Factors Related to Depression among University Students in Nairobi County, Kenya

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Abstract

Depression is a serious mental disease that affects both young and old people in the society. People who have gone through adverse life events are more likely to develop depression. Depression can, in turn, lead to more stress and dysfunction, and worsen the affected person's life situation and the depression. The objective of this study was to establish the factors related to depression among university students in Kenya. A quasi-experimental research design was adopted, where two Kenyan public universities were conveniently sampled. Experimental sample was obtained from one university and control sample from the other university. .The study data was collected using questionnaires and the Beck's Depression Inventory (BDI). The prevalence of depression was determined through proportions obtained from the data from the BDI at the different stages of the study. The findings revealed that interpersonal relationships were key in determining depression levels among the students. The study concluded that various factors are related to depression among university students which include age, year of study, expenditure, friendship, dependents, leadership and club membership.

Keywords: *Depression, University Students, Nairobi County, Kenya*

I. INTRODUCTION

Depression is a serious mental disease that affects both young and old people in the society. Depressed people harbor negative thoughts, and this makes them perceive life issues negatively. This negative perception to life issues further complicates the treatment of depression. According to the world Health Organization (WHO, 2009), those experiencing depression may often lose interest in daily activities, suffer from low self-esteem, recognize a loss of energy, and experience difficulty with sleep patterns. Dyson & Renk (2006) noted that untreated depression can result in poor health, substance abuse, and suicide in more severe cases. As indicated by Peltzer, Olowu & Pengpid (2013), no specific cause of depression has been identified but a number of factors have been associated with it, which form a complex interaction of social, psychological, and biological factors. The factors associated with depression include neurological chemical imbalance that has links to heredity and genetics, chronic health problems such as cancer or HIV, substance abuse, and high levels of stress. People who have gone through adverse life events are more likely to develop depression. Depression can, in turn, lead to more stress and dysfunction, and worsen the affected person's life situation and the depression (World Health Organization, 2009).

Mackenzie et al. (2011) defined depression as a state of intense sadness or despair that has progressed to a level that negatively affects an individual's social functioning and the basic activities of daily living. Many people who experience depressive symptoms lack the motivation to get through the day's activities, and experience feelings of sadness and loneliness. Common feelings of depression may include irritability, fatigue, apathy, and sadness. When these feelings become stronger and more consistent, substance abuse and risky sexual behavior tend to become outlets for young adults who experience frequent low feelings (Swanholm, Vosvick & Chng, 2009).

High rates of depression among university students have been reported in many parts of the world. A survey of Association for University and College Counseling Center Directors ((AUCCCD) revealed that depression ranked second from anxiety as the top presenting psychological concern among college students (36.4 percent), followed by relationship problems (35.8 percent). The survey which was done in United States, Canada, Europe, the Middle East, Asia, and Australia, also reported that the average age of onset for many mental health conditions is the typical college age range of 18 to 24 years old. This is not surprising due to the fact that adolescence being a transitional period from childhood to adulthood is a stage of emotional instability resulting from demand for separation and independence, and this may be stressful and result in depression.

Depression is highly prevalent among university students, and despite current intervention measures, depression continues to persist at substantially high levels in this population. There are several important issues that are relevant to depression prevalence rates among university students. Students' transition from high school to

college is associated with many challenges which the student has to overcome. Geographic changes, academic pressure, and an entirely new interpersonal environment are some of the changes that the college student must face. From a developmental perspective, the age at which many students begin their university education is late teenage or early adulthood.

This age has important implication for adjusting effectively to college life since it is the stage at which the process of identity development takes place. Navigating the process of identity development can lead to self-doubt, social withdrawal, loneliness, lowered self-esteem, and even depression (Hames, Hagan & Joiner, 2013). Further, the four commonly cited reasons for depression among university students are academic problems, loneliness, economic problems, and relationship difficulties (Furr, Wastefeld, McConnell & Jenkins, 2001). In addition, depression during this period is correlated with impaired social functioning, substance abuse, and school difficulties (Wells, Kataoka & Asarnow, 2001). Other adverse outcomes of depression among university students include increased use of alcohol and risky HIV sexual behavior (Othieno, Okoth, Peltzer, Pengpid & Malla, 2015).

Several factors have been associated with depression among university students. According to Mohammad (2016), many university students find that joining university for the first time is a time of loneliness as familiar friends and family members are no longer available. Some are confronted with money and time management issues that demand self-efficacy. Many of them compare their financial ability with that of their peers, falling into unpleasant comparison. An individual can prevent or stop unpleasant comparison through various means. One should choose a person who he or she envies and make a test case on building self-esteem. One can choose a colleague whom he deems favored by supervisors or better-off. He or she can try not to compare himself or herself with the colleague before trying out with other people. One can stop the comparison by being mindful when faced with situations that may breed feelings of envy. He or she should be humble when dealing with his or her subjects of jealousy, even when the subject appears intentionally provocative or irritating. For example, he or she should try hard not to feel uncomfortable when the colleague is praised. Rather, he or she should view himself or herself as empowered as the colleague. He or she may also praise the colleague without letting his or her instable self-esteem discourage him or her (Bor & Hubbard, 2006; Tiedens & Leach, 2004).

To fight the comparison, one should treat others as he or she would wish to be treated by them. If one wants his or her colleagues to value her or his attainments, he or she should as well value their achievements. If one wants to love, he or she is better of expressing love towards others. If one wants to have a thriving career, one may benefit from assisting others to grow their careers and professional competencies (Bor & Hubbard, 2006; Tiedens & Leach, 2004). Similarly, to fight the comparison one should seek to emulate the strengths that define ones subjects of envy and avoid focusing on ones shortcomings.

In addition, one should learn the strengths and work towards improving oneself. This includes trying hard not to envy the strengths expressed by the subjects. He or she should admire the strengths and assimilate them into his or her life (Bor & Hubbard, 2006; Tiedens & Leach, 2004). To stop the comparison, one should wish the subjects well even if it is challenging to do so. By wishing the subjects well, one transforms the negative thoughts one has about them into positive thoughts, thus developing the all-important self-compassion.

Sources of stress vary from one person to the next, but there are some overlapping stressors that many students encounter. In a study done among college students, Kumaraswany (2013) noted that the university period is important for the evolution of self-sufficiency and that the first years of university education overlap with the late adolescence period, which is frequently described as a stressful period to be survived. Interpersonal relationships and sexual behaviors have been identified as common social factors of college life that are potential stressors for the students at this stage of life.

Together with these, the students also have to manage a demanding college curriculum. Whether or not these external factors create a stressful situation for individuals relies heavily on the choices, circumstances, and personality. Out of the most prevalent stressors in college life, the most consistent trends leading to depression are relationships. A study done in Texas reported that inability to be in a relationship was associated with higher levels of depressive symptoms (Swanholm, Vosvick & Chng, 2009).

Results of the study by Kumaraswany (2013) suggested that dissatisfaction with social activities related to stress, relations with other sex, worry about examination success, accommodation problems, fear of wrong career choice and, worry about the future were all consistent predictors of anxiety and depression levels. The levels of stressful experiences varied significantly from the transition period to young adulthood. During the transition period, students had problems especially concerning their new environment, but when they adapted to the new environment educational problems started to rise to the surface.

Lifestyle change was found to be a major risk factor for depression among Ugandan college

students (Kaur, Deepti & Lal, 2014). This is because, during the life changes associated with university years, students are expected to assume more responsibility. Some of them have to leave familiar friends and community surroundings. In a new environment, they have to make new friends and at the same time become familiar with new ethnic and social class groups. They are also faced with greater academic competition than they had in secondary school. In addition, there is less external monitoring to make sure that they are keeping up with their assignments compared to their high school days. At the same time, students have to manage their time and money. In Kenya, challenging academic work can be a major stressor in Kenyan universities where a lot of emphasis is attached to academic performance. Similarly, the students who used to be top in their secondary schools meet with others who perform better than them and this may give them a challenge as they try to compete. This desire to remain at the top also may lead to depression.

Keith (2015) indicated that students are faced with a range of stressors that, if not handled carefully, can potentially create the strain on an individual's life. Students react to college in a variety of ways. For some students, college is stressful because it is an abrupt change from high school. For others, separation from home is a source of stress. Although some form of stress is necessary for personal growth to occur, the amount of stress can overwhelm a student and affect the ability to cope, leading to depression and other psychological problems.

There are a number of professionals in the university setting charged with the responsibility of responding to the challenges experienced by the students. Dean of students, counseling units, university chaplain, and peer counselors, all have important roles of assisting students in their daily challenges in the campus. Together with these, there are university clinics and psychiatric services offered at the universities. However, despite all these services, depression still persists at substantially high rates among university students. Evidence suggests that early intervention for depression can improve long-term outcomes (Mistler, Reetz, Krylowicz & Barr, 2012). In view of this, the current study sought to establish the factors related to depression among university students in Kenya.

II. Materials and Methods

The study adopted a quasi-experimental research design, where two Kenyan public universities were conveniently sampled. Students studying engineering courses at the University of Nairobi and at the Technical University of Kenya formed the study population. Engineering students from the University of Nairobi formed the experimental group while those from Technical University of Kenya formed the control group. The sample size was determined depending on the prevalence of depression in this population, the significance level which was 0.05, and the confidence level which was 95%. The minimum required sample size for the study was 246 participants. A total of 852 participants were interviewed for this study, out of which a sample of 273 was obtained. Of these, 136 were from the School of Engineering of the University of Nairobi which formed the experimental sample. The rest 137 were drawn from the School of Engineering Science and Technology of the Technical University of Kenya and they formed the control group.

A structured questionnaire was used to collect socio-demographic data of the participants while Beck's depression Inventory (BDI) was used to assess levels of depression. According to the BDI, those who scored below 14 were considered to be within normal limits while those who scored above 14 were considered to be depressed. However, the level of depression varied with those scoring between 14 and 28 on the BDI manifesting symptoms of mild to moderate depression, while those scoring above 28 were manifesting symptoms of severe depression. The study data was collected using sociodemographic questionnaires and the Beck's Depression Inventory (BDI). The prevalence of depression was determined through proportions obtained from the data from the BDI at the different stages of the study in the two different universities. The Statistical Package for Social Sciences (SPSS version 22) was used to analyze the data. Independent t test was used to calculate the mean difference scores between the control and experimental groups.

III. Preparation of Tables

The aim of the study was to establish the factors related to depression among university students. To achieve this, inferential statistics (regression and independent t tests) were conducted to establish the relationship between selected factors and depression among the university students.

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Table 1: Independent t test: Relationship between Gender and Depression

	Gender		Mean	Std. Deviation	Std. Error Mean	F statistics	P value
BDI	Female	201	8.69	8.738	0.616	10.976	0.119
	Male	51	9.77	8.197	0.321		

The findings in Table 1 indicate that there was no significant mean difference in depression between male and female. This was supported by a p value of 0.119, which was greater than the critical p value of 0.05 at 95% confidence interval. Based on the results, the implication is that the likelihood of male and female students falling into depression is more or less the same.

Table 2: Chi Square test: Relationship between year of study and depression levels

		Normal limits	Mild Depression	Moderate Depression	Severe Depression	Total	Chi Square (P value)
year	First	57	24	11	1	93	
	Second	45	44	45	4	138	
	Third	226	43	56	4	329	
	Fourth	23	8	8	1	40	
	Fifth	11	2	2	0	15	
Total		**362**	**121**	**122**	**10**	**615**	**60.347 (0.000)**

A cross tabulation was conducted between year of study and students' depression levels so as to check if there was statistical significant association between the variables. The findings in Table 2 revealed that year of study and depression levels were significantly associated (chi=60.347, p value=0.000).
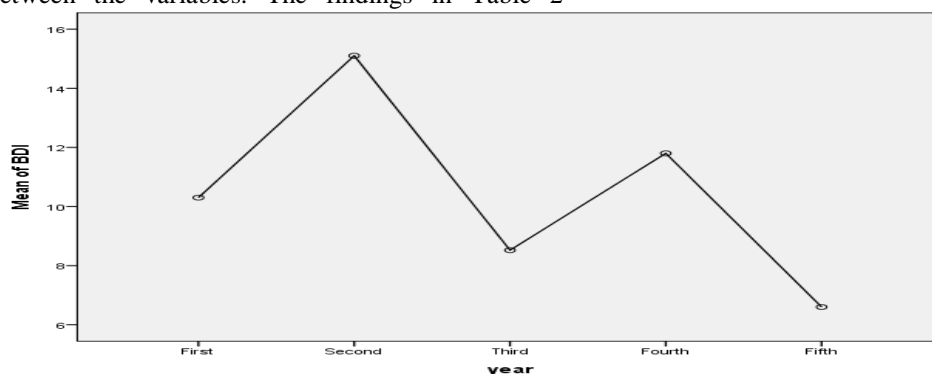
Figure 1: Means Plots

Based on the mean plot, second year students have a high likelihood of falling into depression, followed by fourth year, first year, then third year, while fifth year students are less likely to fall into depression. The findings imply that a second year student taking engineering course in either UON or TUK is likely to register higher depressive symptoms compared to students in other years.

Table 3: Relationship between Age and Depression

Model		Unstandardized Coefficients		t	Sig.
		B	Std. Error		
1	(Constant)	26.552	2.697	9.845	0.000
	Age	-0.791	0.125	-6.35	0.000
	R square	0.045			
	F statistics	40.327			

a Dependent Variable: BDI

The regression results in Table 3 indicate that there is a negative and significant relationship between age and depression. This is supported by a coefficient of -0.791 and p value of 0.000<0.05 at 95% confidence interval. The findings imply that the level of depression among the students decreases with age. That is, as the students become older, their depressive symptoms decline.

Table 4: Relationship between Dependents and Depression

	Dependents		Mean	Std. Deviation	Std. Error Mean	F statistics	P value
BDI	NO	701	8.63	8.011	0.303	4.066	0.000
	YES	51	13.62	8.609	0.701		

The findings in Table 4 reveal that there is a significant mean difference in depression between students with dependents and those without dependents. This is supported by a p value of 0.000, which is less than the critical p value of 0.05 at 95% confidence interval. Students with dependents had a higher depression mean compared to those without dependents. Based on the results, the implication is that the likelihood of students with dependents falling into depression is significantly higher than those without dependents.

Table 5: Relationship between Expenditure and Depression

Model		Unstandardized Coefficients			
		B	Std. Error	t	Sig.
1	(Constant)	12.419	0.445	27.91	0.000
	Expenditure	-0.274	0.033	-8.294	0.000
	R square	0.075			
	F statistics	68.785			

a Dependent Variable: BDI

The regression results in Table 5 reveal a negative and significant relationship between expenditure and depression. This is supported by a coefficient of -0.274 and p value of 0.000<0.05 at 95% confidence interval. The findings imply that the level of depression among the students decreases with increase in expenditure.

Table 6: Relationship between Friendships and Depression

	Friendship	N	Mean	Std. Deviation	Std. Error Mean	F statistic	P value
BDI	NO	11	21	16.31	4.98	4.752	0.04
	YES	841	9.37	8.091	0.279		

The findings in Table 6 reveal that there is a significant mean difference in depression between students with friends and those without friends. This is supported by a p value of 0.04, which is less than the critical p value of 0.05 at 95% confidence interval. Students with friend had a lower depression mean compared to those with friends. Based on the results, the implication is that students with friends are less likely to fall into depression compared to those without friends. This means that friendship is important in managing depressive symptoms.

Table 7: Relationship between Club Membership and Depression

	Club Membership	N	Mean	Std. Deviation	Std. Error Mean	F statistic	P value
BDI	NO	427	1.66	8.916	0.431	98.353	0.000
	YES	425	.37	7.095	0.344		

The findings in Table 7 reveal that there is a significant mean difference in depression between club and non-club members. This is supported by a p value of 0.000, which is less than the critical p value of 0.05 at 95% confidence interval. The students belonging to a club had a significantly lower depression mean compared to those with no club. This means that club membership is important in managing depressive symptoms.

Table 8: Relationship between Leadership and Depression

	Leadership	N	Mean	Std. Deviation	Std. Error Mean	F statistic	P value
BDI	NO	788	9.27	8.041	0.286	12.515	0.021
	YES	64	12.58	10.974	1.372		

Results in Table 8 reveal that there is a significant mean difference in depression between students in leadership and that not in leadership. This is supported by a p value of 0.021, which is less than the critical p value of 0.05 at 95% confidence interval. Based on the findings, students in leadership position had a significantly higher depression mean compared to those not in leadership. This means that leadership is an important contributor of depression among students.

Table 9: Relationship between Place of Residence and Depression

	BDI	Sum of Squares	df	Mean Square	F	Sig.
Place of Residence	Between Groups	954.167	3	318.056	4.441	0.004
	Within Groups	30654.8	428	71.623		
	Total	31609	431			

The ANOVA results in Table 9 indicate the differences in depression level among students residing in different places. The findings reveal that there was a significant difference in depression levels among the students based on their place of residence. This is shown by a p value of 0.004, which is less than the critical p value of 0.05 at 95% confidence interval.
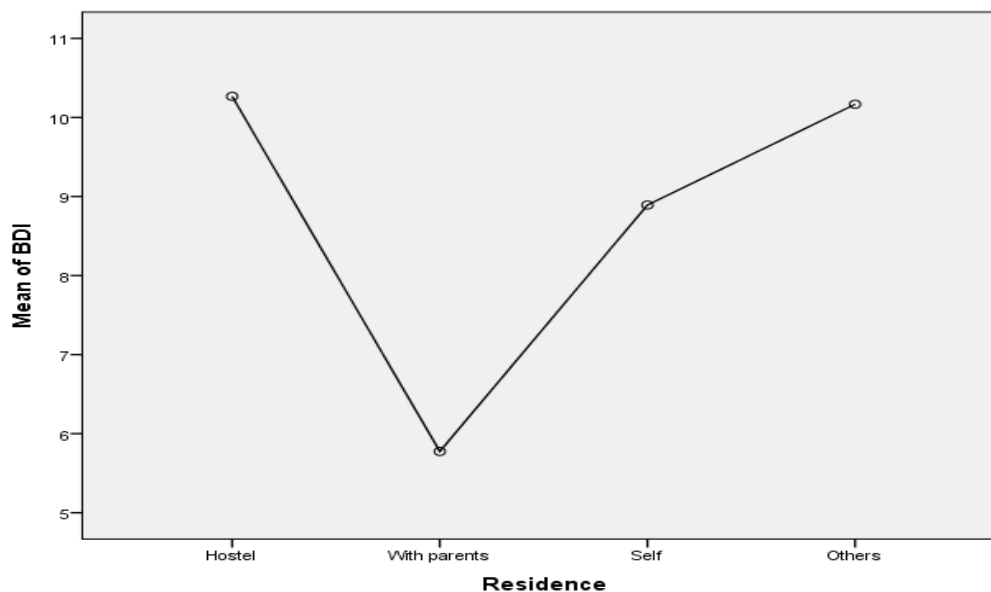
Figure 2: Means Plots

Based on the mean plots above, students living in hostels have a high likelihood of falling into depression, followed by others, then self while those staying with parents are less likely to fall into depression.

Table 10: Factors ranking based on Beta coefficients

Model		Beta	Std. Error	t	Sig.
1	(Constant)	20.315	5.815	3.493	0.001
	Dependents	4.281	1.009	4.242	0.001
	Leadership	2.37	1.358	1.746	0.082
	Gender	0.401	1.019	0.394	0.694
	Friendship	-3.322	4.169	-0.797	0.426
Club Membership		-2.175	0.862	-2.523	0.012
	year	-0.55	0.542	-1.016	0.31
	Residence	-0.282	0.47	-0.601	0.548
	Expenditure	-0.274	0.099	-2.757	0.006
	Age	-0.253	0.187	-1.352	0.177
a Dependent Variable: BDI					

The findings above indicate that dependents factor has the greatest direct influence on elevated levels of depression among students, followed by leadership and lastly gender. This means that students who have dependents are more likely to fall into depression, followed by those in leadership. On the other hand, results indicate that friendship rank highest among factors that reduce depression in students, followed by club membership, year of study, residence, expenditure and lastly age. This implies that friendship is a significant contributor of reduced depression among students.

IV. Results and Discussion

This study found out that there are several factors that are associated with depression among university students. Some of these factors have a positive correlation with depression while others have a negative correlation. Those that had a positive correlation with depression included having dependents, being in leadership position and gender. However, the correlation between gender and depression was not significant. This could be because both male and female students go through similar challenges in campus.

Having dependents was a main indicator of depression among students. The study showed that students who had dependents were at a highest risk of getting depressed than their colleagues who had no dependents. In this study, there were 94 students from the TUK School of Engineering Science and Technology (N = 432) who had dependents. Out of the 94 students, 46 (48.94%) were suffering from depression. Out of the remaining 338 who had no dependents, only 87(25.74%) were depressed. At UON, there were 56 students (N = 430) who had dependents out of whom 45 (80.36%) were suffering from depression. Out of the remaining 364 students who had no dependents, only 91 (25%) were depressed. This suggests that there is a high likelihood that a student with dependents will suffer depression compared to those with no dependents.

This could be because the students have to balance their time between academics and giving attention to their dependents. These findings concur with what Dyson and Renk (2006) observed that family support is important in alleviating depression. This support can be manifested in assisting to take care of the students' dependents to allow the students to concentrate on their studies without having to think of dependents. In the current study, most of the students who had dependents were females who had children. Educating such students on the consequences of caregiving to children while in university pursuing their courses, would help them to make informed choices.

The study also established that being in leadership positions increases university students' likelihood of suffering from depression. There were 47 students from the TUK School of Engineering Science and Technology (N = 432) who were holding leadership positions. Out of the 47 students, 20 (42.55%) were suffering from depression. Of the rest 385 who were not in leadership positions, only 113 (29.35%) were suffering from depression. At UON, there were 20 students who were in leadership positions (N= 420). Out of these, 9 (45%) were suffering from depression. Of the remaining 400 students who were not in leadership positions, only 127 (31.51%) were suffering from depression. Similar observations were made by Peltzer, Olowu & Pengpid (2013) who noted that students who are in leadership positions are highly likely to become depressed since they thrive on activity plus involvement, leaving them with insufficient time for rest and self-care.

The study found out that the more the friends that the students had, including friends of the opposite sex, the less likely to suffer depression. As demonstrated by the results, there were negative correlation coefficients between the number of friends each of the students had and his or her BDI score as shown. The more sociable a student was the lower the BDI score was. Similar results have been obtained in other studies (Furr *et al.,* 2001; Rice *et*

al., 2006).   Students who make new friends easily are likely to have more friends than those who have difficulties having new friends. Such students have a high sense of social connectedness. Those who are devoid of the sense of social connectedness are likely to feel hopeless and lonely. Furr *et al.* (2001) noted that loneliness and hopelessness are some of the leading predictors of depression and that a student's social connectedness in the multicultural university context has a marked buffering effect on depression.

Students who were members of clubs were less likely to suffer depression than their colleagues who did not belong to any club. There were 161 students from the TUK School of Engineering Science and Technology (N = 432) who were members of clubs. Out of the 161 students, only 25 (15.53%) were suffering from depression. Out of the other 271 students from the TUK School of Engineering Science and Technology who were not members of clubs, 108 (39.85%) were depressed. At UON, 261 students (N= 420) who were members of clubs, only 29 (11.11%) were suffering from depression while out of the other 159 who were not members of clubs, 107 (67.30%) were suffering from depression. This showed that students who were not members of clubs were more likely to suffer from depression than those who were members of clubs. Those who were not members of clubs have limited opportunities for making many friends on campus. They are likely to be devoid of a sense of social connectedness and engagement resulting to loneliness and hopelessness as noted above.

The study also established that depending on who paid the students' fees, this was also associated with depression. Prevalence of depression was highest among students who were responsible for paying fees for themselves in both universities (TUK = 64.29%, UON = 100%), and lowest among those whose fees was paid by parents. Fees payment could be an indicator of the family's economic status, meaning that those who pay school fees for themselves have to struggle to meet other basic necessities. This could easily dispose them to depression. This is similar to what Heckman, Lim and Montalto (2014) found out. They studied factors that related to financial stress among college students. The study revealed that concerns about personal finances are a source of everyday stress among many college students. This stress further leads to depression.

V. Conclusion

The results of this study showed that depression was quite high among university students (33%). It also established the various factors related to depression among the university students. The key factor was when a student had dependents which was the leading factor that predisposes the students to depression, while social interactions was leading in helping the students to manage depressive symptoms. The findings of this study point to the importance of screening the students for depression and dealing with the specific factors that are likely to dispose the students to depression, while at the same time helping them to improve on their social interactions. It is also important for students to consider joining social platforms such as clubs, which will enhance their social interaction skills and reduce chances of depression.

REFERENCES

[1] Bor, R. & Hubbard, T. (2006). *Aviation mental health: Psychological implications for air transportation*. Aldershot, England: Ashgate.

[2] Dyson, R., & Renk, K. (2006). "*Freshmen adaptation to university life: Depressive symptoms, stress, and coping*". *Journal of Clinical Psychology*, *62*(10), 1231-1244.

[3] Furr, S. R., Westefeld, J. S., McConnell, G. N.& Jenkins, J. M. (2001). "*Suicide and depression among college students: A decade later*". *Professional Psychology: Research and Practice*, 32, 97-100.

[4] Hames, J.L., Hagan, C.R. &Joiner, T.E. (2013). "*Interpersonal processes in depression*". Annuals Review of Clinical Psychology, 9, 355-377.

[5] Heckman, S., Lim, H. & Montalto, C. (2014). Factors related to financial stress among

[6] college   students. *Journal of Financial Therapy*, *1*(5), 180-188.

[7] Kaur, S., Deepti, S., & Lal, M. (2014). "Prevalence and correlates of depression among college going students of District Amritsar", India. *International Research Journal of Medical Sciences, 2*(11), 5-9.

[8] Keith, T. (2015). "*Depression and its negative effects on college students*". *Undergraduate Research Journal for the Human Sciences*, *9,* 68-74.

[9] Kumaraswamy, N. (2013). Academic stress, anxiety and depression among college students: Abrief review. *International Review of Social Sciences and Humanities, 5*(1), 135-43.

[10] Mackenzie, S., Wiegel, J. R., Mundt, M., Brown, D., Saewyc, E., Heiligenstein, E., Harahan, B. & Fleming, M. (2011). "*Depression and suicide ideation among students accessing campus healthcare*". *The American Journal of Orthopsychiatry*, *81*(1), 101–107.

[11] Mistler, B. J., Reetz, D. R., Krylowicz, B., & Barr, V. (2012). "*College health surveillance network*". *Journal of American College Health*, 63(8), 530-538.

[12] Mohammad, A.W., Sankar, R. Rakshantha, P., Nivatha, A.L., Sowparnika, C.E. & Marak, L. (2016). "*Stress, anxiety and depression among science and arts students*". *International Journal of Education and Psychological Research*, 5(3),48-51.

[13] Othieno, C. J., Okoth, R., Peltzer, K., Pengpid, S. & Malla, L. O. (2015). "*Risky HIV sexualbehaviour and depression among UON students*". *Annals of General Psychiatry*, *14(3)*, 16-22.

[14] Peltzer, K., Olowu, S., & Pengpid, S. (2013). "*Depression and associated factors amonguniversity students in Western Nigeria*". *Journal of Psychology in Africa, 3,* 120-124.

[15] Swanholm, E., Vosvick, M. & Chng, C. (2009). Pessimism, trauma, risky sex: Covariates of depression in college students. *American Journal of Health Behavior*, 33(2), 309-318.

[16] Tiedens, L. Z. & Leach, C. W. (2004). *The social life of emotions*. New York: Cambridge University Press

[17] Wells, K.B., Kataoka, S.H. & Asarnow, J.R. (2001). "*Affective disorders in children and adolescents: Addressing unmet need in primary care settings*". *Biological Psychiatry*, 49,   1111-1120.

[18] World Health Organization (2009). Mental health, poverty, and development. Retrievedfrom http://eprints.lse.ac.uk/47609.