Stress and Depression: The Voice of Undergraduate Students of the University of Education, Winneba

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Abstract: The study investigated stress and depression levels of fresh undergraduate students of the University of Education, Winneba, and examines how they relate with their academic performance. The descriptive design was adopted for the study which involved three hundred fresh students sampled through the purposive, simple random and cluster sampling techniques. The Perceived Stress Scale (PSS) and Beck’s Depression Inventory II (BDI) were major instruments used. Data was analysed using inferential statistics. Findings indicated that there was negative correlation between gender and stress as well as depressive levels but these correlations were not significant. There was no significant difference between the mean levels of stress and depression of first year undergraduate students and academic performance. The study, however, recommended that, university support staff should provide stress management programmes or seminars and training for students to enable them manage their time and everyday life demands. There are counselling services available on campus therefore students who are experiencing stress and depression should draw on these services.

BACKGROUND OF THE STUDY

Stress is a term that can be linked to so many life situations that people are confronted with due to rapidly changing values, life styles, career patterns and family role expectations. These life situations have the potential to increase the level of stress people experience. Urbanization and job demands in industry, public service as well as vocational activities in the private sector are part of the changing environmental circumstances affecting family roles and expectations in Africa. The transition from senior high school to university level is a significant contributor to changing values and lifestyles among the young people especially among those just gaining admission. Stress is a common element in the lives of every individual, regardless of race or cultural background (Fisher, 2001).

Research shows that University students are not just affected by an academic load, but current that the economic climate has led to increased financial stress for this population (Murphy, & Archer, 2010). It is therefore a common phenomenon that students go through stress and sometimes depression considering the number of curricular and co-curricular activities they engage in. For the University population, stress can be detrimental to academic performance (Dwyer & Cummings, 2001). Depression is a common but serious disorder that interferes with a person's ability to eat, sleep, study, and even enjoy pleasurable experiences (Vogel, & Collins, 2006). Depression is a common everyday word. People might say "I'm depressed" when in fact they mean "I'm fed up because I had a row or failed an exams, or lost my job" and many more. Depression is very common, its symptoms can affect day-to-day life and can be very depressing as well. People throw around the word "depression" as if that word means only one thing. But this actually is far from the case.

Therapeutically speaking, Tracy (2011) suggested that there are different levels of depression which she categorized into mild, moderate or severe, relapsing/remitting or chronic depressions. Tracy again says depression is not a disease, it is a cluster of diseases. It is a noun which refers to a condition of mental disturbances, typically with lack of energy and difficulties in maintaining concentration or interest in life. University experience can certainly be a lot of fun: parties, new friends, travel abroad, extracurricular, and even some exciting classes. Adjusting to new living environment, transitioning from dependence to independence, rigorous academic expectations, demanding responsibilities to clubs and organizations, and generally exploring the various life choices that come with newfound freedom. These are all common undergraduate experiences and that notwithstanding, University students have many obstacles to overcome in order to achieve their optimal academic performance. It takes a lot more than just studying to achieve a successful university career. Different stressors such as time management, financial problems, sleep deprivation, social activities and for some students even having children can all pose their own threat to students' academic performance. (Struthers, Perry &Menec, 2000). A student’s grade point average (GPA) determines many things such as class rank and entrance to graduate school. Much research has been done looking at the correlation of stress and depression factors that university students experience and the effects of stress and depression on their GPA. (Dwyer & Cummings, 2000).It is imperative that researchers further investigate these relationships as well as potential protective factors and coping mechanisms that can alleviate some of the pressures associated with the University life, help facilitate a less painful transition, and promote positive psychological well-being in this population.

STATEMENT OF THE PROBLEM

Dixon, Arredondo & Freshman, (2005), posit that university stress is a major predictor of academic non-persistence decision and that the more a student perceives being stressed and depressed, the more likely he or she is to drop out of school as a result of not meeting the academic
standards of the educational organization. Poor retention reflects badly on higher education establishments, most institutions provide various resources such as remedial courses, seminars, library, Counselling and interventions centers and tutoring to ensure student's success (Kim, Newton, Downey & Benton 2010). Notwithstanding these efforts, report indicate that at the University of Education, about 20 percent of students could not actually finish their degree within the four year period (2013 Congregation Report, University of Education, Winneba).

Some activities point to the tendency that university students, particularly those just gaining admission, experience some level of stress and depression which affect their academic performance. For example, in 2012, The University of Education, Winneba, expelled over 130 students due to poor academic performance.

Though there are many factors of academic failure such as financial constraints, relationship matters, family problems, accommodation issues to mention but few, the consequences of these can results into stress and or depression which may eventually lead to poor academic performance on the part of students. This study therefore intends to contribute to a better understanding of the impact of these variables (stress and depression) by investigating stress and depression among undergraduate students of University of Education, Winneba. It is hoped that the results and findings will yield future intervention strategies.

PURPOSE OF THE STUDY

The purpose of this study was to provide empirical data on stress and depression and their relation to the academic performance of undergraduate students of the University of Education, Winneba (UEW).

RESEARCH HYPOTHESIS

Based on the theories and empirical works reviewed, the following hypotheses were formulated and tested in the study:
H1. There will be a significant negative correlation between stress levels and students’ academic performance.
H2. There will be a significant negative correlation between depression levels and students’ academic performance.
H3. There will be significant gender difference in performance between students experiencing stress and depressive conditions.
H4. Stress and depression will have significant effect on the academic performance of undergraduate students.

LITERATURE REVIEW

The body of theoretical research by Albert Ellis’ Cognitive Behaviour Theory of Depression (CBT) and Bandura’s Social Cognitive Depression Theory were used to form the foundation of this study.

ALBERT ELLIS’ COGNITIVE THEORY OF DEPRESSION

Dr. Albert Ellis pointed out that depressed people tend to take the form of absolute statements. Ellis describes three main irrational beliefs typical of depressive thinking, which is stated below:
1. “I must be completely competent in everything I do, or I am worthless”
2. “Others must treat me considerately, or they are absolutely terrible”.
3. The world should always give me happiness, or I will die”.

Because of these sorts of beliefs, depressed people make unqualified demands on others and or convince themselves that they have overwhelming needs that must be fulfilled. Ellis referred to this tendency towards absolutism in depressive thinking as “Masturbation”. Ellis also noted the presence of information processing biases in depressive people’s cognition. Like Beck he noted that depressed people tend to ignore positive information, pay exaggerated attention to negative information, and to engage in overgeneralization, which occurs when people assume that because some local and isolated event has turned out badly, that this means that all events will turn out badly. For example, depressed people may refuse to see that they have at least a few friends, or that they have had some successes across their lifetime (ignoring the positive). Or, they might dwell on and blow out of proportion the hurts they have suffered (exaggerating the negative). Other depressed people may convince themselves that nobody loves them or that they always mess up (overgeneralization).

BANDURA’S SOCIAL COGNITIVE THEORY OF DEPRESSION

Psychologist Albert Banduras’ (1977) Social Cognitive learning theory suggested that people are shaped by the interactions between their behaviors, thoughts, and environmental events. Each piece in the puzzle can and does affect the shape of the other pieces. Human behavior ends up being largely a product of learning, which may occur vicariously (e.g., by way of observation), as well as through direct experience.

Bandura pointed out that depressed people's self-concepts are different from non-depressed people's self-concepts. Depressed people tend to hold themselves solely responsible for bad things in their lives and are full of self-recrimination and self-blame. In contrast, successes tend to get viewed as having been caused by external factors outside of the depressed person's control. In addition, depressed people tend to have low levels of self-efficacy (a person's belief that they are capable of influencing their situation). Because depressed people also have a flawed judgmental process, they tend to set their personal goals too high, and then fall short of reaching them. Repeated failure further reduces feelings of self-efficacy and leads to depression.
Figure 1: Conceptual Framework (working model) representing interrelationship among stress, depression and academic performance.

The diagram above is a working model which is showing how stress, depression and academic performance are interrelated.

The arrows between the three variables again indicate that each of the variables can directly affect the other and vice versa. The figure generally depicts that symptoms of stress (for example; frequent cold, aches and pains, unhappiness, agitation, inability to relax, feeling overwhelmed, rapid heartbeat, eating more or less, sleeping too much or too little, poor judgment, constant worrying, inability to concentrate, depression, to mention but few) and depression (for example; difficulty concentrating, fatigue, worthlessness, feeling of guilt, insomnia, restlessness, loss of interest in pleasurable activities, persistent sadness, thought of suicide, and many others) can lead to all sorts of academic problems that can impact on academic performance of university students.

AGE AND GENDER INFLUENCES ON STRESS

Andrews and Wilding (2004) found sex differences in perceived stress and suggested that, self-report measures of emotional experience yielded fairly consistent sex differences in internally focused negative emotions. They have reported that age was significantly inversely correlated with perceived stress level (-0.18), suggesting that perceptions of stress tend to decline as age increases. Results of a study conducted by Aldwin, and Spiro (1996) indicated controversies concerning the influence of age on the stress and coping process, in part due to differences in methods across studies. They examined age differences in stress, appraisal, and coping, using both semi-structured interview questions and a coping checklist in middle-aged, young-old, and old-old men.

Despite extensive probing, nearly a quarter of the old-old reported having had no problems and they expended less coping effort even when they did have problems. The types of problems reported varied systematically with age. Middle-aged men were more likely to appraise their problems both as challenges and as annoyances than the older men. There were no age differences in perceived stressfulness of the problem, appraisals of harm/loss, or helpless appraisals, number of emotions reported, or coping efficacy. An interpretation of these results is that the nature of stress changes with age, from episodic to chronic, which in turn affects appraisal and coping processes.

A recent study of perceived stress by Sitz and Poche (2006) hypothesized that women would display more optimism than men and would report lower levels of perceived stress was supported by the results of their study. Cambiano (2000) found that men are more susceptible to the health effects of stress. It has been proposed that women are more likely to be negatively affected by interpersonal events than men—a tentative factor underlying the emergence of gender differences in depression (Cutrona, Cole, Colangelo, Assouline, & Russel, 2006). Ogus (2000) reported further that, women face a number of chronic burdens in everyday life as a result of their social status and roles relative to men, and these strains could contribute to their higher rates of depressive anxiety. In women, the phase of menstrual cycle and pregnancy were found to have marked effects on physiological stress responses. However, it has been reported that there is either no gender difference in stress reactivity or greater cortisol elevation in females than males, when a social rejection task was adopted as the stressor instead of achievement tasks (Sherina, Lekhraj, & Nadarajan, 2003).

METHODOLOGY

Research Design:
The descriptive survey design, was adopted, because taking the purpose of the study into consideration, it was the most obvious and appropriate design that could lead to the drawing of meaningful conclusions from the study.

Population:
University of Education, Winneba is one of the six publicly owned universities in Ghana and it is located in the Central Region. There were about 3,000 newly admitted full-time undergraduate students during the 2013/2014 when this study was carried out (2013 Congregation Report, University of Education, Winneba).

Sample and Sampling Technique and Procedures:
According to Cohen, Manion and Morrison (2003), a sample is a subset of a population selected as participants in an experiment. A sample of 300 fresh undergraduate students from four (4) departments within the Faculty of Educational Studies in the University of Education, Winneba was selected using the multi-stage sampling approach comprising purposive, simple random and cluster sampling.
In the initial phase, the purposive sampling approach was used by the researcher to select fresh level 100 students in the Faculty of Educational Studies, Winneba for the study. This is because the respondents were thought to possess particular pieces of information that the researcher needed for the study as regard to university stress and depression as determinant of academic performance. The students were regrouped into two; one group made up of students representing students with stress and depression symptoms, whereas the other students represented students without stress and depression symptoms. Cluster sampling was finally employed to group respondents into gender clusters which assisted the researcher to establish the role gender difference play in stress and depression symptoms among students.

**Study Instruments:**

Three (3) instruments (Perceived Stress Scale, Beck Depression Inventory, and Students grades) were used in this study.

*Perceived Stress Scale (PSS)* developed by Cohen in (1985) was used to assess students stress levels. The PSS10 scores were obtained by reversing the scores on the four positive items (e.g., 0=4, 1=3, 2=2, 3=1, 4=0), and then summing across all items. *Beck Depression Inventory-II* (BDI-II; Beck, Steer, & Ball, 1999) was used to assess depression levels of students. The BDI-II is a self-report analysis of depressive symptoms. The test contains 21 items, most of which assess depressive symptoms on a Likert scale of 0-3. *Academic Performance.* To assess students’ academic performance, the researcher used students average grades of two general courses preferably Measurement, Evaluation and statistics in Education and Information and Communication Technology. These two courses were chosen because they are general courses which were studied by all first year undergraduate students of the Faculty of Educational Studies. The content and face validity of the study instruments were done by experts in the field of psychology for their perusal and their comments included in the final questionnaire.

The reliability of the questionnaires was established by analyzing the results of the pilot study. A reliability coefficient (alpha) of (r = 0.76) for Perceived Stress Scale (PSS) and (r = 0.78) for Aaron Becks’ Depression InventoryII (BDI-II) were found after analysis and these showed that they were highly reliable instruments and therefore could be used.

**RESULT AND FINDINGS**

The results of the data analyzed for the study were presented on the basis of the hypotheses generated for the study.

**Table 1: Sex distribution of respondents**

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>200</td>
<td>66.7</td>
</tr>
<tr>
<td>Male</td>
<td>100</td>
<td>33.3</td>
</tr>
<tr>
<td>Total</td>
<td>300</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Fieldwork, 2015.

The male-female ratio of sampled students as shown on table 1 is roughly 3:1 with 200 (66.7%) females and 100 (33.3%) males. This distribution is fairly representative of the students’ population of the University of Education, Winneba and particularly of the subset of the first year undergraduate fresh students from which the sample was drawn.

**H₁₁: There will be a significant negative correlation between stress levels and students’ academic performance:**

Before testing for this hypothesis, average marks of students on two general courses was first computed. For example, student mark for two general courses (Research methods and Information and Communication Technology) were summed up and divided by two to get the average mark of the two courses.

**Table 2: Correlations of Stress and students’ performance**

<table>
<thead>
<tr>
<th>Stress levels</th>
<th>Pearson Correlation</th>
<th>Sig.(2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students’ performance</td>
<td>-0.020</td>
<td>0.736</td>
<td>300</td>
</tr>
</tbody>
</table>

*significant at p<0.05 alpha level

Pearson’s correlation was performed using students’ average marks and stress levels of students to ascertain the relationship between stress and academic performance of students. Table 2 displays the correlation matrix for the variables in the present study. The test yielded no significant relationship between stress levels and students’ performance ($r = -0.20, p>0.05$).

**H₂₂: There will be a significant negative correlation between depression levels and students’ academic performance:**

To test for the relationship between students’ depression levels and academic performance, Pearson’s correlation test was conducted with students’ depression levels and average marks respectively.

**Table 3: Correlations of Depression and students’ performance**

<table>
<thead>
<tr>
<th>Students’ performance</th>
<th>Beck’s depression inventory</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>-0.029</td>
<td>0.621</td>
<td>0.736</td>
<td>300</td>
<td></td>
</tr>
</tbody>
</table>

*significant at p<0.05 alpha level

The test resulted in a negative non-significant correlation ($r = -0.029, p> 0.05$) between depression levels and students’ performance as depicted in Table 3.

**H₃₃: There will be significant gender difference in performance between students experiencing stress and depressive conditions:**

To test for gender differences in performance among students with stress and depression levels, average marks of students’ academic performance and stress and depression levels were subjected to t-test. These results are therefore presented in Table 4 and Table 5 respectively.
Table 4: Independent samples t-test of Gender Stress Level and Students’ Performance

<table>
<thead>
<tr>
<th>Student Performance</th>
<th>Means</th>
<th>Std. Deviation</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male stress level</td>
<td>71.33</td>
<td>7.98</td>
<td>298</td>
<td>-1.030</td>
<td>.304</td>
</tr>
<tr>
<td>Female stress level</td>
<td>72.87</td>
<td>6.99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant at p=0.05 alpha level

The descriptive statistics in Table 4 shows that the mean value of male stress level is 71.33 with a standard deviation of 7.89. However, the mean value of female stress level is 72.87 and a standard deviation of 6.99. To test their statistical significance, an independent t-test was performed to prove or otherwise. To determine the t-test Equality of Mean, the results, t= -1.030, df = 298, p = .304 was obtained. Since (p > 0.05), we reject the hypothesis that there is significant difference between the variables.

Table 5: Independent samples t-test of Gender Depression Level and Students’ Performance

<table>
<thead>
<tr>
<th>Student Performance</th>
<th>Means</th>
<th>Std. Deviation</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male depression level</td>
<td>71.69</td>
<td>7.48</td>
<td>298</td>
<td>.634</td>
<td>.527</td>
</tr>
<tr>
<td>Female depression level</td>
<td>71.07</td>
<td>8.70</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*significant at p=0.05 alpha level

The descriptive statistics in Table 5 shows that the mean value of male students’ depression level is 71.69 with a standard deviation of 7.48 whiles, the mean value of female students’ depression level is 71.07 and a standard deviation of 8.70. To test their statistical significance, an independent t-test was performed to prove or otherwise. To determine the t-test Equality of Mean, the results, t= .634, df = 298, p = .527 was obtained. Since (p > 0.05), we reject the hypothesis that there is significant difference between the variables.

Table 6: Regression analysis of effect of Stress and Depression on Academic Performance of students.

<table>
<thead>
<tr>
<th>Variable</th>
<th>b</th>
<th>Beta</th>
<th>R</th>
<th>R²</th>
<th>t</th>
<th>Sig(t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>71.687</td>
<td></td>
<td></td>
<td></td>
<td>39.270</td>
<td>0.000</td>
</tr>
<tr>
<td>Stress Level</td>
<td>-.316</td>
<td>-.023</td>
<td></td>
<td>-.385</td>
<td>-.385</td>
<td>.701</td>
</tr>
<tr>
<td>Depression Level</td>
<td>-.190</td>
<td>-.021</td>
<td></td>
<td>-.356</td>
<td>-.356</td>
<td>.722</td>
</tr>
</tbody>
</table>

*significant at p=0.05 alpha level

DISCUSSIONS OF FINDINGS

There was a negative correlation (-0.02) between stress levels and students’ performance although the test indicates that the correlation is insignificant (p-value of 0.736) and a negative correlation of (-0.029) between depression levels and students’ academic performance. However, the correlation is insignificant (p-value of 0.621). These results confirms the statement made byCutrona, Cole, Colangelo, Assouline, and Russel, (2006), that Performance in academic life demands all aspects of well-being, those that include physical, social, emotional, spiritual, and psychological well-being Students who are physically and psychologically stable are expected to perform better compared to those who are not physically, mentally and psychologically fit.

There is no significant gender difference in performance between student expressing stress and depressive conditions. These findings negate studies of Ogus (2000); Sherina, Lekhraj, andNadarajan, (2003); Sitz and Poche (2006), that
women face a number of chronic burdens in everyday life as a result of their social status and roles relative to men and these strains could contribute to their higher rates of anxiety. Their studies also hypothesized that women would display more optimism than men and would report lower levels of stress and depression. Whilst no clear reasons were assigned to the differences in perception of stress and depression among males and females, it is possible that the phase of menstrual cycle in women was also found to have marked effects on physiological stress responses and in particular, oestrogen. These could be factors that may be directly or indirectly responsible for significant differences between perceived stress and depression levels of male and female students.

CONCLUSION

Overall, the results yielded a number of significant findings and the general impression indicated that fresh undergraduate students experience a degree of stress and depression that requires intervention to minimize or remove. Therefore, success in overcoming all the potential difficulties that first year undergraduate students might face in the university implies that they need to have good degrees of resilience so as to excel in their academic endeavor.

RECOMMENDATIONS

In this study, the purpose was to basically seek understanding of perception of stress and depression in relation to academic performance among fresh undergraduate students. The study, however, makes the following recommendations:

- Participating in friendship programs can also provide a sense of belonging, which helps with adjustment and create and support self-identity.
- There are counselling services available on campus and interaction with a counsellor is completely confidential. Students who are experiencing stress and depression should draw on these services.
- University support staff should provide stress management programmes or seminars and training for students to enable them manage their time and everyday life demands.

REFERENCES


