



Effects of Academic Coaching on Nursing Students' Academic Stress at Nursing Schools in Northwest Nigeria

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Abstract

Background: When students are unable to manage their stress, it becomes dangerous and may impair their performance. The literature suggests coaching to improve student achievement. **Aim:** This study aimed to determine how academic coaching impacted academic stress in nursing students in northwest Nigeria. **Method:** The study was quantitative, quasi-experimental with a pre-post-test data collection. A multi-stage sampling procedure was used to select 128 students out of the 190 target population. Four clinical instructors provided coaching packages to the study group. The Scale for Assessing Academic Stress was used to gather information both before and two months after coaching. Coaching was delivered for six (6) weeks. Descriptive and Chi-square analysis was conducted. **Results:** The study found that the prevalence of stress before coaching intervention was 87.5% in the study group and 85.9% in the control group. The study group experienced mild (33.93%), moderate (58.93%), and severe (7.14%) stress, while the control group experienced mild (38.18%), moderate (56.36%), and severe (5.17%). However, after the coaching intervention, the prevalence of stress in the study and control groups was 14.1% and 84.38%, respectively. The study group experienced mild (5.56) and moderate (44.44%) stress, while the control group experienced mild (35.19%), moderate (59.25%), and severe (5.56%) stress. **Conclusion:** The study concluded that a coaching program is an essential tool for reducing students' academic stress.

Keywords: Academic Coaching, Academic Stress, Nursing Students, Northwest Nigeria, Coach
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Introduction

University students, according to Vogel, Fresko, and Wertheim (2017), are at a high risk of experiencing increased stress, which can have both positive and negative consequences. As a result, determining the full scope of the problem is critical in order to effectively and efficiently address this widespread problem. Eustress, also known as "positive stress," is beneficial and helps students focus and become more motivated to complete their work (Rappagliosi, *et al.*, 2018).

When students are unable to manage their stress, it becomes dangerous and can impair their performance. This harmful stress, also known as distress, may have a significant impact on students' cognitive, emotional, and physiological functions (Jiminez, *et al.*, 2010; Chernomas and Shapiro, 2013). While stress

has become a part of our everyday lives, it is believed that university students are subjected to a variety of stressors while studying. Stress is defined as "people's negative reaction to excessive pressures or other types of demands placed on them" (Bataineh, 2013).

Students experience significant levels of academic stress and even burnout as a result of unfamiliar surroundings, unconventional university culture, excessive academic demands, and anxiety connected with failure (Elias, Ping, & Abdullah, 2011). Finding a way to assist students in dealing with these challenges is consequently critical for improving their academic success. Coaching could be one solution to this problem.

Coaching has the potential to increase students' performance through stress management, which helps their overall

success (Stelter *et al.*, 2020). Because of the coaching process, students can concentrate on their educational experience, a challenge they must overcome, and their ultimate goals. Coaching is also a curriculum that teaches pupils about self-evaluation, introspection, and goal-setting (Anderson, 2018).

This program helps students recognize factors, such as stress, that may have an impact on their academic experience and adopt the appropriate coping strategies. As a result, an investigation is required.

Aim of the Study

This study aimed to assess the effects of academic coaching on nursing students' academic stress in north-west Nigeria.

Objectives of the Study

The aim of this study was to be achieved through the following objectives:

1. To evaluate the prevalence of academic stress before coaching
2. To evaluate the prevalence of academic stress after coaching
3. To determine the student's level of academic stress before coaching intervention
4. To determine the student's level of academic stress after coaching intervention

Hypothesis

H₁ There is no statistical differences in the prevalence of stress between the control and study group before and after coaching

H₂ There is no statistical differences in the level of stress between the control and study group before and after coaching

Method and Materials

Design and setting

To assess the impact of clinical coaching on nursing students' academic stress before and after coaching, the researcher used a quasi-experimental study design including pre-post-test measures in addition to quantitative methods. This study was conducted in north-west Nigeria, with the

study school being the School of Nursing at Zamfara State and the control school being the School of Nursing at Sokoto. The variables are similar because they have similar characteristics from the side of administration and tutors. Most of the tutors from the two schools studied together and some worked in the same institution before separation. Similarly, the socio-demographic characteristics of the two states are also similar.

Intervention

Following the pre-test, the weekly coaching package delivery plan was discussed and finalized. The students were randomly divided into groups of 16 and allocated to each clinical instructor to enable class control and student interaction. Four clinical instructors facilitated the coaching sessions.

After the final coaching session (week 6), post-test data was obtained within two months.

Target

Population

The target population of the study was nursing students in year two (2) with a total number of one hundred and ninety (190) (eighty-five from Zamfara School of Nursing, and 105 from Sokoto School of Nursing). Similarly, four (4) qualified and experienced nurse tutors and clinical instructors were recruited and trained on coaching strategies in the study school.

Sample size determination: The sample size was calculated using a formula for comparing the differences in the mean from independent groups (Rosner, 2015).

$$n = \frac{2SD^2 (Z_{\alpha/2} + Z_{\beta})^2}{d^2}$$

where

$Z_{\alpha/2}$ =is the critical value of the Normal distribution at $\alpha/2$ (e.g. for a confidence level of 95%, α is 0.05 and the critical value is 1.96),

Z_{β} =is the critical value of the Normal distribution at β (e.g. for a power of 80%, β is 0.2 and the critical value is 0.84),

d = effect size is the population variance,

Therefore,
 $Z_{\alpha^2}=1.96$ (from Z table at type 1 error of 5%)
 SD= 20 (Study by Sabine, Martin & Eva, (2020)
 $Z_{\beta}= 0.842$ (from Z table) at 80% power
 d= effect size= 10%
 $n = \frac{(2*20)^2 (1.96 + 0.842)^2}{100}$
 $n = \frac{(40)^2 (2.802)^2}{100}$
 $n = \frac{(1600) (7.84)}{100}$
 $n = 12544$
 $n = 125.44+2.56$
 $n=128/2 = 64$ per group

Tools and Instruments

For this study, the Scale for Assessing Academic Stress (SAAS) (Sinha, Nepal, & Sharma, 2001) was adopted.

Data Analysis

In this study, the Statistical Package for the Social Sciences (SPSS), version 23 was used

for data analysis. The analyses of the pre-and post-test scores include descriptive analyses and inferential statistics. Prevalence and level of academic stress were assessed using mean and standard deviation. A score of 0-4 was considered by the researcher to be normal stress, a score of 5-14 was considered mild stress, a score of 15-24 was considered moderate stress, and a score of 25-30 was considered severe stress. The inferential statistics includes the computation of Chi-square. The confidence level was 95% and the p-value was .05.

Ethical Considerations

Ethical approval was sought from the Zamfara State Ministry of Health ethical committee with approval number ZSHREC0308202, and permission was sought from the director and principal of each school.

Conflict of Interest: None

Results

Table 1: Distribution of the Studied Groups According to their Socio-demographic Characteristics

| Variable | Study Group n=64 | | Control Group n=64 | | X ² | P |
|-------------------------|------------------|-------|--------------------|-------|----------------|-------|
| | F | % | F | % | | |
| Gender | | | | | | |
| Male | 29 | 45.30 | 31 | 48.44 | .141 | 0.707 |
| Female | 35 | 54.70 | 33 | 51.56 | | |
| Age | | | | | | |
| 18-22 | 33 | 51.56 | 35 | 54.69 | .265 | .966 |
| 23-27 | 18 | 28.13 | 19 | 29.69 | | |
| 28-32 | 10 | 15.63 | 9 | 14.06 | | |
| Over 33 | 3 | 4.69 | 1 | 1.56 | | |
| Marital status | | | | | | |
| Unmarried | 50 | 78.1 | 53 | 82.81 | .686 | .408 |
| Married | 14 | 21.9 | 11 | 17.19 | | |
| Secondary School | | | | | | |
| Private | 28 | 43.75 | 31 | 48.44 | .772 | .380 |
| Public | 36 | 56.25 | 33 | 51.56 | | |
| Tribe | | | | | | |
| Hausa | 60 | 93.75 | 62 | 96.88 | .675 | .714 |
| Yoruba | 4 | 6.25 | 2 | 3.13 | | |
| Igbo | 0 | 0 | 2 | 3.13 | | |

Findings suggested that there were no significant differences between the study group and control group in their gender, age,

marital status, education, and tribe as shown by the Chi-Square Test of Independence.

Table 2: Distribution of Studied Groups According to the Prevalence and Level of Stress Before Intervention

| Variable | Study Group | | Control Group | | X ² | P |
|----------------------|-------------|-------|---------------|-------|----------------|------|
| Prevalence of Stress | F | % | F | % | | |
| Yes | 56 | 87.5 | 55 | 85.9 | 196.711 | .230 |
| No | 8 | 12.5 | 9 | 14.1 | | |
| Stress Level n=56 | | | | | | |
| Mild | 19 | 33.93 | 21 | 38.18 | 1.129 | .120 |
| Moderate | 33 | 58.93 | 31 | 56.36 | 3.118 | .060 |
| Severe | 4 | 7.14 | 3 | 5.17 | 2.139 | .321 |

Prior to coaching, table 2 above shows that, the prevalence of stress in study and control groups is statistically similar (X²= 196.711, p=0.230). For the stress level, the Chi-square test shows that the levels of stress between the two groups are not likely to differ. The hypothesis stating that there is no significant difference is accepted.

Table 3: Distribution of Studied Groups According to Prevalence and Level of Stress after Coaching

| Groups | Study Group n=64 | | Control Group n=64 | | X ² | P |
|----------------------|------------------|-------|--------------------|-------|----------------|------|
| Prevalence of Stress | F | % | F | % | | |
| Stressed | 9 | 14.1 | 54 | 84.38 | 102.909 | .000 |
| Normal | 55 | 85.9 | 10 | 15.62 | | |
| Stress Level | | | | | | |
| Mild | 5 | 55.56 | 19 | 35.19 | 121.921 | .000 |
| Moderate | 4 | 44.44 | 32 | 59.25 | 132.431 | .000 |
| Severe | 0 | 0.00 | 3 | 5.56 | 154.121 | .000 |

After coaching Chi-square test shows a statistically significant result between the control and study groups(p-0.000). Therefore, this shows that the control group have a higher stress level statistically independent of the intervention group. The hypothesis stating that there is no significant difference is rejected.

Table 4: Distribution of Study Group According to Prevalence and Level of Stress Before and after Coaching

| | Before Coaching n=64 | | Post-Coaching n=64 | | X ² | P |
|----------------------|----------------------|-------|--------------------|-------|----------------|------|
| Prevalence of Stress | F | % | F | % | | |
| Stressed | 56 | 87.5 | 9 | 14.1 | 279.564 | .000 |
| Normal | 8 | 12.5 | 55 | 85.9 | | .000 |
| Stress Level | | | | | | .000 |
| Mild | 19 | 33.93 | 5 | 55.56 | 1.013 | .000 |
| Moderate | 33 | 58.93 | 4 | 44.44 | 1.345 | .000 |
| Severe | 4 | 7.14 | 0 | 0.00 | 1.001 | .000 |

Table 4 above shows that, the prevalence and level of stress in the study group before coaching was 56 (87,5%) and that after coaching was 9 (14.1%). The moderate level of stress (higher prevalence) was 33 (58.93%)

among the study group before coaching but reduced to 4 (44.44%) after coaching. No severe level of stress was found after intervention in study school. The chi-square test shows that the stress level and prevalence are statistically independent

Discussions

Several reports have shown that students suffer academic stress during their studies

(Boni, *et al.*, (2018). Similarly, the current study found a high prevalence of stress affecting nursing students in the study area. Furthermore, another important finding was that the students in both intervention and study schools had a higher prevalence of moderate stress levels with the least severe stress before intervention. These results reflect those of Rajasekar, (2020), and that of Sibnath, Esben and Jiandong (2019), who also found that students reported high or very high levels of academic stress and exam anxiety respectively. In their study, all students reported high levels of academic stress, but those who had lower grades reported higher levels of stress than those with higher grades. The majority of the students in the current study, in contrast to their findings, reported moderate levels of stress. Differences between their result and that of the recent study may be brought on by variations in how students are exposed to stressors including the emotional toll that academic work has on students, worry about the future, difficulty developing relationships with others, and self-doubt. Another possible explanation for this is that, according to Bernstein *et al.* (2008), as stated in Edmund (2019), stress can develop in students as they are exposed to stressors and attempt to cope with or adjust to them. This stress can have an impact on the student's emotional, cognitive, behavioural, and physiological domains. Individual learning aptitude and the application of suitable learning strategies, such as interest, motivation, and time management, are impacted by instability in these areas. Another issue that could amount to the level of stress and depict the differences in stress between these studies could be due to the number and magnitude of stressors exposed to and the duration of exposure.

However, after intervention, the current study found the prevalence of stress to drop significantly without any level of severe stress in the study school. The majority of those with stress in the study school had mild stress but the majority of those in the control group had moderate stress. These results match

those observed in earlier studies (Sibnath, Esben&Jiandong, 2019; Al-Alawi, *et al.* 2017), but differ in some ways. For instance, Rajasekar, (2020), found majority of the students after intervention suffer from moderate stress. The findings of the current study suggest that there could be other factors that impose stress on nursing students in the course of their study which was not found in this study. This interesting result of stress reduction among the students in the study group could be attributed to coaching activities provided to students and positive relationships with coaches. The present results are significant in at least two major respects. Firstly, the result confirms the findings of previous studies and secondly further found the effect of coaching on academic stress reduction. It is therefore added to a growing body of evidence that suggests the existence of academic stress among nursing students.

Conclusion

Student nurses are affected by different levels of stress and academic coaching intervention can significantly reduce academic stress among student nurses.

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