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The Relationship between Stress and Social Support in Baccalaureate Nursing Students

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Honors Research Project

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Abstract

Nursing students experience high levels of stress throughout their college career. When it comes to managing this stress, the use of social support as a coping mechanism may be a factor. The purpose of this study was to examine the relationship between social support and stress in undergraduate baccalaureate nursing students and to compare social support and stress across levels of education. The study was guided by the Transactional Model of Stress and Coping. This study used a non-experimental descriptive design and a cross-sectional data collection with an online survey. The sample was a convenience sample of second, third, and fourth year nursing students at a large Midwestern public university. Stress was measured with the Student Nurse Stress Index (SNSI) and social support was measured with the Social Support Appraisals (SS-A) Scale. Data was analyzed using a Pearson's r and ANOVA. This study found that while there was not a significant relationship between stress and social support, students of the senior level had less stress and more social support. These findings implicate that underclassmen may be in need of more support and tutoring early on in the program.

The Relationship between Stress and Social Support in Baccalaureate Nursing Students

The term "stress" was first coined by Hans Selye who defined it as "the non-specific response of the body to any demand for change" (Selye, 1956). Stress is not a definitive term when it comes to science because of its high degree of subjectivity (Selye, 1956). Richard Lazarus defined stress as the feeling experienced when a person perceives that the demands of a situation exceed the resources the individual is able to use (Lazarus, 1966). Though stress is widespread throughout many different ages, college students are a particularly stressed population because of the change and transition to college life (Ross, Neibling, & Heckert, 1999). Twenty-first century college students experience a multitude of stressors including financial and academic issues, fear of the future and peer pressure, all while juggling many roles at once. Along with taking a full schedule of classes, students are working, volunteering, building their resume, spending time with friends, and possibly caring for their family. For traditional students, college is one step further into adulthood, which can increase stress in those of late teens. Among college students, excessive stress may harm academic performance and lead to dropping out of school (Shields, 2001). It has been found that high levels of stress reduce grade point averages (GPAs) and lead to increased symptoms of psychological and somatic disorders (Shields, 2001). Further, excessive levels may cause mental health problems and depression, which can lead students to drink or use drugs (Khajehei, Ziyadlou, Hadzic, & Kashefi, 2011).

In particular, nursing students are prone to feelings of stress because of direct involvement in the clinical settings as undergraduates (Chernomas & Shapiro, 2013). This increased stress in nursing students can come from fear of making mistakes, feeling unprepared for practice, the gap between theory and practice, witnessing pain and suffering, difficult relationships with clinical teachers and nursing staff, being observed and evaluated,

communicating with physicians and hospital staff, and lack of familiarity with the hospital environment (Chernomas & Shapiro, 2013). Alongside of these clinical experiences, nursing students also must juggle academic workloads, which can include many written and practical exams. Nursing students are expected to know and retain information in class to utilize in clinical practice, which is also another aspect of pressure and stress.

Ways to relieve stress, or positive coping mechanisms, are an important component of staying healthy and avoiding the negative impacts of stress (Reeve, Shumaker, Yearwood, Crowell, & Riley, 2013). Because of varying personalities, different people experience different ways of stress relief, one of which is having social support from friends, family and classmates (Shields, 2001). The hustle and bustle of nursing school may cause nursing students to be more focused on schoolwork and less concerned with utilizing or maintaining social support, which may then contribute to high stress. The purpose of this study was to examine the relationship between social support and stress in undergraduate baccalaureate nursing students and to compare stress and social support across grade levels of nursing school, from sophomores to seniors. The following research questions were answered: What are the levels of stress experienced by student nurses? How do these levels compare between sophomores, juniors and seniors in the nursing program? What are the levels of social support experienced by student nurses and how do they compare between grade levels? What is the relationship between the levels of stress and social support in student nurses?

Review of Literature

For this study, the relationship between stress and social support in nursing students was studied. Stress has been studied by numerous researchers who have examined two types of stress: negative stress (distress) and positive stress (eustress). In most cases, negative stress tends

to have more predominant effects on a student's well-being (Gibbons, Dempster, & Moutray, 2011), including mental effects such as depression (Dzurec, Allchin, & Engler, 2007) and physical effects such as a lowered general well-being and increased sick days (Chipas et al., 2012). Burnout is a condition of exhaustion due to long term stress that is also associated with stress and ineffective coping (Gibbons, 2010). In contrast, one very common stressor, clinical experience, has been shown to lead to eustress effects among students (Alzayyat & Al-Gamal, 2014), and increased professional identity (Hensel & Laux, 2014). In general, a review of literature shows that several studies find four common stress inducing themes: initial clinical experience, differences between academic levels, cross-cultural comparisons, and eustress from the clinical experience (Alzayyat & Al-Gamal, 2014). Negative stress in nursing school can come from many different sources. Two major examples include taking tests (Wang & Yeh, 2005) and the challenges of clinical rotations (Al-Zayyat & Al-Gamal, 2014). Studies have been performed for students at multiple levels in nursing schools, including pre-nursing students (Wang & Yeh, 2005), first year students (Jones & Johnston, 1997) (Dzurec, Allchin, & Engler, 2007), and even as far as nurse anesthetist students (Chipas et al., 2012). It has been found that these students are at their lowest level of enjoyment in their field at both the beginning and ending of their academic years (Hensel & Laux, 2014).

Researchers have studied social support more as a component of coping compared to an individual variable (Gibbons et al., 2011). Social support tends to be one of the more useful coping methods used when it comes to stress, leading to significantly lowered levels of social exhaustion (Gibbons, 2010) and better ability to control one's mood (Wang & Yeh, 2005). Because nursing students are most likely living away from their homes where they had formed

strong social support connections, school can be a time of great concern as their support structures change (Dzurec, Allchin, & Engler, 2007).

The focus of this study, as stated previously, was to investigate more closely the relationship between stress and social support in nursing students. While researchers have studied social support as one of many aspects of coping with stress experienced due to nursing school, they have not studied solely social support in this population. Even though several studies have shown that social support is related to well-being in students (Gibbons et al., 2011), not many of them have focused on investigating the specific relationship between stress and social support in the nursing student population. Few have compared the relationship across academic levels, as well. This study focused more specifically on adding more information regarding this aspect to the literature.

Theoretical Framework

The Transactional Model of Stress and Coping is a theoretical framework describing the processes of coping with stressful events (Lazarus & Folkman, 1984). Based on the model, stress does not exist as its own event but rather is a result of a transaction between a person and their environment (Lazarus & Folkman, 1984). Positive stress, or eustress, is a positive cognitive response to stress that is healthy, or gives the individual a feeling of fulfilment (Lazarus, 1966). Negative stress, or distress, occurs when people interpret situations negatively and can lead to health problems if people do not utilize effective coping mechanisms. According to the model, a person makes an initial judgment, or a primary appraisal, about the significance of a certain situation as stressful, positive, controllable, challenging or irrelevant (Lazarus & Folkman, 1984). Next a second appraisal follows, where the person assesses what they can do about that particular stressor. Within the model, social support is defined as meaning-based coping. This

coping process induces positive emotion, which in turn sustains the coping process by allowing emotion-focused coping, changing the way one thinks or feels about a stressful situation, or problem-focused coping, strategies directed at changing a stressful situation (Lazarus & Folkman, 1984). When actual coping efforts are made, and the individual tries to deal with the problem, it gives rise to outcomes in the coping process.

The model describes stress and coping which can be applied to nursing students with social support viewed as a coping mechanism. After their second appraisal of a stressor, nursing students may follow this framework and make coping efforts, including utilizing social support, which, based on the model, should decrease stress. Outcomes of coping usually include emotional well-being, functional status and healthy behaviors (Lazarus & Folkman, 1984), all of which are expected when social support is used as a coping mechanism. Based on the model, it is anticipated that there will be an inverse relationship between stress and social support. As the level of social support increases, the level of perceived stress should decrease.

Methods

Design

The design of this study was a non-experimental, descriptive, cross-sectional design. Data collection began following approval from the university institutional review board

Setting and Sample

The participants of this study included sophomores through seniors enrolled in the baccalaureate nursing program at a large urban public university in the Midwest of the United States. The total sample size of the study was 68. The total number of students at the university for 2013 was 22,122. The number of students in the school of nursing in 2013 was about 1,000, including undergraduate and graduate. There are about 400 graduate students in the nursing

program; the types of nursing programs for graduate students are PhD, CRNA, and DNP programs. The undergraduate students make up about 600 students and the traditional baccalaureate undergraduate program (BSN) includes 468 students.

The convenience sample was sophomore, junior and senior undergraduate nursing students. Inclusion criteria included being at least 18 years of age, traditional student status, and voluntarily giving informed consent, as approved by the University of Akron Institutional Review Board. No subjects were excluded based on gender, ethnicity, race, or age, as long as they were at least 18 years old.

Sampling and Data Collection Procedures

The co-investigators (Co-Is) worked with the project sponsors to send recruitment emails (see Appendix C) to all nursing students in sophomore to senior level at the university. In the email, students were asked to participate in a brief research survey about stress and social support in student nurses. The email asked the students to voluntarily take part in an online, 15-20 minute anonymous survey asking questions about their levels of stress and social support while in nursing school. It also specified that the participants would be able to quit the survey at any point and also have the ability to not answer items if they desired. Waves of email were sent to students on 11/3/15, 11/9/15, and 11/13/15. Embedded in the email was a link to the online survey, which was constructed in Qualtrics, an online survey platform. Informed consent was indicated with submission of the survey.

Data was collected with an online survey by the Co-Is with assistance from the project sponsors and was stored in software to be analyzed. No identifiers were collected, and subjects were able to progress through the survey without submitting responses to items. They were also able to move forward and backward to review or change items' responses. No participant

information was shared with any other students or faculty. Surveys were deleted by Qualtrics after data was imported into the IBM SPSS 22 analysis software program. The data was stored on a password-protected computer which could only be accessed by the Co-Is and the project sponsors.

Measures

The Student Nurse Stress Index (SNSI) measured stress with 22 items (Jones & Johnston, 1999). Within the items, dimensions of stress included academic load (7 items), clinical sources (7 items), interface (interpersonal) worries (7 items), and personal problems (4 items). Subjects were asked to rate stress on 5-point Likert scales with 1 = not at all stressful to 5 = extremely stressful. All items were summed to represent total stress and each dimension was measured with summed items associated with the dimensions. All items were coded so that higher scores indicated higher stress. The score range for personal problems was 4-20 and for academic load, clinical concerns and interface worries 7-35. The SNSI showed cross-sample factor congruence, good internal reliability and concurrent and discriminant validity (Jones & Johnston, 1999). In the original study, the Cronbach's alpha exceeded .70 (Jones & Johnston, 1999). Cronbach's alpha for this sample was .855.

For the measure of social support, the Social Support Appraisals (SS-A) Scale was used (Vaux, Phillips, Holly, Thomson, Williams, & Stewart, 1986). The SS-A was comprised of 23 items that measured subjective appraisal of social support, and was intended to measure the extent to which a person believes that they are loved by, valued by and connected with family, friends and others (Vaux et al., 1986). The items were rated on 4-point Likert scale with 1 = strongly agree and 4 = strongly disagree. Higher scores indicated a lower perceived social support. Sample questions included: "I am important to others," "My friends don't care about my

welfare," and "If I died tomorrow, very few people would miss me." The Cronbach's alpha was .90 for the total scale which indicated good internal reliability, and across samples there was a pattern of convergent and divergent validity (Vaux et al., 1986). Cronbach's alpha for this sample was .91.

Data Analysis

All data was imported in IBM-SPSS 22 and checked with outliers and missing data. Descriptive statistics were used to describe the sample, stress and social support. Percentages were used to describe nominal level and categorical data, and measures of central tendency were used to describe continuous data. Research question #1 was: What are the levels of stress experienced by student nurses? Descriptive statistics were used to answer this question. Research question #2 was: How do these levels compare between sophomores, juniors and seniors in the nursing program? ANOVA analysis was used to answer question #2. Research question #3 was: What are the levels of social support experienced by student nurses and how do they compare between grade levels? Descriptive and ANOVA statistical analyses were used to answer question #3. Research question #4 was: What is the relationship between the levels of stress and social support in student nurses? The data was analyzed with Pearson correlation coefficient, which provided values about statistical significance (set at p-value <.05), direction, and strength of the relationship between stress and social support. Because of this, the Pearson's r statistic was calculated to see if there was significance of the correlation coefficient.

Results

In terms of demographics, 63 out of the 68 respondents identified as female, while only five identified as male. The mean age of those surveyed was 21.1 years old and 91% identified as white, 3% as African American, 3% as Asian, and 3% as some other race. 57 respondents were never married, three were currently married, six were living together, and two were engaged.

Sophomores were the majority of the respondents at 42.6%, juniors were 32.4% and seniors or greater were 25%. Grade Point Averages (GPA) ranged from 31 people between 3.5 and 4.0, 35 people between 3.0 and 3.49 and only two people between 2.5 and 2.9. Honors College students were 30.9% of respondents, while 69.1% were not. 100% of respondents planned to remain in the nursing program at their school and, on average, respondents worked 14.96 hours a week. The majority of respondents, 83.8%, lived off campus with others, 4.4% lived off campus by themselves, 5.9% lived at home, 4.4% lived on campus with others and 1.5% lived on campus by themselves.

The first research question was "What are the levels of stress experienced by student nurses?" Descriptive statistics were used to determine that sophomores had a mean value of 66.3 out of 110, juniors had a mean value of 66.2, and seniors had a mean value of 60. To answer the second research question, "How do these (stress) levels compare between sophomores, juniors, and seniors in the nursing program?" a one-way ANOVA was conducted to compare differences in stress levels between sophomores, juniors, and seniors. There was not a significant difference between groups at the $p < .05$ level, $F (2, 57) = 1.679$, $p = .196$.The third research question was "What are the levels of social support experienced by student nurses and how do they compare between grade levels?" Results showed that sophomores had a mean social support value of 76.9, juniors had a mean social support value of 73.6, and seniors had a mean social support value of 80.3. A one-way ANOVA was conducted to compare differences in social support between sophomores, juniors, and seniors. There was a significant difference between groups at the $p < .05$ level, $F (2, 52) = 3.200$, $p = .049$. The fourth research question was "What is the relationship between the levels of stress and social support in student nurses?" It was found that there was a nonsignificant correlation between stress and social support, $r= -.233$, $p = .090$.

Discussion

Although there was no significant relationship between stress and social support according to the Pearson correlation, other relationships were found in the study. Students in the senior level of courses were found to have the lowest stress overall compared to sophomores and juniors, with lower stress reported regarding class load, personal problems, clinical issues, and person to person interfacing according to descriptive statistics. They also had the highest level of social support, with a mean descriptive value of 80.3. These values were also supported by Spearman's Rho correlations, with a significant negative correlation existing between social support and clinical issues (.014).

It was found that when using a Pearson's R correlation, both clinical stress and personal problems were inversely related to social support, with significances of .003 and .013 respectively. This shows that as social support from classmates, friends and family increases, the amount of clinical stress and personal problems decreases. This is a helpful finding since the study by Al-Zayyat & Al-Gamal stated previously demonstrated that clinical stress is a particularly high stressor for nursing students (2014). It was also found that personal problems and person to person interfacing were positively correlated at a significance of .001. In addition, age and class load were found to correlate negatively at a significance value of .008, showing that as the individual became older, their course load decreased, possibly leading to the decrease in stress found in senior level students.

The ANOVA results of stress and grade level were not significant, though they were predicted to be inversely related according to the Transactional Model of Stress and Coping (Lazarus & Folkman, 1984), but the ANOVA between social support and grade levels was significant at .049. The Bonferroni test revealed that social support differed between the junior

and senior level at a significance of .044. This test demonstrates that students who are in higher level classes and who have been in school for more time, have a more defined social support from family, friends and significant others.

Limitations

The study was limited by a few different factors. First, the time of year may have had an impact on the results. During the start of a clinical rotation, students may feel less comfortable in the clinical setting, but as they move towards the end of the rotation, they might feel more stressed because of studying for coursework and exams. Since this study was released towards the middle of the second 7.5 week rotation of the semester, feelings of anxiety regarding tests may have been disproportionately reflected as compared to clinical load. Secondly, the sample size could have been larger in order to better represent the nursing student body as a whole. There were also disproportionate values in regards to gender. When comparing males to females, there were only 5 male respondents and 63 female. While many nursing programs do have a female majority, this sample did not accurately represent the overall gender split. Lastly, the largest population of respondents were sophomores, with the fewest being seniors, possibly skewing results more towards the sophomore level's concerns.

Implications

Using this study as a basis, it would be beneficial to provide more tutoring options to underclassmen in the nursing program. By offering more tutoring options for new nursing students, an increase in confidence in student's abilities as well as decreased stress could be obtained. These programs should be aimed towards sophomore students, as they reported having higher levels of stress than any other cohort. This could help to increase student retention rates as well, ensuring fewer students drop out before completing the nursing program. It might also be

beneficial to explore another study about nursing students and the amount of tutoring provided to each grade level. In addition, bringing overall awareness to students in regards to various stressors would be a positive change to make. Many students have several questions regarding coursework, clinical work, and other aspects of nursing school that go unanswered. Helping students answer these questions more completely would potentially be of benefit and reduce stress levels overall.

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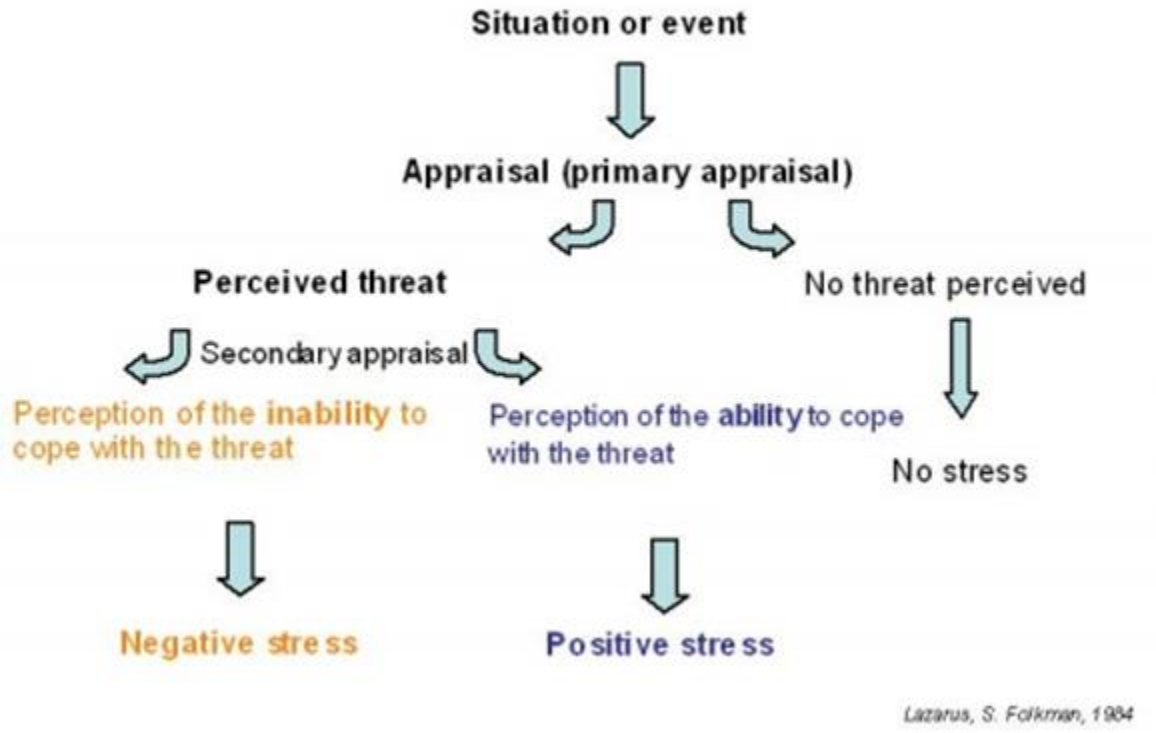
Appendix A

Transactional Model of Stress and Coping (Lazarus & Folkman, 1984).



Appendix B

Informed Consent Form

Title of Study: Stress and Social Support in Baccalaureate Nursing Students

Introduction: You are invited to participate in a research project being conducted by Hannah Greczanik and Vincent Lupico, senior nursing students in the College of Health Professions, School of Nursing at The University of Akron.

Purpose: The purpose of this project is to study the relationship between stress and social support in nursing students.

Procedures: If you agree to participate in this study, you will be asked to complete a short, online survey about stress and social support. It will take about 15 minutes to complete the survey. Additionally, you will be asked to give some information about your age, gender, level of education, grade point average, ethnicity, marital status, and living arrangement. You will not be asked to give any identifying information at any time.

You are eligible to participate in the study if you are a sophomore, junior or senior enrolled in traditional undergraduate nursing program and at least 18 years old. You are not eligible if you are an accelerated nursing 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 better understand the relationship between stress and social support in undergraduate nursing students. There are some possible risks in completing the survey because you are asked to answer questions about personal information about stressful situations and individual social support. Although we hope you respond to every item on the survey, whether or not you do is up to you. Because no identifying information is collected in the survey and because survey distribution and submission occur anonymously and online, there is very minimal risk of participant identification. You will complete the survey at your leisure and in a comfortable, secure, and private environment. In case you feel the need to talk with a counselors and health care provider after completing this 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 the study at any time will involve no penalty. Failure to participate in no way affects your academic standing.

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

Confidentiality of Records: Data are 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 are automatically entered into a data set. Disconnecting participants from their surveys is also related to protection of human participants.

Who to Contact with Questions: If you have any questions about this study, you may contact Hannah Greczanik (hmg20@zips.uakron.edu), Vincent Lupico (val14@zips.uakron.edu), or Christine Heifner Graor, PhD (Advisor) at (330) 972-6422 or graor@uakron.edu. This project has been reviewed and approved by The University of Akron Institutional Review Board. If you have any questions about your rights as a research participant, you may call the IRB at (330) 972-7666.

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

You may now begin the survey!

Appendix C

Measures

Directions: Please tell us some things about yourself. Your survey responses are separated from any identifying information you may submit.

Completion and submission of this survey represents your consent to serve as a subject in this research.

1. What is your gender?
   - o Female
   - o Male
2. What was your age at your last birthday?

   Years of age _____
3. What racial/ethnic category do you identify with?
   - o White
   - o African American
   - o Asian
   - o Hispanic/Latino
   - o Other _____ (Please specify)
4. What is your marital status?
   - o Never married
   - o Married
   - o Separated
   - o Divorced
   - o Widowed
   - o Living together
   - o Other _____ (Please specify)
5. What is your current GPA?
   - o 3.5-4.0
   - o 3.0-3.49
   - o 2.5-2.9
   - o 2.0-2.49
   - o 1.5-1.9

- Below 1.5

6. Do you plan to remain enrolled in the School of Nursing?

   - Yes
   - No

7. On the average, approximately how many hours do you work weekly? Enter 0 if you are unemployed.

   Average number of hours worked weekly _____

8. What are your current living arrangements?

   - On campus by myself
   - On campus with others
   - Off campus by myself
   - Off campus with others
   - Other

Student Nurse Stress Index (Jones & Johnston, 1999)

Directions: 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 circle the rating that applies to you.

	NOT STRESSFUL				EXTREMELY STRESSFUL
Amount of class work material to be learned	1	2	3	4	5
Difficulty of classwork material to be learned	1	2	3	4	5
Examination and/or grades	1	2	3	4	5
Peer competition	1	2	3	4	5
Attitudes/expectations of other professionals toward nursing	1	2	3	4	5
Lack of free time	1	2	3	4	5
College/school response to student needs	1	2	3	4	5
Fear of failing in course	1	2	3	4	5
Actual personal health problem	1	2	3	4	5
Physical health of other family members	1	2	3	4	5
Relationships with parents	1	2	3	4	5
Other personal problems	1	2	3	4	5
Relations with other professionals	1	2	3	4	5
Too much responsibility	1	2	3	4	5
Lack of timely feedback about performance	1	2	3	4	5

Answer the following regarding your reflections on your clinical experience					
Client attitudes towards me	1	2	3	4	5
Client attitudes towards my profession	1	2	3	4	5
Atmosphere created by teaching staff	1	2	3	4	5
Relations with staff in clinical area	1	2	3	4	5
Answer the following regarding general expectations and time management					
I am not sure what is expected of me	1	2	3	4	5
I have no time for entertainment	1	2	3	4	5
I do not have enough time for my family	1	2	3	4	5

Social Support Appraisals Scale (Vaux et al., 1986).

Below are a list of statements about your relationships with family and friends. Please indicate how much you agree or disagree with each statement as being true.

	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
My friends respect me.	1	2	3	4
My family cares for me very much.	1	2	3	4
I am not important to others.	1	2	3	4
My family holds me in high esteem.	1	2	3	4
I am well liked.	1	2	3	4
I can rely on my friends.	1	2	3	4
I am really admired by my family.	1	2	3	4
I am respected by other people.	1	2	3	4
I am loved dearly by my family.	1	2	3	4
My friends don’t care about my welfare.	1	2	3	4
Members of my family rely on me.	1	2	3	4
I am held in high esteem.	1	2	3	4
I can’t rely on my family for support.	1	2	3	4

People admire me.	1	2	3	4
I feel a strong bond with my friends.	1	2	3	4
My friends look out for me.	1	2	3	4
I feel valued by other people.	1	2	3	4
My family really respects me.	1	2	3	4
My friends and I are really important to each other.	1	2	3	4
I feel like I belong.	1	2	3	4
If I died tomorrow, very few people would miss me.	1	2	3	4
I don’t feel close to members of my family.	1	2	3	4
My friends and I have done a lot for one another.	1	2	3	4

Appendix D

Results Tables

Descriptive Statistics

What is your current grade level?		Mean	Std. Deviation	N
Sophomore	SSAS_total	76.9524	7.22825	21
	SNSI_total	66.3478	14.49956	23
	Loaddim_total	26.1304	4.37248	23
	persprobdim_total	10.3750	3.07603	24
	interfacedim_total	21.6250	6.16309	24
	clinicaldim_total	17.5000	5.82349	24
	What is your age?	19.83	.759	29
Junior	SSAS_total	73.6111	8.51393	18
	SNSI_total	66.2000	10.18048	20
	Loaddim_total	24.4000	3.80305	20
	persprobdim_total	10.1500	2.75824	20
	interfacedim_total	21.7500	4.06364	20
	clinicaldim_total	18.7500	3.89162	20
	What is your age?	22.00	4.791	22
Senior or greater	SSAS_total	80.3125	7.38213	16
	SNSI_total	60.0000	9.88054	17
	Loaddim_total	21.5882	3.58920	17
	persprobdim_total	9.6471	3.27760	17
	interfacedim_total	21.0000	2.93684	17
	clinicaldim_total	14.5882	4.91247	17
	What is your age?	22.41	2.647	17

Correlations

		SSAS_total	SNSI_total
SSAS_total	Pearson Correlation	1	-.233
	Sig. (2-tailed)		.090
	N	55	54
SNSI_total	Pearson Correlation	-.233	1
	Sig. (2-tailed)	.090	
	N	54	60

ANOVA

SNSI_total

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	480.583	2	240.291	1.679	.196
Within Groups	8156.417	57	143.095		
Total	8637.000	59			

SSAS_total

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	380.860	2	190.430	3.200	.049
Within Groups	3094.668	52	59.513		
Total	3475.527	54			

Multiple Comparisons

Dependent Variable: SSAS_total

	(I) What is your current grade level?	(J) What is your current grade level?	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Bonferroni	Sophomore	Junior	3.34127	2.47795	.550	-2.7889	9.4715
		Senior or greater	-3.36012	2.55998	.585	-9.6932	2.9730
	Junior	Sophomore	-3.34127	2.47795	.550	-9.4715	2.7889
		Senior or greater	-6.70139*	2.65063	.044	-13.2588	-.1440
	Senior or greater	Sophomore	3.36012	2.55998	.585	-2.9730	9.6932
		Junior	6.70139*	2.65063	.044	.1440	13.2588

*. The mean difference is significant at the 0.05 level.

Correlations

		SSAS_total	SNSI_total	Loaddim_total	persprobdim_total	interfacedim_total	clinicaldim_total	What is your age?
SSAS_total	Pearson Correlation	1	-.233	-.192	-.332*	-.007	-.398**	-.123
	Sig. (2-tailed)		.090	.165	.013	.962	.003	.370
	N	55	54	54	55	55	55	55
SNSI_total	Pearson Correlation	-.233	1	.815**	.754**	.812**	.874**	-.136
	Sig. (2-tailed)	.090		.000	.000	.000	.000	.302
	N	54	60	60	60	60	60	60
Loaddim_total	Pearson Correlation	-.192	.815**	1	.561**	.513**	.675**	-.342**
	Sig. (2-tailed)	.165	.000		.000	.000	.000	.008
	N	54	60	60	60	60	60	60
persprobdim_total	Pearson Correlation	-.332*	.754**	.561**	1	.424**	.641**	-.052
	Sig. (2-tailed)	.013	.000	.000		.001	.000	.693
	N	55	60	60	61	61	61	61
interfacedim_total	Pearson Correlation	-.007	.812**	.513**	.424**	1	.584**	-.087
	Sig. (2-tailed)	.962	.000	.000	.001		.000	.504
	N	55	60	60	61	61	61	61
clinicaldim_total	Pearson Correlation	-.398**	.874**	.675**	.641**	.584**	1	-.045
	Sig. (2-tailed)	.003	.000	.000	.000	.000		.731
	N	55	60	60	61	61	61	61
What is your age?	Pearson Correlation	-.123	-.136	-.342**	-.052	-.087	-.045	1
	Sig. (2-tailed)	.370	.302	.008	.693	.504	.731	
	N	55	60	60	61	61	61	68

*. Correlation is significant at the 0.05 level (2-tailed).

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