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Accelerated Baccalaureate Nursing Students' Perceptions of Stress

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by

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Abstract

Accelerated baccalaureate nursing students are at an increased risk for stress due to the fast pace and intensity of the program. The purpose of this research was to examine the perceived stresses and coping strategies of accelerated baccalaureate nursing students. The Student Nurse Stress Index (SNSI), (Jones & Johnston, 1999) and a qualitative question on coping strategies were completed by 24 ABSN students in an online survey. Results showed students perceived academic factors as the most stressful and first semester students had higher stress level scores than final semester students. Personal time, social support, physical activity, sleep/rest, and religion relieved stress was identified by the students, with personal time the most frequently used coping strategy.

Keywords: ABSN stress, nursing student stress, nursing student coping

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CHAPTER I

Introduction

Stress and anxiety are unfortunately all too commonly experienced by nursing students. Nursing has been identified as a group with higher than average stress levels than other college programs (Raymond & Sheppard, 2018). Stress is a problem experienced by nursing students at an even higher level than medical, physical therapy, pharmacy, and dentistry students that has detrimental effects (Labrague, 2013). This is due to a variety of stressors including heavy academic course loads, financial obligations, clinical practice requirements, family responsibilities, and personal problems (Caldwell & LaRocco, 2011; Klein, 2012; Li, Wang, Lin, & Lee, 2011; Pulido-Martos, Augusto-Landa, & Lopez-Zafra, 2012). Nursing programs have rigorous academic standards and high professional expectations for students, further adding to stress levels. This is especially true when programs require high minimum passing grades in all nursing courses to progress through the program and more than one course failure may result in program dismissal (Klein, 2012).

Timmins and Kaliszer (2002) identified five main stress components: academic factors, interpersonal factors, clinical experience factors, financial factors, and the independent factor of dealing with patient death. Academic and financial factors emerged as the highest reported components of nursing student stress in the study. Furthermore, nursing student stress has been reported across different types of nursing programs and increases for some students over the course of the program (Wolf, Stidham, & Ross, 2015).

Students enrolled in accelerated baccalaureate nursing programs deal with higher levels of stress related to the rapid pace and intensity of the program (Wolf et al., 2015). Accelerated baccalaureate nursing programs have exploded in growth the last decade, partially due to the push by the Institute of Medicine (IOM) report to increase the percentage of nurses with a bachelor of science in nursing degree to 80% by the year 2020, as well as the condensed program design which appeals to individuals in other job fields. The premise of the accelerated nursing program is to build upon a previous undergraduate degree by synthesizing the clinical nursing curriculum into a 12-month timeframe. Even though this program has helped the current nursing shortage by increasing the number of nurses entering the workforce, it puts accelerated baccalaureate nursing students at risk for increased stress levels (Lott, Davis, Montgomery, Burns, & Baker, 2018).

The consequences of high levels of stress have been correlated to negative student outcomes in regards to academic performance, psychological wellbeing, and program retention (Lott et al., 2018; Raymond & Sheppard, 2018; Reeve, Shumaker, Yearwood, Crowell, & Riley, 2013). Overwhelming stress has been connected to poor motivation and academic performance, making it one of the top causes for withdrawal from a nursing program (Raymond & Sheppard, 2018). In regard to mental and emotional health, maladaptive coping strategies to overwhelming stress can develop, resulting in nursing students reporting feeling sad or irritable, separating themselves from others, and higher alcohol consumption (Reeve et al., 2013). Unfortunately, the result of exceedingly high stress levels is often attrition from nursing programs, due to academic failure or the

inability to manage personal and family stresses (Lott et al., 2018; Raymond & Sheppard, 2018).

Problem Statement

Nursing students experience distress at higher levels than other undergraduate students. The high levels of stress have negative effects on nursing students' academic success, mental health, and overall wellbeing. Subsequently, attrition rates may rise. Accelerated baccalaureate nursing students are specifically at higher risk for experiencing overwhelming stress due to the brevity and intensity of the program.

Purpose

The purpose of this research was to explore the perceived stresses of accelerated baccalaureate nursing students and their strategies for relieving stress. Recognition of student stress may influence innovative teaching/learning strategies that result in better student outcomes.

Theoretical/Conceptual Framework

The Modeling and Role-Modeling (MRM) Theory developed by Helen Erickson (1976) served as the central conceptual framework for this study. More specifically, The Adaptive Potential Assessment Model (APAM) incorporated within MRM was utilized to guide a better understanding of personal stress, coping strategies, and mobilization of resources in accelerated baccalaureate nursing students (Erickson, 2006).

The two main concepts of modeling and role-modeling from MRM Theory relate to understanding the perceptions of stress in the ABSN population. Helen Erickson (2015) defined modeling as the following:

> Modeling is the process we use to build a mirror image of an individual's worldview. This worldview helps us understand what that person perceives to be important, what has caused his or her problems, what will help, and how he or she wants to relate to others. (p. 187)

The concept of modeling can be used to explore the accelerated baccalaureate nursing students' worldview as related to the experience of stress and perceptions of strategies used to reduce it. In addition to modeling, role-modeling is a theoretical concept of MRM theory applicable to studying student stress. The concept of role-modeling involves facilitating an individual's growth at their own pace within their own model view (Erickson, 2006). The goal of this study aimed to assess the perceptions of the ABSN population, therefore nursing educators can use role-modeling to facilitate student growth and reduce student stress.

MRM theory includes five aims for planning interventions using role-modeling to meet the individual's perceived needs and increase holistic health (Hertz, 2015). The five aims for interventions include building trust, promoting a positive orientation, promoting control, affirming and promoting strengths, and setting mutual goals (Alligood, 2011; Erickson, 2006). Any proposed intervention for accelerated baccalaureate nursing student stress within Erickson's MRM framework should promote these five goals for stress management.

The main theoretical construct within MRM Theory used to illustrate the design of this research was APAM. The model is designed to assess an individual's ability to cope with stress by their ability to mobilize the necessary resources to adapt to the stressor. There are three different dynamic states of coping within the model that

individuals may fluctuate between: arousal, impoverishment, and equilibrium (Erickson, 2006; Hertz, 2015). The state of arousal is a stress state in which individuals are anxious but are temporarily still able to mobilize the resources to cope. On the other hand, impoverishment is when the stress state is prolonged to the point resources for coping have been depleted (Erickson, 2015). Simply put, arousal is a state with high stress and high coping potential, while impoverishment is a state with high stress and low coping potential (Erickson, 2006). The last state of equilibrium is a non-stress state; however, it is divided into adaptive equilibrium and maladaptive equilibrium. The ultimate goal would be for an individual to move into adaptive equilibrium, meaning they have low stress and high coping potential so they can easily mobilize their resources to handle stress. The alternative of maladaptation would signify the individual has fewer resources for coping with new stress and must pull energy from another subsystem to maintain a low stress state (Erickson, 2006).

For the purposes of this research, perceived stress was measured using the Student Nurse Stress Index (SNSI) instrument developed by Jones and Johnston (1999) to obtain scores for four components of stress and determine accelerated baccalaureate nursing students' stress state within the APAM model. High scores on the SNSI indicated students are within a stress state of arousal or impoverishment and low scores on the SNSI signified students in a non-stress state of equilibrium (see Figure 1).

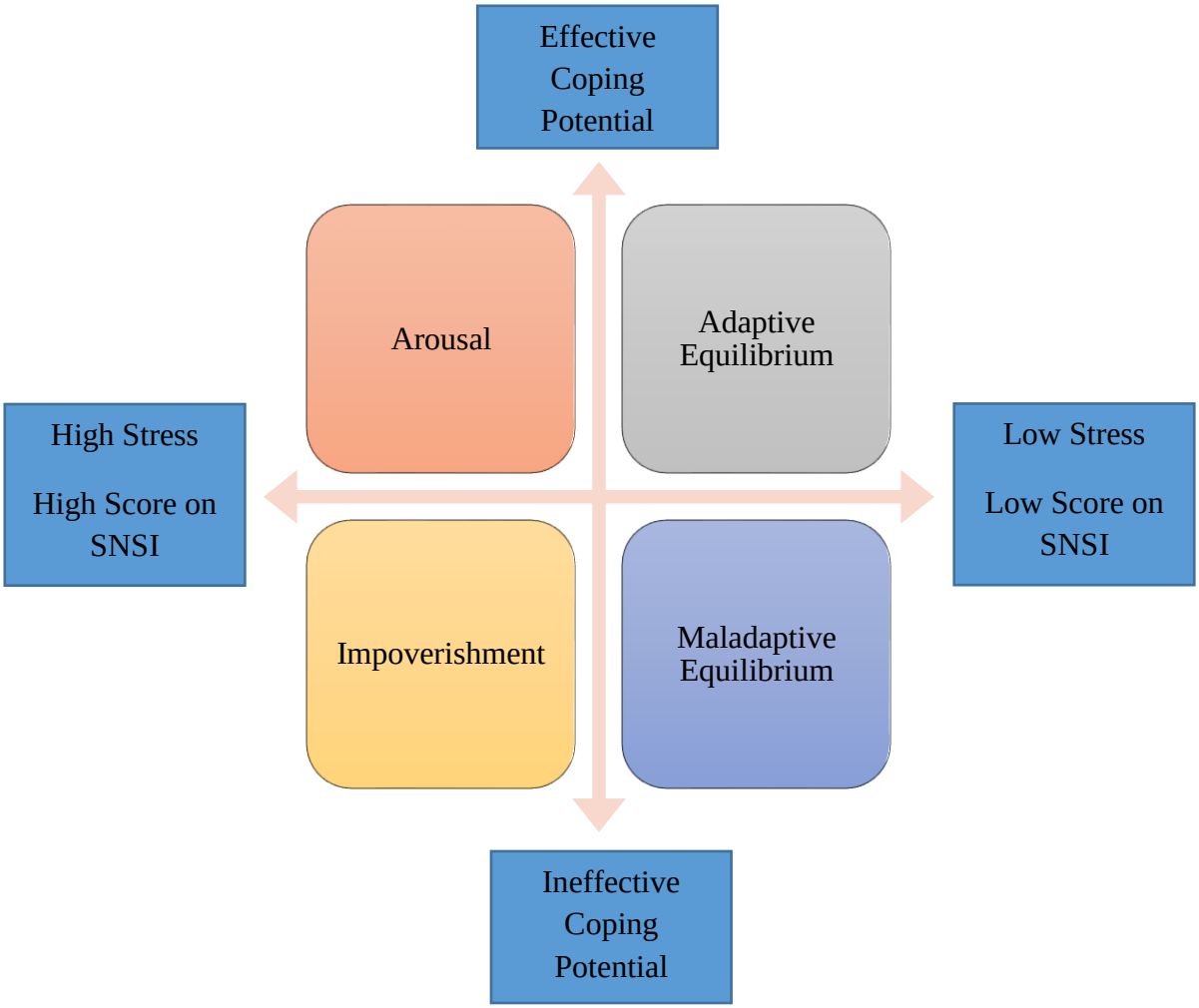

Figure 1. Erickson's Adaptive Potential Assessment Model (2006)

The theoretical, conceptual, and empirical framework guiding this study was based on Erickson's (2015) theoretical propositions within modeling and role-modeling theory related to stress and coping. These theoretical assumptions included responses to stressors being affected by internal and external resources of the individual and the sufficient ability to mobilize resources as a determinant of individual holistic health (Erickson, 2015). The concepts of the aforementioned APAM model as well as the five

aims of intervention were primary constructs in this study. Empirical variables in this study included scores on the SNSI instrument and student responses about coping strategies (see Figure 2).

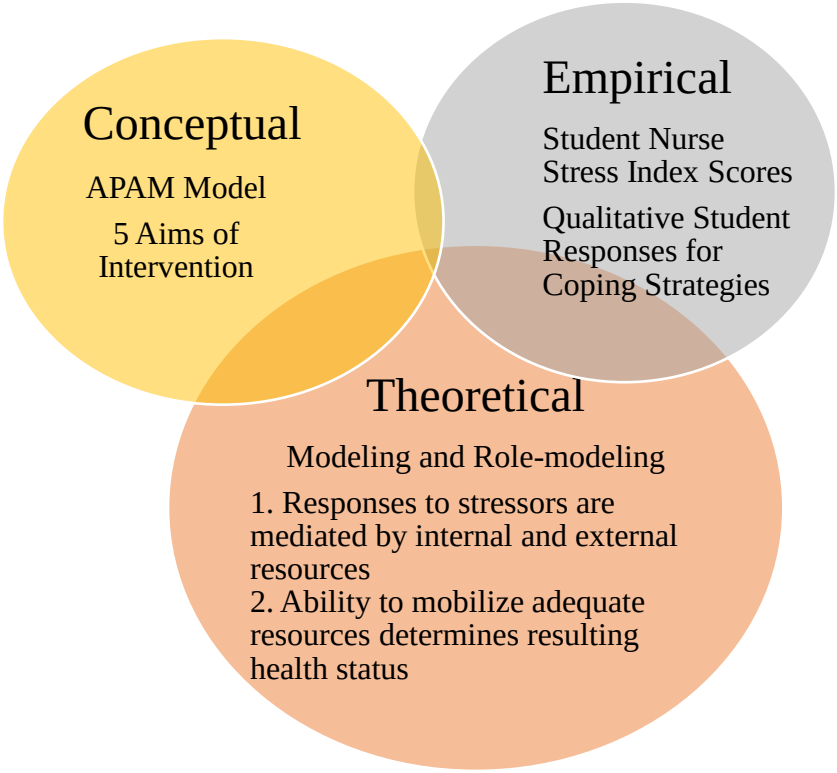

Figure 2. Conceptual-Theoretical-Empirical Diagram

Research Question

The research questions for this study were "What are the perceived stresses of accelerated baccalaureate nursing students?" and "What coping strategies are used by accelerated baccalaureate nursing students to deal with stress?"

Definition of Terms

The dependent variables included in this study were perceived stress measured by self-reported stress levels on the Student Nurse Stress Index (SNSI) (Jones & Johnston, 1999) and analysis of qualitative responses about current coping strategies. For the purpose of this study Erickson's (2006) definitions of stress, stressor, coping, and adaptation were used. Stress was defined as "The nonspecific response of the holistic person to any demand" (p. 241), stressor as, "A stimulus that precedes and elicits stress" (p. 241), coping as "The process of contending with stressors" (p. 241), and adaptation as "The process by which an individual responds to external and internal stressors in a health and growth-directed manner" (p. 241). These terms supported the MRM theoretical framework of this research study.

Summary

High levels of stress and the ability to cope with stressors is a real problem for accelerated baccalaureate nursing students with such an intense program. Stress negatively impacts students' academic performance, psychological wellbeing, and retention. Using Erickson's MRM theory as a guiding framework, this thesis research assessed the perceived stresses of accelerated baccalaureate nursing students and coping strategies to explore the impact of stress on this particular nursing student population compared to other traditional nursing students.

CHAPTER II

Review of Literature

Introduction

A review of literature was conducted for this thesis study to assess previous research on accelerated baccalaureate nursing students, stress, and coping. The databases utilized for this literature review included Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed, and Google Scholar. The literature search key terms were nursing student stress, accelerated baccalaureate nursing student stress, ABSN stress, stress perceptions, coping, stress intervention, and stress management. The review was limited to English, peer-reviewed articles published after 1975, with the majority published within the last 10 years. The researcher concentrated on research conducted on undergraduate nursing students, which included accelerated baccalaureate nursing students and traditional nursing students to broaden the scope of the review.

Theoretical Framework

Erickson's MRM theory supporting this thesis research has been utilized in other major studies as an effective theoretical framework. Three studies applying MRM theory were focused on by the researcher in this literature review to support the thesis study.

Alligood (2011) used MRM theory to direct a project in a large medical center to improve patient care and nurse satisfaction. The method used was an action research approach within a one-year consultation project, in which the researcher introduced the five aims of intervention of MRM theory: building trust, promoting positive orientation, promoting control, affirming and promoting strengths, and setting mutual goals. The results of Alligood's (2011) project were an increase in patient quality of care based on

improved Press-Ganey scores, a higher JCAHO score of 10 points from the previous visit, and an increase in nurse satisfaction based on a decrease in turnover and reported higher satisfaction on annual nurse evaluations from the previous year. The researcher concluded MRM theory capable of being an effective guiding framework for the staff employed at a large medical center (Alligood, 2011).

Another study by Barnfather and Ronis (2000) tested MRM theory as a framework to examine psychosocial resources, basic need satisfaction, and perceived stress as predictors of health for undereducated adults. A convenience sample of 171 adults at an urban adult education center were asked to complete the Modified Erikson Psychological Stage Inventory (Darling-Fisher & Kline Leidy, 1988), Basic Need Satisfaction Inventory (Kline, 1988), Perceived Stress (Barnfather & Ronis, 2000), and Positive Health Index (Miller,1989) tools. The results were based on a structural equation modeling analysis, which concluded that both basic need satisfaction (.52) and psychosocial development (.71) had the strongest correlations for direct effect on health. However, no significant correlation was identified between perceived stress (-.14) and health. This result may have been due to the limitation of the two-item measurement of perceived stress not adequately assessing the construct (Barnfather & Ronis, 2000). Therefore, these findings suggested further research with MRM theory using a detailed measurement of perceived stress with greater reliability.

In addition to being an effective theoretical framework for hospitals and understanding adult psychosocial well-being, the MRM theory also supports nursing student education. Lamb (2005) explored applying MRM theory through mentoring relationships between nurse educators and nursing students. The study included

interviewing of faculty and students about their experiences being mentors and mentees, as well as opinions on how concepts of MRM theory applied to mentoring relationships. The responses were analyzed by identifying significant terms and themes. The findings overall revealed similar responses from faculty and students, indicating that concepts of the MRM theory model were positive and useful within the mentoring relationships (Lamb, 2005). However, this descriptive study was limited to a small sample size of nine faculty members and seven baccalaureate nursing students at one university of nursing. Furthermore, the participants were all juniors and seniors, meaning the sample was not very diverse in representation of students at all levels. The implications of this study supported the use of mentoring programs for nursing students guided by an MRM framework (Lamb, 2005).

ABSN Characteristics and Perceptions

Over the last few decades several studies have been conducted to understand the new phenomenon of accelerated baccalaureate nursing programs. The majority of these studies have focused on the characteristics of students within these nursing programs and their perceptions of the programs. Caldwell and LaRocco (2011) described the characteristics of accelerated nursing students as typically older adult learners with more life experience compared to traditional nursing students. Based on their tendency to be adult learners, Caldwell and LaRocco (2011) explained the characteristics common for adult learners which applied to accelerated baccalaureate nursing students. Accelerated baccalaureate nursing students' learning preferences included use of an experiential style of teaching, a problem-solving approach to learning, and more actively learning when the topic was perceived to have important value (Caldwell & LaRocco, 2011). Some

challenges experienced by ABSN faculty were the students' tendency to be demanding in the classroom due to perfectionism and criticalness of obscure details. Overall, these characteristics are helpful to understand some of the traits and factors which influence accelerated baccalaureate nursing students' perceptions.

A mixed-method study conducted at Duke University analyzed the perceptions of graduates of their accelerated baccalaureate nursing program to identify student perceived best practices for instruction, program content, and outcomes (Kemsley, McCausland, Feigenbaum, & Riegle, 2011). The sample was 28 recent graduates of the accelerated nursing program and each completed a survey with quantitative and qualitative questions about components of the program, including strengths and weaknesses. Results showed 92% of the students identified their peers as the most important resource for support during the program. Almost half of the respondents were employed during the program despite being discouraged from working. The nursing program components with the strongest positive ratings included internship opportunities to practice skills, presentation of graduate-level course work, and internships offered to explore interest areas, each at 92.8% (Kemsley et al., 2011). Analysis of the open-ended survey questions identified 42.8% of respondents liked the 12-month program format and 39.2% believed that bonding with students in their cohort was a program strength. Negative responses included course content issues and clinical experience issues (28.6%), problems with integrating with the traditional bachelor's students (19%) and experiencing high levels of stress (9.5%) (Kemsley et al., 2011). One respondent illustrated the stress of the fast-paced program; the student postponed taking the NCLEX to relearn information from one of the courses. The survey provided valuable information, but the study was limited to

one university accelerated program with a smaller sample size affecting generalizability (Kemsley et al., 2011). Future research of perceptions of graduates of accelerated baccalaureate nursing programs from several different programs would be beneficial to learn if the results from this study were representative across accelerated nursing programs.

Another descriptive study on accelerated baccalaureate nursing student perceptions was conducted at a historically black college and university to specifically assess students' perceptions of influences on retention in an accelerated program (Lott et al., 2018). A sample of 89 students, supported by the Nursing Undergraduate Retention and Success (NURS) model, were asked to complete the Student Perception Appraisal-Revised (SPA-R) tool and a Demographic Data Sheet pre-licensure (DDS-P) (Lott et al., 2018). The findings indicated that the most supportive factors influencing retention were transportation, encouragement from outside friends, family emotional support, personal study skills, and encouragement from peers within classes. Additionally, the most restrictive factors of retention were identified as financial status, family responsibilities, employment responsibilities, class schedule, and hours of employment (Lott et al., 2018). The conclusions may be limited to the region studied and the small convenience sample.

Navarra et al. (2018) compared ABSN nursing students, traditional nursing students, and faculty perceptions of mentorship within the context of an interprofessional honors education. The study utilized a cross-sectional descriptive survey design for a needs assessment at an urban university in the northeast U.S. with a sample of 75 ABSN students, 67 traditional students, and 24 faculty members. A significantly higher percentage of ABSN students valued a formal mentoring relationship compared to

traditional students (p=0.007), however a significantly lower percentage of ABSN students reported having a mentoring relationship would facilitate success in an honors program (p=0.009) (Navarra et al., 2018). Overall, ABSN students, traditional students, and faculty held similar perceptions ranking one-to-one mentoring, financial support, and a dedicated honors advisor top factors for success of a nursing honors program. Limitations for this study included self-report bias and lower than expected student responses. Navarra et al. (2018) concluded that a mentoring component of an interprofessional honors education would help improve undergraduate nursing students' education.

Overall, each of these studies explored various defining characteristics of accelerated baccalaureate nursing students and their perceptions on best practices for accelerated nursing programs, retention factors, and mentorship relationships. These research studies are valuable background information to understand accelerated baccalaureate nursing students for the purpose of this MSN thesis study on perceptions of accelerated baccalaureate nursing student stress.

Traditional Nursing Student Stress

Many studies have been conducted on stress and anxiety of traditional baccalaureate nursing students, including perceived stresses and interventions. Pulido-Martos et al. (2012) performed a systematic review of quantitative studies published at the end of 2010 on the stressors of nursing students to identify the main sources. The review method included searching the databases MEDLINE and PsycInfo and using selection criteria which included the study having an instrument to collect quantitative information on stress factors among nursing students. The search resulted in

the selection of 23 studies to analyze by the researchers. From the analysis, Pulido-Martos et al. (2012) identified the most common sources of stress related to academics and clinical experiences with no effect from year of progression in the program. However, the review found most of the studies were conducted in Europe with great variability of the instruments used to measure stress, making comparisons between studies very difficult (Pulido-Martos et al., 2012).

Timmins and Kaliszer (2002) conducted a similar study to examine common causes of stress for nursing students. The method utilized in the study included giving a questionnaire to 110 third-year nursing students about factors that may cause stress related to themes in the literature including, clinical learning environment, academics, and interpersonal relationships. The findings supported those of Pulido-Martos et al. (2012) with clinical and academic factors highly affecting stress. Finances and academics were identified as the most stressful for students with financial stress having the highest mean score in the extremely stressful category (Timmins & Kaliszer, 2002). From the results of this study five components of stress were concluded as academic factors (theory, exams, assignments, workload, and contact hours), interpersonal factors (relationships with peers, tutors, and teaching faculty), clinical experience factors (clinical placements and relationships with preceptors and nursing staff), financial factors, and the independent factor of dealing with patient death. These study results were limited considering only 12 broad stressors were studied, which might have been broken down into more detailed stressor items for in-depth analysis (Timmins & Kaliszer, 2002).

A similar study on stressors for nursing students was conducted by Labrague (2013), which explored the level of stress and stressors of Filipino nursing students at a government nursing school. Labrague's (2013) study investigated the physio-psycho-social responses to stress of 61 traditional baccalaureate nursing students. The data was collected using the Perceived Stress Scale (PSS) and Physio-Psycho-Social Response Scale (PPSRS) (Sheu, Lin, & Hwang, 2002). Results indicated the average nursing student experienced moderate stress and had good physio-psycho-social health. Assignments and workload were found to be the most common stressor with emotional symptoms the most common stress response. Furthermore, students who reported higher stress were significantly more likely to have poor physio-psycho-social health (p=0.0063) (Labrague, 2013). The study was limited to one small university sample and the author suggested further research on different coping styles and interventions for nursing student stress.

Watson et al. (2008) delved further into understanding nursing student stress by conducting a longitudinal study, instead of examining stress at one point in time of a nursing student population. The purpose of the study was to investigate how various demographic, personal, and environmental factors affected stress of nursing students and new nurses over a period of four years. The study was carried out between 1994 and 1997, in which data for the variables and stress were collected on four different occasions. The initial sample included 359 participants with 147 nurses and 212 nursing students, but complete data was only collected for 192 of the participants. Several questionnaires were used to measure the variables including The Work-stress Inventory (Firth-Cozens, 1992), The Brief Life Events Inventory (Watson et al., 2008), and the

General Health Questionnaire (Goldberg & Williams, 1988). The researchers utilized mixed-effects modeling to analyze the longitudinal data. The results obtained from the study illustrated at baseline life events and stress significantly impacted psychological distress, but also new nurses had a significantly higher level of distress ($p < 0.001$) once starting their career compared to nursing students. Overall the authors concluded life events, demographic factors, stress, and psychological distress were all interrelated and stress had negative effects on the retention of nursing students as well as nurses in the clinical setting (Watson et al., 2008). The conclusions may be limited due to some missing data in the study, the use of a non-standard measure of stress, and lack of follow-up as students transitioned to new graduate nurses. The results and limitations emphasized that further research is needed to fully understand the stressful transition phase of nursing student to newly working nurse.

Nursing student stress has been studied worldwide, as in Aydin and Yucel's (2014) examination of nursing student anxiety and comfort levels in Turkey. The researchers utilized the General Comfort Questionnaire (GCQ) and the Beck Anxiety Inventory (BAI), both validated tools used in previous studies with a sample of 221 nursing students. The results showed the nursing students experienced moderate comfort levels and low levels of anxiety. Freshmen, female, or nursing students 24 years old or older experienced higher levels of anxiety, whereas nursing students receiving a scholarship and with social support experienced lower levels of anxiety (Aydin & Yucel, 2014). Moreover, the students with a scholarship and social support reported high levels of comfort, indicating a relationship between anxiety and comfort. The results were limited to a convenience sample and suggested implications for more studies on

interventions for minimizing stress and anxiety while also increasing comfortability of nursing students in Turkey (Aydin & Yucel, 2014).

In contrast to the previous studies related solely to analyzing nursing student distress, Gibbons, Dempster, and Moutray (2011) explored sources of stress and psychological wellbeing or eustress. In addition, the researchers studied the potential of self-efficacy, control, support, and coping style as a moderator or mediator between perceptions of stress and well-being. The study design included a convenience sample of 171 final year nursing students completing several questionnaires. The instruments utilized were the Index of Sources of Stress in Nursing (ISSN), Generalized Self-Efficacy Scale, General Health Questionnaire (GHQ), Marlowe-Crowne Social Desirability, and the Brief COPE scale (Gibbons et al., 2011). When sources of stress including learning and teaching demands, placement demands, and course organization demands are rated higher as hassling, effects on well-being also increase. These findings corroborated with other literature and showed sources of stress leading to distress more frequent predictors of well-being than sources of stress leading to eustress. Another significant finding was self-efficacy, control, and support were predictors of well-being while avoidance coping was the strongest predictor of poor well-being. Conclusions drawn supported initiatives focused on improving self-efficacy and support for nursing students to decrease distress and lead to more eustress, but were limited due to self-reported responses at a single point in time (Gibbons et al., 2011).

Traditional Nursing Student Stress Intervention Strategies

Several studies were published which analyzed various interventions for stress in traditional nursing students. Turner and McCarthy (2017) performed a systematic review

of these stress intervention strategies between 2009 and 2015. The method included searching Medline, CINAHL, and PsychINFO databases using the key terms 'nursing students and stress' while using a list of inclusion criteria to narrow down the journal articles for the review. The systematic review yielded 26 stress intervention studies, which the researchers evaluated and categorized based on the target of the intervention (Turner & McCarthy, 2017). The majority of the interventions focused on stressor reduction and improvement of coping skills. Many of these intervention studies did find statistically significant support. However, the strength of the results of the intervention studies were limited by the sample size and designs used. The main suggestion from the review was further research with stronger methodology such as randomized controlled trials to help decide which interventions were the most effective at reducing undergraduate nursing student stress (Turner & McCarthy, 2017).

One of those studies aimed at reducing perceived stress, analyzed peer mentorship as an intervention to reduce first year traditional nursing student stress, as well as increase sense of belonging and self-efficacy (Raymond & Sheppard, 2018). The study utilized a quasi-experimental design with a total sample of 70 first year nursing students split into an experimental group of 34 and a control group of 36. Those in the experimental group were assigned a third year peer mentor for six weeks. The mentor shared their experiences and helped with study skills and developing time management. After six weeks in the program, the researchers asked students to complete the Perceived Stress Scale, the College Self-Efficacy Inventory (CSEI)-Revised, Sense of Belonging-Psychological, Sense of Belonging-Antecedents, and the Revised UCLA Loneliness Scale (Raymond & Sheppard, 2018). Findings showed students in the peer mentorship

program group reported significantly less stress than students in the control group ($p < 0.001$). Furthermore, students in the program reported increased self-efficacy and sense of belonging. These findings were limited to one nursing program and the results may have been influenced by the program's high flexibility in the frequency mentors met with their mentees (Raymond & Sheppard, 2018). Further research should be conducted with a larger sample size of several nursing programs, analyzing the impact of the peer mentorship program on the stress of the mentees as well as the mentors.

Another similar study of structured tutorial support was conducted by Gammon and Morgan-Samuel (2005) to measure the effect on student stress levels, self-esteem, and cognitive coping. This study also used a quasi-experimental design with a sample of 25 in the experimental group and 25 in the control group. The researcher provided structured tutorial support for one year to the experimental group students, which included familiarizing the student to unfamiliar situations, helping the student review their clinical skills, clarifying information, and facilitating coping techniques (Gammon & Morgan-Samuel, 2005). The instruments utilized to collect data were the Student Nurse Stress Index, the Self Esteem Scale, and a Linear Analogue Coping Scale. Significantly lower stress levels were reported by the students given the structured tutorial support ($p < 0.001$) as well as significantly higher self-esteem ($p < 0.001$), compared to students in the control group. Although these results are supportive of other study findings, it is important to note the researchers did not obtain baseline data; a larger sample size may improve reliability of the results (Gammon & Morgan-Samuel, 2005).

Peer mentoring as a nursing student stress intervention was also explored from the perspective of clinical practice by Li et al. (2011). This study focused on the effects peer

mentoring could have on nursing student stress specifically during clinical experiences. Researchers conducted a quasi-experimental design with 49 junior level traditional nursing students. The experimental group was paired with a student mentor for four weeks during clinical practice during which the mentor would share their clinical experience and psychosocial support with the mentee. The participants completed questionnaires before and after the experience. Participants completed the Perceived Stress Scale (PSS) instrument with a 6-point Likert scale (Li et al., 2011). The pretest indicated the highest stress scores due to lack of professional knowledge and skills. After the clinical experience the experimental group's highest score changed to stress from assignments and workload. Contrary to other studies, there was not a significant difference in stress between the experimental group which received peer mentoring and the control group. Possible explanations for this result could have been the limited sample size, the interaction between the two groups, or an inadequate data collecting time (Li et al., 2011).

Faculty at Eastern Michigan University created a pilot mentorship program for traditional baccalaureate nursing students to help with stress management, psychosocial support, and academic guidance (Gardiner, Blondy, & Bumpus, 2014). The mentorship program evolved from a survey of 92 first year nursing students where 80% of the students believed having a peer mentor would help reduce anxiety. The program design paired second year nursing students as mentors to first year nursing students. The mentors were volunteers and helped the mentees with basic information, social support, and experiential knowledge (Gardiner et al., 2014). This type of stress intervention program seemed worth studying further to evaluate stress levels of students who

participated in the program and the benefits of the program for mentors and mentees. According to the authors, a reliable instrument to measure nursing student stress should be used to evaluate the mentorship program at different intervals to verify reliable results (Gardiner et al., 2014).

Measuring Nursing Student Stress

A reliable measure of nursing student perceived stress was studied by Jones and Johnston (1999), resulting in the Student Nurse Stress Index (SNSI). The methodology involved a sample of 235 first year nursing students completing the Beck and Srivastava Stress Inventory (Beck & Srivastava, 1991) with 15 newly added items for perceived stress and the General Health Questionnaire (Goldberg & Williams, 1988). An exploratory factor analysis followed by a confirmatory factor analysis were conducted to create a reliable 22 variable instrument with a four-factor model including academic load, clinical sources, interface worries, and personal problems factors (Jones & Johnston, 1999). This quantitative instrument is scored by summing the items to give an overall score ranging from 22 to 110. The higher the score, the higher the stress level. Overall, the SNSI held internal reliability as well as concurrent and discriminant validity across different conditions. Cronbach's α for all four factors of the model were greater than the minimum of .70 in the 1995/96 data set to support reliability. In addition, discriminant validity was evidenced by SNSI total means and subscales scoring higher for distressed students as expected versus non-distressed students (Jones & Johnston, 1999). These results supported the conclusion that the SNSI is a reliable instrument for measuring nursing student perceived stress. More studies with varying samples of nursing students

utilizing the SNSI instrument would further refine and support the stability of the measure.

ABSN Nursing Student Stress

Although many studies exist on nursing student stress and interventions for traditional undergraduate nursing students, few studies have been conducted to analyze stress, stressors, or interventions on the accelerated baccalaureate student nursing (ABSN) population. The thesis researcher identified three relevant studies with ABSN students to support the MSN thesis.

The first study by Hegge and Larson (2008) assessed the stress level, stressors, and coping strategies of accelerated baccalaureate nursing students. A descriptive study design was utilized with six different accelerated programs. The survey instrument was the COPE Scale which included 53 items divided into problem-focused coping or emotion-focused coping and the researchers added items asking the students to describe their stressors and compare them to other stressful life experiences. A total of 137 out of 280 surveys were collected and analyzed (Hegge & Larson, 2008). Results indicated ABSN students had higher stress levels over prolonged periods of time, much worse than stress experienced in their prior lives. From the respondents, 61.3% reported their stress level as either extensive or extreme. Furthermore, 30.7% of respondents reported more stress with the accelerated program than previous experiences (Hegge & Larson, 2008). The major stressor identified by the respondents was the large amount of material to learn in a short time. In terms of coping ability, the study found ABSN students relied on religion and social support as the most helpful strategies. One weakness to this study was a lack of a standardized tool to measure perceived stress level since the researcher added

on self-developed questions. Further research is needed to determine the impact of stress on ABSN students over time, differences in stress amongst ABSN and traditional nursing students, and positive stress interventions with ABSN nursing students (Hegge & Larson, 2008).

Weitzel and McCahon (2008) performed a similar study at a Midwestern university school of nursing analyzing the stressors and supports of ABSN students. In addition, the study gathered data on learning strategy preferences of ABSN students to meet the program outcomes. A convenience sample of 69 ABSN students were surveyed with a 34-item tool developed by the researcher on academic or personal stressors and supports. In addition, the participants were interviewed with some open-ended questions by a research assistant. The major findings included the fast pace of the program and not enough clinical experience as significant stressors. Class lectures, nursing advisers, and peers were reported as significant supports (Weitzel & McCahon, 2008). Interview data further supported the survey data with students mentioning the heavy workload of the accelerated program as very stressful. The conclusions from this study are limited due to a small sample size with one nursing program. Future research would include using a larger sample group to assess stress perceptions of ABSN students as well as a study investigating differences in perceptions of an accelerated program from ABSN students and the nursing faculty (Weitzel & McCahon, 2008).

Wolf et al. (2015) researched a step further into ABSN student stress by studying predictors of stress and coping strategies for accelerated nursing students in comparison to traditional baccalaureate nursing students. The researchers utilized an embedded mixed methods design with a sample of 75 accelerated nursing students and 135

traditional nursing students. The study method included the following survey instruments: demographic data, history of depression, the Perceived Stress Questionnaire, Rosenberg Self-Esteem Scale, Multidimensional Scale of Perceived Social Support, and open-ended questions. The data was analyzed with multiple regression and content analysis (Wolf et al., 2015). Results showed both accelerated and traditional baccalaureate nursing students indicated a history of depression, self-esteem, emotional support, and year in the program as predictors of stress. History of depression and year in the program were positively correlated predictors, meaning as they increased, so did stress level. Self-esteem and emotional support were negatively correlated predictors, meaning as they increased stress level decreased. Additionally, time management, fear of failure, clinical incompetence, and problematic relationships were reported as the most stressful. Both groups of students used similar coping strategies of social support and positive thinking. Overall the research study concluded the nursing students at most risk for high stress levels were senior students with a history of depression, low self-esteem, and little social support (Wolf et al., 2015). This study was the first to simultaneously analyze the differences of stress in accelerated and traditional baccalaureate nursing students, however the study was limited since data was collected at one point in time and the accuracy of the reported stress levels could have been influenced by administering stress surveys close to course examinations. Also, only positive coping strategies were given as responses by participants, so future studies may need to investigate negative coping strategies as well (Wolf et al., 2015).

Summary

After a thorough review of the literature, an abundance of studies have been conducted on nursing student stress in general, especially with traditional undergraduate baccalaureate nursing students, but few studies have been conducted to analyze stress, stressors, or interventions with accelerated baccalaureate nursing students. According to Weitzel and McCahon (2008) and Hegge and Larson (2008), even though ABSN programs have become another cornerstone to nursing education, there is little empirical evidence known about this nursing student population and their perceptions of stress, coping strategies, or interventions to reduce stress. The characteristics and demographics of accelerated baccalaureate nursing students have been thoroughly examined, but studies on ABSN students' perceptions of their stressors, learning needs, and helpful interventions have not been published.

Based on the review of literature, the SNSI instrument developed by Jones and Johnston (1999) was chosen by the researcher for this MSN thesis study from other instruments because of its high applicability for the type of data collected about stressors and stress level specifically for nursing students. Gammon and Morgan-Samuel (2005) and Yucha, Kowalski, and Cross (2009) utilized the SNSI in their studies with traditional nursing students. Yucha et al. (2009) used the SNSI to study how assignment of nursing students to "home" hospitals for all clinical courses versus separate sites affected stress, discovering a significant decrease ($p < 0.05$) in state anxiety for students with "home" hospitals for clinical courses. No study however has specifically used the SNSI instrument with the ABSN nursing student population to examine perceptions of stress.

This MSN thesis study provided valuable information about the perceptions of stress and stress relief measures experienced by accelerated baccalaureate nursing students to add to the body of nursing knowledge for future interventions and research.

CHAPTER III

Methodology

Introduction

Studies have illustrated the problem of nursing students experiencing high levels of stress (Caldwell & LaRocco, 2011; Klein, 2012; Li et al., 2011; Pulido-Martos et al., 2012; Raymond & Sheppard, 2018; Timmins & Kaliszer, 2002). Accelerated baccalaureate nursing students are at more risk for higher stress levels from program intensity (Wolf et al., 2015). The purpose of this research was to explore ABSN nursing students' stress and offer insights to nurse educators for possible improvements. MRM theory was the theoretical framework guiding this study and the incorporation of the APAM model. The research questions answered by this study were "What are the perceived stresses of accelerated baccalaureate nursing students?" and "What coping strategies are used by accelerated baccalaureate nursing students to deal with stress?"

Study Design

The researcher used a cross-sectional descriptive study design measuring ABSN nursing students' stress and coping perceptions at a single point in time.

Setting

This study was implemented at a small private faith-based university in the South East United States, which offers a four-consecutive semester ABSN program over the course of 15 months. The researcher received permission to conduct the study from the Dean of the School of Nursing as well as permission from the course instructors. (See Appendix A).

Sample/Participants

Data was collected from a convenience sample of 36 ABSN nursing students. Two distinct groups of ABSN nursing students completed the surveys, with a total of 24 actual participants. During the data collection period, a few students withdrew from the ABSN program for various reasons, which may have impacted the number of survey responses. The first group of participants included 12 first semester ABSN nursing students taking introductory nursing courses in health assessment and fundamentals of nursing and the second group included 12 ABSN nursing students completing the final semester of the program taking medical-surgical courses. The researcher desired to collect data from ABSN nursing students at the end of the program to allow for a reflective perspective of stresses of the entire program. Studying first semester ABSN nursing students allowed comparisons to be drawn about perspectives of stress across the length of the program.

Measurement Methods

The instrument administered in this study was the Student Nurse Stress Index (SNSI) developed by Jones and Johnston (1999) and one additional qualitative question developed by the researcher reviewed by content experts for face validity. Permission to use the instrument was granted by Martyn Jones (see Appendix B).

The SNSI tool measured nursing students' perspectives of sources and levels of stress. The SNSI was developed by Jones and Johnston (1999) through alteration of Beck and Srivastava's 35 item Stress Inventory (1991) and addition of 15 items selected by Jones and Johnston to create a briefer and more adequate measure of stress for student nurses. The self-report survey consisted of 22 items to assess four factor areas of stress:

academic load, clinical concerns, personal problems, and interface worries (Jones & Johnston, 1999). The survey used a Likert scale to rate responses from 1 (not stressful) to 5 (extremely stressful). All items were totaled for an overall score ranging from 22-110, the higher the score the higher the stress. Additionally, subscale scores for the four factors were scored using the unit weighting method by summing scores on certain items. The scores for academic load ranged from 7 to 35, clinical concerns from 7 to 35, personal problems from 4 to 20, and interface worries from 7 to 35. In regards to instrument reliability and validity, the SNSI psychometric properties revealed "cross-sample factor congruence, good or acceptable levels of reliability for each of the four subscales, and evidence of concurrent and discriminant validity" (Jones & Johnston, 1999, p. 177). Cronbach's alpha scores for all factors were >0.70 with strong test-retest reliability. The SNSI distributed in this study can be found in Appendix C.

The researcher created one qualitative question to obtain open-ended feedback from participants related to stress relief measures. Course faculty validated the question for content face validity.

Data Collection Procedures

Prior to the distribution of the study surveys and data collection, the researcher applied for and obtained approval from the University and the School of Nursing's (SON) Institutional Review Board (IRB). Data collection for this study occurred between June 2019 and July 2019. The researcher created an online survey using Surveymonkey.com, which was emailed to each of the ABSN nursing students included in the sample (see Appendix C). Email addresses were obtained from the SON ABSN program chair. The researcher included an explanation of the research study and

informed consent within the recruitment email along with a link to the online survey (see Appendix D). Participants were assured that the study was voluntary and anonymous, and all data was handled confidentially. Students that chose to click on the link to the online survey and answer the questions confirmed consent to participate in the study. A reminder email with a link to the online survey was sent one week after the initial recruitment email to increase the chances of student participation (see Appendix E). All data from the surveys was analyzed on a password protected computer. Data was only accessible to the researcher and MSN thesis advisor.

Protection of Human Subjects

This study resulted in minimal risks to participants. Safety measures were implemented during data collection including maintaining participants' confidentiality, data safety, informed consent, and voluntary participation. No names or identifying information were collected or included in the online survey instruments. The researcher stored all electronic data on the researcher's computer under password protection. The only individuals to have access to the data were the researcher and the MSN thesis advisor. To protect the rights of participants an email informed consent explaining the purpose of the study, subjects' rights for participating in research, potential risks and benefits, and the contact information for the researcher and thesis advisor were distributed with a link to the online survey. The email made all participants aware the survey was voluntary with no incentive and they could decline to participate in the study at any time by not clicking the link to the survey or deleting the email with no risk to them. Students who felt any discomfort in answering questions about stress were encouraged to withdraw from the study and to visit a counselor available on campus.

Data Analysis

All data collected from the SNSI surveys were entered into a Microsoft Excel spreadsheet on the researcher's computer. Then SPSS® software was used to analyze the results. The data were screened to ensure homogeneity of variance and any missing data was excluded from the analysis. Descriptive statistics were conducted for each question using means, standard deviations, frequencies, and percentages for the variables.

The data collected from the qualitative survey question on coping strategies was analyzed by the researcher through grouping similar themed responses for both groups of ABSN nursing students. Therefore, all similar responses for first semester ABSN nursing students could be compared with similar responses for final semester ABSN nursing students to look for any correlations or differences on strategies for stress relief.

CHAPTER IV

Results

The purpose of this study was to explore the perceptions of stress and coping strategies used by students enrolled in an accelerated baccalaureate nursing program. Data was analyzed using SPSS® software to calculate descriptive statistics for the SNSI online surveys for two groups of ABSN students in the sample. The total SNSI scores and subscale categories scores were calculated using the author's guidelines by adding specific survey items. Results were analyzed for all ABSN students together and comparisons were made between the first semester and final semester ABSN student groups.

Sample Characteristics

Out of a sample of 36, 24 ABSN students agreed to participate in the study; 12 first semester ABSN students and 12 final semester ABSN students. The first semester ABSN students were enrolled in health assessment and fundamentals of nursing courses and the final semester ABSN students were enrolled in medical-surgical nursing courses during the time data was collected.

SNSI Results

The results of the analysis of the SNSI included descriptive statistics with means and standard deviations of all ABSN student responses for each of the 22 items. Any items that were not answered, skipped, or missing from the surveys were excluded from the analysis. SNSI total scores and subscale scores were analyzed for descriptive statistics for all ABSN students and then compared between first semester and final semester ABSN student participants.

SNSI Item Analysis

Each item's mean score ranged from 1 (not stressful) to 5 (extremely stressful). As indicated in Figure 3, the five items with the highest mean scores were "fear of failing in course" (*M*=4.43, *SD*=1.14), "examination and/or grades" (*M*=4.38, *SD*=0.70), "amount of classwork material to be learned" (*M*=4.29, *SD*=0.93), "lack of free time" (*M*=3.87, *SD*=1.26), and "difficulty of classwork material to be learned" (*M*=3.75, *SD*=0.66). The five items with the lowest mean scores were "client attitudes towards my profession" (*M*=1.75, *SD*=0.60), "relationships with parents" (*M*=1.91, *SD*=1.14), "client attitudes towards me" (*M*=1.96, *SD*=1.06), "relations with other professionals" (*M*=2.13, *SD*=0.95), and "atmosphere created by teaching staff" (*M*=2.17, *SD*=1.31).

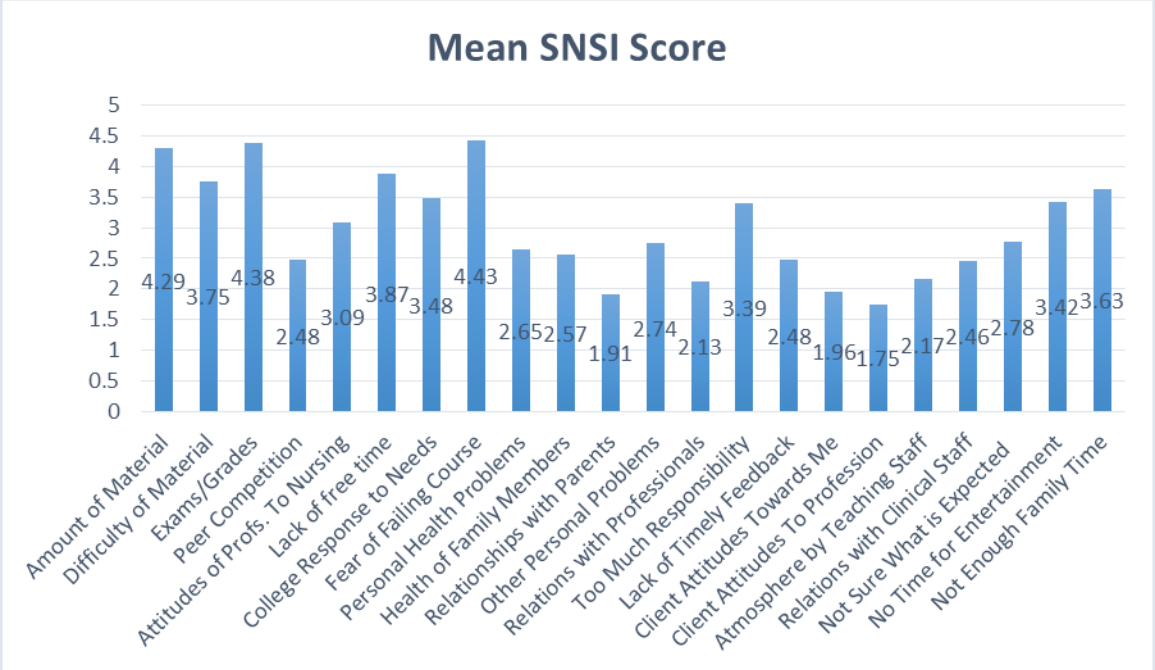

Figure 3: Mean SNSI Scores

SNSI Total Scores and Subscales

SNSI total scores were calculated by summing the individual scores for all 22 items on the survey. The range of SNSI total scores was 32 to 97, with the highest possible score being 110. The higher the score, the higher the stress level. The mean total score for all ABSN students was 64.21 (standard deviation 17.184). See Figure 4 for the SNSI total score distribution.

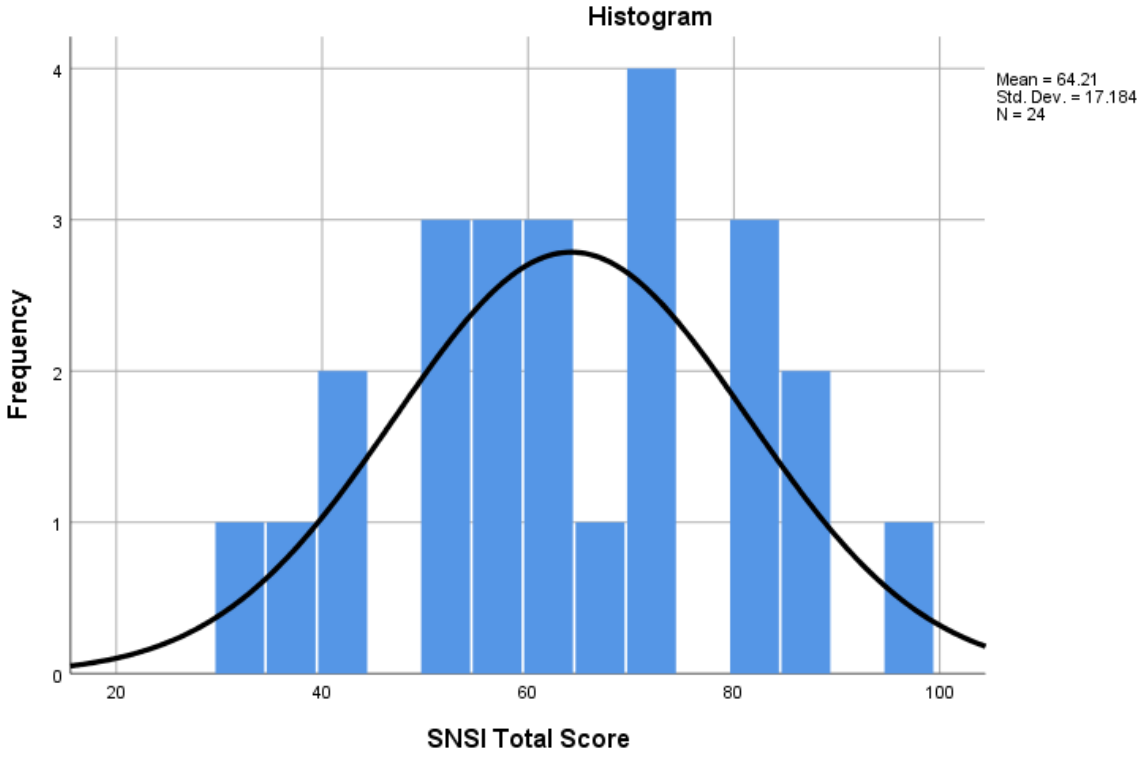

Figure 4: SNSI Total Score Distribution

The SNSI total score subscales were academic load, clinical concerns, personal problems, and interface worries (ability of students to have time for wants, responsiveness to student needs). The means and standard deviations for each subscale for all ABSN students were calculated. The academic load subscale score was determined by summing

items 1, 2, 3, 8, 14, 18, and 20 to give a range from 7 to 35 (*M*=24.75, *SD*=5.659). The clinical concerns subscale score was determined by summing items 13, 14, 16, 17, 18, 19, and 20 to give a range from 7 to 35 (*M*=16.29, *SD*=5.691). The personal problems subscale score was calculated by summing items 9, 10, 11, and 12 to give a range from 4 to 20 (*M*=9.87, *SD*=4.595) and the interface worries subscale score was calculated by summing items 4, 5, 6, 7, 15, 21, and 22 to give a range from 7 to 35 (*M*=21.79, *SD*=7.132). The academic load subscale had the highest mean score for stress (*M*=24.75). See Figure 5 for a comparison of SNSI subscales for all participants.

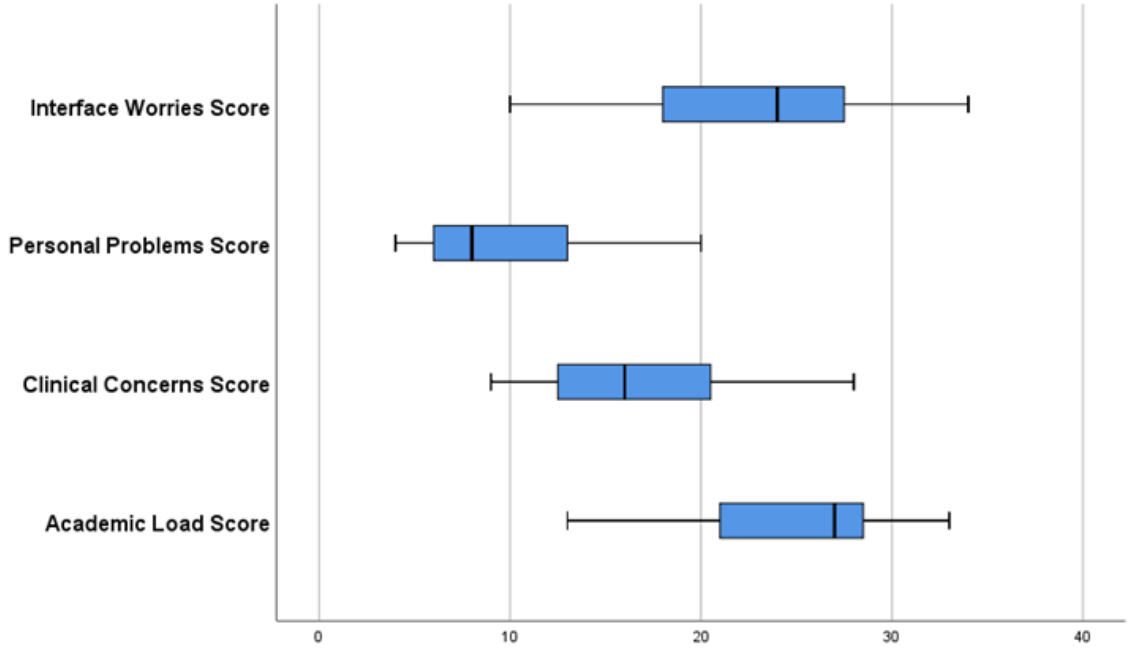

Figure 5: Comparison of ABSN SNSI Subscales

SNSI Comparison Between First and Final Semester ABSN Students

SNSI total scores and subscale scores for first semester and final semester ABSN students were compared by means and standard deviations. SNSI total score mean for first semester ABSN students was 65.83 and the total score mean for final semester ABSN students was 62.58. Figure 6 illustrates the distribution comparison of SNSI total scores between first semester and final semester ABSN students.

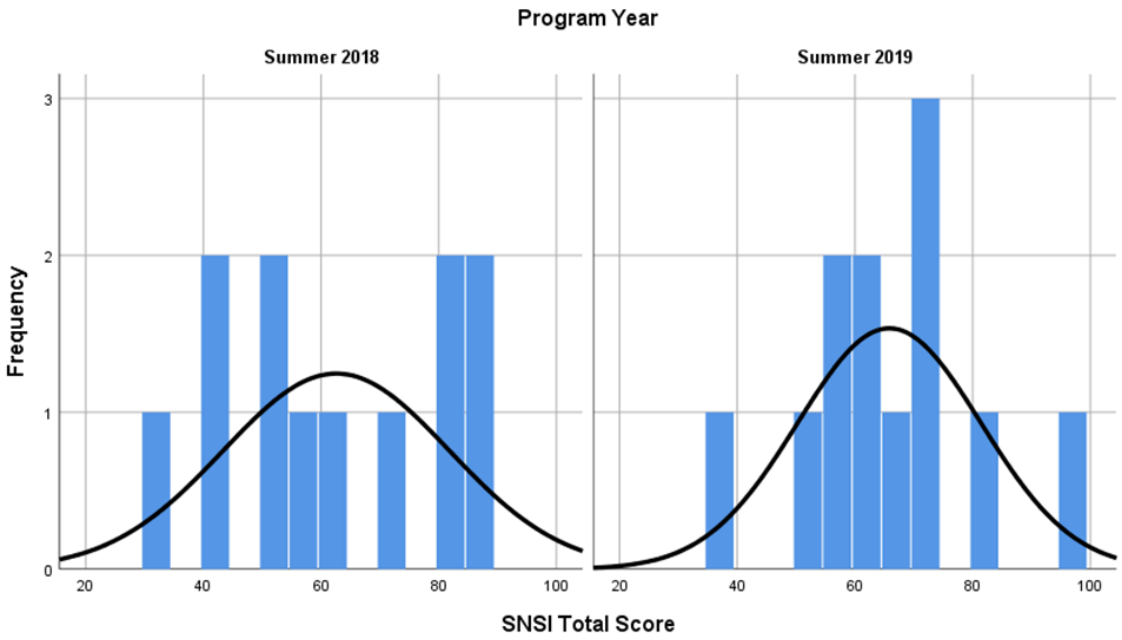

Figure 6: Comparison of SNSI Total Scores between ABSN Student Groups

SNSI subscales were also compared between first and final semester ABSN Students (see Table 1). First semester ABSN students on average scored higher stress levels than final semester ABSN students in all subscales except personal problems. The greatest difference in means between the two groups was seen in the clinical concern's subscale,

with first semester ABSN students with a mean of 17.25 and final semester ABSN students with a mean of 15.33.

Table 1

Comparison of SNSI Subscales between ABSN Student Groups

	Year Began ABSN Program	N	Mean	Std. Deviation
Academic Load Score	Summer 2018	12	23.92	5.071
	Summer 2019	12	25.58	6.302
Clinical Concerns Score	Summer 2018	12	15.33	5.176
	Summer 2019	12	17.25	6.240
Personal Problems Score	Summer 2018	11	10.09	5.612
	Summer 2019	12	9.67	3.676
Interface Worries Score	Summer 2018	12	21.50	8.274
	Summer 2019	12	22.08	6.142

Qualitative Results

The qualitative survey question asked participants to list three ways they normally cope with stress. The responses for all participants were examined by the researcher and similar responses were grouped together to create themes for coping strategies. The themes identified were personal time, which included watching TV, listening to music, shopping, eating, painting, and day trips; social support, which included family, friends, and other ABSN students; physical activity, which included exercising, yoga, walking, and being outside, sleep and/or rest; and religion which included praying, reading the Bible, devotions, and meditation. The highest utilized coping strategy mentioned by the

ABSN students was personal time at 87%. Over half of participants identified one of their coping strategies to be social support or physical activity at 52%, followed by sleep/rest at 30%, and religion at 26% (see Table 2).

Table 2

ABSN Student Coping Strategies

Coping Strategy	Percentage
Personal Time (TV, Music, Shopping, Eating, Painting, Day Trips)	87%
Social Support (Family, Friends, Other ABSN Students)	52%
Physical Activity (Exercising, Yoga, Walking, Being Outside)	52%
Sleep/Rest	30%
Religion (Praying, Reading Bible, Devotion, Meditation)	26%

Summary

The results of the SNSI survey found the total SNSI average stress scores to be on the high end for all ABSN students with first semester ABSN students having the highest average score. Furthermore, first semester ABSN students were found to have the highest SNSI subscale stress scores for academic load, clinical concerns, and interface worries. Personal time, social support, and physical activity were identified as at least one coping strategy for the majority of the ABSN students. Results will be discussed in Chapter 5.

CHAPTER V

Discussion

This study answered the research questions, “What are the perceived stresses of accelerated baccalaureate nursing students?” and “What coping strategies are used by accelerated baccalaureate nursing students to deal with stress?” The interpretation of these findings for nursing practice, as well as the implications for the MRM Theory were discussed.

Implication of Findings

The perceived stresses of ABSN participants in this study were supported by the findings in the professional literature. Pulido-Martos et al. (2012) and Timmins and Kaliszer (2002) also found academic factors as the highest perceived stressors in studies with traditional baccalaureate students. The individual SNSI item with the highest stress level in this study was the “fear of failing in course”. Wolf et al. (2015) compared stress of ABSN and traditional nursing students and reported fear of failure as the most stressful. Another one of the higher perceived most stressful SNSI items was the “amount of material to be learned”. This specific stressor was supported by other studies of ABSN students as a major stressor (Hegge & Larson, 2008; Weitzel & McCahon, 2008). The significance of these high academic stress levels relates to the rapid pace and intensity of an ABSN nursing program (Wolf et al., 2015).

Of interest was higher average SNSI total scores and subscale scores for first semester ABSN students. This outcome could be related to a multitude of reasons such as first semester students have two major nursing classes at the same time compared to

one for final semester students, or since first semester students have more lifestyle adjustments to make when beginning a rigorous course of study.

The coping strategy results from the analysis indicated the most frequent coping strategy to be personal time, followed by social support and physical activity. Over half of participants chose a social support coping strategy, which may endorse the creation of a peer support group or peer mentorship program as beneficial for stress relief for ABSN students. Studies of nursing peer mentoring programs or tutorial support report a decrease in perceived stress in nursing students (Gammon & Morgan-Samuel, 2005; Raymond & Sheppard, 2018).

Application to Theoretical/Conceptual Framework

Erickson's MRM Theory (2006) was an appropriate guiding theoretical framework for this study. The process of modeling was used through the specific survey items to gain an understanding of the perceptions of the ABSN students' stress and which factors students placed as important to their stress level. The APAM model was used to better understand ABSN students' stress by using scores from the SNSI to decide which state of coping students in the sample related to the most. Results from this study showed ABSN students on average had high stress levels. As indicated in Figure 1, the study participants demonstrated a state of arousal or impoverishment depending on the effectiveness of their coping strategies.

Limitations

This study used a small convenience sample of one ABSN program at a small faith-based private university, which may affect the generalizability of the results. The surveys were also self-reported, leaving room for over or under reporting of stress. No

demographic information was collected. That could have provided more information about the characteristics of the ABSN sample for comparison to the literature, in which ABSN students are considered adult learners (Caldwell & LaRocco, 2011). Since the surveys were collected data at a single point in time, extraneous stressful circumstances may have occurred during the two-week collection period affecting student perceptions of stress.

Implications for Nursing

The recognition of perceived stresses of ABSN students may influence innovative teaching and learning strategies to create better student outcomes. Since academic factors were identified as the most stress-inducing for ABSN students, faculty of ABSN programs and other researchers can take this information to use for guiding stress intervention studies. Furthermore, ABSN faculty should encourage student coping strategies of personal time, social support, and physical activity to reduce student stress and improve outcomes. The higher mean stress levels for first semester ABSN students requires further investigation to understand. Since students perceived low stress from faculty (atmosphere from teaching staff 2.17), it suggests that continued development of a safe, nonthreatening learning community may support learning in a rigorous academic program.

Recommendations

For future studies, it would be beneficial to the researcher to use a larger sample size of first and final semester ABSN students from more than one ABSN program to increase generalizability. In addition, inclusion of a second survey tool to obtain a

quantitative measure of coping strategies instead of an open-ended question might provide additional insights.

Other types of studies should be conducted to test the results of this study, including a comparison study of first and final semester ABSN students and stress intervention studies with pre- and post- stress scores to explore strategies that alleviate and prevent ABSN student stress. A longitudinal study is also recommended with a sample of ABSN students to analyze how perceptions of stress change over the course of an entire ABSN program, or how graduates employ stress management techniques in clinical practice.

Conclusion

The purpose of this research was to explore the perceived stresses of accelerated baccalaureate nursing students and their coping strategies. Data indicated ABSN students perceived academic load factors as the most stressful. First semester ABSN students scored higher perceived stress levels than final semester ABSN students. Coping strategies designated as the most used by ABSN students were personal time, social support, and physical activity. These findings can be utilized for future research endeavors on perceptions and reduction of ABSN student stress.

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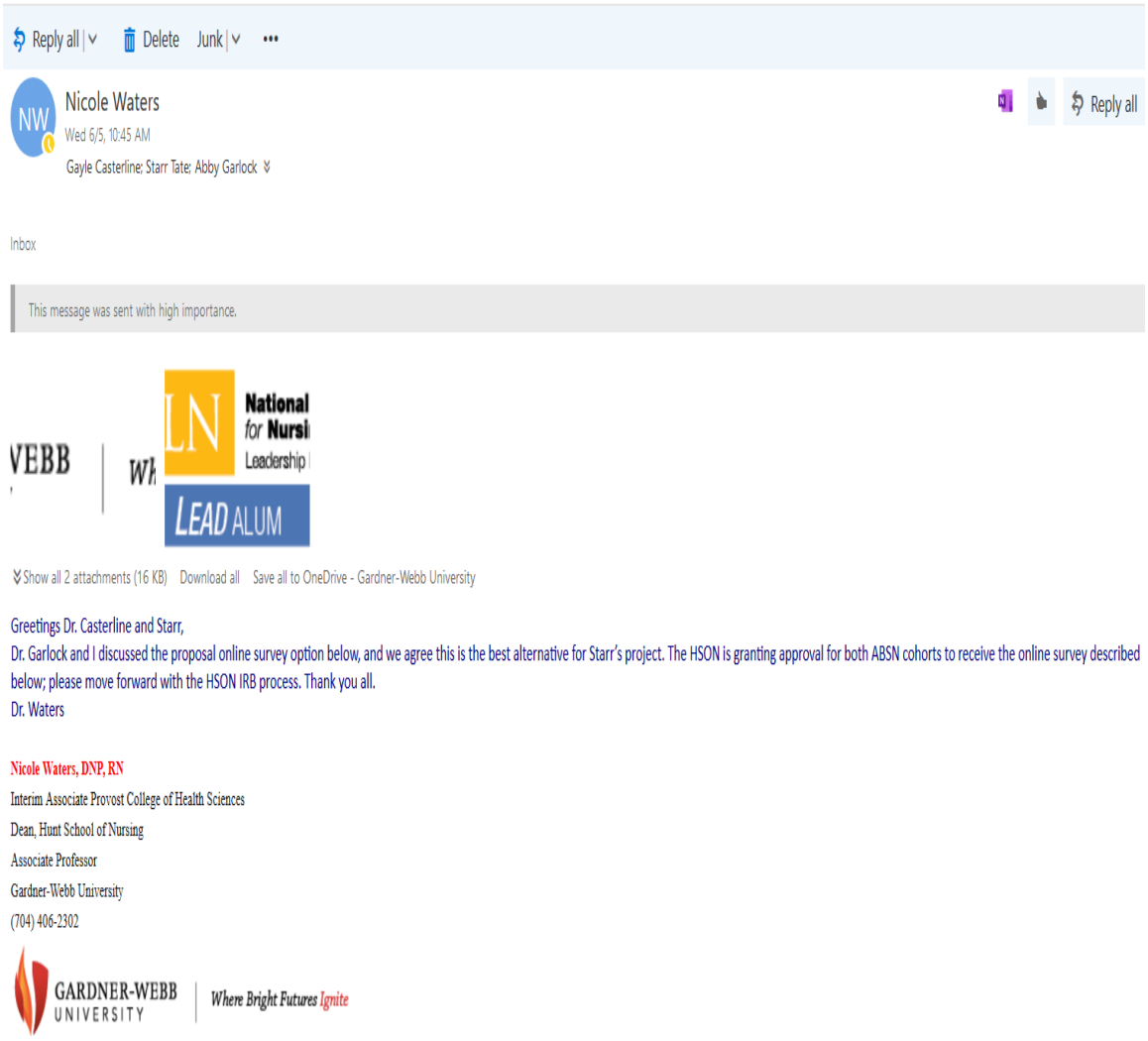
Appendix A

Permission to Conduct Study from Dean of Hunt School of Nursing



Reply all | Delete Junk | ...

Nicole Waters
Wed 6/5, 10:45 AM
Gayle Casterline; Starr Tate; Abby Garlock

Reply all

Inbox

This message was sent with high importance.

VEBB | Wh LN National for Nursi Leadership LEAD ALUM

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Greetings Dr. Casterline and Starr,
Dr. Garlock and I discussed the proposal online survey option below, and we agree this is the best alternative for Starr's project. The HSON is granting approval for both ABSN cohorts to receive the online survey described below; please move forward with the HSON IRB process. Thank you all.
Dr. Waters

Nicole Waters, DNP, RN
Interim Associate Provost College of Health Sciences
Dean, Hunt School of Nursing
Associate Professor
Gardner-Webb University
(704) 406-2302

GARDNER-WEBB UNIVERSITY | Where Bright Futures Ignite

Appendix B

Permission from Survey Author

RE: Permission to use SNSI

MJ

Martyn Jones (Staff) <m.c.jones@dundee.ac.uk>
Tue 4/2, 8:13 AM
Starr Tate

Reply all

Inbox

You forwarded this message on 4/4/2019 1:06 PM

jj 1999 work and stress.... 469 KB

SNSIMEM.DOC 46 KB

Show all 2 attachments (515 KB) Download all Save all to OneDrive - Gardner-Webb University

Starr

You have my permission to use the SNSI. Please find this and validation paper attached.

Good luck with your research

Prof Jones

[//sig/]

Martyn Jones
Professor of Healthcare Research
School of Nursing & Health Science, University of Dundee

Reply all | Delete Junk | •••

We're Scottish University of the Year again!
The Times / Sunday Times Good University Guide 2016 and 2017

From: Starr Tate [mailto:atate5@gardner-webb.edu]
Sent: 29 March 2019 10:18 PM
To: Martyn Jones (Staff) <m.c.jones@dundee.ac.uk>
Subject: Permission to use SNSI

Prof Martyn Jones,

I am a graduate student at Gardner-Webb University located in North Carolina in the United States completing my Masters thesis to receive my MSN in nurse education. I am doing my research on analyzing the perceived stresses of accelerated bachelors of nursing students and the benefit of peer mentorship programs on alleviating stresses. I would like to request your permission to use your Student Nurse Stress Index (SNSI) as a research instrument to study my population as I think it will help me to find the data I am seeking? I appreciate your research and I cannot wait to hear from you.

Thank you so much,

Starr Tate, BSN, RN
Graduate Assistant
Gardner-Webb University
Hunt School of Nursing
(704) 678-0750
atate5@gardner-webb.edu

Appendix C

Online SNSI Survey

Student Nurse Stress Index

Administered by Starr Tate, Student Researcher
Created by Martyn C. Jones and Derek W. Johnston (1999)

1. Below is a list of items that may be associated with stress by students such as yourself. Think of real events which have occurred in the past month in your role as a student. For each item please choose the rating that applies to YOU.

	1 NOT STRESSFUL	2	3	4	5 EXTREMELY STRESSFUL
1. Amount of classwork material to be learned	○	○	○	○	○
2. Difficulty of classwork material to be learned	○	○	○	○	○
3. Examination and/or grades	○	○	○	○	○
4. Peer competition	○	○	○	○	○

5. Attitudes/expectations of other professionals towards nursing	○	○	○	○	○
6. Lack of free time	○	○	○	○	○
7. College/School response to student needs	○	○	○	○	○
8. Fear of failing in course	○	○	○	○	○
9. Actual personal health problems	○	○	○	○	○
10. Physical health of other family members	○	○	○	○	○
11. Relationships with parents	○	○	○	○	○
12. Other personal problems	○	○	○	○	○
13. Relations with other professionals	○	○	○	○	○
14. Too much responsibility	○	○	○	○	○
15. Lack of timely feedback about performance	○	○	○	○	○

2. Answer the following questions from your reflections on your clinical experience

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

3. Other academic and related items

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

4. Please list three ways that you normally cope with stress.

5. When did you begin your ABSN program?

- ○ Summer 2018
- ○ Summer 2019

DONE

Appendix D

Recruitment and Informed Consent Email

To

Cc

ABSN Research Survey

Dear ABSN nursing student,

My name is Starr Tate and I am a MSN graduate student at Gardner-Webb University. I am conducting a research study called "Accelerated Baccalaureate Nursing Students' Perceptions of Stress" for my master's degree under the supervision of Dr. Gayle Casterline.

Purpose:
The purpose of the study is to explore the perceived stresses of ABSN nursing students. Your participation in this study can provide valuable information to influence initiatives for better stress management and/or teaching/learning strategies for ABSN programs in the future.

Procedure:
I am inviting you to participate in an online survey in which you will be asked to rate your stress level in different areas including academic, clinical, and personal experience. You may skip any question on the survey that causes discomfort or stop the survey at any time. To complete the survey click on the link below.

Time Required:
It is anticipated that the study will require about 10 minutes of your time.

Voluntary Participation:
Participation in this study is completely voluntary and anonymous. You have the right to quit the study at any time without penalty by exiting the survey and deleting this email. You also have the right to refuse to answer any question(s) for any reason without penalty.

Confidentiality:
This survey is completely anonymous and no identifying information will be collected. The data from your survey will be stored electronically on a password protected computer and only accessible by myself and Dr. Casterline.

Risk: There are minimal to no risks to you. If you do feel any discomfort in answering questions about stress you are encouraged to withdraw from the study and to visit a counselor available on campus. The Gardner-Webb University Counseling Center is located on the third floor in the Tucker Student Center on Gardner-Webb University's main campus and may be contacted when in crisis at (704) 406-2599.

Benefits: There are no direct benefits or payments for participating in this study, but your participation may help us to understand ABSN student stress for future interventions to decrease stress. The IRB at Gardner-Webb University has determined that participation in this study poses minimal risk to participants.

By clicking on the survey link below you are giving your informed consent to participate in this study.

Survey: https://www.surveymonkey.com/r/5W2GD22

Student Nurse Stress Index Administered by Starr Tate, Student Researcher Created by Martyn C. Jones and Derek W. Johnston (1999)

www.surveymonkey.com

Take this survey powered by surveymonkey.com. Create your own surveys for free.

Your participation in this study is greatly appreciated.

If you have further questions about the study you may contact myself or Dr. Casterline.

Starr Tate, MSN student researcher
Hunt School of Nursing
Gardner-Webb University
Boiling Springs, NC 28017
Telephone: 704-678-0750
Email: atate5@gardner-webb.edu

Dr. Gayle Casterline, MSN thesis advisor
Hunt School of Nursing
Gardner-Webb University
Boiling Springs, NC 28017
Telephone: 704-406-2418
Email: gcasterline@gardner-webb.edu

If you have concerns about your rights or how you are being treated, or if you have questions, want more information, or have suggestions, please contact the IRB Institutional Administrator listed below.

Dr. Sydney K. Brown
IRB Institutional Administrator
Gardner-Webb University
Boiling Springs, NC 28017
Telephone: 704-406-3019
Email: skbrown@gardner-webb.edu

Appendix E

Reminder Recruitment Email

Reminder ABSN Research Survey

Dear ABSN nursing student,

My name is Starr Tate and I am a MSN graduate student at Gardner-Webb University. This is a reminder about the research study I am conducting for my MSN thesis on ABSN students' perceptions of stress. If you have already completed the online survey, thank you so much for your participation. If you have not completed the survey, I would appreciate a few minutes of your time to read the information below about the study. Your participation in this study is greatly appreciated.

The research project is titled "Accelerated Baccalaureate Nursing Students' Perceptions of Stress" for completion of my master's degree under the supervision of Dr. Gayle Casterline.

Purpose:
The purpose of the study is to explore the perceived stresses of ABSN nursing students. Your participation in this study can provide valuable information to influence initiatives for better stress management and/or teaching/learning strategies for ABSN programs in the future.

Procedure:
I am inviting you to participate in an online survey in which you will be asked to rate your stress level in different areas including academic, clinical, and personal experience. You may skip any question on the survey that causes discomfort or stop the survey at any time. To complete the survey click on the link below.

Time Required:
It is anticipated that the study will require about 10 minutes of your time.

Voluntary Participation:
Participation in this study is completely voluntary and anonymous. You have the right to quit the study at any time without penalty by exiting the survey and deleting this email. You also have the right to refuse to answer any question(s) for any reason without penalty.

Confidentiality:
This survey is completely anonymous and no identifying information will be collected. The data from your survey will be stored electronically on a password protected computer and only accessible by myself and Dr. Casterline.

Risk: There are minimal to no risks to you. If you do feel any discomfort in answering questions about stress you are encouraged to withdraw from the study and to visit a counselor available on campus. The Gardner-Webb University Counseling Center is located on the third floor in the Tucker Student Center on Gardner-Webb University's main campus and may be contacted when in crisis at (704) 406-2599.

Benefits: There are no direct benefits or payments for participating in this study, but your participation may help us to understand ABSN student stress for future interventions to decrease stress. The IRB at Gardner-Webb University has determined that participation in this study poses minimal risk to participants.

By clicking on the survey link below you are giving your informed consent to participate in this study.

Survey: https://www.surveymonkey.com/r/5W2GD22

Student Nurse Stress Index Administered by Starr Tate, Student Researcher Created by Martyn C. Jones and Derek W. Johnston (1999)

www.surveymonkey.com

Take this survey powered by surveymonkey.com. Create your own surveys for free.

Your participation in this study is greatly appreciated.

If you have further questions about the study you may contact myself or Dr. Casterline.

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If you have concerns about your rights or how you are being treated, or if you have questions, want more information, or have suggestions, please contact the IRB Institutional Administrator listed below.

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