correlation between these levels and the use of either active or self-distraction coping. This required having set categories, and the desired results would not have come from a qualitative approach. The study used a pre-posttest design to look for changes in perceived stress scores before and after an active coping intervention.

Instruments

This study was made up of a survey created from the Perceived Stress Scale and the Mini-Cope instruments. The perceived stress scale measures the amount of stress the participant feels that they are under. With the Mini-Cope, the only questions used from it were those that analyzed the prevalence of active coping and avoidance coping, which consisted of 16 questions total, 8 active and 8 distraction. This was done because these are two of the most common coping mechanisms and they are also almost the opposite of each other with active coping being doing something about your stress and avoidance coping being ignoring it and pretending it doesn't exist. All of these instruments are included in the Appendix (Appendix C, D, E).

Procedure

The subjects were first asked to complete a survey containing questions from the perceived stress scale instrument and the mini-cope instrument. They were also asked during this survey to perform the intervention for a month: study for 30 minutes, take a five-minute break, and then study for another 30 minutes, take another break, and repeat this until they are done studying each time. Then, after a month, the principal investigator sent out the survey link again and the participants took it again after they had performed the intervention for a month. This research took place through the online survey. Consent was gained by including the IRB consent form on the survey and through an item on the survey asking if each participant consented to their information being used in the research study.

Results

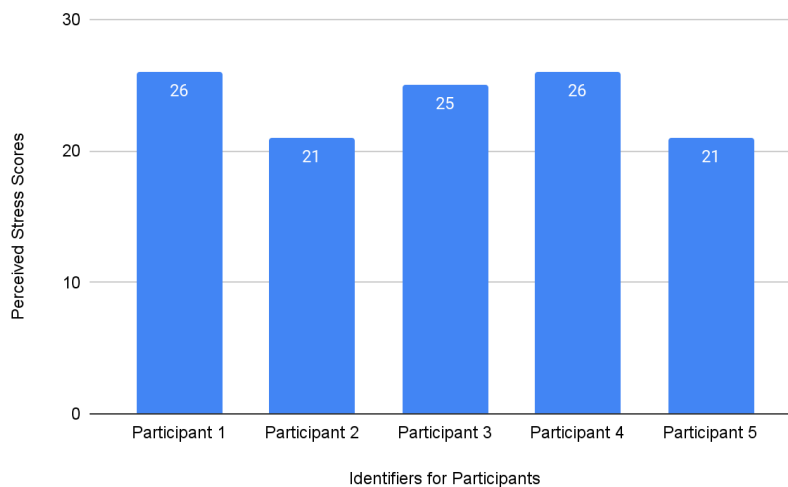
For the first survey, 10 upper division students completed the survey and all of those 10 agreed to follow the requested intervention. With the second survey, 11 students completed it. When the identifiers reported in each survey were examined, only five students had filled out both the first and second survey. The other five students from the first survey did not complete the second survey and the other six participants from the second survey had not completed the first survey and, therefore, did not perform the study's intervention. For the remainder of the paper, all results will be in reference to these five participants who completed both surveys and performed the study's intervention for a month.

Responses from the first stress scale survey will be discussed first. The majority of the responses to each question were "almost never," "sometimes," and "fairly often" with very few "very often" responses and no "never" responses." The question with the most "very often" responses was "In the last month, how often have you felt nervous and stressed?" with three of

the five students reporting this. In terms of scoring, the participants had an average perceived stress score of 23.8, which is deemed as moderate perceived stress. Three out of the five participants had a score of 25 or 26, making them borderline high perceived stress since that range starts at a score of 27 while the other two both had a score of 21. See Figure 1.

Figure 1

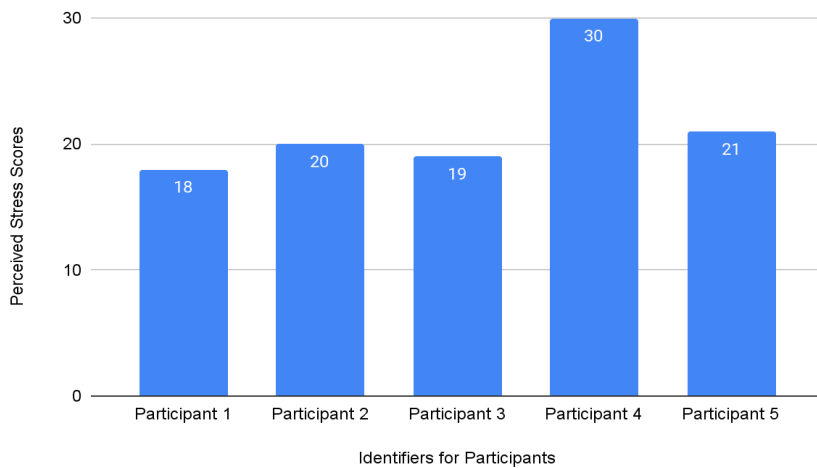
Perceived Stress Scores by Participant for Pre-Intervention Survey



The post-intervention survey, or the second perceived stress survey, responses will be discussed next. These responses differed some amongst the participants compared to their responses to the first perceived stress survey. In terms of scoring, the participants had an average perceived stress score of 21.6, which is evaluated as moderate perceived stress. Four of the participants had scores within the moderate perceived stress category while one participant's responses were within the high perceived stress category. The scores of the five participants were 18, 19, 20, 21, and 30. See Figure 2.

Figure 2

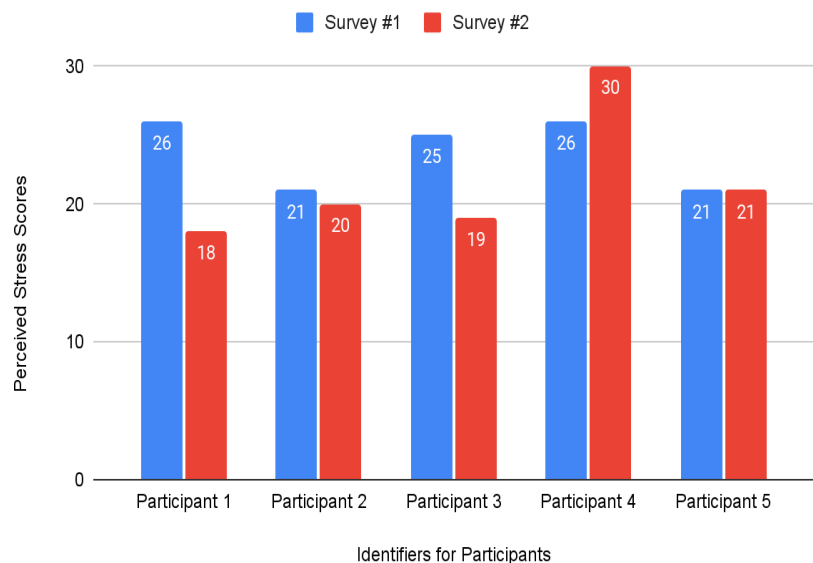
Perceived Stress Scores by Participant for Post-Intervention Survey



Between the first and second survey, some participants' scores changed by quite a bit. The difference in the averages was 2.2 points and only one participant was near or within the high perceived stress category in the second survey compared with three out of the five being near or in that category in the first survey. See Figure 3.

Figure 3

Perceived Stress Scores by Participant for Pre- and Post-Intervention Surveys



For the Mini-Cope instrument, responses to both the active and distraction questions were received. The highest score for both the active and distraction question categories was 32. The average active coping score by participant was 24.2 points while the average for the distraction questions was 14.8. See Figure 4 and 5.

Figure 4

Active Coping Scores by Participant

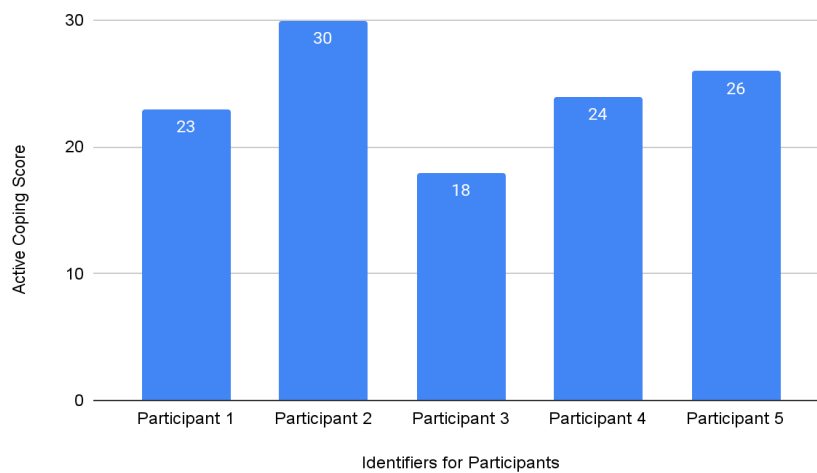
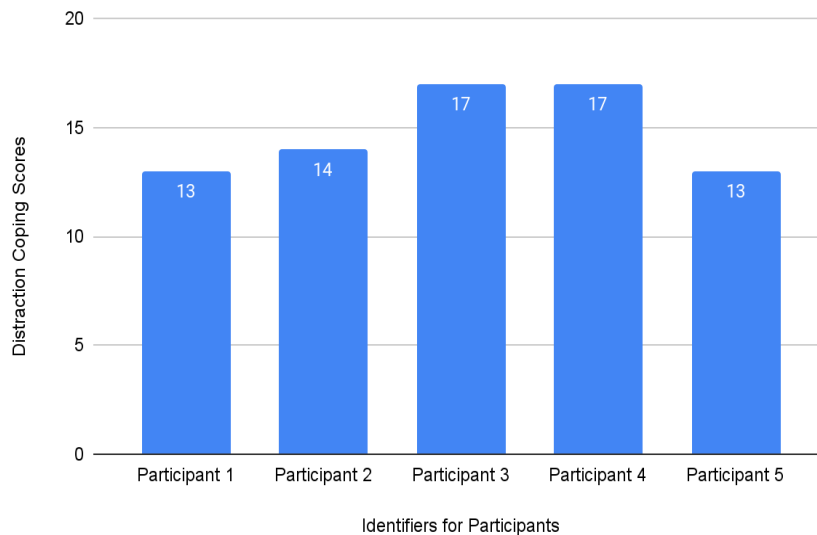


Figure 5

Distraction Coping Scores by Participant



Limitations

There were a few limitations within this study. First off, the number of participants was only five. This is a limitation because this sample size is not large enough to make conclusive statements that can apply to larger populations. If this study was to be done again, a larger sample size would be recommended.

Another limitation of this study is that it was done with nursing students at UAH. This is a limitation because this information can only be applied to this population and cannot be applied to students from other universities. Due to these limitations, this study could be classified as a pilot or feasibility study to see if doing this study again with a larger population would be worth the time and resources.

Discussion

Based on the results, there is a possible correlation between the study's intervention and decreasing or no change in perceived stress scores. For four out of the five participants, their perceived stress scores either went down or stayed the same from the first survey to the second one. One participant even had a decrease of 8 points, which can be seen in figure 3 above. The fact that all but one of the participants had a decrease in their perceived stress scores after performing the intervention for a month could suggest that there is a correlation between the two.

In terms of the Mini-cope scores, these scores seemed to go along with the perceived stress scores. The only participant whose perceived stress score increased between surveys had one of the highest scores for the distraction questions, meaning that they used this category of coping strategies quite a bit. Distraction coping, as found through background research, is not as effective as active coping in reducing stress and therefore could be why this participant had an

initial PSS of borderline high perceived stress and then had an increased PSS associated with high perceived stress a month later. In addition to this, the participant that had a drop in their perceived stress score of 8 points had a high active coping score and one of the lowest distraction coping scores. This participant's results show that engaging in active coping strategies, e.g., this study's intervention, could decrease a person's perceived stress score. For the group in general, those with high active coping scores and lower distraction scores had some of the lower initial survey's PSS scores and either dropped or stayed the second survey's PSS scores. When considering this, it seems as though it could be concluded that interventions like the one used in this study could be correlated with decreased PSS scores.

While these results and this correlation were present within this study population, a larger population would need to undergo this same study in order to make any general conclusions about it. This is due to the fact that this study only had five participants, making it more of a feasibility or pilot study. Despite this, the results found in this study seem to suggest that, if done on a larger scale, the same results could be obtained since a majority of the participants had decreased PSS scores after the active coping intervention.

Implications to Nursing Practice

This study, especially if done with a larger group, could have significant implications for nursing practice. As stated in the introduction, nursing school is extremely stressful and, if this stress is handled incorrectly, could affect not only the student, but many others. For the nursing student it has been found that high levels of stress can lead to poor academic outcomes and mental health problems. As they continue in their practice, this could result in bad outcomes for patients through unsafe practices and poor hospital outcomes, like loss of accreditation. In

addition to this, ineffective coping mechanisms, like distraction coping, leads to more stress since it is ineffective in reducing initial stress, which continues to build and build without good coping strategies. Therefore, being equipped with an active coping intervention like this, students could improve their mental health, be more prepared to start clinical training in the hospital, and, overall, succeed in their nursing program.

If this study was done with a larger population, more conclusive statements could be made about how this intervention truly reduces perceived stress. In addition to this, it could lead to nursing professors using those results to teach nursing students this or other active coping strategies at the beginning of their nursing education in order to establish good coping habits. Overall, if this feasibility study was used to produce a larger study, it could lead to conclusions applicable to nursing education, patient care, and nursing career success.

Conclusion

From this study, it can be seen that a majority of the participants' perceived stress scores either decreased or stayed the same with the use of an active coping mechanism. It was also found that those with lower initial perceived stress scores tended to have some of the higher active coping scale scores. Since this study only had five participants, no major conclusions can be drawn from this, so a study would need to be done with a larger population in order to do this. Despite this, the results from this study seem to suggest that similar results would be obtained in further research with a larger sample size of participants since four out of the five participants all had either decreased or the same perceived stress score post-intervention. Recommendations for further research would be simply to use the same intervention and apply it to a larger population in order to get more general conclusions.

Dissemination of Scholarly Work

For this study, I presented my work at the Research Horizons Day 2022 Poster event at the University of Alabama in Huntsville on March 8th, 2022. This poster had the same title as this paper. It can be found in Appendix F of this paper.

References

- Ahmed, W. A. M., & Mohammed, B. M. A. (2019). Nursing students' stress and coping strategies during clinical training in KSA. *Journal of Taibah University Medical Sciences, 14*(2), 116–122. <https://doi.org/10.1016/j.jtumed.2019.02.002>
- Bodys-Cupak, I., Majda, A., Grochowska, A., Zalewska-Puchała, J., Kamińska, A., & Kuzera, G. (2019). *Patient-related stressors and coping strategies in baccalaureate nursing students during clinical practice. Medical Studies, 35*(1), 41–47. <https://doi.org/10.5114/ms.2019.84050>
- Bhurtun, H. D., Azimirad, M., Saaranen, T., & Turunen, H. (2019). *Stress and coping among nursing students during clinical training: An integrative review. Journal of Nursing Education, 58*(5), 266–272. <https://doi.org/10.3928/01484834-20190422-04>
- Hamaideh, S. H., Al-Omari, H., & Al-Modallal, H. (2017). Nursing students' perceived stress and coping behaviors in clinical training in Saudi Arabia. *Journal of Mental Health, 26*(3), 197–203. <https://doi.org/10.3109/09638237.2016.1139067>
- Karaca, A., Yildirim, N., Cangur, S., Acikgoz, F., & Akkus, D. (2019). Relationship between mental health of nursing students and coping, self-esteem and social support. *Nurse Education Today, 76*, 44–50. <https://doi.org/10.1016/j.nedt.2019.01.029>
- Kupcewicz, E., Grochans, E., Kadučáková, H., Mikla, M., & Jóźwik, M. (2020). *Analysis of the relationship between stress intensity and coping strategy and the quality of life of nursing students in Poland, Spain and Slovakia. International Journal of Environmental Research and Public Health, 17*(12), 4536. <https://doi.org/10.3390/ijerph17124536>

- Naz, S. (2017). *Application of Dorothea Orem's Theory into nursing practice. Journal of Rehman Medical Institute*, 3(3-4), 34–37. <https://doi.org/http://jrmi.pk/article/view/106>
- Rafati, F., Nouhi, E., Sabzevari, S., & Dehghan-Nayeri, N. (2017). *Coping strategies of nursing students for dealing with stress in clinical setting: A qualitative study. Electronic Physician*, 9(12), 6120–6128. <https://doi.org/10.19082/6120>

Table 1

Review of Evidence

<u>Study Author/year/Title</u>	<u>Objectives/Aim/Purpose:</u>	<u>Research design/ Sample/ Setting:</u>	<u>Intervention (competencies & methods)</u>	<u>Instruments & data collection methods:</u>	<u>Study findings/ results:</u>	<u>Strengths:</u>	<u>Limitations:</u>	<u>Implications and recommendations:</u>
Authors: Ahmed, W. A. M., & Mohamed, B. M. A. Title: <i>Nursing students' stress and coping strategies during clinical training in KSA.</i> Year: 2019	Objective: To assess the amount of stress experienced by nursing students in clinical settings at Alabaha University, Kingdom of Saudi Arabia and to see what coping mechanisms they used to manage this stress.	Research Design: Descriptive, Cross sectional study Sample: n=125 nursing students randomly sampled from nursing students from Albaha University Setting: Clinical settings in	Intervention: No intervention, descriptive study only	Instruments: Demographic information sheet: This is a survey including information about GPA, gender, marital status, academic year, age, nationality, name of current course requiring, clinical training, previous work	Study Findings: Nursing students were found to have moderate amounts of stress in clinical setting. It also was found that students most frequently used a problem solving approach	This journal entry utilizes multiple other peer reviewed articles. This makes this article more credible and backed by valid data. In addition to this, this article uses accredited instruments to measure for both stress and coping mechanisms	Limitations: This study only focused on the students at this one university in Saudi Arabia, so it is not representative of the entire population of nursing students. Another limitation is that the questionnaires were self	Implications: This can be used by nursing professors to help teach nursing students early on in their education about effective coping strategies to deal with various stressors. Recommendations: The authors of this text mention that they would recommend that more

		Albah a Univer sity in Kingdo m of Saudi Arabia		<p>experien ce, nationali ty, type of progra m (BSc, bridging , MSc, PhD)</p> <p>Perceiv ed Stress Scale (PSS): This is a scale done in the form of self report that assess es stressor s and stress among nursing student s. It has 29 items on it coverin g stress from taking care of patients , stress</p>	<p>ch order to cope with this stress.</p> <p>Result s: For the demog raphic inform ation sheet, the averag e age was 21, most were unmarr ied, and all were in the BSc nursin g progra ms. In additio n to this, the course s requirin g clinical trainin</p>		<p>admini stered, so they are not as accurat e as one that would be admini stered by the research h.</p>	<p>studies be produced with more represent ative samples in order to make it more applicabl e to the general populatio n of nursing students</p>
--	--	--	--	--	--	--	--	--

				<p>from assignments and workload and stress from lack of professional knowledge and skills, stress from area of practice, stress from peers and daily life, and stress from teachers and nursing staff. These were rated by the students based on frequency with the options being 4 (very often), 3 (fairly</p>	<p>g were medical surgical, critical care, psychiatric, community health, and OB.</p> <p>For the PSS, stress was found highest related to peers and daily life events (1.89 ± 0.67), which was then followed up by stress related to assignments and</p>			
--	--	--	--	--	---	--	--	--

				<p>often), 2 (sometimes), 1 (almost never), and 0 (never). The totals and subtotal s were calculated and the higher the score, the higher the level of stress.</p> <p>Coping Behavior Inventory (CBI): This is a scale performed in the form of a self report questionnaire. It has 19 items with 4</p>	<p>capacity (1.60 \pm 0.43). For the CBI, students most frequently used a problem solving approach to cope with stress (1.84 \pm 0.67), followed by staying optimistic (1.56 \pm 0.76).</p>			
--	--	--	--	---	--	--	--	--

				subscal es: avoidan ce behavi ors, problem -solving behavior s, optimist ic coping behavio rs, and transfer ence behavi ors. The respons es ranged from “never” to “always ” with 4 being “always, ” 3 being “freque ntly,” 2 being “someti mes,” 1 being “infrequ ently,” and 0 being “never” . The				
--	--	--	--	---	--	--	--	--

				<p>subtotals were calculated and showed the frequency of the usage of each coping mechanism.</p> <p>Data Collection Method s: All of the instruments that were administered were in a web based questionnaire format. These surveys were administered at the beginning of the clinical training</p>				
--	--	--	--	--	--	--	--	--

				to control for extraneous variables that would affect stress levels like course work and exam pressure				
--	--	--	--	--	--	--	--	--

Author s: Bodys Cupak, I., Majda, A., Grochowska, A., Zalewska Puchała, J., Kamińska, A., & Kuzera, G. Title: <i>Patient related stressors and coping strategies in baccalaureate nursing students during clinical practice.</i> Year: 2019	Aim: The aim of this study was to assess difficulties in clinical experiences. It also assessed how the nursing students coped with these difficulties and stressors during their first clinical experience in the hospital.	Research Design: Descriptive, cross sectional study Sample: n=786 first year nursing students at the Jagiellonian University and at the State Higher Vocational Schools in Tarnów, Nowy Sącz, and Nowy Targ. Setting: Clinical	Intervention: No intervention, descriptive study only	Instruments: Demographics characteristics form: This form was used to get basic information about the participants to see if any demographic differences had any impact on the results of the 2 scales performed. This form included questions about sex, age,	Study Findings: The main stressors identified were contact with suffering, severe condition of the patient, and lack of effective help provided to the patient. This study found that the most used coping strategies were active coping, emotional support	Strengths: One strength of this article is that it took information from multiple universities. By using multiple universities in this study, it could possibly make this study more applicable to other universities in this area, if not outside of it. Another strength is that it	Limitation: One limitation is the sample population. This study's sample ended up being almost entirely female (94.1%). This could cause some bias and keep it from being applicable to the entire population of nursing students since	Implications and Recommendations: Implications: This study can be used by universities to see which coping strategies tend to work best with reducing stress in their students. It can also be used to see where they could possibly prepare the students more before taking them into the hospital to help them, not be as stressed. Recommendation
---	--	--	---	--	---	---	---	---

		<p>setting s in the Jagiell onian Univer sity and at the State Higher Vocatio nal School s in Tarnó w, Nowy Sącz, and Nowy Targ in 2015 and 2016.</p>		<p>and difficultie s during clinical experie nces.</p> <p>Perceiv ed Stress Scale: The perceiv ed stress scale is used to assess the severity of stress related to one's situatio n over the last month. It contain s 10 question s and is via self admini stration throug h a questio nnaire. The respons es for</p>	<p>t, and plannin g. In additio n to this, those who experie nced lower levels of stress were more likely to cope with strate gi es like active coping.</p> <p>Result s: For the demog raphics charact eristics cs from, 94.1% of particip ants were wome n and particip ants</p>	<p>is a descrip tive research study, so, it could go more into depth about differen t types of stresso rs and coping strategi es than other quantit ative studies.</p>	<p>males and their experie nces are not as greatly repres ented. Anothe r limitatio n is that this study being cross section al rather than longitu dinal makes the data only from one single point in time and may not repres ent the general topic accurat ely becaus</p>	<p>s: A recomme ndation that can apply is to do a study with a sample populatio n that is more balanced between men and women to prevent a bias on the side of the women.</p>
--	--	---	--	---	--	--	---	--

				<p>each question range from “never” to “very often” on a five-step scale. The researchers took this scale and the theoretical distribution, 0 to 40, made their own standard units their own categories for low, average, and high from these units. For their categories, 1 to</p>	<p>ages ranged from 19 to 35 years old. In terms of the difficulties experienced during clinical experiences, the most difficult situation was contact with suffering patients (35% of participants reported) while the least difficult was feeding</p>		e of it.	
--	--	--	--	---	---	--	----------	--

				<p>4 was a low score, a score of 5 or 6 was an average score, and 7 to 10 was a high score. These scores correlated with the level of stress a student had: the higher the score, the higher the level of stress.</p> <p>Mini COPE: This scale is used to measure the way that people act and</p>	<p>g the patient (7.3% reported).</p> <p>According to the perceived stress scale with the researcher's created categories of low, average, and high stress, 55.5% of participants experienced high stress, 26.7% experienced average stress, and 17.8% experienced</p>			
--	--	--	--	---	--	--	--	--

				<p>manage their stress. It has 28 statements within it that cover 14 coping strategies. This scale was performed in the form of a questionnaire. For each statement, a response was chosen from 4 options ranging from "I've almost never done this" to "almost always".</p> <p>Data</p>	<p>low stress. For the mini COPE, the most used coping strategies were active coping (2.09 ± 0.64), seeking emotional support (2.04 ± 0.72), and planning (2.02 ± 0.70).</p> <p>When looking at the relationship between the PSS scores and the results of the</p>			
--	--	--	--	---	---	--	--	--

				Collection Method s: All of the instruments were administered in a survey style questionnaire.	mini COPE scale, it was found that lower PSS scores were associated with utilizing active coping, positive revalidation, and acceptance (p <0.0001).			
--	--	--	--	--	--	--	--	--

Author s: Bhurtun , H. D., Azimira d, M., Saarane n, T., & Turunen , H. Title: <i>Stress and coping among nursing students during clinical training: An integrative review</i> Year: 2019	Aim: To search for, appraise, and synthesize research relating to stress and coping mechanisms for nursing students in clinical training	Research Design : A Systematic literature review Sample: 13 peer reviewed publications published between January 2007 and August 2018 Setting: Not applicable	Intervention: No intervention, systematic review	Instruments: Researchers examined over 1170 publications and selected 13 peer reviewed publications	Study Findings: They found that major stressors for nursing students were caring for patients, assignments during the clinical training, lack of knowledge, being criticized by teachers and excessive workload, and	Strengths: This study is a systematic review, making it the highest level of research. It also includes multiple different opinions and studies, so it has lots of information to appraise and make conclusions from.	Limitations: This review looked at studies that only focused on stress and coping mechanisms in the clinical setting, so it did not encompass stress and coping in other areas of nursing education, like lecture courses and	Implications and Recommendations: Implications: This review can be used to help teach nursing students about what effective coping mechanisms are and how they can be used to reduce stress. In this review, it was found that problem solving approaches were the most effective, so examples of
---	--	---	--	---	--	---	---	--

					<p>responsibility. It was also found that students commonly cope by doing things like staying optimistic, being self-confident, and using transference and avoidance.</p> <p>Results: Almost all of the studies observed moderate</p>		<p>examinations. Another limitation is that the review only looked at publications that were written in English. This review also included mostly cross-sectional studies, so it cannot make claims about how stress and coping mechanisms evolve throughout the</p>	<p>these can be given to students for them to utilize. This education could help facilitate learning for the students.</p> <p>Recommendations: This review suggested that further reviews look into qualitative studies since most of the studies in this review were qualitative studies. It was also recommended that future reviews look into specific coping</p>
--	--	--	--	--	--	--	--	---

					levels stress, one reported high levels stress, and one reported low to moderate stress in the nursing student participants. 8 out of the 13 studies included in this review used the Perceived Stress Scale to assess the level of stress of the		participants' nursing education.	strategies and how they affect stress in nursing students.
--	--	--	--	--	---	--	----------------------------------	--

					nursing student participants. For coping mechanisms, the most commonly reported strategy was staying optimistic. The most effective coping mechanism was found to be problem solving strategies. 8 out of the 13 studies used			
--	--	--	--	--	---	--	--	--

					the Coping Behavior Inventory to assess the nursing students' coping mechanisms for their stressors.			
--	--	--	--	--	--	--	--	--

Authors: Hamaideh, S.H., Al-Omari, H., & Al Modallal, H. Title: <i>Nursing student's' perceived stress and coping behaviors in clinical training in Saudi Arabia.</i> Year: 2017	Aim: To identify stressors and coping mechanisms of nursing students during clinical experiences	Research Design: Descriptive correlational, cross sectional design Sample: n=100 nursing students in their clinical training at a private college in Saudi Arabia who agreed to be in the study and finished the questionnaire; convenience sample Setting:	Intervention: No intervention because descriptive correlational design	Instruments: Demographic Collection Form: This form includes questions about things like age, GPA, student's' year (level), average sleeping hours per day, way of choosing nursing, previous experience of caring of ill person, living status, presence of relatives in nursing, years of fathers' and mothers' formal	Study Findings: This study found that the highest stressor in clinical training is the assignments and the workload. It also found that the most common coping mechanisms were those from a problem solving approach. Results: In terms of perceived stress and the	Strengths: One strength of this study is that it used 2 accredited scales to assess for stress and coping mechanisms utilization. Both of these scales have been widely used since their conception. Another strength of this study is that it had very clear guidelines of what it	Limitations: Firstly, this study is a cross sectional one, so it does not show the evolution of stress and coping over a significant amount of time. Secondly, convenience sampling was done, so, it may be biased and may not represent the entire population of nursing student	Implications and Recommendations: Implications: From conducting this study, a better understanding of stress and coping mechanisms in nursing students can be achieved. In addition to this, by having a better understanding of these things, nurse educators can form good teaching and learning strategies to reduce stress in the clinical settings. This
--	--	--	--	--	--	---	---	---

		g: A private college in Saudi Arabia		education, gender, number of clinical training semesters completed, and presence of financial problems Perceived Stress Scale: This scale was used to assess the level and types of stress experienced by nursing students. It is a 29-item survey with 6 subsets	level of this stress, this study found that the participants experienced a moderate amount of stress. This stress came from things like assignments and workload, teacher's and nursing staff, and the environment. For coping mechanisms, the participants' level of coping mechanisms	was aiming to figure out through this study. Within the first couple pages of the article, it included 5 specific research questions that it aimed to answer by the end of the article. By doing this, it helped make it more clear exactly which questions they were answering so that it	s accurately. Third, this study was done by self-report, which can be less reliable than data directly gathered by the researcher themselves.	could result in decreased stress and increased adaptive coping if done properly. Recommendations: The authors of this article included a few recommendations of how to further this research and build on their results. First, they said that more longitudinal studies needed to be performed on these topics to see how they work since this study cannot be accurately
--	--	---	--	--	---	--	---	---

				<p>within it: stress from taking care of patients, from peers and daily life, from lack of professional knowledge and skills, from the clinical environment, from assignments and workload, and from teachers and nursing staff. Each of the 29 items was responded to on a scale of 0-4,</p>	<p>nisms ranged from 0.74 to 3.74 with a mean of 1.82 for each coping mechanism assessed. The most commonly used coping mechanisms were from a problem solving approach, with a mean of 2.64, followed by staying optimistic (mean=2.19), transference (mean=2.04), and, finally, avoidance</p>	<p>would not be misinterpreted. This also helped make these results applicable to other situations when the same or very similar questions are asked.</p>		<p>y applied to longitudinal studies because of its cross sectional nature. Second, they said that doing a study with simple random sampling and a larger population would result in more generalized results that could be more applicable to a wider range of studies and situations.</p>
--	--	--	--	---	---	---	--	---

				<p>with "0" being no stress and "4" being the highest level of stress. The higher the score on this scale, the higher the perceived stress.</p> <p>Coping Behavior Inventory: This instrument was used to identify the coping mechanisms of the nursing students in the sample. It</p>	<p>nance (mean=1.09).</p>			
--	--	--	--	--	---------------------------	--	--	--

				<p>includes 19 items with 4 different coping behaviors represented: avoidance behaviors, problem-solving behaviors, optimistic coping behaviors, and transference behaviors. Each response to the 19 items were scaled from 0-4, with "0" being not using the coping behavior and "4" being</p>				
--	--	--	--	---	--	--	--	--

				<p>the most used coping behavior.</p> <p>Data Collection Methods:</p> <p>Eligible students were given a copy of the questionnaire during their theoretical class sessions. They were then approached and invited to be a part of the study. Within this, the study was explained to them to</p>				
--	--	--	--	--	--	--	--	--

				<p>assure full disclosure and informed consent . Then, if they agreed to participate, they completed the questionnaire and put it in a sealed box.</p>				
--	--	--	--	--	--	--	--	--

Authors : Karaca, A., Yildirim, N., Cangur, S., Acikgoz, F., & Akkus, D. Title: <i>Relationship between mental health of nursing students and coping, self esteem and social support.</i> Year: 2019	Aim: The aim of this article was to investigate the mental health of Turkish nursing students and their experienced academic stress, coping mechanisms, self esteem, social support, and individual factors.	Research Design : Cross sectional, case control study Sample: n=516 nursing students in a 4-year educational program in the Dept. of Nursing at Düzce University in Düzce, Turkey	Interventions : No intervention, observational study only	Instruments: Demographic Characteristics Form: This form was created by the researchers and had questions about age, sex, class year, academic successes, previous psychiatric disease, satisfaction	Study Findings: This study found that the type of coping mechanism used can affect mental and physical health. In this study, "avoidance coping" was associated with the	Strengths: One strength is that this is a fairly large research sample, at least from the ones that are in the current available research on these topics. This helps reduce bias and make it	Limitations: This study only represented students from one university. This could make it difficult to apply these results to other universities and to the entire population of nursing students in	Implications and Recommendations: Implications: This study can be used to bring awareness to the fact that nursing students do struggle with mental illness during their education. With a mean score of 6.44 on the GHQ, this indicated
--	--	--	---	--	--	---	--	--

		<p>during the 2014-2015 school year.</p> <p>Setting: the Dept of Nursing at Düzce University in Düzce, Turkey in the 2014-2015 academic year</p>		<p>with school life, and maternal and paternal attention. Nursing Education Stress Scale (NESS): This scale has 32 items and 2 subscales of clinical stress and academic stress. It was also done on a 4-point Likert Scale. With this scale, the higher the score, the</p>	<p>students who were at higher risk for mental health problems. They also found that using optimistic, problem solving, and transfer coping mechanisms seemed to be a protective factor against mental illness. In terms of self-esteem, higher self</p>	<p>more applicable. In addition to this, this study looked at many different scales and aspects of this topic to help encompass the topic as a whole. This makes it less likely that any extraneous variables were present in the study and it helps give a more</p>	<p>general. In addition to this, this study is a correlational study, so, it cannot define causality. This can make it hard to make solid assumptions and statements from the interpretation of these results.</p>	<p>that the average nursing student participant's response indicated a risk for mental illness. This is important because professors can be more prepared to deal with this and to help their students learn if they first understand the prevalence of mental illness and risk for mental illness in their students. Furthermore, knowing that students tend to choose</p>
--	--	---	--	---	--	--	--	---

				<p>higher the stress levels.</p> <p>Coping Behavior Inventory (CBI): This scale has 19 items and 4 subscales: optimistic behavior, transference behavior, problem-solving behavior, and avoidance coping. The responses were in the form of a 5-point Likert Scale. A higher score</p>	<p>esteem was found to be a protective factor against mental illness. For social support, it appeared that more perceived social support correlated with a lower risk for mental illness.</p> <p>Results: For the general health questionnaire, the mean</p>	<p>holistic understanding to stress in nursing students, what can affect and contribute to it, and how to cope with it.</p>	<p>passive/maladaptive coping mechanisms when they are at risk for mental illness helps the professors be able to formulate ways to educate students on active/adaptive coping mechanisms that will actually work to counteract stress levels.</p> <p>Recommendations: This study recommended that randomized controlled trials be performed concerning stress in nursing students and coping</p>
--	--	--	--	--	---	---	--

				<p>for any factor meant that that coping behavior was used more frequently.</p> <p>Multidimensional Scale of Perceived Social Support (MSPSS): This scale has 12 items and includes subjective evaluation of social support from the participants' family, friends, and</p>	<p>score was 6.44 ± 6.68. For the demographic form, the participants' ages ranged from 18-35. There was a significant difference between the participants who scored high on the GHQ and those that scored lower in terms of satisfaction in school</p>			<p>mechanisms. This way interventions can be implemented and assessed to further evidence on which coping mechanisms work the best on reducing stress in nursing students.</p>
--	--	--	--	---	--	--	--	--

				<p>significant nt others. The higher the score, the higher the perceived social support .</p> <p>Rosenb erg Self esteem Scale (RSES): This scale has 63 multiple choice questions to assess self esteem . If the participant's score is between 0-1, they have high self esteem</p>	<p>. Those who scored lower had more reported satisfaction in school than those that scored higher . In addition to this, there was another significant difference between mental health in the groups and academic successes. Those</p>			
--	--	--	--	---	--	--	--	--

				<p>, a score between 2-4 means moderate self-esteem, and a score of 5-6 indicates low self-esteem.</p> <p>General Health Questionnaire (GHQ): The general health questionnaire helped the researchers divide the sample into two groups based on their mental health status. If the participants</p>	<p>in the higher scoring group had more participants who reported a "low" level of success while the lower scoring group had more participants who reported a "high" level of success.</p> <p>In terms of the NESS and CBI, the higher</p>			
--	--	--	--	--	--	--	--	--

				<p>scored under "4," they were determined to have "normal" mental health. If the participants scored "5" or more, they were classified as the "risk group for mental problems".</p> <p>Data Collection Methods: These scales and the demographic information were all collected by a</p>	<p>scoring group had a higher NESS score and a higher score on the "avoidance coping" subscale on the CBI. In addition to this, the MSPSS score, RSES score, and the scores on the CBI subscales of "remaining optimistic," "transfer," and</p>			
--	--	--	--	---	---	--	--	--

				self evaluati on question naire. This questio nnaire was given outside of class time and the particip ants were informe d about the aim of the study.	“proble m solving ” coping mecha nisms were lower in the higher GHQ score group than the lower group. The RSES was found to be a protec tive factor again st mental health becaus e as the stress score went up, the risk of being in the higher			
--	--	--	--	--	--	--	--	--

					scorin g GHQ group went up, and the inverse . By having this high self estee m, the particip ants could protec t thems elves from stress better than those that had a lower self estee m.			
--	--	--	--	--	---	--	--	--

Appendix A

IRB Letter of Approval



Date: 21 November 2021

PI: Grace Kimbro
PI Department: College of Nursing
The University of Alabama in Huntsville

<input checked="" type="checkbox"/> Expedited (see pg 2)
<input type="checkbox"/> Exempted (see pg 3)
<input type="checkbox"/> Full Review
<input type="checkbox"/> Extension of Approval

Dear Grace,

The UAH Institutional Review Board of Human Subjects Committee has reviewed your proposal titled: *The Use of Active Coping Compared to Self-Distraction to Reduce Perceived Stress in Upper Division Nursing Students* and found it meets the necessary criteria for approval. Your proposal seems to be in compliance with these institutions Federal Wide Assurance (FWA) 00019998 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46). Please note that this approval is good for one year from the date on this letter. If data collection continues past this period, you are responsible for processing a renewal application a minimum of 60 days prior to the expiration date.

No changes are to be made to the approved protocol without prior review and approval from the UAH IRB. All changes (e.g. a change in procedure, number of subjects, personnel, study locations, new recruitment materials, study instruments, etc) must be prospectively reviewed and approved by the IRB before they are implemented. You should report any unanticipated problems involving risks to the participants or others to the IRB Chair.

If you have any questions regarding the IRB's decision, please contact me.

Sincerely,

Ann L. Bianchi
IRB Chair
Associate Professor, College of Nursing

12 PM

Appendix B
Recruitment Script

Hi there! My name is Grace Kimbro and I'm a 4thsemester Honors nursing student. I'm texting y'all today to ask you to participate in my study about stress in nursing students for my Honors Capstone project. If you would like to participate, here's the link to my survey, which should take 5-10 minutes. Thank you for your consideration!

Appendix C

Study Participant Survey

Thank you for taking my survey for my thesis! This is a two part survey. You will take this part now, do my intervention for a month, and then take this survey again in a month to assess the effectiveness of my intervention. I will send this link in your groupme again and will match your answers based on your identifying question. All answers and identities will remain anonymous, so please answer truthfully.



Powered by Qualtrics 

Consent Form: The Use of Active Coping Compared to Self-Distraction Coping to Reduce Perceived Stress in Upper Division Nursing Students

You are invited to participate in a research study about nursing student stress and coping mechanisms. This study is designed to help us to better understand the effect of active coping mechanisms on perceived stress levels in upper division nursing students.

KEY INFORMATION: This consent is being sought for research. Participation in this study is voluntary. The purpose of this study is to assess the effect of active coping, in this case altering study habits, to reduce perceived stress levels in upper division nursing students. This study is expected to last for 1 month and will consist of a pre-intervention survey, an intervention, and a post-intervention survey. There are no foreseeable risks. The benefits of this study could potentially be improving study habits and decreased perceived stress levels. • The fact that consent is being sought for research, and participation is voluntary. • Purpose of the research, expected duration, and procedures. • Reasonably foreseeable risks. • Benefits that may be reasonably expected. Example: <th> or the benefits include . The primary investigator is Grace Kimbro from Huntsville, AL/ gek0002@uah.edu.

PROCEDURE TO BE FOLLOWED IN THE STUDY: Participation in this study is completely voluntary. Once written consent is given; you will be asked to take this survey, take a break for 5 minutes after each 30 minute study session, and then take another survey after a month. This session will take 1 month.

DISCOMFORTS AND RISKS FROM PARTICIPATING IN THIS STUDY: There are no expected risks associated with your participation. The possible discomforts

PROCEDURE TO BE FOLLOWED IN THE STUDY: Participation in this study is completely voluntary. Once written consent is given; you will be asked to take this survey, take a break for 5 minutes after each 30 minute study session, and then take another survey after a month. This session will take 1 month.

DISCOMFORTS AND RISKS FROM PARTICIPATING IN THIS STUDY: There are no expected risks associated with your participation. The possible discomforts could be discomfort from changing study habits and possibly embarrassment from some of the survey items. [list any and all potential risks or discomforts]

EXPECTED BENEFITS: Results from his study can benefit society by decreasing perceived stress levels and improving study habits. Please see the section below for incentives and compensation for

Do you consent to having your information analyzed and used to gather research for my Honors Capstone? As stated before, all information will remain confidential and anonymous.

Yes

No



Powered by Qualtrics

participation in this study.

INCENTIVES AND COMPENSATION FOR PARTICIPATION: There is not incentive or any compensation for participation. [list all incentives and compensation offered for participation in the research]

CONFIDENTIALITY OF RESULTS: Participant numbers will be used to record your data, and these numbers will be made available only to those researchers directly involved with this study, thereby ensuring strict confidentiality. This consent form will be destroyed after 3 years. The data from your session will only be released to those individuals who are directly involved in the research and only using your participant number.

FREEDOM TO WITHDRAW: You are free to withdraw from the study at any time. You will not be penalized because of withdrawal in any form. Investigators reserve the right to remove any participant from the session without regard to the participant's consent.

in any form. Investigators reserve the right to remove any participant from the session without regard to the participant's consent.

CONTACT INFORMATION: If you have any questions, please ask them now. If you have questions later on, you may contact the Principal Investigator, Grace Kimbro, in Huntsville, AL , at (615) 478-4890 or at gek0002@uah.edu. If you have questions about your rights as a research participant, or concerns or complaints about the research, you may contact the Office of the IRB (IRB) at 256.824.6992 or email the IRB chair Dr. Ann Bianchi at irb.@uah.edu. This study was approved by the Institutional Review Board at UAH and will expire in one year from 10/.

Grace Kimbro 10/28/2021
Name (Please Print) Signature Date

Click to write Form Field

1

I will be using this to match your first survey with the last survey. This information along with your answers will remain confidential. What is your mother's date of birth: year included (ex: 02/21/1966)

Please answer each question according to the scale of "0" being "never" and "4" being "very often"

In the last month, how often have you been upset because of something that happened unexpectedly?



In the last month, how often have you felt that you were unable to control the important things in your life?



In the last month, how often have you felt nervous and "stressed"?



In the last month, how often have you felt confident about your ability to handle your personal problems?



In the last month, how often have you felt that things were going your way?



Please answer each question according to the scale of "0" being "never" and "4" being "very often"

In the last month, how often have you found that you could not cope with all the things that you had to do?



In the last month, how often have you been able to control irritations in your life?



In the last month, how often have you felt that you were on top of things?



In the last month, how often have you been angered because of things that were outside of your control?



In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?



1:51



The following questions ask how you have sought to cope with a hardship in your life. Read the statements and indicate how much you have been using each coping style. Please answer each question according to the scale of "0" being "I haven't been doing this at all" to "4" being "I've been doing this a lot"

I've been concentrating my efforts on doing something about the situation I'm in.



I've been taking action to try to make the situation better.



I've been getting help and advice from other people.



I've been trying to get advice or help from other people about what to do



I've been trying to see it in a different light, to make it seem more positive.



I've been looking for something good in

The following questions ask how you have sought to cope with a hardship in your life. Read the statements and indicate how much you have been using each coping style. Please answer each question according to the scale of "0" being "I haven't been doing this at all" to "4" being "I've been doing this a lot"

I've been turning to work or other activities to take my mind off things.



I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping



I've been saying to myself "this isn't real".



I've been refusing to believe that it has happened.



1:51

I've been taking action to try to make the situation better.

✓

I've been getting help and advice from other people.

✓

I've been trying to get advice or help from other people about what to do

✓

I've been trying to see it in a different light, to make it seem more positive.

✓

I've been looking for something good in what is happening.

✓

I've been trying to come up with a strategy about what to do.

✓

I've been thinking hard about what steps to take.

✓

→

Powered by Qualtrics

uah.co1.qualtrics.com

Do you agree to attempt to comply with the intervention for a month?: My intervention: study for 30 minutes and then take a 5 minute break before going back to studying

Yes

No

→

Powered by Qualtrics

I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping

✓

I've been saying to myself "this isn't real".

✓

I've been refusing to believe that it has happened.

✓

I've been using alcohol or other drugs to make myself feel better

✓

I've been using alcohol or other drugs to help me get through it.

✓

I've been giving up trying to deal with it.

✓

I've been giving up the attempt to cope.

✓

→

We thank you for your time spent taking this survey.
Your response has been recorded.

Powered by Qualtrics

Appendix D

Perceived Stress Scale

Perceived Stress Scale

A more precise measure of personal stress can be determined by using a variety of instruments that have been designed to help measure individual stress levels. The first of these is called the **Perceived Stress Scale**.

The Perceived Stress Scale (PSS) is a classic stress assessment instrument. The tool, while originally developed in 1983, remains a popular choice for helping us understand how different situations affect our feelings and our perceived stress. The questions in this scale ask about your feelings and thoughts during the last month. In each case, you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them and you should treat each one as a separate question. The best approach is to answer fairly quickly. That is, don't try to count up the number of times you felt a particular way; rather indicate the alternative that seems like a reasonable estimate.

For each question choose from the following alternatives:

0 - never 1 - almost never 2 - sometimes 3 - fairly often 4 - very often

- _____ 1. In the last month, how often have you been upset because of something that happened unexpectedly?
- _____ 2. In the last month, how often have you felt that you were unable to control the important things in your life?
- _____ 3. In the last month, how often have you felt nervous and stressed?
- _____ 4. In the last month, how often have you felt confident about your ability to handle your personal problems?
- _____ 5. In the last month, how often have you felt that things were going your way?
- _____ 6. In the last month, how often have you found that you could not cope with all the things that you had to do?
- _____ 7. In the last month, how often have you been able to control irritations in your life?
- _____ 8. In the last month, how often have you felt that you were on top of things?
- _____ 8. In the last month, how often have you felt that you were on top of things?
- _____ 9. In the last month, how often have you been angered because of things that happened that were outside of your control?
- _____ 10. In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?

Figuring Your PSS Score

You can determine your PSS score by following these directions:

- First, reverse your scores for questions 4, 5, 7, and 8. On these 4 questions, change the scores like this:

$$0 = 4, 1 = 3, 2 = 2, 3 = 1, 4 = 0.$$
- Now add up your scores for each item to get a total. **My total score is _____.**
- Individual scores on the PSS can range from 0 to 40 with higher scores indicating higher perceived stress.
 - ▶ Scores ranging from 0-13 would be considered low stress.
 - ▶ Scores ranging from 14-26 would be considered moderate stress.
 - ▶ Scores ranging from 27-40 would be considered high perceived stress.

The Perceived Stress Scale is interesting and important because your perception of what is happening in your life is most important. Consider the idea that two individuals could have the exact same events and experiences in their lives for the past month. Depending on their perception, total score could put one of those individuals in the low stress category and the total score could put the second person in the high stress category.

***Disclaimer:** The scores on the following self-assessment do not reflect any particular diagnosis or course of treatment. They are meant as a tool to help assess your level of stress. If you have any further concerns about your current well being, you may contact EAP and talk confidentially to one of our specialists.*

Mini-Cope Scale

1 of 2



NovoPsych

Brief-COPE (Brief-COPE)

Instructions:

The following questions ask how you have sought to cope with a hardship in your life. Read the statements and indicate how much you have been using each coping style.

		I haven't been doing this at all	A little bit	A medium amount	I've been doing this a lot
1	I've been turning to work or other activities to take my mind off things.	1	2	3	4
2	I've been concentrating my efforts on doing something about the situation I'm in.	1	2	3	4
3	I've been saying to myself "this isn't real".	1	2	3	4
4	I've been using alcohol or other drugs to make myself feel better	1	2	3	4
5	I've been getting emotional support from others.	1	2	3	4
6	I've been giving up trying to deal with it.	1	2	3	4
7	I've been taking action to try to make the situation better.	1	2	3	4
8	I've been refusing to believe that it has happened.	1	2	3	4
9	I've been saying things to let my unpleasant feelings escape.	1	2	3	4
10	I've been getting help and advice from other people.	1	2	3	4
11	I've been using alcohol or other drugs to help me get through it.	1	2	3	4
12	I've been trying to see it in a different light, to make it seem more positive.	1	2	3	4
13	I've been criticizing myself.	1	2	3	4
14	I've been trying to come up with a strategy about what to do.	1	2	3	4
15	I've been getting comfort and understanding from someone.	1	2	3	4
16	I've been giving up the attempt to cope.	1	2	3	4

		I haven't been doing this at all	A little bit	A medium amount	I've been doing this a lot
17	I've been looking for something good in what is happening.	1	2	3	4
18	I've been making jokes about it.	1	2	3	4
19	I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.	1	2	3	4
20	I've been accepting the reality of the fact that it has happened.	1	2	3	4
21	I've been expressing my negative feelings.	1	2	3	4
22	I've been trying to find comfort in my religion or spiritual beliefs.	1	2	3	4
23	I've been trying to get advice or help from other people about what	1	2	3	4
24	I've been learning to live with it.	1	2	3	4
25	I've been thinking hard about what steps to take.	1	2	3	4
26	I've been blaming myself for things that happened	1	2	3	4
27	I've been praying or meditating	1	2	3	4
28	I've been making fun of the situation.	1	2	3	4

Appendix F

Research Horizons Day 2022 Poster



**Research Horizons Day
& Research Week
March 4-10, 2022**



The Use of Active Coping Compared to Self-Distraction to Reduce Perceived Stress in Nursing Students

*Grace Kimbro, College of Nursing,
Dr. Rebecca Davis, College of Nursing*

Purpose

- Nursing students experience the most stress out of all of the health sciences
- Effective coping has been found to reduce stress-related injuries
- Finding an effective coping mechanism for nursing students is pivotal to academic success, career success, and patient safety and outcomes

**Results**

Results are still pending and are expected by the end of March 2022

**Methods**

- Qualitative study utilizing convenience sampling
- Survey containing of the Perceived Stress Scale, the Mini-Cope, and an active coping mechanism intervention requirement
- Intervention: study for 30 minutes, take a 5 minute break, and repeat until done with study session
- Upper-division UAH nursing students filled out the initial survey

**Impact**

- Proper equipment of nursing students with effective coping skills
- Give nursing students the ability to safely take care of patients even in the most stressful of times
- Higher academic and career success rates
- Reduce the cost of care on the hospital and the patient through fewer stress-related injuries
- Better patient outcomes

Acknowledgements

Dr. Rebecca Davis, UAH College of Nursing
Dr. William Wilkerson, UAH Honors College Dean
UAH Upper-Division Nursing Students

