



# College stress experiences of Police Academy psychology cadets: Is gender an influential factor?

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## Abstract

This study assesses the influence of college stress among cadets of Nigeria Police Academy, Wudil, Kano in Nigeria. A total sample of 120 cadets (92 males and 28 female) ranging from 16 to 35 (M = 23 and half years) in age, drawn from the department of psychology participated in the study. Three hypotheses were tested using two-way ANOVA (Amos SPSS 21) for analysis. Results indicated significant main effect of level of study  $F(2, 114) = 5.51, p = .005$  on college stress, and a significant interaction effect of level of study and gender  $F(2, 114) = 6.12, p = .003$ . However, gender  $F(1, 114) = .49, p = .49$ , failed to show significant main effect on college stress. The researcher concluded that level of study is a good determinant of college stress. The implication of these findings to students' health is highlighted. Universities on their part should consider organising stress management programmes for their students in order to improve students' health status.

**Keywords:** College Stress; Academic Hassle; Personal Hassle; Negative Life Event; Level of Study; Gender

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## 1. Introduction

It is important to the society that cadets of Nigeria Police Academy should learn and acquire the necessary knowledge and skills that will in turn make them good police officers. Concomitantly, the academic domain that emphasises high standards of achievement, research and professional development predisposes cadets to high levels of stress – a risk factor in health. In addition to school environment, there are regular workouts and negative interactions with police instructors, which constitute both psychological and emotional problems to would be officers. To meet public expectations for quality of graduates, the academy environment sometimes poses great stress resulting in psychological, social and medical problems to the cadets' lives (Grawitch et al., 2007; Ongori, 2008). This view point is corroborated by Houghton et al. (2012) when they asserted that college cadets are particularly prone to stress and there is a clear link between student stress and illness. Similarly, Youssef and Luthans (2007) also concur with the view and added that some cadets are unable to reduce physical and psychological impact of stressors and they suffer physical and psychological health symptoms. Yet, not much research effort has been made to empirically examine how these cadets are managing or coping with the stress.

While some stress can be a positive motivator in some instances, it is generally regarded as destructive and even life threatening (Morash et al., 2006). Yee and Yusoff (2013) are of the opinion that the prevalence of stress in universities is creating fear, anxiety and endangering the wellbeing of students. Unlike conventional universities, the Nigeria Police Academy management is yet to put in place cadets' support services (counselling, students' advice, coping strategies awareness programmes etc.) designed to reduce stress and enhance their wellbeing for better academic performance. As a result, many of them are likely to cope poorly and adopt maladaptive behaviours such as smoking, taking drugs and alcohol consumption. Acquiring these drugs or alcohol could be problematic as there are strict codes of behaviour regulating outing. For example, cadets who scale the fence, face summary dismissal from the academy. This poses threat to the fundamental objective of the academy to train competent police offers to man the security and corruption challenges occasioned by shortage of manpower.

In some cases, these cadets are unaware of their stress levels or fail to identify their stressors; while in others, they lack the skills to cope with the stress. Consequently, they find it difficult to adjust their daily health practices (e.g., sleep, diet, exercise) or adopt positive stress coping strategies to avoid "exhaustion". Cadets' stress ought to be of concern to academy authorities because negative stress related outcomes can increase cadets' failure rate, maladaptive behaviours such as smoking and alcohol or drug abuse, anxiety disorders leading to drop out rates and waste of human resource. It is worthy of note that failure on the part of the academy management to identify and address the precipitating factors responsible for stress experienced by cadets may have adverse health consequences for cadets in the now and future. Similarly, this lack of understanding about the effects of stress on cadets' wellbeing may account for the neglect in establishing and updating stress reducing facilities in the school. Redhwan et al. (2009) specifically identified counselling services among other factors students used to cope with their stressful situations.

There are many cadets undergoing undergraduate programmes in Nigeria Police academy that are directly or indirectly experiencing stress due to the regimented nature of the school. Motivated to provide

better understanding about the negative influence of stress on cadets' health, the researcher conducted a study among psychology cadets during the 2015/16 academic session. The objectives of the present study were to examine: (a) what is the impact of level of study and gender on college stress? (b). does gender moderates the relationship between level of study and college stress? The following three hypotheses were examined: (1) level of study will have a significant main effect on college stress; (2) gender will have a significant main effect on college stress; and (3) gender will significantly moderate the effect of level of study on college stress among students.

### 1.1. College stress

College stress is theorised to include several sources of stress encountered by students. Li and Boey (2002) defined college stresses too occur laterally on three dimensions: academic hassle, personal hassle and negative life event. This concept was conceptualised to fill the purported gap studies on students' stress suffered from weak measures. According to Li, these measures of students' stress were either limited in scope (range of questions) or not tied to particular time frame (e.g., stress experienced in the last week or month). He found that the general pattern of hassles on campus was quite similar over time and the structure had not changed significantly and students encountered similar hassles on campus. Murphy and Archer (1996) explained that the consistency of hassle pattern was in terms of the structure of the higher education enterprises. Li and Boey (2002) also observed that as a result of stresses, a significant number of students experience health problems and emotional problems during their college life Fisher and Hood, 1987; Fisher, Murray and Frazer, 1985). However, this association was not upheld for all types of stressors.

Li and Boey (2002) again, argued that the major academic hassles identified were frequency of tests, grade competition, and time pressure, relation with professors, classroom environment, career and future success (Carson and Runco, 1999; Murphy and Archer, 1996; Roberts and White, 1989). The major personal hassles identified were parental conflicts, financial problems, and interpersonal conflicts with friends (Archer and Lamnin, 1985; Roberts and White, 1989) and the greatest personal hassles were living conditions, appearance, roommate conflicts, meeting others, parents, and intimacy relationships. Blankenstein et al. (1991) identified seven frequently experienced "hassles". They were in descending rank order organization of time academic deadlines, inadequate finances, family expectations, future job prospects, and university requirements. Gadzella (1994) reported that students' stressors could be divided into five categories: frustrations, conflicts, external and self-imposed pressures, and changes. Negative life events as the last dimension of students' stress included issues such as death of a parent, the separation or divorce of parents, argumentative parents, injuries, and serious financial trouble (Ge et al., 1994).

### 1.2. Effects of Stress on Students

Stress has been found to be negatively associated with students' psychological wellbeing (Li and Lin, 2003). In their study with 788 undergraduate Chinese students in three universities, Hong and Chongde (2003) used the College Stress Scale (CSS) to measure students' stress, while psychological wellbeing was conceptualised as mental health status and self-esteem, measured by General Health Questionnaire (GHQ-20)

and Self-esteem Scale (SES). Results indicate that college stress was positively associated with all measures of ill-being (sense of adequacy, depression and anxiety), and negatively related to measure of wellbeing (Self-esteem). When the subscales of CSS (Academic hassle, Personal hassle and Negative life event) were independently correlated with psychological wellbeing, all of them were confirmed to have a negative impact on psychological wellbeing.

Similarly, Chen, Wong, Ran, and Gilson's (2009) study of stress among Shanghai university students evaluated the differences among 342 students on college stress, psychological wellbeing and coping strategies using demographic factors such as gender, year of study and others, in six universities in Shanghai. Findings of the study indicate that psychological wellbeing has a negative relationship with college stress. According to Chen et al. (2009), male students reported higher levels of stress, worse psychological wellbeing, and had less inclination towards use of positive coping strategies.

In an effort to determine whether or not high levels of stress may have a negative effect on cognitive functioning and learning of students in a medical school, Abdulghani et al. (2011) conducted a cross-sectional study to determine the prevalence of stress among medical students and to observe an association between the levels of stress and their academic performance, including the sources of their stress. The prevalence of stress was measured and compared with the five study variables, such as gender, academic year, academic grades, regularity to course attendance, and perceived physical problems. The response rate among the participants was 87% (n=892). Results indicate that the total prevalence of stress was 63%, and the prevalence of severe stress was 25%. The prevalence of stress was higher ( $p < 0.5$ ) among females (75.7%) than among males (57%) (odds ratio=2.3,  $\chi^2=27.2$ ,  $p < 0.0001$ ). The stress significantly decreased as the year of study increased, except for the final year. The study variables, including being female ( $p < 0.0001$ ), year of study ( $p < 0.001$ ), and presence of perceived physical problems ( $p < 0.0001$ ), were found as independent significant risk factors for the outcome variables of stress. Students' grade point average (academic score) or regularity to attend classes was not significantly associated with the stress level.

Another important but inadequate study effort was made by Owuamanam and Ogunsanmi (2014), in which they investigated stress and its consequences among married female sandwich undergraduates in Southwest Nigeria. Stressors of interest were occupational stress, family responsibility stress, academic activities stress, financial stress, cultural roles stress, religious roles stress and programme generated stress. The consequences of these among the women on the sandwich programme were examined and ranked. Also, the contribution of each of the stressors to stress in the women was examined. The study was a descriptive research of the survey type. The population was all married female sandwich undergraduates from Southwest Nigeria in four hundred (400) and five hundred (500) levels of 2012/2013 academic session on the sandwich academic programmes of Ekiti State University, Ado Ekiti, Nigeria. A sample of 181 women was selected through stratified random sampling techniques. The research instrument was a questionnaire which was validated by the researchers. One (1) research question was raised and one (1) hypothesis was postulated and tested at 0.05, significance level. Results of the analyses revealed that the women experienced different magnitudes of the consequences of stress. The authors also indicated that all the stressors taken together significantly predicted stress among the women. This second part of the result was not intended

from the outset of the study and could be considered to be outside the coverage of their research. They however, highlighted counselling implications of the findings.

My argument that the study is inadequate rests on two primary factors, population specificity and nature of analysis. First, the sample of the study is drawn from an irregular student (Sandwich) programme and limited to married women. This invariably limits the generalizability of results beyond the population of study. Second, the study used only descriptive statistics for analysis. As it stands, descriptive studies are known for their ability to basically provide rudimentary information or knowledge about the phenomenon notwithstanding its' causal claims. This calls for more robust models to be adopted such that its findings would guarantee generalisation to wider community of students.

There is indeed a mixture of research results for and against gender differences among college students. While some previous studies have shown that female students experience more stress than male students (Shah et al., 2010; Abdulghani, 2011; Dahlin et al., 2005), some have refuted the fact. For example, Shah et al. (2009), Supe (1998), Amr et al. (2008), and Niemi (2006) in their separate studies did not find gender differences in stress among samples studied.

Fogle and Pettijohn (2013) in their study also found no significant effects of perceived stress on grade point average or minor medical issues. They also did not find significant gender differences in levels of stress in a study conducted among 135 college freshmen. However, strong support was obtained for the hypothesis that students with low perceived stress had better health habits. The researchers used the Cohen, Kamarck and Mermelstein's 14-item Perceived Stress Scale (PSS) to measure overall stress and a self-developed 18-item scale divided into three sections: eating habits, exercise habits, and time management and relaxation was used to measure participants' engagement in health habits. Another feature of the instrument was that it included a self-report measure of the frequency and intensity of any minor medical symptoms the participant had experienced in the past six months. The four response options for symptom frequency were *not at all*, *rarely*, *sometimes*, and *often*. While the three response options for symptom intensity was *mild*, *moderate*, and *intense*. They submitted that the results could help undergraduates adjust to challenges of college by helping them understand some of the effects of stress and benefits of reducing that stress.

Pozos-Radilloa et al. (2014) examined the correlation and predictive value between the Academic Stress Inventory (ASI) and the Stress Symptom Inventory (SSI) in university students and its association with age and gender in both inventories. Their results showed those situations that correspond to classroom intervention, mandatory work, and doing an exam predicted high level chronic stress; being a female and 18, 23, and 25 years old were associated mostly to stress. The researchers concluded that accurate identification of stressors could help understand stress and its harmful effects on college students.

In a monographic publication of the University at Buffalo, Milcark (n.d.) employed an entirely different method to assess students' stress effects. The researcher interviewed students at the University in order to obtain a better understanding of how stress affects their physical and emotional wellbeing. 70 students responded to three open-ended questions about stress and how it relates to them. These questions included, "What does stress mean to you," "How does stress affect your body, physically and emotionally," and "How do you reduce or manage your stress?" Results demonstrate a large variety of symptoms and coping

mechanisms experienced by students. The researcher concluded that while college students at the University at Buffalo are showing adaptation patterns to a collegiate lifestyle by the end of four or five years, students are still unable to completely manage and maintain their reactions to an abundance of stress.

This method leads to a larger array of data that can be used to analyse many aspects of student culture. This final study leads us to examine literature on the coping strategies students use to manage stress.

## 2. Methods

### 2.1. Participants

120 respondents comprising 92 males and 28 females, with a mean age of 21 and half years and stratified according to level of study, drawn from psychology department of the Nigeria Police Academy participated in the study. As at the time of study, only the 1<sup>st</sup> to 3<sup>rd</sup> regular courses were available, and this is indicated as 100 to 300 levels.

### 2.2. Instruments

*College Stress.* The College Stress Scale (CSS; Li, 2002) was used to measure three dimensions of college stress: academic hassle (ten items; e.g., "Difficulty discussing academic problems," "Examination pressure"); personal hassle (sixteen items; e.g. "Inadequate social skills," "Unsatisfactory family financial situation"), and negative life event (four items; e.g. "Being told off in public"). Students were asked to rate the stressfulness of each item based on their college experience on a 4-point Likert scale that ranged from (0 = not at all; 1 = Low; 2 = Moderate; and 3 = High). A college stress score was obtained by averaging the scale's 30 items. In the present study, the internal reliability Cronbach's alpha for the scale's scores was 0.77.

### 2.3. Procedure

As a lecturer in the department of psychology, the students were encountered in their lecture rooms during regular lectures. Respondents were asked to voluntarily participate in the study intended to understand what causes them stress in the academy. They were also told that volunteering was tantamount to consent and assured of anonymity. The questionnaire was administered ten minutes to the close of lecture. It took them within five minutes to complete the questionnaire, which was returned. Only the correctly completed ones were used for analysis.

## 3. Results

### 3.1. Descriptive analysis

The above Table 1 shows descriptive statistics of the means and standard deviations for the levels of study according to gender considered in the study. There were a total of 32 students in 100 level, out of these 28

were males with mean 45.57 and a Standard Deviation (SD) of 9.09; 4 females with mean 43.00 SD = .00. For 200 level, 32 males and a mean of 46.12 SD = 7.42; while there were 12 females with a mean of 43.00 and SD = 5.12. Finally, 300 level also had 32 males with mean 45.87 SD = 11.51 and 12 females with mean 57.33 and SD = 13.25.

**Table 1.** Summary means and standard deviations for level of study and gender

Descriptive Statistics				
Dependent Variable: College Stress score				
The present level of study as at time of response	An indicator of whether participant is male or female	Mean	Std. Deviation	N
100 level	Male	46.5714	9.08979	28
	Female	43.0000	.00000	4
	Total	46.1250	8.56757	32
200 level	Male	46.1250	7.42163	32
	Female	43.0000	5.11682	12
	Total	45.2727	6.95622	44
300 level	Male	45.8750	11.51086	32
	Female	57.3333	13.24821	12
	Total	49.0000	12.92555	44
Total	Male	46.1739	9.40728	92
	Female	49.1429	11.59091	28
	Total	46.8667	9.98733	120

### 3.2. Data Analysis

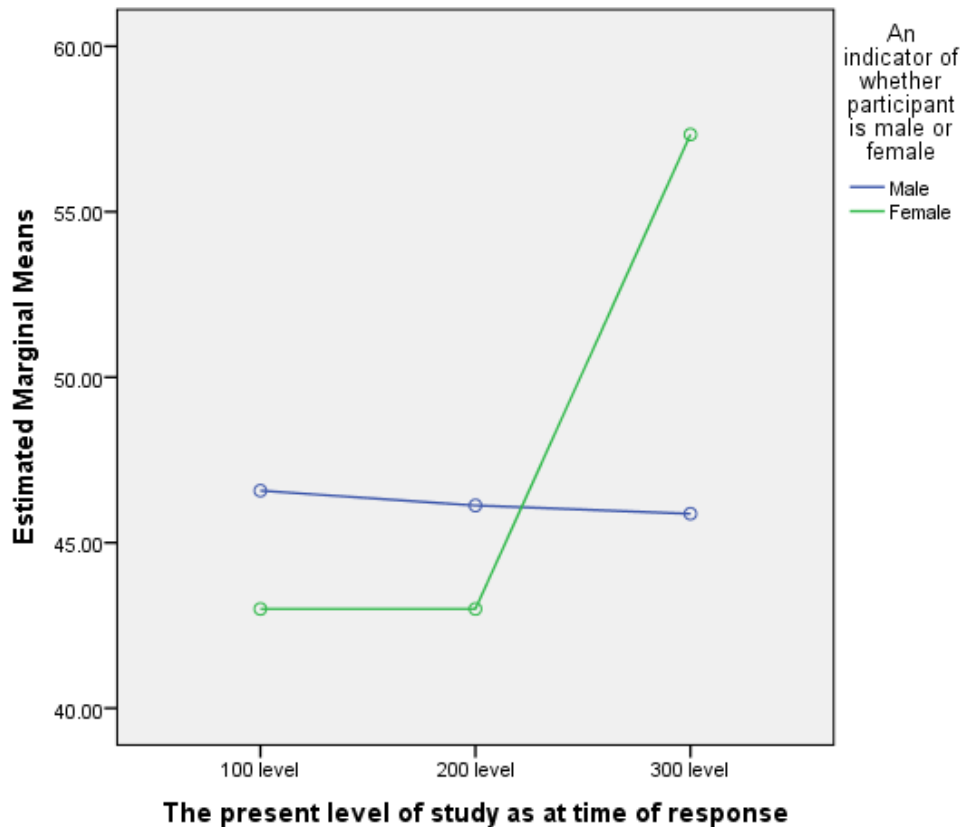
**Table 2.** Summary of two-way ANOVA for levels of study and gender

Tests of Between-Subjects Effects								
Dependent Variable: College Stress score								
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared	Noncent. Parameter	Observed Power <sup>b</sup>
Corrected Model	1605.343 <sup>a</sup>	5	321.069	3.566	.005	.135	17.829	.910
Intercept	154346.931	1	154346.931	1714.210	.000	.938	1714.210	1.000
Studylev	992.297	2	496.148	5.510	.005	.088	11.021	.843
Gender	44.041	1	44.041	.489	.486	.004	.489	.107
Studylev * Gender	1102.599	2	551.300	6.123	.003	.097	12.246	.881
Error	10264.524	114	90.040					
Total	275448.000	120						
Corrected Total	11869.867	119						

a. R Squared = .135 (Adjusted R Squared = .097)

b. Computed using alpha = .05

In Table 2 above, a two-way between-groups analysis of variance was conducted to explore the influence of level of study and gender on levels of college stress as measured by the College Stress Scale (CSS). Participants were divided into three levels, as indicated in the descriptive analysis above. The result showed that the interaction effect of both study level and gender was statistically significant,  $F(2, 114) = 6.12, p = .003$ , suggesting that the stress experience of students depended on gender. There was also a statistically significant main effect for study level  $F(2, 114) = 5.51, p = .005$  on college stress, suggesting that experience of stress in the 300 level group ( $M = 49.00, SD = 12.93$ ) was greater than 100 level ( $M = 46.13, SD = 8.57$ ) and 200 level ( $M = 45.27, SD = 6.96$ ). However, there was no statistically significant main effect of gender  $F(1, 114) = .49, p = .49$  on college stress. The statistically significant main effect of study level in this result means that Nigeria Police Academy cadets differ in their experiences of college stress according to study levels. The total mean differences in the result clearly show that study level is a good determinant of college stress as depicted in the plot. The result provides answer to the first research hypothesis that there will be a significant main effect of study level on college stress. Hypothesis 1 is therefore accepted.



**Figure 1.** Estimated marginal means of college stress score and level of study by gender

On the second hypothesis which states that there will be a significant main effect of gender on college stress, suggesting that the three groups did not differ significantly in college stress experiences to gender. This means that college stress is a regular occurrence affecting both male and female cadets of the academy.



Given that the result does not support the hypothesis, it was rejected. Finally, the interaction effect indicates that the effect of level of study on college stress depends on gender. That is, for the 100 and 200 levels, males were shown to experience higher college stress than females. However, at 300 level females showed higher stress experience than males. From this result, it can be concluded that gender moderates the relationship between level of study and college stress, thus providing evidence for the third hypothesis.

#### 4. Discussion and conclusion

Police cadets are regimented student population prone to stress, thereby deserving research attention with a view to uncover their peculiar causes of stress for appropriate professional intervention. This study therefore tested the hypotheses that level of study and gender would not only produce significant main effects on college stress experience but also an interaction effect. The results supported the first hypothesis of the main effect of study level, but refuted the claim of a main effect based on gender. However, the result indicates that there was also an interaction effect of both level of study and gender on the amount of stress experienced by cadets.

The unexpected result of no differences in stress experiences according to gender may be interpreted in so many ways. First, it might be true that there is actually no relationship between the variables or differences in research processes and sample size did not justify the relationship. Also, it has been noted that unique personality characteristics and coping or adaptive habits of college students can modify measures of college stress. Active coping, for example has been shown to buffer the effects of stress and leads to more college retention (Shields, 2001).

Similarly, there is varied evidence regarding findings about gender differences in stress. Many studies have not found gender differences in the levels of stress among male and female students (Shah et al., 2009; Supe, 1998; Amr et al., 2008; Niemi, 2006). While, other studies have shown that female students experience more stress than male students (Shah et al., 2010; Abdulghani et al., 2011; Dahlin et al., 2005).

The non-significant main effect of gender in this study is consistent with Fogle and Petijon's (2013) study which also did not find gender differences in levels of stress among 135 college freshmen. The remarkable contribution of this study to stress literature among students is the interaction effect, which indicated that levels of study impacts college stress experiences but moderated by gender.

These results describe for the first time the influence of level of study and gender on college stress among cadets in Nigeria Police Academy, thereby opening the research space for further studies. The no difference in college stress among male and female students only shows that both categories of students exhibit similar levels of college stress in this study.

This study considered only students from psychology department and the sample size is relatively small. However, the results should be generalisable to other departments of the academy as well as other regimental institutions in the country. Further larger studies with more rigorous statistical analysis meant to shade more light on the nature of relationship between the variables will be of interest.

Based on the findings from this study, the researcher made the following conclusions: that college stress experiences differ according to level of study; that both male and female cadets experience stress; and though differences in stress experiences exist due to levels of study, the difference is dependent on gender. The findings of this study would help both students and academy management understand college stress experiences of cadets. The findings also suggest that the academy managers must understand the dynamics between level of study and students' stress with a view to organize stress management programmes, set up and/or strengthen their counseling services to provide needed help to deserving students to improve their health.

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