

Sigma's 30th International Nursing Research Congress

A Correlational Study on the Stress Level and Academic Performance of Nursing Students

Jordan Llego, PhD, RN, FRIHC, FRIN, FRIRes

College of Nursing, University of Hail, Hail, Saudi Arabia

Ellen Gabriel, MAN, RN

College of Nursing and Midwifery, University of Luzon, Dagupan City, Philippines

Jennie Corpus, RN

College of Nursing and Midwifery, University of Luzon, Dagupan City, PA, Philippines

Purpose: This study assess the level of stress, the academic performance of nursing students in a Private University, and the relationship between the two variables.

Methods: This study used descriptive-correlational design, and total enumeration was utilized, with 34 respondents. A questionnaire was the primary instrument of this study. Statistical used in this study to describe the variables were frequency, percentage, mean, and Pearson-r was utilized to look at the relationship between the stress level and academic performance of the respondents.

Results: Results include: most (76.50%) of the respondents are relatively young, most (82.30%) of the respondents are females, some (38.20%) of the respondents are fourth-year. A vast majority (64.70%) of the respondents' primary source of stress is academic works. The mean score of the stress is 20.59. The respondents academic works have mean score of 2.25, and Pearson-r score is ($r = 0.71$, $n = 34$, $p = 0.00$).

Conclusion: The researchers conclude that the nursing program in one of the universities in Dagupan City has relatively young students that are female dominated in their senior year. The respondents have a moderate level of stress, and the primary source of their academic works is the primary source of their stress. The respondents are satisfactorily performing in their academics. Also, it was found out that as the respondents' stress level raises their academic performance declines. In light with the results and conclusions the following are recommended: that there will be a minimal decrease in the academic works of the students like no assignments at the weekend, encourages to have their academic works in a pair or a group. The researchers also encourage the faculty members of the College of Nursing to have a consultation with their students regarding their stress level, so that the students can verbalize their feelings. Also, the researchers also recommend that there will be a stress-relief program for the students so that, they will feel more at ease when doing their assigned tasks.

Title:

A Correlational Study on the Stress Level and Academic Performance of Nursing Students

Keywords:

Academic Performance, Nursing Education and Stress Level

References:

Abouelfettoh. (2013). Nursing Students Perceived Stress and Academic Achievement. Retrieved July 2018 from

https://www.researchgate.net/publication/258185117_NURSING_STUDENTS_PERCEIVED_STRESS_AND_ACADEMIC_ACHIEVEMENT_THE_ROLE_OF_EMOTIONAL_INTELLIGENCE

Ankari. (2011). Retrieved June 2018 from <http://kalyan-city.blogspot.com/2011/03/relationship-between-stress-and-job.html>

CNN Philippines. (2017). Filipinos cite job and studies as the top cause of stress- CNN PH poll. Retrieved June 2018 from <http://cnnphilippines.com/lifestyle/2015/09/23/Filipinos-top-causes-of-stress-job-traffic-money.html>

Cuerpo. (2007). Too much work, too little time. Retrieved June 2018 from <https://www.sunstar.com.ph/article/402552/>

Elias, Ping, and Abdullah (2011). Stress and Academic Achievement among Undergraduate Students in Universiti Putra Malaysia. Retrieved June 2018 from <https://www.sciencedirect.com/science/article/pii/S1877042811027492>

Goff. (2011). Stressors, academic performance, and learned resourcefulness in baccalaureate nursing students. Retrieved June 2018 from <https://www.ncbi.nlm.nih.gov/pubmed/21291410>

Ho. (2016). 5 Stress triggers college students can relate to. Retrieved June 2018 from <http://news.abs-cbn.com/advertorial/life/11/18/16/5-stress-triggers-college-students-can-relate-to>

Kamarudin, Aziza, Mohd, Nozaidi, Siong, and Chong. (2009). Stress and Academic Performance: Empirical Evidence from University Students. Retrieved July 2018 from https://www.researchgate.net/publication/299615555_STRESS_AND_ACADEMIC_PERFORMANCE_EMPIRICAL_EVIDENCE_FROM_UNIVERSITY_STUDENTS

Laerd Dissertation (2012). Total Population Sampling. Retrieved June 2018 from <http://dissertation.laerd.com/total-population-sampling.php>

Mazo. (2015). Causes, Effects of Stress, and the Coping Mechanism of the Bachelor of Science in Information Technology Students in A Philippine University. Retrieved June 2018 from <https://media.neliti.com/media/publications/71952-EN-causes-effects-of-stress-and-the-coping.pdf>

Nursing Times. (2008). Why are there so few men in nursing? Retrieved July 2018 from <https://www.nursingtimes.net/why-are-there-so-few-men-in-nursing/849269.article>

Polit, D. and Beck C. (2017). Essentials of Nursing Research Ninth Edition. Lippincott Williams & Wilkins: USA

Ricker. (2014). Stress is part of the job of healthcare workers. Retrieved June 2018 from <https://www.careerbuilder.com/advice/stress-is-part-of-the-job-for-health-care-workers>

Siraj, Salam, Roslan, Hasan, Jin, Othman. (2014). Stress and Its Association with the Academic Performance of Undergraduate Fourth Year Medical Students at Universiti Kebangsaan Malaysia. Retrieved June 2018 from <http://iiumedic.net/imjm/v1/download/Volume%2013%20No%201/IMJM%20Vol%2013%20No%201%20p19-24.pdf>

Stoppler. (2018). Stress. Retrieved June 2018 from https://www.medicinenet.com/stress/article.htm#stress_facts

The American Institute of Stress. What is Stress? Retrieved June 2018 from <https://www.stress.org/what-is-stress/>

The American Institute of Stress. Stress Effect. Retrieved June 2018 from <https://www.stress.org/stress-effects/>

Abstract Summary:

This study assess the level of stress and its relationship to the academic performance of the respondents. This study used descriptive-correlational design, and total enumeration was utilized.

Content Outline:

INTRODUCTION

The American Institute of Stress, state that stress is a highly subjective phenomenon that it defies definition. However, Hans Selye coined the first definition of stress in 1936 which he defined as “the non-specific response of the body to any demand for change.” Moreover, stress is a circumstance of the environment in which powers from the inside or outside world affect the individual, either one's emotional or physical well-being, or both (Stoppler, 201).

According to Akrani (2011), depending on the level of stress, it can be helpful or harmful. Stress has many effects to a person it can affect the nervous system, musculoskeletal system, respiratory system, cardiovascular system, endocrine system, and gastrointestinal system. Furthermore, stress is linked to depression, anxiety, heart attacks, stroke, hypertension, immune system disturbances that increase susceptibility to infections (American Institute of Stress, 2017), this effect of stress could affect any individual. If a student is undergoing stress, it might affect their academic performance.

In a study conducted by Elias, Ping, and Abdullah (2011), they found out that the undergraduate students experienced moderate levels of stress and among the undergraduates; the medical students had the highest stress level. Moreover, academic works are the most common source of stress of the students. It was also found that there is a significant negative, a weak relationship between the students' level of stress and academic performance. Another study conducted by Siraj, Roslan, Hasan, Jin, and Othman (2014), they found out that medical students have a higher stress level, and stress level has a positive relationship with their academic performance; which means that the higher stress they are experiencing, the higher their academic performance is. In the field of nursing Goff (2011), found out that the stress level of nursing students has no significant relationship between their academic performance.

In the hope of finding the source of stress among Filipinos, CNN Philippines conducted an open online poll in 2017 and revealed that out of the 200 respondents 23% of them identified that studies and work as a primary source of their stress. In the field of tertiary education Mazo (2015), found out that BS Information Technology students consider their school works as burdensome which is the primary source of their stress. Further, effects of stress on them are sleepless nights and irritability which is parallel to the typical effects of stress.

The nursing program was dubbed as one of the most challenging baccalaureate course; the above data shows that students in the medicine have a high-stress level, and the two programs have similarities. Furthermore, there are little resources available about the stress level of nursing students and its relationship between their academic performance. This study is hoped to add to the dearth of literature and is hope to be a baseline data for future researchers with the same research topic. The researcher

hopes to give a better perspective on the relationship between the stress level and academic performance of nursing students.

With all these in mind, this study will assess the level of stress and its relationship to the academic performance of the respondents. It will answer the following sub-problems: 1. What is the profile of the respondents regarding (age, sex, and year level?) 2. What is the primary source of the stress the respondents are experiencing? 3. What is the level of stress of nursing students? 4. What is the academic performance of the nursing students? 5. Is there a significant difference relationship between the stress level and job performance of the respondents?

MATERIALS AND METHODS

Research Design

This study will use descriptive-correlational design. According to Polit and Beck, (2017), this design aims to examine a sample at one specific point in time without making any inferences or causation. The study gives meaning to the variables being assessed, and a correlational study aims to examine the relationship between two variables. The study delineates the demographic profile, the source of stress, the stress level and academic performance of the respondents, and studies the relationship between stress level and job performance without inferring causation. Thus, these research design applies to this study.

Population and Sampling

The locale of the study is a University situated at Dagupan City, Pangasinan. Specifically, the study will focus on the nursing students. There are 32 nursing students at the university. The total enumeration was applied in this study to represent the population adequately (Laerd Dissertaion, 2012).

Respondents of the Study

The respondents of this study are the nursing students in a university in Dagupan, City, regardless of age and sex, the respondents will assess their stress level. Meanwhile, the source of the academic performance of the students will come from the record of the acting dean. The first-year nursing students were excluded from this study because they do not have grades available for their Nursing Care Management (NCM) courses.

Data Gathering Instrument

The primary data gathering tool for the study is a questionnaire. The first questionnaire is composed of two parts. Part I (one) will cover the demographic profile of the respondents, this includes the respondents' age, sex, and year-level, and the primary source of their stress. Part II (two) will be adopted from the Perceived Stress Scale; this was used because it is already tested to measure the stress level of an individual, and it is widely used and already available. Part II is composed of 10 items, and is answerable by the following scale "0- never," "1- almost never," "2-sometimes," "3- fairly often," "4- very often." Moreover, items 4, 5, 7, and eight will be treated with reverse scoring.

The data on the academic performance will come from the records of the Acting Dean. The academic performance will be measured with the following NCM subjects:

Second-year students	NCM 100
Third-year students	NCM 101, 102
Fourth-year students	NCM 103, 104, and 105

Ethical Consideration

Before the actual data collection, the researchers get the approval of the research coordinator for the BSN program. There is also a letter of consent that is attached to the questionnaire that is answered by the respondents, indicating the purpose of the study, the time needed to finish answering the questionnaire. In the consent form of the students, it is also indicated that they are allowing the access of their NCM grades but the researchers. Further, the respondents have the right to refuse not to participate in the study without any coercion.

All data will be treated with the highest respect, confidentiality, and anonymity.

Data Gathering Procedure

After securing all the approval needed by the researchers, they administered the questionnaire; they stayed with the respondents during the data gathering so that if there are any questions, they are available for clarifications.

Data collection and retrieval was on June 25-26, 2018.

Tools for Data Analysis

The collected data in this study were analyzed using the Statistical Package for Social Sciences (SPSS) version 22.

To answer sub-problems number one and two, frequency and percentage were used because the data in this part are nominal and categorical.

To answer sub-problem number three, mean was utilized, for the type of data that was collected here is a continuous data. Table 1, summarizes the scoring and descriptive equivalent for this data.

Table 1. The Descriptive Equivalent of the Stress Level

SCORE	DESCRIPTIVE EQUIVALENT
0-13	Low Stress
14-26	Moderate Stress
27-40	High Stress

To answer sub-problem number four, mean was be used, for the type of data that was collected here is a continuous data. This data was adopted from the grading system of the university. Table 2, summarizes the scoring and descriptive equivalent for this data.

Table 2. The Descriptive Equivalent of the Academic Performance of the Nursing Students

SCORE	DESCRIPTIVE EQUIVALENT
1.00-1.24	Excellent
1.25-1.49	Outstanding
1.50-1.74	Very Satisfactory
1.75-2.24	Good

2.25-2.50	Satisfactory
2.51-2.75	Fair
2.76-3.0	Passing
3.01- 5.00	Failed

To answer sub-problem number four, Pearson-r was utilized, because the data that was analyzed are both continuous data.

RESULTS

Table 3. Distribution of Respondents according to Age N= 34

Age	Frequency	Percentage
18-22	26	76.50
23-26	5	14.70
27-31	2	5.90
37-39	1	2.90

Table 3 delineates the number of respondents regarding their age it can be seen that most (76.50%) of the respondents are in relatively young, very few (14.70%), (5.90%), and (2.90%) are above 22 years old.

Table 4. Distribution of Respondents according to Sex N= 34

Sex	Frequency	Percentage
Male	6	17.60
Female	28	82.30

Table 4 shows the number of respondents regarding their sex. It can be seen that most (82.30%) are females, and very few (17.60%) are males.

Table 5. Distribution of Respondents according to Year-level N= 34

Year-level	Frequency	Percentage
II	9	26.50
III	12	35.30
IV	13	38.20

Table 5 reveals the number of the respondents regarding their year level. It can be gleaned that some (38.20%) of the respondents are fourth-year, some (35.30%) of them are on their third year, and some (26.50%) of them are on their second year.

Table 6. The Common Sources of Stress

Year-level	Frequency	Percentage
------------	-----------	------------

Family Problem	5	14.70
Personal Problem	7	20.60
Academic Works	22	64.70

Table 6 reveals the primary source of the stress of the students. It can be seen that a vast majority (64.70%) of the respondents' primary source of stress is academic works, few (20.60%) of them are stress with their problem, and very few (14.70%) the primary source of stress is coming from their family problems.

Table 7. Stress Level of the Students

Mean	Interpretation
20.59	Moderate Stress

Table 7 reveals the stress level of the respondents. It shows that the stress level of the respondents is moderate with a mean score of 20.59.

Table 8. Academic Performance of the Students

Mean	Interpretation
2.25	Satisfactory

Table 8 depicts the academic performance of the respondents. It can be seen that the students are satisfactorily performing in their academic works with a mean score of 2.25.

Table 9. The Significant Relationship between Stress Level and Academic Performance N= 34

r-value	p-value	Interpretation
0.71	0.00	Strong Positive Relationship

Table 9 shows the significant relationship between the stress level and academic performance of the respondents. The academic performance was coded in increasing order while the academic performance was coded in decreasing order. It can be seen that the ($r= 0.71$, $n=34$, $p=0.00$) which means that there is a strong positive relationship between the two variables. Hence, when the stress level goes up, the academic performance goes down.

DISCUSSION

The result in table 3 shows that most of the respondents are in young adulthood; this is congruent to the age of schooling at the bachelors' level in the Philippines. Regarding the respondents' sex, it is evident that females dominate it; this is may be due to the notion that nursing is still a female occupation (Nursing Times, 2008). Regarding the respondents year-level, it can be seen that the bulk of the students is in their fourth-year, the decline in the number of students in the second-year and the third-year level may be associated with the implementation of the K-12 of the Department of Education.

The primary source of stress experienced by students is academic works; these include their assignments, research works (thesis), quizzes, and periodical exams. This finding is congruent to the findings of CNN Philippines open online poll in 2017 that shows that out of the 200 respondents 23% of

them identified their schooling and work as a primary source of their stress. The findings of the study are also parallel to the findings of Salvacion (2015), wherein the majority of the students taking dentistry has manifested high-stress levels, and academic works and clinical requirements were the top external sources of stress while frustration and overload were the primary internal causes of stress. Moreover, students complain of being “too stress” with academic works that they have to submit on or before a deadline (Ho, 2016).

Regarding the stress level of the respondents, they are experiencing moderate stress. This exposure to the level of stress may help them adjust in their future endeavor as Jayson Lovelace states stress is part of the environment in many healthcare settings. Moreover, Cuerpo (2017) says that stress is a significant factor in how a child performs academically. A research done in 2000 on learning theories states that stress can hasten learning ability, but a high level of it can cause physical and mental health problems and the academic performance of a student is put to risk. This claim is further supported by the Jason Lovelace saying that “high levels sustained over a long period can be a major detriment to health among healthcare workers and ultimately stand in their way of providing quality care to patients” (Ricker, 2014). Moreover, stress is needed to unleash the potential of students, Elepaño (2017) as cited in CNN Philippines (2017), states that “stress is a vital part of one’s life, and no stress means no performance.”

Meanwhile, the academic performance of the students is considered satisfactorily; this means that the respondents are fulfilling the requirements of their course. This finding is congruent with the findings of Abouelfettoh (2013), wherein the nursing students in Saudi Arabia also have a satisfactory academic performance at a mean GPA of 2.33.

In this study it was revealed that there is a positive and strong relationship between stress level and academic performance of the respondents; this means that as stress level goes up, their academic performance goes down. Some studies support this finding. According to Elias, et al. (2011), there is a cynical and weak relationship between stress level of undergraduate students’ and their academic achievement. Also, Kamarudin, Aziza, Mohd, Nozaidi, Siong and Chong (2009) found out that there is a significant weak relationship between college students’ stress level and their academic performance, which means that as the stress level rises the academic performance declines. The finding implicates that since most of the respondents are experiencing moderate stress level; they are still coping with that level and still perform satisfactorily.

CONCLUSION

In light of the findings of the study, the researchers conclude that the nursing program in one of the universities in Dagupan City has relatively young students that are female dominated in their senior year. The respondents have a moderate level of stress, and the primary source of their academic works is the primary source of their stress. The respondents are satisfactorily performing in their academics. Also, it was found out that as the respondents’ stress level raises their academic performance declines.

Recommendations

The researchers strongly recommend that there will be a minimal decrease in the academic works of the students like no assignments at the weekend, encourages to have their academic works in a pair or a group. The researchers also encourage the faculty members of the College of Nursing to have a consultation with their students regarding their stress level, so that the students can verbalize their feelings. Also, the researchers also recommend that there will be a stress-relief program for the students so that, they will feel more at ease when doing their assigned tasks.

First Primary Presenting Author

Primary Presenting Author

Jordan Llego, PhD, RN, FRIHC, FRIN, FRIRes
University of Hail
College of Nursing
Assistant Professor
Hail
Saudi Arabia

Author Summary: Currently an Assistant Professor of the University of Hail College of Nursing, Saudi Arabia. Invited as resource speaker, guest speaker and lecturer in various seminars and academic occasions, and research trainer joined research conferences, and recipient of research awards.

Second Secondary Presenting Author

Corresponding Secondary Presenting Author

Ellen Gabriel, MAN, RN
University of Luzon
College of Nursing and Midwifery
Acting Dean
Dagupan City
Philippines

Author Summary: A Critical Nurse for more than a decade, became a Nurse Supervisor, a Professor, Associate Dean, and currently the Acting Dean of the University of Luzon.

Third Secondary Presenting Author

Corresponding Secondary Presenting Author

Jennie Corpus, RN
University of Luzon
College of Nursing and Midwifery
Program Coordinator
Dagupan City PA
Philippines

Author Summary: Worked with staff members, budgets, and procedures to ensure the implementation and success of the nursing program. Monitors faculty members' workloads and hours, coordinate their schedules, and plan their time off. In charge of tracking billing payments as well as monitoring the program budget limitations.