

# The Influence of Social Support on the Levels of Depression, Anxiety and Stress among Students in Ghana

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## Abstract

This study examined the impact of social support from family, friends and significant others on the levels of depression, anxiety and stress among undergraduate students of University of Ghana. A total of one hundred and sixty-five (165) students were sampled from all the levels and were administered with standardized questionnaires measuring social support, depression, anxiety and stress. Results from the analysis using descriptive statistics, regression analysis, independent t-test and MANOVA showed that 57% of the respondents reported mild to extremely severe depression, 84% had mild to extremely severe anxiety whilst 49% reported mild to extremely severe stress. The level of depression was significantly predicted by support from friends and significant others, level of anxiety was not significantly predicted by any form of social support whilst level of stress experienced by students was significantly predicted by social support from family. Further analysis showed that significant sex differences exist in the levels of depression, anxiety and stress. However, academic levels of students had a significant effect on level of depression but not on anxiety and stress. It is concluded that students should be encouraged to make use of their counseling and placement centers and peer counselors to help them deal with their psychological issues.

**Keywords:** Social Support, Depression, Anxiety, Stress, Students, Ghana, University

## INTRODUCTION

The ability of students to excel in their academic pursuit is dependent on several factors including availability of materials, being in the right frame of mind, healthy and being able to cope with academic stressors. Literatures have shown that performance in school, college, or university is affected by many symptoms of depression, such as difficulties in concentration, lack of interest and motivation, preoccupations, fatigability, and poor attendance (Fine & Carlson, 1992). Similarly, some studies have documented the impact of psychological wellbeing on students' performance to the extent that students who are physically and psychologically stable are expected to perform better compared to those who are not physically, mentally and psychologically fit (Yasin & Dzulkifli, 2011). In other words, those who are experiencing psychological problems, such as depression, anxiety and stress, may face problems in managing their academic performance. Bilgel and Bayram (2014) found that students generally experienced mild depression, anxiety and stress with notable sex differences as females showed significantly higher levels of depression, anxiety and stress than male students.

Further several factors have been identified to influence the level of psychological wellbeing and distress among both healthy and sick people of which students are part. One of these factors is the level of perceived social support of the students. Social support refers to the experience being valued, respected, cared about, and loved by others who are present in one's life (Gurung, 2006). It may come from different sources such as family, friends, teachers, community, or any social groups to which one is affiliated (Dzulkifli & Yasin, 2009).

The essence of social support has been documented and as such social support has been described as both a buffer against life stressors as well as an agent promoting health and wellness (Dollete, Steese, Phillips & Matthews, 2004). Social support from family, peers, and teacher has been recognized as a protective factor for children and teens. Studies have shown the increased risk of adolescent problems in the absence of parental supports or decreased levels of parental support, and the buffering effects of parental support on student stress (Quomma & Greenberg, 1994).

Nahid and Sarkis (1994) reported a negative correlation between anxiety, stress, and depression, and social support to the effect that low levels of social support have been associated with high levels of anxiety, stress, and depression in college students. This is very informative as it highlights the important role of social support in the lives of students by reducing their psychological distress. Similar findings were also reported by Glozah (2013) that perceived social support serves to protect students against mental health problems. It was also found that female students reported more depression levels while male students reported higher academic stress levels (Glozah, 2013). Like most of the studies, Glozah (2013) failed to examine the contribution of the various

sources of social support on the psychological wellbeing of the students.

Mahanta and Aggarwal (2013) investigated the effects of perceived social support on the life satisfaction of university students. Gender differences of perceived social support and life satisfaction, among the participants were also investigated. The sample for the present study consisted of total of 100 male and female postgraduate students from four different departments of University of Delhi. The Perceived Social Support scales by Procidano & Heller and the Satisfaction with Life Scale (SWLS) by Diener, Emmons, Larsen, & Griffin (1985) were administered to the participants. Results indicated no gender differences in perceived social support from family but a significant difference was found out for the perceived social support from friends. Also, it was found that female university students have a higher satisfaction with life as compared to male university students. Finally, the findings revealed that higher the levels of perceived social support from family and friends, the higher the life satisfaction. It was also noted by Ordonez, Lima-Silva and Cachioni (2011) that years spent in university also significantly influence psychological wellbeing.

Studies in the western world have demonstrated how mental health of students has significant impacts on the academic performance of students in different countries. However, the determinants or the factors that could influence the level of depression, anxiety and stress which are major mental health challenges remain understudied especially in the Ghanaian context except for a few (e.g. Glozah, 2013). This study therefore seeks to; 1) examine the prevalence of depression, anxiety and stress among the student population, b) explore the relationship between level of social support and students' reported levels of depression, anxiety and stress, and determine which sources of social support significantly impact the levels of depression, anxiety and stress. The study also seeks to investigate whether sex and academic levels of students significantly affect their levels of depression, anxiety and stress.

## METHODOLOGY

### 2.1 Population and Sample

The population of this study consisted of all University of Ghana students at the Accra City Campus. A total of 200 questionnaires were administered with 165 completed questionnaires returned representing a response rate of 82.5%. The sample consisted of 89 (53.9%) male and 76(46.1%) female students with a mean age of 22.98 years and a standard deviation of 3.19 years. For students' academic levels, 26.1%, 23.0%, 23.6% and 27.3% of the total sample were in Levels 100, 200, 300 and 400 respectively.

### 2.2 Design

A cross-sectional survey design involving the use of questionnaires was employed as the required information could only be obtained through the use of questionnaires.

### 2.3 Measures

**2.3.1 Social Support-** This was measured with the Multidimensional Scale of Perceived Social Support (MSPSS). This scale is a 12-item self-report assessment instrument designed to measure levels of perceived social support from three perspectives: family, friends, and significant other (Zimet, Dahlem, Zimet, & Farley, 1988). Each source of social support is assessed using four specific questions and was rated on a 7-point Likert scale from 1 = (Very Strongly Disagree), 2 = (Strongly Disagree), 3 = (Mildly Disagree), 4 = (Neutral), 5 = (Mildly Agree), 6 = (Strongly Agree), and 7 = (Very Strongly Agree). A total score was obtained by summing all of the items and scores ranged from 12 to 84. Higher scores indicated higher perceptions of social support and lower scores indicated lower perceptions of social support. Internal consistency reported for the scale is between .80 and .95.

**2.3.2 Depression, Anxiety and Stress-**The Depression Anxiety Stress Scale (DASS-21) was used to measure the students' level of depression, anxiety and stress. The DASS is designed to assess aspects of depression, anxiety and stress using a multidimensional approach in adolescents and adults (Lovibond & Lovibond, 1995). Items fall into three scales: Depression (D), Anxiety (A) and Stress (S) with 7 items per scale. Each item is scored from 0 ("did not apply to me at all") to 3 ("applied to me very much, or most of the time") in terms of how much the item applied within the past week. Lower score on the overall scale will reflect better psychological wellbeing and higher scores will represent worse psychological wellbeing. The internal consistencies of the three subscales were 0.71 for depression, 0.79 for anxiety and 0.81 for stress. The total scores were multiplied by 2 to obtain the scores to reflect the original 42 item scale.

### 2.4 Procedure

All the ethical guidelines regarding the use of human beings in research were followed. Ethics of confidentiality, anonymity, voluntary participation and the right to withdraw were observed in the data collection process. For the data collection, the authors went to the Accra City Campus of the University of Ghana and approached the students individually and explained the purpose of the study to them. The students who voluntarily agreed to take part in the study were administered the set of questionnaires. The researchers were available for questions

and clarifications. The completed questionnaires were collected for coding and analysis.

## 2.5 Data Analyses

Descriptive statistics were used to summarize the prevalence of levels of depression, anxiety and stress among students. Pearson correlation was used to examine the relationship between overall social support and levels of depression, anxiety and stress. Multiple regression analysis was used to analyze the individual contributions of the three sources of social support to levels of depression, anxiety and stress. Independent t-test was used to test for sex differences in the levels of depression, anxiety and stress whilst MANOVA was used to test differences in levels of depression, anxiety and stress due to academic levels.

## RESULTS

Descriptive statistics were used to determine the prevalence of depression, anxiety and stress among the students sampled and the results are summarized in Table 1 below;

**Table 1: Summary of Frequencies and Percentages of Levels of Depression, Anxiety and Stress**

Variables	Frequency	Percentage (%)
<b>DEPRESSION</b>		
Normal	71	43.0
Mild	23	13.9
Moderate	34	20.6
Severe	12	7.3
Extremely Severe	25	15.2
<b>ANXIETY</b>		
Normal	27	16.4
Mild	18	10.9
Moderate	57	34.5
Severe	28	17.0
Extremely Severe	35	21.2
<b>STRESS</b>		
Normal	84	50.9
Mild	32	19.4
Moderate	30	18.2
Severe	19	11.5
Extremely Severe	-	-

It was observed from Table 1 above that 43% of the students sampled had normal depression levels whilst 57% had mild to extremely severe depression. It was also noted from Table 1 above that only 16% had normal anxiety whilst 84% of the students had mild to extremely severe anxiety. Further examination of Table 1 above shows that 51% of the students sampled reported normal stress levels whilst 49% reported mild to extremely severe stress levels. These findings indicate that majority of the students sampled are experiencing some form psychological distress.

To determine whether significant relationships exist between the study variables, the Pearson Correlation was used and the results are summarized in the Table 2 below;

**Table 2: Pearson Correlation of the relationship between Social Support, Depression, Anxiety and Stress**

Variables	Social Support	Depression	Anxiety	Stress
<b>Social Support</b>	-			
<b>Depression</b>	-.58**	-		
<b>Anxiety</b>	-.17*	.47**	-	
<b>Stress</b>	-.48**	.73**	.59	-

\*= significant at the .05 alpha level, \*\*= significant at the .01 alpha level.

An examination of Table 2 above indicates that a significant negative relationship exists between Social Support and Depression [ $r(163) = -.58, p < .01$ ], Anxiety [ $r(163) = -.17, p < .05$ ], and Stress [ $r(163) = -.48, p < .01$ ].

To examine the individual contributions of the three sources of social support to the levels of depression, anxiety and stress experienced by the students, multiple regression analysis was done and the results are summarized in Table 3 below;

**Table 3: Regression Analysis of Social Support as Predictor of Depression, Anxiety and Stress**

PREDICTORS	DEPRESSION		ANXIETY		STRESS	
	$\beta$	$\rho$	$\beta$	$\rho$	$\beta$	$\rho$
<b>Social Support</b>						
<i>Family</i>	-.16	.079	.00	.974	-.33	.001**
<i>Friends</i>	-.33	.000**	.01	.918	-.08	.335
<i>Significant Others</i>	-.22	.032*	-.20	.104	-.17	.122

\*= significant at the .05 alpha level, \*\*= significant at the .01 alpha level.

The three sources of social support explained 35% of variance in the level of depression [ $R^2 = .35$ ,  $F(3,161) = 28.289$ ,  $\rho = .000$ ], 4% of variance in the level of anxiety [ $R^2 = .04$ ,  $F(3,161) = 2.115$ ,  $\rho = .100$ ] and 25% of variance in the level of stress [ $R^2 = .25$ ,  $F(3,161) = 18.304$ ,  $\rho = .000$ ]. Depression was significantly predicted by support from friends ( $\beta = -.33$ ,  $\rho < .01$ ) and significant others ( $\beta = -.22$ ,  $\rho < .05$ ). Anxiety was however, not significantly predicted by any of the individual sources of social support. Stress level was significantly predicted by support from family ( $\beta = .33$ ,  $\rho < .01$ ) but not the other sources.

Furthermore, to investigate whether significant sex differences exist in the reported levels of depression, anxiety and stress among the students, the independent t-test was used to analyze the data and the results are summarized in Table 4 below;

**Table 4: Summary of Sex differences in the levels of Depression, Anxiety and Stress**

VARIABLES	MALE	FEMALE	t	df	$\rho$
DEPRESSION	8.63(SD=5.62)	4.74(SD=4.24)	4.95	163	.000
ANXIETY	7.29(SD=3.16)	6.14(SD=3.52)	2.20	163	.029
STRESS	7.98(SD=3.61)	6.78(SD=3.77)	2.10	163	.038

An examination of the Table 4 above shows that male students experienced statistically significant higher levels of Depression [ $t(163) = 4.95$ ,  $\rho < .01$ ], Anxiety [ $t(163) = 2.20$ ,  $\rho < .05$ ] and Stress [ $t(163) = 2.10$ ,  $\rho < .05$ ] than female students.

To examine whether the academic levels of the students have any significant effect on the level of reported depression, anxiety and stress among students, the MANOVA test was used and the summary of the results are presented in Table 5 below;

**Table 5: Academic Levels and levels of depression, anxiety and stress experienced by students**

VARIABLES	Level100	Level 200	Level 300	Level 400	F(3,161)	$\rho$	$\eta^2$
	Mean(SD)	Mean(SD)	Mean(SD)	Mean(SD)			
DEPRESSION	6.12(4.36)	4.47(3.45)	8.54(6.37)	8.04(5.95)	5.109	.002	.087
ANXIETY	5.91(3.98)	6.97(3.35)	6.59(2.67)	7.56(3.21)	1.864	.138	-
STRESS	7.00(4.02)	6.89(3.55)	7.77(3.50)	7.98(3.76)	.884	.451	-

The results from Table 5 above shows that academic levels of students had a statistically significant effect on their reported level of depression at the .01 alpha level, [ $F(3,161) = 5.11$ ,  $\rho < .01$ ] with a medium effect size of  $\eta^2 = .087$ . The Scheffe test of multiple comparison shows that levels 300 and 400 students experienced more depression than level 200 students. No significant differences were found between levels 100 and 200 students in their reported depression levels.

## DISCUSSION

This study investigated the prevalence of depression, anxiety, and stress among students. The impact of social support from family, friends and significant others were examined. The research further examined whether significant sex and academic level differences exist in students' reported depression, anxiety and stress levels. Results indicated that 43% of the total sample had normal depression levels whilst 13.9%, 20.6%, 7.3% and 15.2% reported mild, moderate, severe and extremely severe depression levels respectively. It was also found that 16.4% of the total sample had normal anxiety levels whilst 10.9%, 34.5%, 17%, and 21.2% reported mild, moderate, severe and extremely severe anxiety levels respectively. Results further showed that 50.9% of the total sample reported normal stress levels whilst 19.4%, 18.2%, and 11.5% reported mild, moderate and severe stress levels respectively. The findings above indicate that there is a high prevalence of psychological distress (depression, anxiety and stress) among students which could impact negatively on their academic and other psychosocial outcomes. The high prevalence could be attributed to the stress and difficulties the students go through in getting to school as it is non-residential. These findings concur with previous work by Bilgel and Bayram (2014) in their study which reported that students generally experienced mild depression, anxiety and stress levels.

Furthermore, social support has been found to be significantly and negatively associated with the levels of depression, anxiety and stress levels of students. This finding indicates that the more support students receive, the lower their reported levels of psychological distress. This finding is due to social support serving as a buffer

against negative outcomes in school and associated challenges. This finding is consistent with previous works by Dzulkifli and Yasin (2009) and Glozah (2013) who found that there was a significant negative relationship between social support and psychological problems suggesting that the higher the social support, the lower is the psychological problem. Not only did social support significantly relate to their psychological wellbeing but their overall academic performance as well (Yasin & Dzulkifli, 2011). Thus, it is not surprising that overall social support of students is significantly and negatively associated with their levels of depression, anxiety and stress.

To examine the individual contributions of the three sources of social support on the levels of depression, stress and anxiety among students, multiple regression results showed that level of depression among students was significantly predicted by social support from friends and significant others but not family. This finding can be attributed to the proximity of students to their friends and significant others while in school as friends and significant others are available in times of challenges while in school. Thus, students rely less on their parents on issues of emotions. However, the level of anxiety was not significantly predicted by any of three sources of support. This finding is not consistent with previous literature that showed that social support plays a significant role in reducing the level of anxiety of students (e.g. Glozah, 2013; Mahanta & Aggarwal, 2013; Nahid & Sarkis, 1994). Stress among students was significantly predicted by social support from family. This could be due to the material and financial support that family members provide which are usually sources of stress among students. This is congruent with earlier research works that noted that support from family is significant in reducing stress (e.g. Dollete, Steese, Phillips & Matthews, 2004; Quomma & Greenberg, 1994).

Significant sex differences were also found between male and female students in their levels of depression, anxiety and stress with male students reporting higher levels of depression, anxiety and stress. This finding suggests that on the whole female students seem to be functioning psychologically better than male students which could be attributed to the amount of care and support the females receive. This is because as females are perceived to be weak compared to males, they are more likely to receive help in times of need compared to males. This finding resonates with that of Mahanta and Aggarwal (2013) that female university students have a higher satisfaction with life as compared to male university students. Similarly, Glozah (2013) found that male students reported higher academic stress levels than female students. In contrast, this finding contradicts that of Glozah (2013) who found higher depression among females than male students. Additionally, no significant differences were found in the levels of anxiety and stress across the academic levels. However, students in levels 300 and 400 reported higher depression scores compared to those in level 200 which could be to the pressures of meeting academic targets and dealing with disappointment that are associated with advancement in education. This finding is inconsistent with previous research which indicated that the length of university education significantly affects psychological wellbeing (Ordonez, Lima-Silva & Cachioni, 2011).

In conclusion, the findings from this study imply that efforts should be put in place to offer support to students by both parents and significant others as social support is very important in determining the levels of depression, anxiety and stress among students. Students should also be taught social support seeking skills such that they will not lose out the needed support. Peer counselors should also be trained as students tend to rely more on advice from their peers. Additionally, attention must be paid to the gender differences in dealing with students' psychological problems. Convenient sampling and relatively small sample size for this study serve as major shortfall which future studies should address. Again, correlation which does not imply causation was used and therefore the results should be explained with caution. Other potential variables that could influence students' mental health issues should be examined by future studies.

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