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Nursing Student Stress

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Nursing Student Stress

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Author Note

Carly Gillota, Taylor Hall, Ruthanne Hawks, Edward McCain, and Hannah Wilson. This paper is in fulfillment of the Williams Honors College research project requirement. Due December 9th, 2019. Instructor Dr. Christine Graor, PhD, MSN, BSN.

Abstract

Nursing students deal with a variety of stressors, including difficult curriculum and new endeavors such as clinical and lab experiences. The purpose of this study was to identify the relationship between stress levels and coping mechanisms and readiness to change unhealthy coping mechanisms in baccalaureate nursing students. The Transtheoretical Model of Change guides this non-experimental, correlational study and measured readiness for change. The Student Nurse Stress Index was used to measure stress. The abbreviated COPE Inventory was used to measure coping. Online recruitment, consent forms, and surveys were distributed to nursing students via the Student Success Center in the College of Health Professions; participants were asked to self-report level of stress, causes of stress, coping, and readiness to change coping. Data was analyzed using SPSS. Analysis included ANOVA Pearson's r to determine group differences and associations across grade level. It was found that stress level among nursing students remained high across all grade levels, with the average stress level being 68 out of 110 on the SNSI. There was no statistically significant difference in stress level between engaging in either positive coping mechanisms or negative coping mechanisms. The final research question, which examined the relationship between readiness to change and negative coping, was ultimately unable to be answered.

Nursing Student Stress

Stress related to studies, work, and social interaction was especially prevalent in students majoring in nursing. Nursing students are plagued by heavy course loads, clinical experience, and other responsibilities. The rigorous course load includes a plethora of daunting deadlines, exams, and expectations. Stress, psychologically and physiologically, impacts the daily lives of nursing students. Stress can manifest into negative coping mechanisms such as alcohol or drug abuse, disordered eating and social avoidance (McCarthy et al., 2017). At the University of Akron, nursing is one of the larger programs with approximately 465 students enrolled in 2018 (Don Canary M.Ed., personal communication, December 6, 2018). With such a large number of students, positive coping mechanisms should be a priority for both students and faculty.

Nursing students use various coping mechanisms to manage stress; coping mechanisms are related to physiological and psychological well-being (Gurkova & Zeleniko, 2018). This study grouped coping mechanisms into positive and negative categories based on their perceived effect on one's well-being. This study categorized positive coping mechanisms as behaviors such as reaching out to others for assistance, working to correct the stressful situation, and engaging in additional productive activities. Furthermore, this study categorized negative coping mechanisms as behaviors such as using harmful substances, refusing to acknowledge the stressors, and blaming oneself for the stressors. The coping mechanisms in this study were derived from the abbreviated COPE Inventory while the aforementioned categorization of positive and negative coping mechanisms were guided by the research of Sheu, Lin, and Hwang (2002). Unmanaged stress can lead to undesirable physiological and psychological manifestations. Prior research indicated nursing students have a tendency to have a higher perceived level of stress than other undergraduate students (Gurkova & Zeleniko, 2018; McCarthy et al., 2017).

This study examined the differences in stress based on level of nursing progression in nursing students. This study explored the relationship between stress and the use of coping mechanisms along with students' readiness to change negative coping mechanisms. The study answered the following research question: In undergraduate baccalaureate nursing students, how did stress compare in sophomore, junior, and senior levels? In undergraduate baccalaureate nursing students, was there a relationship between stress level and type of coping mechanism? In undergraduate baccalaureate nursing students, was there a relationship between readiness to change and negative coping?

Review of Literature

Stress in Nursing Students

Researchers consistently found that nursing students report high stress during their undergraduate academic studies. Nursing students are likely to become stressed related to the intensity of the nursing curriculum, clinical experience, and instructors (He, Turnbull, Kirshbaum, Phillips, & Klainin-Yobas, 2018). There are several different factors associated with high stress in nursing students including fear of making errors and becoming humiliated (McCarthy et al., 2017). Researchers investigated the effects of stress on mental and physical health, factors that intensify stress, and more effective stress management (He et al., 2018; Koren, M. E., 2017; McCarthy et al., 2017). For example, multiple researchers found that social support may decrease stress; students that have a higher level of social support experience less stress (Koren, M. E., 2017; McCarthy et al., 2017). In addition, He et al. (2018) found that mindfulness training can educate individuals in how to better deal with seemingly stressful situations as well as prevent the general feeling of stress.

Coping in Nursing Students

Researchers found conflicting findings about coping in nursing students (Gurkova & Zeleniko, 2018; McCarthy et al., 2017). McCarthy et al. found that nursing students adequately used positive coping mechanisms such as solving problems directly, which is called approach coping (2017). However, Gurkova & Zeleniko defined positive coping as receiving social support from peers, family, and significant others (2018). Other researchers found that nursing students may cope with stress by avoiding the issue (McCarthy et al., 2017). This is called avoidance coping and may include activities such as procrastination, binge drinking and drug use (McCarthy et al., 2017). McCarthy et al. (2017) found that nursing students (n=138) were willing to change their unhealthy coping mechanisms once they were given an educational intervention that demonstrated methods of healthier coping mechanisms.

Researchers also found that experienced nursing students reported having more stress than novice students (Gurkova & Zeleniko, 2018). This study further explored this finding by comparing stress across levels of students. McCarthy et al. (2017) suggested that researchers further study what types of coping interventions are more effective in helping nursing students reduce stress levels.

Transtheoretical Model of Change and Nursing Students

This study used the Transtheoretical Model of Change to determine the stage of change and if that stage of change was related to the use of negative or positive coping. The Transtheoretical Model has six stages of change: precontemplation, contemplation, preparation, action, maintenance, and relapse. Students who were in the action and maintenance stages of change handled stress better than those in other stages (Horiuchi, Tsuda, Kim, Hong, Park, 2010). Those in the maintenance stage had lower perceived stress compared to those in other

stages (Horiuchi et al., 2010). Stress management interventions based on the Transtheoretical Model of Change were found to lower stress (Evers, Prochaska, Johnson, Mauriello, Padula, Prochaska, 2006). Specifically, interventions tailored to the Transtheoretical Model have resulted in people being 60% more likely to maintain their effective coping techniques (Evers et al., 2006). The research study completed by Evers et al. (2006) was not the most current; however, it had implications for this study and provided very useful information. There was a gap in knowledge of research completed in the last five years, particularly in relation to the Transtheoretical Model of Change. Our research aimed to fill this gap.

Theoretical Framework

The Transtheoretical Model of Change guided this study about stress, coping, and readiness to change coping mechanisms in nursing students. This model is comprised of six stages: precontemplation, contemplation, preparation, action, maintenance and relapse. By identifying stage of change, the model then categorized readiness to change and guided interventions to advance change (Evers et al., 2006). Each stage of change was addressed along with how they relate to this study.

Stages

Precontemplation is the first stage. Those in this stage may not recognize that they need to change or have ineffective coping that they view as not a problem thus they do not want to change their mechanisms. Contemplation is the second stage of change when there is initial recognition of a problem and possible need for change. Students would realize a problem with coping and start to consider need to change coping mechanisms as they begin to actively think about alternatives. Preparation follows contemplation. When change alternatives are identified and considered, students would be deciding which mechanisms they may want to change and

starting to create plans to implement changes. Action is the fourth stage of the Transtheoretical Model of Change. Those in the action stage would be actively engaging in their coping mechanisms. During the maintenance stage, students re-evaluate their changes. Relapse is the final stage, however not everyone may enter this stage. During relapse, changed behaviors may be replaced by previous behaviors or original coping mechanisms. Because this is not a longitudinal study, relapse was not evaluated. Researchers found that students in one stage of change managed stress differently than those in others (Evers et al., 2006).

Application to Study

The Transtheoretical Model guided this study's third research question: In undergraduate baccalaureate nursing students, was there a relationship between readiness to change and negative coping? To fully understand nursing students' readiness to change their coping mechanisms, the Transtheoretical Model of Change was applied to identify stage of change. Students were asked to rate their stress level when completing the Student Nurse Stress Index (SNSI) and coping when completing the abbreviated COPE Inventory, which measured positive and negative coping mechanisms. Negative coping mechanisms included, but were not limited to, abuse of drugs and alcohol, stress eating, and deviant social behavior. Positive coping mechanisms included, but were not limited to, physical exercise, establishing social support, and mindfulness activities. After completing the SNSI and abbreviated COPE Inventory, readiness to change was measured with five response options, each of which reflect five stages of change. Based on the Transtheoretical Model of Change and previous research, it was anticipated that people with higher stress may use more ineffective or negative coping mechanisms. It was also anticipated that people who use negative coping mechanisms may have a higher readiness to change. This model provided great insight into answering the research questions.

Methods Section

Design

This study used a non-experimental, comparison, correlational design to examine the differences in stress based on level of nursing progression in nursing students and explored the relationship between stress and the use of coping mechanisms along with students' readiness to change negative coping mechanisms using a cross-sectional data collection. A university institutional review board (IRB) approval was obtained prior to recruitment due to data provided by human subjects.

Setting and Sample

The setting was a baccalaureate nursing program at a large, urban, public university in the Midwest region of the United States. The total number of students at the university for 2018 was 20,554. The number of students in the school of nursing traditional undergraduate program was approximately 465 in 2018. The target population was all traditional undergraduate nursing students who were at least 18 years of age and in first, second, and third levels of progression. Exclusion criteria included persons in non-nursing majors, as well as pre-nursing or non-traditional nursing students such as those in RN to BSN and those in the accelerated program. No participants were excluded based on ethnicity, sexual orientation, marital status, gender, race and age as long as they were 18 years or older.

Sampling Methods

This project used the non-probability convenience sampling method; an anonymous online recruitment email (see Appendix B), consent form (see Appendix C), and data collection survey (see Appendix F) was distributed to all undergraduate nursing students via the College of Health Professions Student Success Center. Recruitment included nursing students from the

sophomore/first level to the senior/third level. Three waves of recruitment emails with embedded links to the consent form and survey were sent about a week apart. This consent form informed students of the time burden of the survey, provided them with information on the purpose of the study, and most importantly, informed them of their right to withdraw and the voluntary nature of the survey. After students clicked a response option to indicate informed consent, they were directed to the survey for data to be collected from each participant. The researchers worked with School of Nursing project sponsor, Diane Lorenzen in addition to Dr. Zelko, Undergraduate Assistant Director, who correlated recruitment efforts with the Student Success Center.

Data Collection

Online cross-sectional data was collected through the survey program Qualtrics once participants indicated informed consent. The time burden of the survey was approximately fifteen minutes. Measures were ordered as first: demographics, second: stress measure, third: coping measure, and last: readiness to change. In order to protect the identities of participants, the researchers did not collect identifying data, did not collect signatures on consent forms, stored data in only password protected laptops, and destroyed all data following completion of the study according to university IRB protocol. Only the research team, including the project sponsor, had access to the data, and findings were reported in aggregate form, further enhancing anonymity. After participants completed and submitted data, as a gesture of gratitude, they were offered the option to participate in a raffle to win a twenty-five-dollar gift card. If they chose to participate in the raffle, they were asked to click a link to a separate dataset, where they provided identifying information (name and e-mail) so they could be contacted if they won the raffle. They were assured that this raffle dataset was separate and was in no way linked to their survey data.

Measures

Stress. The SNSI (see Appendix D) was used to quantify stress at the ordinal level of measure. The SNSI measured four factors of stress in nursing students: academic load, clinical concerns, personal problems, and interface worries. There were four items measuring academic load, four measuring clinical concerns, four measuring personal problems, seven measuring interface worries, and three measuring both academic load and clinical concerns for a total of twenty-two items on the SNSI. Participants were asked to rate how stressful different aspects of nursing school are on a 5-point Likert scale, with 1 being not stressful and 5 being extremely stressful. Ratings for items in each of the dimensions were summed to represent total stress in that dimension. Items were coded so that higher ratings indicated higher levels of stress. Ratings of dimensions were then summed to indicate total stress, with higher ratings indicating higher levels of stress. Summed ratings generated interval levels of measurement.

The SNSI established validity in an independent validation sample of 188 first-year nursing students. In psychometric factor analysis, three items were added that addressed more than one factor. This created a more complex four-factor model (Jones & Johnston, 1999). According to Jones and Johnston (1999), the SNSI shows cross-sample factor congruence, good internal reliabilities, and concurrent and discriminant validity across a range of reporting conditions. Previous researchers have determined Cronbach alphas of around 0.743 to 0.854 (Jones & Johnston, 1999). Tool internal consistency reliability was determined for the sample of this study.

Coping. Coping was measured at the ordinal level using the abbreviated COPE Inventory (see Appendix E). The abbreviated COPE Inventory measures fourteen different items, which can all be generally categorized into positive and negative coping mechanisms. Items (two for

each) include the use of: self-distraction, active coping, denial, substance use, use of emotional support, use of instrumental support, behavioral disengagement, venting, positive reframing, planning, humor, acceptance, religion, and self-blame, totaling twenty-eight. Participants were asked to rate how likely they are to engage in each coping activity using a 4-point Likert scale, 1 being not at all engaging to 4 being engaging frequently. Items were categorized into positive coping and negative coping and item ratings were summed to determine total positive and total negative ratings, generating interval level measures. Items were coded so higher ratings indicate an increased frequency of engagement in either positive or negative coping mechanisms. Conversely, lower ratings indicated a decreased frequency of engagement in either positive or negative coping mechanisms.

For the purpose of this study, the positive and negative coping mechanisms referenced are as listed in the COPE Inventory. The positive coping mechanisms were identified as turning to work or other activities to take one's mind off things; concentrating one's efforts on doing something about the situation; getting emotional support from others; taking action to try to make the situation better; saying things to let one's unpleasant feelings escape; getting help and advice from other people; trying to see the stress in a different light, to make it seem more positive; trying to come up with a strategy about what to do; getting comfort and understanding from someone; looking for something good in what is happening; making jokes about the stress; doing something to think about it less, such as going to the movies, watching TV, reading, daydreaming, sleeping, or shopping; accepting the reality of the fact that the stress has happened; expressing negative feelings; trying to find comfort in religion or spiritual beliefs; trying to get advice or help from other people about what to do; learning to live with the stress; thinking hard about what steps to take; praying or meditating; and making fun of the situation. The negative

coping mechanisms were identified as saying to oneself “this isn’t real”; using alcohol or other drugs to make oneself feel better; using alcohol or other drugs to help one get through it; giving up trying to deal with stress; refusing to believe that stress has happened; criticizing oneself; blaming oneself for things that happened; and giving up the attempt to cope.

The reliability and validity of the abbreviated COPE Inventory has been established based upon psychometric studies of the full-length COPE Inventory (Carver, 1997). The abbreviated COPE was completed by residents living in a community severely affected by a hurricane. A diverse convenience sample of 168 residents was surveyed. The results of the abbreviated COPE were almost identical to that of the original COPE, supporting its reliability. Past researchers have determined Cronbach’s alphas of around 0.61 to 0.8 (Carver, 1997). Tool internal consistency reliability was determined for the sample of this study.

Readiness to change. Readiness to change was measured at the ordinal level of measure with five statements, each of which reflected a stage of change in the Transtheoretical Model of Change. The precontemplation stage statement was: “I do not have a problem with how I cope with stress and do not intend to make change in my coping within the next 90 days.” The contemplation stage statement was: “I have a problem with how I cope with stress and plan to change my coping within the next 90 days.” The preparation stage statement was: “I have a problem with how I cope and I plan to change my coping within the next 30 days.” The action stage statement was: “I had a problem with how I cope and have made changes with how I cope for the last six months.” The maintenance stage statement was: “I had a problem with how I cope and have made changes for more than six months.” Participants were asked to select the statement that best describes how they felt about how they were currently dealing with stress. Statements were coded with precontemplation coded as 1, contemplation coded as 2, preparation

coded as 3, action coded as 4, and maintenance coded as 5. Therefore, the higher ratings indicated greater readiness to change.

The validity and reliability of the Transtheoretical Model of Change has been previously established using a random sample of 108 college students. After a two-week test-retest, the Transtheoretical Model of Change found significant differences on tests of concurrent and construct validity. The internal consistency (inter-item) reliability and the test-retest reliability were high in the questionnaires. These results establish high validity and reliability of the Transtheoretical Model of Change.

Demographic Data

Demographic data included age, sex, ethnicity, race, level in nursing progression, living arrangements (home, on or off campus, alone, or with roommates), average weekly number of hours employed, and average number of credits per semester.

Data Analysis Plan

Data was imported from Qualtrics into a data analysis software program of SPSS. Missing data and outliers were identified and were managed based on discussions with the project sponsor. Level of statistical significance was a set of $p < 0.05$. Descriptive statistics were used to describe the sample and variables of stress, coping, and readiness for change.

The first research question was: in undergraduate baccalaureate nursing students, how did stress compare in sophomore, junior, and senior levels? To answer this question, the one-way ANOVA test was used, which can be used to compare the variables in three or more groups. The second research question was: in undergraduate baccalaureate nursing students, was there a relationship between stress level and type of coping mechanism? To answer this question, the Pearson correlation coefficient was used to determine relationships between stress and negative

and positive coping, all interval level data. The third research question is: in undergraduate baccalaureate nursing students, was there a relationship between readiness to change and negative coping? To answer this question, the Pearson correlation coefficient was used to determine relationships between variables, measured at the interval (coping) and ordinal (readiness to change) levels.

Results

Sample

Sample size (n) was defined as 86 baccalaureate level nursing students. Out of the 86, 14.1% (12) were male and 85.9% (74) were female; 41.2% (36) were sophomores, 34.1% (29) were juniors, and 24.7% (21) were seniors; 94.1% (81) were Caucasian, 4.7% (4) were African American, and 1.2% (1) was defined as other; 43.5% (37) lived at home in their hometown, 31.8% (27) lived off campus with a roommate, 14.1% (13) lived off campus alone, and 10.6% (9) lived on campus; 29.4% (25) worked 0-10 hours a week, 36.5% (31) worked 11-20 hours a week, 28.2% (24) worked 21-30 hours a week, and 4.7% (6) worked 40+ hours a week; 8.2% (7) were taking less than 12 credit hours a semester, 81.2% (70) were taking 12-16 credit hours a semester, and 10.6% (9) of people were taking greater than 16 credit hours a semester. The Student Nurse Stress Index was used to measure stress level. A max score on the SNSI is 110; the average score received on the SNSI was 68.

Research Question #1

See Appendix G for results table. The first research question was, “How did stress compare in sophomore, junior, and senior levels?” A one-way ANOVA test using SPSS determined the p value of the data ($p=0.492$) was higher than the defined significance level

($p < 0.05$). Interpretation of survey data yielded that there was not a statistically significant difference between stress level and grade level.

Research Question #2

The second research question was, “Was there a relationship between stress level and type of coping mechanism?” This question examined stress level with positive coping mechanisms along with stress level with negative coping mechanisms. A Pearson Correlation Coefficient (r) value between 0 and 0.3 represented a weak linear relationship between variables. Values between 0.3 and 0.7 indicated a moderate positive linear relationship between variables. According to analysis via the Pearson Coefficient, there was a moderate positive linear relationship between SNSI score and average positive COPE score ($r=0.320$). See Appendix H for data table.

Additionally, there was a moderate positive linear relationship between SNSI score and average negative COPE score ($r=0.625$). In SPSS, these two correlative studies were significant at the 0.01 level (two tailed) meaning the correlation is at the 99 per cent confidence level. See Appendix I for data table.

Research Question #3

The third research question was, “In undergraduate baccalaureate nursing students, was there a relationship between readiness to change and negative coping?” This question was unable to be answered due to survey limitations. See limitations.

Discussion

The research conducted intended to determine (1) how did stress compare in sophomore, junior, and senior levels, (2) was there a relationship between stress level and type of coping mechanism, and (3) was there a relationship between readiness to change and negative coping. A

survey was distributed to the undergraduate nursing students of a public university in which results were collected and analyzed. Upon analyzation of the data, (1) there was not a statistically significant difference between grade level and stress level, and (2) there was a moderate positive linear relationship between stress level and positive coping mechanisms as well as a moderate positive linear relationship between stress level and negative coping mechanisms. The third research question was unable to be answered due to a human error related to the survey distribution. Finally, the average level of stress of all respondents, as rated by the SNSI, was found to be 68 out of a possible 110.

Data was collected on different causal factors of nursing student stress, including but not limited to the amount and difficulty of classwork, peer competition, fear of failure, and outside stressors such as health and personal relationships. These causal factors were not individually analyzed; however, they were examined as a whole sum in order to analyze overall stress level. In contrast, the study conducted by He et al. (2018) analyzed specific causes of nursing student stress on an individual level. Additionally, research by McCarthy et al. (2017) and Gurkova & Zeleniko (2018) identified nursing students as having higher levels of perceived stress in comparison to other undergraduate students. This study was confined to undergraduate nursing students and therefore did not examine their stress levels in relation to other undergraduate students of the same university.

This research study and the study conducted by Gurkova and Zeleniko (2018) both examined the relationship between nursing student stress level and grade level. While Gurkova and Zeleniko (2018) found novice students to have higher levels of stress than higher grade levels, this study found no statistically significant difference in stress across grade level.

Unfortunately, data regarding the Transtheoretical Model of Change was unable to be analyzed due to an omission in the survey by human error. Thus, no comparisons to pre-existing research by Evers et al. (2006) could be made from this study.

Prior to examining the conducted survey, the theory was that there would be variations in stress level across grade levels as well as a difference in stress level among those who utilized positive coping mechanisms compared to those who utilized negative coping mechanisms, as found in the research by Gurkova and Zeleniko (2018). However, this study's results indicated that there was no statistically significant difference in stress level across grade levels. Possible explanations for these unexpected results include timing of the survey, small sample size, variance in the locations of the two conducted surveys, and potential differences in the curriculum of these nursing programs.

Additionally, there was a moderate positive linear relationship between stress level and both positive and negative coping mechanisms, indicating that regardless of coping mechanism, stress levels remain high. A possible explanation for these results could be that coping with stress does not necessarily lead to stress reduction (Sheu, Lin, & Hwang, 2002). Lack of research on this phenomenon suggests a need for further investigation specifically on reducing stress levels in nursing students.

Conclusively, this study validated the notion that nursing students are under high levels of stress in their undergraduate programs, as previously found by the studies conducted by McCarthy et al. (2017), Gurkova and Zeleniko (2018), He et al. (2018) and Koren (2017).

Conclusion

Overview of results

In conclusion, stress level among nursing students remained high across all grade levels, with the average stress level being 68 out of 110 on the SNSI. There was no statistically significant difference in stress level between engaging in either positive coping mechanisms or negative coping mechanisms. The final research question, which examined the relationship between readiness to change and negative coping, was ultimately unable to be answered.

Limitations

Study limitations included convenience sampling which allows for a lack of randomization, small sample size which leads to over generalization of data, the use of the abbreviated COPE rather than the full COPE Inventory, potential bias due to the positive and negative coping mechanisms of the COPE Inventory being self-defined by the researchers, the dismissal of outliers and incomplete survey results from data analysis, and that the third research question was unable to be answered due to a survey error.

This survey was conducted at one public university; all undergraduate nursing students were invited to complete the survey but only 86 complete responses were submitted. The sample of students was almost exclusively Caucasian (94.1%) and female (85.9%). The sample size was also primarily comprised of sophomore nursing students (41.2%). A larger sample size would have been preferred in order to avoid the over generalization that occurred in this survey.

The abbreviated COPE Inventory was used in this survey to limit the length of time it took to be completed, with the ultimate goal of encouraging more individuals to participate. Using the full COPE Inventory would have provided more in-depth results regarding positive

and negative coping mechanisms. The items on the COPE were also defined by the researchers as positive or negative which could have brought personal bias to the study.

While reviewing pre-existing research, two articles were published over ten years ago. Although the articles were not current, they provided important information for the review of literature that could not have otherwise been retrieved. One article discussed the Transtheoretical Model of Change. The other article guided the interpretation of coping mechanisms.

When creating and distributing the survey, a question was omitted by human error. The question that was left out of the survey answered the final research question, “In undergraduate baccalaureate nursing students, was there a relationship between readiness to change and negative coping?” With this survey question being omitted, the research question was ultimately left unanswered.

Nursing Implications

Although there was no statistical significance between stress level and grade level, there was still a high overall stress level associated with nursing school. Nursing school gives the future nurse an opportunity to become more mindful of one's own stress which is essential to sustaining one's mental health. Maintenance of mental health allows unbiased nursing practice and the development of therapeutic relationships with patients. Nursing schools can combat high stress levels amongst the student body by offering programs centered around stress management and stress reduction.

Because there was a moderate positive linear relationship between SNSI score and average positive COPE score, as well as between SNSI score and average negative COPE score, it was assumed these variables are mildly correlated. There was a stronger correlation between SNSI score and average negative COPE score due to a higher r value; this higher r value was

indicative of students with high stress being more apt to cope negatively. This information can be used to understand how nursing students cope given the stresses of nursing school. Students with knowledge of this correlation may be able to more mindfully avoid or begin to change negative coping mechanisms.

Recommendations

Due to the limitations previously discussed in this paper, additional research would be beneficial in understanding stress in nursing students. Future research should include a much larger sample size, including a more diverse sample population. The use of the full COPE Inventory in future research would yield more in-depth results, allowing the coping mechanisms of students to be further understood. To further research this topic, it would be beneficial to investigate if nursing students are willing to change their current coping mechanisms. To answer this question, the transtheoretical model of change can be used. This knowledge can be used to aid students in developing healthy coping mechanisms.

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study. *Nurse Education Today*, 35(1), 201–205. doi.org/10.1016/j.nedt.2014.07.005

Zhang, Y., Peters, A., & Bradstreet, J. (2018). Original Article: Relationships among sleep quality, coping styles, and depressive symptoms among college nursing students: A multiple mediator model. *Journal of Professional Nursing*, 34, 320-325.

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Appendix A
Review of Literature Matrix

| | | | | | | |
|--|---|---|--|--|--|--|
| <p>1 Walton RL. (2002, January). <i>A comparison of perceived stress levels and coping styles of junior and senior students in nursing and social work programs</i> (Ed.D.). <i>Comparison of Perceived Stress Levels & Coping Styles of Junior & Senior Students in Nursing & Social Work Programs</i>. Marshall University. Retrieved from http://ezproxy.uakron.edu:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=109843295&site=ehost-live</p> | <p>Purpose statement: The purpose of this study was to determine if there is a difference in the perceived stress levels and the coping styles of junior and senior students in nursing and social work programs.</p> <p>Research question: Do nursing students show a higher level of stress than other members of the student body? How do students deal with stress depending on level of student and self-appointed stress level?</p> | <p>No theories were used to guide this study</p> | <p>Design: Descriptive comparative approach and was nonexperimental</p> <p>Site: Marshall University</p> <p>Sampling method: Convenience sampling</p> <p>Data collection methods: Self-reported survey- students answered if they wanted to. Surveyor approached teachers of appropriate majors and handed out surveys.</p> <p>Sample size: 89 nursing students and 33 social work students</p> | <p>Variable and measurement instrument: demographic tool developed by the researcher</p> <p>Variable and measurement instrument Perceived stress levels were measured by Cohen's Perceived Stress Scale</p> <p>Variable and measurement instrument coping styles were identified by the Moos Coping Responses Inventory</p> | <p>Responses indicated that social work students have significantly higher perceived stress levels than nursing students. Nursing students identified more reliance on approach coping responses, while social work students identified more reliance on avoidance coping responses. No significant differences were identified between the two groups based on age, gender, marital status, employment status or class.</p> | <p>Given that results were based upon a convenience sample, results may be skewed toward one major or the other. Students that identify more with the problem may have answered more readily. Sample size was tangible and defined</p> |
|--|---|---|--|--|--|--|

| | | | | | | |
|---|--|---|---|--|--|--|
| <p>2 Reeve, K. L., Shumaker, C. J., Yearwood, E. L., Crowell, N. A., & Riley, J. B. (2013). Perceived stress and social support in undergraduate nursing students' educational experiences. <i>Nurse Education Today</i>, 33(4), 419–424. https://doi-org.ezproxy.uakron.edu/2443/10.1016/j.nedt.2012.11.009</p> | <p>Purpose statement: To identify the stress experience and use of social support as a coping mechanism in traditional and second-degree nursing students' educational experiences.</p> <p>Research question: How do students rate their own stress levels and how do they cope with said stress levels?</p> | <p>No theories guided this study</p> | <p>Design: non-experimental/descriptive and qualitative open-ended: A mixed method study was conducted.</p> <p>Site: a private university</p> <p>Sampling method: Non-Probability convenience sampling was used</p> <p>Data collection methods: Surveys were given to nursing students. Only students that answered were sampled</p> <p>Sample size: 107 baccalaureate nursing students enrolled in either a traditional ($n = 49$) or second degree ($n = 58$)</p> | <p>Five instruments were combined to develop the quantitative and qualitative questions for an online survey</p> <p>Variable and measurement instrument: The Multidimensional Scale of Perceived Social Support</p> <p>Variable and measurement instrument: Deakin Coping Scale</p> <p>Variable and measurement instrument: Social Support Questionnaire</p> <p>Variable and measurement instrument: Student Life Stress Inventory</p> | <p>Traditional and second-degree nursing students report high levels of anxiety, worry and depression in response to stress, resulting in feelings of rejection and inadequacy. Respondents used faculty members for support less frequently than they used their peers, spouse/significant other or parents. Second degree students and traditional students differ in their level of alcohol consumption with traditional students more likely to drink heavily than second degree students. In addition, traditional students are more likely to use fellow</p> | <p>Given that results were based upon student's willingness to respond to the survey, results may be skewed. Students that identify more with the problem may have answered more readily. Analysis of quantitative data was performed using Statistical Package for Social Sciences. Qualitative data was independently coded by four of the researchers. Research was conducted at a single private university.</p> |
|---|--|---|---|--|--|--|

| | | | | | | |
|--|---|-------------------------------------|---|---|---|--|
| | | | | <p>Variable and measurement instrument Open ended survey item with three questions using the Critical Incident Technique Tool</p> | <p>nursing students and other friends as social support, whereas second degree students rely more on their spouse/significant other.</p> | |
| <p>3. Gurková, E., & Zeleníková, R. (2018, February 26). Nursing students' perceived stress, coping strategies, health and supervisory approaches in clinical practice: A Slovak and Czech perspective. Retrieved from https://www.sciencedirect.com/science/article/pii/S0260691718300959</p> | <p>Purpose statement: To investigate the relationship between supervisory approaches in clinical practice on the one hand, and nursing students' level of experience, perceived stress, coping strategies and physiopsychosocial status on the other.</p> <p>Research Question: How do different types and degrees of stress perceived by</p> | <p>No theory guided this study.</p> | <p>Design: cross-sectional descriptive study</p> <p>Site: bachelor's degree programs in the Czech Republic and Slovakia</p> <p>Sampling Method: non-probability convenience sample method</p> <p>Sampling Size: 275 first, second, or third year nursing students in a clinical program</p> | <p>Variable and measurement instrument</p> <p>stress was measured by the Perceived Stress Scale; physiopsychosocial status was measured by the Physio-Psycho-Social Response Scale; coping behaviors were measured by the Coping Behavior Inventory.</p> <p>Data collection: self-completed questionnaire measuring</p> | <p>experienced nursing students perceive more stress than novice; students under traditional group supervision perceived higher stress; clinical stressors were 22% of the variance in stress; therefore, stress in nursing students is mainly from clinicals</p> | <p>unable to assume causal relationships because it is a cross sectional study; study of convenience so it is not representative</p> |

| | | | | | | |
|--|---|--|--|--|---|--|
| | students relate to their physio-psychosocial status and their coping behavior over the years of study? | | | level and types of stress, physio-psychosocial status, coping behaviors and a student's background | | |
| 4. McCarthy, B., Trace, A., O'Donovan, M., O'Regan, P., Brady-Nevan, C., O'Shea, M., . . . Murphy, M. (2017, December 06). Coping with stressful events: A pre-post-test of a psycho-educational intervention for undergraduate nursing and midwifery students. Retrieved from https://www.sciencedirect.com/science/article/pii/S0260691717302940 | <p>Purpose statement: To evaluate the impact of a psycho-educational intervention “Coping with Stressful Events” with first year undergraduate nursing and midwifery students.</p> <p>Research Question: how does psycho-educational interventions influence the coping skills in nursing/midwifery students?</p> | Based on the Cognitive Model of Stress and Coping; coping is a critical part of stress; negative emotions intensify stress; de-escalating these emotions can help students develop more positive coping mechanisms | <p>Design: quasi-experimental, one group pre-post-test Site: one school of nursing/midwifery students in Ireland Sampling Method: convenience method Sampling Size: 138</p> | <p>Variable and measurement instrument COPE Inventory questionnaire measures 4 dimensions of coping: problem-focused, emotion-focused, social support, and avoidant. Each component was measured on a scale of 1 (never) to 4 (often).</p> | educational intervention for these students was found to be significant to their coping abilities. avoidant coping was reduced while social support was increased. this study may help other students' coping skills in the future. | convenience study of nursing/midwifery students in one Ireland university, so it may not be generalizable ; questionnaire was self-report, so accuracy depends on students' willingness to answer honestly; pre and post responses were not linked; there was no control group |
| 5 Horiuchi, S., Tsuda, A., Kim, E., Hong, K.-S., Park, Y.-S., & Kim, U. (2010). Relationships between stage of change for stress management behavior and perceived stress and coping. <i>Japanese Psychological Research</i> , 52(4), 291–297. https://doi-org.ezproxy.uakron.edu/2443/10.1111/j.1468-5884.2010.00444.x | <p>Purpose Statement: to examine the relationship between (a) stage of change,</p> | This study is based on the transtheoretical model of change, the | <p>Design: non-experimental Sampling Method:</p> | <p>Variables: stage of change for stress management behaviors is measured with TTMC</p> | From discussion section: Those in maintenance and action stages more frequently | Limitations to this study include that the method of coping is unknown, another limitation is |

| | | | | | | |
|--|---|---|--|---|---|--|
| | <p>based on the transtheoretical model, for stress management and (b) perceived stress and coping. Researchers also developed and tested Korean translated survey.</p> <p>Research Question: Is there a relationship between stage of change and perceived stress, and coping?</p> | <p>researcher s hypothesize that stress management, perceived stress, and coping will all improve toward the later stages of change.</p> | <p>probability sampling</p> <p>Sampling Size: 321 males and 508 females</p> | <p>stage statements.</p> <p>Perceive stress and coping is measured with the RISCI.</p> | <p>felt that they could cope with stressful situations, compared with those in the first three stages. Those in maintenance stage showed lower perceived stress level compared with those in the other stages. There was not a significant difference between male and female</p> | <p>that it is unknown if the results would be successfully applied to a general population rather than just the sample.</p> |
| <p>6 Evers, K. E., Prochaska, J. O., Johnson, J. L., Mauriello, L. A., Padula, J. A., & Prochaska, J. M. (n.d.). A randomized clinical trial of a population- and transtheoretical model-based stress-management intervention. <i>Health Psychology, 25</i>(4), 521–529. https://doi-org.ezproxy.uakron.edu:2443/10.1037/0278-6133.25.4.521</p> | <p>Purpose Statement: to see if stress is managed more effectively using interventions based on the transtheoretical model</p> <p>Research Question: Are interventions based on the transtheoretical model more effective at</p> | <p>This is based on the transtheoretical model of change. The researcher s hypothesize that interventions based on the transtheoretical model are most effective at</p> | <p>Design: experimental</p> <p>Sampling Method: convenience sampling with random group assignment</p> <p>Sampling Size: 1361 people total. 653 in the treatment group and 708 in the control group.</p> | <p>Variable and Measurement Instrument : in this study, an intervention was the independent variable and based on the transtheoretical model. Treatment group but not the control group got intervention. Stress was the</p> | <p>It was found that the treatment group with the transtheoretical model intervention was more effective at lowering stress</p> | <p>Limitations to this study include that it was a self-reporting study, and that what the participants did in addition to the intervention could affect the results</p> |

| | | | | | | |
|--|--|-------------------------------------|---|--|---|--|
| | lowering stress? | lowering stress. | | dependent variable and measured | | |
| <p>7Wolf, L., Stidham, A. W., & Ross, R. (2015). Predictors of Stress and Coping Strategies of US Accelerated vs. Generic Baccalaureate Nursing Students: An Embedded Mixed Methods Study. <i>Nurse Education Today</i>, 35(1), 201–205. https://doi.org/10.1016/j.nedt.2014.07.005</p> | <p>Purpose statement: Identify predictors of stress and coping strategies to allow the application of proper coping strategies.</p> <p>Research Question: How does the use of appropriate coping mechanisms decrease stress in nursing students?</p> | <p>Unable to identify a theory.</p> | <p>Design: Cross-sectional study with a quantitative non-experimental design and a qualitative approach with supportive data.</p> <p>Site: Two Midwestern universities</p> <p>Data Collection: Paper and pencil questionnaire was given after participants were given a consent form</p> <p>Sampling Method: Non-Probability convenience</p> <p>Sample Size: Sample consisted of 135 generic junior and senior nursing students and 75 accelerated junior and senior students at two different universities.</p> | <p>Variable and measurement instrument: Stress was measured with the Perceived Stress Questionnaire (PSQ)</p> <p>Self-Esteem was measured with the Rosenberg Self-Esteem Scale (R-SE)</p> <p>Social support was measured with the Multidimensional Scale of Perceived Social Support (MSPSS).</p> | <p>The study concluded that generic and accelerated students have the same stress levels. Self-esteem, emotional support, year in the program and history of depression were all identified as predictors of stress. Also, senior students had more stress than junior students. Positive thinking and social support were identified as a coping strategy. The fear of failure, clinical incompetence and problematic relationships were also identified as stressors.</p> | <p>By using a mixed method of research, this study was able to incorporate a deeper understanding of the topic. This study collected data from two universities in different regions. This study did have limitations, one of which being that data was not collected longitudinally. Since the study was only conducted in America, it would be hard to infer that the results would be true for other countries. The study was a convenience sample leading to selection bias. Another</p> |

| | | | | | | |
|--|--|--------------------------------|---|---|---|--|
| | | | | | | limitation was that negative coping strategies were not studied. |
| Zhang, Y., Peters, A., & Bradstreet, J. (2018). Original Article: Relationships among sleep quality, coping styles, and depressive symptoms among college nursing students: A multiple mediator model. <i>Journal of Professional Nursing</i> , 34320-325. doi: 10.1016/j.profnurs.2017.12.004 | Purpose statement: "The study to examine the potential mediating role of coping styles in the association between sleep quality and depressive symptoms among college nursing students (Page 1)." Research question: Do coping mechanisms mediate the relationship between sleep quality and depressive symptoms? | Theory was unable to identify. | Design: Quantitative, cross-sectional design Site: Single public university in Northeast U.S. A. Data Collection: SurveyMonkey, took 15 minutes and got a \$10 cash Sampling method: Non-Probability convenience Sample size: 242 undergraduate nursing students | Dependent variables: Depressive symptoms were measured using the Center for Epidemiologic Studies Depression Scale (CES-D) Independent Variables: Sleep quality was measured using the Pittsburgh Sleep Quality Index (PSQI). Potential Mediators: Coping mechanisms were identified and measured using the Coping Strategies Inventory Short Form (CSI-SF). | This study concluded that there was a positive association between poor sleep quality and depressive symptoms in college nursing students. Coping styles, specifically emotion disengagement, were found to reduce this association. Improved coping skills and sleep promotion are needed to enhance the well-being of students. | Findings could have been over-generalized because they only came from one school. Since the study was a convenience sample, selection bias can be an issue. Ultimate conclusions about casual relationships cannot be drawn with a cross-sectional design and a longitudinal, randomized design would have been more adequate. |
| 9 He, F. X., Turnbull, B., Kirshbaum, M. N., Phillips, B., & Klainin-Yobas, P. (2018). Assessing stress, protective factors and psychological well-being among undergraduate nursing students. <i>Nurse Education Today</i> , 684-12. doi: 10.1016/j.nedt.2018.05.013 | Purpose statement: | No theory guided this study | Design: A cross sectional descriptive | Variable and measureme | All three of the hypotheses | The study was conducted in |

| | | | | | | |
|--|--|--|---|--|---|---|
| | <p>The purpose of this study was to identify stress levels in undergraduate nursing students and how they impact personal well-being.</p> <p>Research question: How does nursing school impact stress levels of students? In what way does this impact the personal well-being of these students?</p> | | <p>predictive model was used to study the hypotheses.</p> <p>Site: Australia regional university</p> <p>Sampling method: non-probability convenience sample method</p> <p>Sample size: 538</p> | <p>nt instrument: stress levels were measured using 6 validated scales The <u>Perceived Stress Scale</u>; General Self-Efficacy Scale; Connor Davidson Resilience Scale; Multi-Dimensional Scale of Perceived Social Support; Psychological Well-being Scale, Mindfulness Awareness Scale</p> <p>Variable and measurement instrument: A demographic tool was sent along with the survey to collect information about the students.</p> | <p>(Stress will have a significant negative effect on PWB among undergraduate nursing students at a university in Australia, Internal factors (Self-efficacy, resilience and mindfulness) would have a significant positive effect on PWB, External factors (Social support) would have a significant positive impact on PWB) were found to be correct.</p> | <p>Australia where the education system may differ from ours, it was on mostly female students, the truthfulness of responses is unknown.</p> |
|--|--|--|---|--|---|---|

| | | | | | | |
|---|--|--|--|---|--|---|
| | | | | <p>Variable and measurement instrument: A multiple linear regression analysis was performed to assess the internal and external factors to predict the participants' PWB.</p> | | |
| <p>10 Koren, M. E. (2017). Mindfulness Interventions for Nursing Students: Application of Modelling and Role Modelling Theory. <i>International Journal of Caring Sciences</i>, 10(3), 1710-1716.</p> | <p>Purpose statement: This study was conducted in order to determine the impact of mindfulness training on nursing students.</p> <p>Research question: Does mindfulness training have a positive impact on the stress levels and coping abilities of nursing students?</p> | <p>The Theory of Modelling and Role Modelling guided this study.</p> | <p>Design: Nursing students took mindfulness courses and their stress levels before and after the course were compared.</p> <p>Site: Northern Illinois university</p> <p>Sampling method: non-probability convenience sample method</p> <p>Sample size: 59</p> | <p>Variable and measurement instrument: students took 6 ten-minute mindfulness courses.</p> <p>Variable and measurement instrument: stress levels before and after the courses were compared.</p> | <p>Six 10-minute courses were able to decrease nursing student's stress.</p> | <p>Small sample size, limited time.</p> |

Appendix B

Recruitment Email

Hello Nursing Students,

You are invited to participate in a nursing honors research project studying stress in nursing students. This study is by senior nursing students: Carly Gillota, Taylor Hall, Ruthie Hawks, Edward McCain and Hannah Wilson at The University of Akron. If you are interested in participating, follow this link to Qualtrics to complete the online survey, which should take about 15 minutes. If you choose to participate after your completion of the survey Qualtrics will take you to a new link where you will be able to enter your information for a chance to win a \$25 gift card. All data is collected anonymously.

Thank you in advance for your time and commitment to supporting research by undergraduate students in our nursing program! We appreciate your time and support!

Carly Gillota, Taylor Hall, Ruthie Hawks, Edward McCain and Hannah Wilson

Appendix C

Informed Consent Form

Title of Study: Nursing Student Stress

Introduction: You are invited to participate in a research project being conducted by Carly Gillota, Taylor Hall, Ruthanne Hawks, Edward McCain, and Hannah Wilson, nursing students in the College of Health Professions, School of Nursing at The University of Akron.

Procedures: If you volunteer to participate in this study, you will be asked to complete a short, online survey. In this survey, you will be asked to rank the stress you experience on a scale of 1-5, with 5 being the highest level of stress. You will also be asked to rank the likelihood of using different coping mechanisms 1-4 depending on how likely you are to utilize them with 4 being most likely. Lastly, you will be asked if you would be willing to change the negative mechanisms for something more positive.

Inclusion: You are eligible to participate in the study if you are enrolled in the traditional undergraduate nursing program as a sophomore, junior, or senior and are at least 18 years old. You are not eligible if you are an accelerated student or a student in the RN-BSN, LPN-RN, or graduate nursing programs. No persons will be excluded based on gender, ethnicity, race, sexual orientation, marital status, or age as long as they are 18 years or older.

Benefits and Risks: You will receive no direct benefit from your participation in this study, but your participation may help us understand at which level of nursing school students experience the most stress, how they tend to cope with their stress, and if they would consider coping in more positive ways in the future. Upon completion of the survey, students will have the opportunity to enter in a drawing for a \$25 gift card by following an external link and providing name and email address. If students choose to enter said survey, the external link ensures

anonymity. There is a mild risk of increased anxiety or stress involved in completing the survey because you are asked to answer questions about personal feelings, attitudes, and habits. There is minimal risk of participant identification because no identifying information is collected in the survey and survey distribution and submission occur anonymously online. If you feel distressed and need to talk with a counselor or health care provider after completing the survey, please contact: (1) The Counseling Center, Simmons Hall 306, Phone: 330-972-7082, Website: <http://www.uakron.edu/counseling/> and/or (2) Student Health Services, Student Recreation and Wellness Center, Suite 260, Phone: 330-972-7808, Website: <http://www.uakron.edu/healthservices>. Right to refuse or withdraw: Participation is voluntary. Refusal to participate or withdraw from this study at any time will result in no penalty. Failure to participate in no way affects your academic standing.

Anonymous and Confidential Data Collection: No identifying information will be collected. Your anonymity is further protected by not requiring you to return the informed consent form.

Confidentiality of Records: Data is collected with an online survey. The survey is loaded into Qualtrics, an electronic survey software program. You will complete the survey electronically and at your own convenience. Electronic survey completion means that data is automatically entered into a data set. Disconnecting participants from their survey is also related to protection of human participants.

Who to Contact with Questions: If you have any questions about this study, please feel free to contact Carly Gillota (cmg158@zips.uakron.edu), Taylor Hall (tah143@zips.uakron.edu), Ruthanne Hawks (reh62@zips.uakron.edu), Edward McCain (ewm14@zips.uakron.edu), or Hannah Wilson (hw50@zips.uakron.edu)? You can also contact the faculty sponsor of this project: Diane Lorenzen at dlorenzen@uakron.edu. This project has been approved by the

University of Akron Institutional Review Board. A copy of research findings can be made available upon request. If you have any questions about your rights as a research participant, you may call the IRB at 330-972-7666.

Acceptance and Signature: I have read the informed consent and voluntarily agree to participate in this survey. My completion and submission of this survey will serve as my consent. I may print a copy of this consent for future reference.

Now, it's time to take the survey! We thank you very much for your participation.

Appendix D

Student Nurse Stress Index

| | ITEM | NOT STRESSFUL | | | | EXTREMELY STRESSFUL |
|----|---|------------------|---|---|---|------------------------|
| 1 | Amount of classwork material to be learned | 1 | 2 | 3 | 4 | 5 |
| 2 | Difficulty of classwork material to be learned | 1 | 2 | 3 | 4 | 5 |
| 3 | Examination and/or grades | 1 | 2 | 3 | 4 | 5 |
| 4 | Peer competition | 1 | 2 | 3 | 4 | 5 |
| 5 | Attitudes/expectations of other professionals towards nursing | 1 | 2 | 3 | 4 | 5 |
| 6 | Lack of free time | 1 | 2 | 3 | 4 | 5 |
| 7 | College/School response to student needs | 1 | 2 | 3 | 4 | 5 |
| 8 | Fear of failing in course | 1 | 2 | 3 | 4 | 5 |
| 9 | Actual personal health problems | 1 | 2 | 3 | 4 | 5 |
| 10 | Physical health of other family members | 1 | 2 | 3 | 4 | 5 |
| 11 | Relationships with parents | 1 | 2 | 3 | 4 | 5 |
| 12 | Other personal problems | 1 | 2 | 3 | 4 | 5 |
| 13 | Relations with other professionals | 1 | 2 | 3 | 4 | 5 |
| 14 | Too much responsibility | 1 | 2 | 3 | 4 | 5 |

| | | | | | | |
|----|---|---|---|---|---|---|
| 15 | Lack of timely feedback about performance | 1 | 2 | 3 | 4 | 5 |
|----|---|---|---|---|---|---|

Answer the following questions from your reflections on your clinical experience:

| | ITEM | NOT STRESSFUL | | | | EXTREMELY STRESSFUL |
|----|---|---------------|---|---|---|---------------------|
| 16 | Client attitudes towards me | 1 | 2 | 3 | 4 | 5 |
| 17 | Client attitudes towards my profession | 1 | 2 | 3 | 4 | 5 |
| 18 | Atmosphere created by teaching staff | 1 | 2 | 3 | 4 | 5 |
| 19 | Relations with staff in the clinical area | 1 | 2 | 3 | 4 | 5 |

Other academic and related items:

| | ITEM | NOT STRESSFUL | | | | EXTREMELY STRESSFUL |
|----|---|---------------|---|---|---|---------------------|
| 20 | I am not sure what is expected of me | 1 | 2 | 3 | 4 | 5 |
| 21 | I have no time for entertainment | 1 | 2 | 3 | 4 | 5 |
| 22 | I do not have enough time for my family | 1 | 2 | 3 | 4 | 5 |

Appendix E

Abbreviated COPE Inventory

Rating Scale

- 1 = I haven't been doing this at all
- 2 = I've been doing this a little bit
- 3 = I've been doing this a medium amount
- 4 = I've been doing this a lot

Questions

1. I've been turning to work or other activities to take my mind off things.
2. I've been concentrating my efforts on doing something about the situation I'm in.
3. I've been saying to myself "this isn't real."
4. I've been using alcohol or other drugs to make myself feel better.
5. I've been getting emotional support from others.
6. I've been giving up trying to deal with it.
7. I've been taking action to try to make the situation better.
8. I've been refusing to believe that it has happened.
9. I've been saying things to let my unpleasant feelings escape.
10. I've been getting help and advice from other people.
11. I've been using alcohol or other drugs to help me get through it.
12. I've been trying to see it in a different light, to make it seem more positive.
13. I've been criticizing myself.
14. I've been trying to come up with a strategy about what to do.
15. I've been getting comfort and understanding from someone.
16. I've been giving up the attempt to cope.
17. I've been looking for something good in what is happening.
18. I've been making jokes about it.
19. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.
20. I've been accepting the reality of the fact that it has happened.
21. I've been expressing my negative feelings.
22. I've been trying to find comfort in my religion or spiritual beliefs.
23. I've been trying to get advice or help from other people about what to do.
24. I've been learning to live with it.

25. I've been thinking hard about what steps to take.
26. I've been blaming myself for things that happened.
27. I've been praying or meditating.
28. I've been making fun of the situation.

Appendix F
Outline of Survey

1-7 Demographic Information

- Age
- Sex
- Ethnicity/Race
- Level in nursing progression
- Living arrangements- on campus, off campus, alone in apartment, with roommates
- Average credit hours taken
- Average weekly work hours

8-29 SNSI

- See Appendix D

30-57 Abbreviated COPE Inventory

- See Appendix E

58

- Transtheoretical Model of Change

Appendix G

Oneway

[DataSet2]

| ANOVA | | | | | |
|----------------|----------------|----|-------------|------|------|
| SNSI Score | Sum of Squares | df | Mean Square | F | Sig. |
| Between Groups | 339.441 | 2 | 169.720 | .716 | .492 |
| Within Groups | 19443.547 | 82 | 237.116 | | |
| Total | 19782.988 | 84 | | | |

Appendix H

Correlations

Correlations

| | | SNSI Score | Average Positive COPE Score |
|-----------------------------|---------------------|------------|-----------------------------|
| SNSI Score | Pearson Correlation | 1 | .320** |
| | Sig. (2-tailed) | | .003 |
| | N | 85 | 85 |
| Average Positive COPE Score | Pearson Correlation | .320** | 1 |
| | Sig. (2-tailed) | .003 | |
| | N | 85 | 85 |

** . Correlation is significant at the 0.01 level (2-tailed).

Appendix I

Correlations

| | | SNSI Score | Average Negative COPE SCORE |
|--------------------------------|---------------------|------------|--------------------------------------|
| SNSI Score | Pearson Correlation | 1 | .625** |
| | Sig. (2-tailed) | | .000 |
| | N | 85 | 85 |
| Average Negative COPE SCORE | Pearson Correlation | .625** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 85 | 85 |

** . Correlation is significant at the 0.01 level (2-tailed).