*The Journal of Medical Research 2018; 4(2): 106-110*

The Journal of Medical Research

***Research Article***

JMR 2018; 4(2): 106-110
March- April
ISSN: 2395-7565

www.medicinearticle.com
Received: 25-02-2018
Accepted: 10-04-2018

# Locus of control, self-esteem and depression in a sample of school going adolescents in two Nigerian rural communities

*Friday E. Okwaraji[1], Callista U. Nduanya[1], Kenechukwu I. Obiechina[1], Godwin C. Onyebueke [2], Augustine N. Okorie[3]*

***1*** *Department of Psychological Medicine, University of Nigeria Nsukka, Nigeria*
***2*** *Department of Psychological Medicine, ESUT Teaching hospital Park Lane, Enugu, Nigeria*
***3*** *Department of Pharmacology and Toxicology, University of Nigeria, Nsukka, Nigeria*

## Abstract

Locus of Control (LOC) refers to an individual's personal belief that the events which occur in his or her life are either as a result of personal control and effort, or outside forces such as fate and luck. Self esteem refers to the extent to which a person values, approves or appreciates himself or herself. Self esteem has a prominent effect on one's mental health as well as personal balance. Adolescent is a stage in individual growth and development which has been notorious throughout the centuries as one of great emotional upset with wide fluctuations in behavior.

The Locus of control scale, the Self esteem scale and the Beck's depression inventory-2 were used to assess locus of control, self esteem and depression among 720 school going adolescents from two Nigerian rural communities. Result revealed various levels of locus of control, self esteem and depression among the respondents.

**Keywords:** Locus of control, self esteem, School going adolescents, depression.

## INTRODUCTION

Locus of Control (LOC) refers to an individual's personal belief that the events which occur in his or her life are either as a result of personal control and effort, or outside forces such as fate and luck. A person is said to have internal LOC when he has the perception that events that happen in his life are under his control. That is, he believes that his own personal efforts, behaviors, or skills will influence and determine outcomes, and he takes responsibility for his actions, while it becomes external when an individual believes that his actions or events that happen to him are as a result of external causes. That is the events are due to powers beyond his control [1-4]. Blascovich and Tomaka [5] argued that self esteem refers to the extent to which a person values, approves or appreciates himself or herself. Hewitt [6] argued that self esteem encompasses beliefs such as when somebody tells himself or herself, ''I am competent'; or ''I am worthy'', as well as emotions such as triumph, despair, pride and shame. Self esteem has a prominent effect on one's mental health as well as personal balance. People with low self esteem usually focus on negative aspects of their lives, and spend less time to think positively, whereas those with high self esteem are less stressed when they are faced with negative events [6].

The UNICEF [7] defines adolescence as the period of human development lasting between the ages of ten to nineteen years. It is also seen as a stage in individual growth and development which has been notorious throughout the centuries as one of great emotional upset with wide fluctuations in behavior. Pesterson [8] said that adolescence is a phase of life beginning in biology and ending in society. Whereas Learner and Spainer, [9] defined adolescence as the period within the life span when most of a person's biological, cognitive, psychological and social characteristics are changing from what is typically considered child-like to what is considered adult-like.

Adolescents are generally perceived as a healthy age group and yet 20% of them in any given year experience mental health problems, most commonly depression and anxiety [10]. Some researchers have posited that adolescence is the critical period for the development of self esteem and self identity, and that low self esteem may endanger adolescents' emotional development [11-12].

According to DSM-IV-TR [13] some of the signs of depression include deep sorrow or grief, insomnia, loss of appetite, unpleasant mood, hopelessness, irritability, self dislike and suicidal tendencies.

***Corresponding author:**
***Friday E. Okwaraji***
Department of Psychological Medicine, University of Nigeria Nsukka, Nigeria
Email:
friday.okwaraji[at]unn.edu.ng

Abramson *et al* [14] proposed a model of depression that is related to learned helplessness. They posited that individuals can perceive outcomes as uncontrollable because of their lack of success and control, and that when individuals see themselves as helpless due to their thinking that outcomes are not related to their efforts, they will attribute a reason for their helplessness. In this regard, if an individual makes an internal attribution to his or her helplessness, and believes that his or her powerlessness arose from personal shortcoming, this can lead to an increase in passivity and a loss in self-esteem and motivation, thereby causing impairments in the individual's emotions and cognition and create a sufficient condition for depressed mood [15]. McCauley *et al.*, [16] had earlier reported that this attribution style of internalizing helplessness has been found in depressed adults, as well as among children and adolescents with depressive symptoms. Depressive disorders have been shown to occur in approximately 2% of primary school going children and between 4 to 8% of adolescents [17-18]. Previous study estimated the prevalence of major depression among children aged 9 to 17 years at 5 percent worldwide [19]. In Nigeria, a recent study estimated the prevalence of moderate depression in adolescents to be 2.3% at the age of 10 and 6.2% at the age of 13. The prevalence of severe depression was 1.9% at the age of 11 and 7.4% at the age of 12.

The study further reported that Female gender is a risk factor for depression and that Children whose parents are separated showed higher incidences of depression in all the spectra studied [20]. In their study on depression among rural adolescents, Black, Roberts and Li-Leng [21] reported that 18% of the rural adolescents studied screened positive for depression, 41% reported low mood much of the time while 20% experienced occasional or more frequent self-harm or suicidal thoughts, plans or actions. They opined that factors associated with compromised mental health in rural residents include deprivation and lack of access to healthcare services. Studies had revealed that self esteem influences depression and some had suggested that depression lead to low self esteem. For instance Furnham and Cheng [22] had reported that self esteem is an important predictor of happiness and that higher levels of self esteem predict lower levels of depression. Furthermore, Jennifer *et al* [23] reported relationship between low self esteem and feelings of depression and hopelessness in adolescence. In their own report Alifathi *et al* [24] posited that Self esteem has been related to virtually every other psychological concept including personality, task performance, anxiety and depression.

Locus of control has been related to depression [25]. Grifin [26] in his study of locus of control and psychological wellbeing among university students reported that external LOC predicted unique variance in self-esteem, depression, and stress, while internal LOC was found to have no unique association with psychological well-being. Furthermore, Emmons and Diener [27] posited that individuals who are low in self-esteem are more likely to believe that outcomes are not under their own influence and control, whereas Emmons [28] concluded that different variables influence well-being if they affect a person's ability to achieve his or her own goals. Similarly Klonowicz [29] in his study of locus of control as a determinant of subjective well-being, concluded that high internal locus of control relates to more positive affect. These studies suggest that internal and external locus of control each have a unique relationship to psychological well-being.

The present study looks at locus of control, self esteem and depression in a sample of school going adolescents in two Nigerian rural communities, bearing in mind that no known study on this subject matter has been conducted among this population group within the study areas. The study will produce baseline data for locus of control self esteem and depression among school going adolescents within the study areas in particular and Nigeria in general. Recommendations will be made based on the findings on how to reduce the negative impacts of locus of control and self esteem on adolescent depression.

The research hypotheses are:

1. there will be significant difference between locus of control, self esteem and depression among rural school going adolescents.
2. There will be significant gender difference between locus of control, self esteem and depression among adolescents.

**METHOD**

**Design**

This is a cross sectional descriptive study carried out between the months of January and February 2018.

**Subjects**

Subjects for the study were male and female adolescents attending secondary schools in Isiekenesi and Okwelle which are two rural communities in Imo state, south east Nigeria. The two communities are homogeneous in ethnic composition and were marked out by fairly distinct language, similar culture as well as a myth of common origin. The subjects are randomly selected from 9 secondary schools within the communities using simple random sampling procedure. The choice of schools reflects the type of secondary schools within the communities; that is, public, mission and private secondary schools. Using simple random sampling procedure therefore, 80 students made of 40 girls and 40 boys aged 10-19 years were sampled from each of the nine schools making a total of 720 adolescents. This number therefore forms the population of the study.

Inclusion criteria were students who fall within the adolescent age range of 10-19 years, those who reported not being sick as at the time of data collection and those who consented to participate. Exclusion criteria were students who were below the age of ten years, those who were above the age of 19 years, those who were sick and those who did not consent to participate. Permission to carry out the study was obtained from Imo state schools management board and the school authorities concerned, while ethical permit was obtained from Imo state university Ethics Committee. All the subjects gave their consent to participate in the study.

**Measures**

Data for the study was collected by the authors between the months of January and February 2018. The subjects were given self administered instrument that was made up of four parts. Part one contained basic socio-demographic information such as age, gender, religion and year of study.

Part two was the Locus of control scale by Rotter [1]. This is a 29 item inventory comprising of 23 forced choice and 6 filler items that measures internal and external belief systems of individuals. Samples items in the scale include, 'Many of the unhappy things in people's lives are partly due to bad luck' and 'People's misfortunes result from the mistakes they make'. High scores indicate external locus of control while low scores indicate internal locus of control. Using internal consistency and test-retest reliability, Rotter [1] obtained a correlation that ranged from .65 to .79, and .49 to .83, respectively. This scale has been validated and used for studies in Nigeria [4, 30, 31].

Part three was the Self esteem scale (SES) by Rosenberg [32], and this was used to assess self esteem among the participants. The SES is a widely used and validated self–report measure for assessing self esteem. This is a ten-item measure that is scored on a 4-point Likert type response format starting from 1=strongly disagree to 4= strongly agree.

Sample items in the SES include 'I think I have a number of good

qualities' and 'I feel I do not have much to be proud of'. In the SES five of the items [2, 5, 6, 8, 9] are reverse scored. Total obtainable score including the reverse scores ranged from 10-40 with high scores indicating high self esteem. The SES has a reported reproducibility coefficient of .92 and a test–retest correlation of .85 over a two week period. In a study, AL Khatib [33] reported the cronbach alpha of the scale to be .86 and a two week test-retest reliability coefficient of 0.79. For the present study the cronbach alpha of the scale was .83 and the two week test–retest reliability coefficient was 0.75. Furthermore the SES has been used for studies in Nigeria [34]. Part four was the Beck Depression Inventory, second edition (BDI-2) developed by Beck *et al*. [35]. The BDI-2 was used to assess depression among the respondents. It is a well-known self-report measure used to assess depression and its severity. The validity and reliability of the BDI-2 has been well established across a broad spectrum of clinical and non-clinical population. The BDI-2 positively correlated with the Hamilton Depression rating scale r=0.71, has a one week test-retest reliability of r=0.93 and an internal consistency α =.91 [36-38].

The BDI-2 is a 21-item self report questionnaire, it is scored by adding the ratings of the 21 items. Each item is scored on a 4-point scale ranging from 0-3. The maximum total score is 63. The questions in the BDI-2 cover a broad area of an individual's feelings such as sadness, self-dislike, past failure and loss of pleasure. Sample questions include: I do not feel sad; I feel sad much of the time; I am sad all the time and I am so sad or unhappy that I can't stand it. In the BDI-2 total scores ranging from 0-9 indicates absence of depression; 10-18 indicates mild depression; 19-29 indicates moderate depression while scores ranging from 30-63 indicates severe depression. The BDI-2 has been used for studies in Nigeria [39].

**Data Analysis**

Data for the study was analyzed using the Statistical package for social science, SPSS version 20.0. Percentages and the Pearson's chi squared test were performed to find relationships between variables. The level of significance chosen for this study was p≤0.05 at 95% confidence interval.

**RESULTS**

Age of respondents ranged from 10-19 years (mean age= 15.25; SD =2.01). There was equal representation of males and females (50% each), all were Christians. 36.0% were in the junior secondary (JSS), while 64.0% were in the senior secondary (SS). With regards to Locus of control 69.9% had internal locus of control, as against 30.1% who had external locus of control. Furthermore, 71.3% of the respondents had high self esteem as against 28.7% who had low self esteem. In the area of depression 65.6% showed no signs of depression, 24.0% had mild depression, while 10.4% indicated moderate depression. No case of severe depression was recorded as shown in table 1 below. Result further revealed significant association between locus of control and age group, $\chi^2$ = 23.84; P ≤ 0.005 self esteem and age group $\chi^2$ = 21.08; P ≤ 0.01, whereas the association between age group and depression was not significant as shown in table 2 below. Equally there was significant association between gender and locus of control, $\chi^2$ =6.39; P value =0.01 but not between gender and self esteem as well as gender and depression. Even though more females were moderately depressed than their male counter parts but this was not significant (11.7% and 9.2% respectively). See table 3 below. Interestingly significant association was noticed between class in school and locus of control $\chi^2$ = 5.66; P =0.01**,** but not between class in school and self esteem, as well as class in school and depression as shown in table 4. Table 5 showed significant association between locus of control and self esteem $\chi^2$ = 16.46; P =0.00**,** as well as locus of control and depression $\chi^2$ = 11.63; P =0.003.

**Table 1:** Distribution of Socio Demographic Variables, Locus of control, Self Esteem and Depression among the Respondents

| VARIABLE | FREQUENCY | PERCENTAGE (%) |
|---|---|---|
| **GENDER** | | |
| Male | 360 | 50 |
| Female | 360 | 50 |
| **AGE (in years)** | | |
| 10-14 | 269 | 37.4 |
| 15-19 | 451 | 62.6 |
| **RELIGION** | | |
| Christianity | 720 | 100 |
| **CLASS IN SCHOOL** | | |
| Junior secondary | 259 | 36.0 |
| Senior secondary | 461 | 64.0 |
| **LOCUS OF CONTROL** | | |
| Internal | 503 | 69.9 |
| External | 217 | 30.1 |
| **SELF ESTEEM** | | |
| High | 513 | 71.3 |
| Low | 207 | 28.7 |
| **DEPRESSION** | | |
| None | 472 | 65.6 |
| Mild | 173 | 24.0 |
| Moderate | 75 | 10.4 |

**Table 2:** Locus of control, Self Esteem and Depression among the Age Groups

| Locus of control | Age group 10-14 years | 15-19 years |
|---|---|---|
| Internal | 200(74.3 ) | 303 (67.2) |
| External | 69( 25.7) | 148 (32.8 ) |
| | $\chi^2$ = 23.84; P ≤ 0.005* | |
| **SELF ESTEEM** | | |
| High | 205 (76.2) | 308 (68.3) |
| Low | 64 (23.8) | 143 (31.7) |
| | $\chi^2$ = 21.08; P ≤ 0.01* | |
| **DEPRESSION** | | |
| None | 181 (67.3) | 291(64.5) |
| Mild | 64 (23.8) | 109(24.2) |
| Moderate | 24 (8.9 ) | 51 (11.3) |
| | $\chi^2$ = 15.824; P value = 0.605 NS | |

*= Significant NS= Not Significant

**Table 3:** Locus of control, Self esteem and Depression among Gender

| | GENDER | |
|---|---|---|
| | **MALE(N1=360)** | **FEMALE(N2=360)** |
| **LOCUS OF CONTROL** | | |
| Internal | 236 (65.6) | 267 (74.2) |
| External | 124 (34.4) | 93 (25.8) |
| | $\chi^2$ =6.39; P value =0.01* | |
| **SELF ESTEEM** | | |
| High | 257 (71.4) | 256 (71.1) |
| Low | 103 (28.6) | 104 (28.9) |
| | $\chi^2$ = 0.007; P value=0.93 NS | |
| **DEPRESSION** | | |
| None | 234(65.0) | 238 (66.1) |
| Mild | 93 (25.8) | 80 (22.2) |
| Moderate | 33 (9.2) | 42 (11.7) |
| | $\chi^2$ =2.091; P value=0.35 NS | |

*= Significant NS = Not Significant

**Table 4:** Locus of control, Self esteem and Depression among Class in School

| | CLASS IN SCHOOL | |
|---|---|---|
| | **JSS (N1=259)** | **SS (N2=461)** |
| **LOCUS OF CONTROL** | | |
| Internal | 195(75.3) | 308 (66.8) |
| External | 64 (24.7) | 153(33.2) |
| | $\chi^2$ = 5.66; P =0.01* | |
| **SELF ESTEEM** | | |
| High | 175(67.6) | 338(73.3) |
| Low | 84(32.4) | 123(26.7) |
| | $\chi^2$=2.67; P =0.102 NS | |
| **DEPRESSION** | | |
| None | 165(63.7) | 307(66.6) |
| Mild | 63(24.3) | 110(23.9) |
| Moderate | 31(12.0) | 44(9.5) |
| | $\chi^2$ =1.006; P =0.605 n/s | |

*= Significant NS = Not Significant

**Table 5:** Locus of Control, Self Esteem And Depression

| | LOCUS OF CONTROL | |
|---|---|---|
| | **Internal (n=503)** | **External (n=217)** |
| **Self Esteem** | | |
| High | 381(75.7) | 132(60.8) |
| Low | 122(24.3) | 85(39.2) |
| | $\chi^2$ = 16.46; P =0.00* | |
| **Depression** | | |
| None | 330(65.6) | 142(65.4) |
| Mild | 132(26.2) | 41(18.9) |
| Moderate | 41(8.2) | 34(15.7) |
| | $\chi^2$ = 11.63; P =0.003* | |

*= Significant

**DISCURSSION**

The study had revealed levels of locus of control, self esteem and depression among the respondents. For instance 69.9% and 30.1% had internal and external locus of control, while 71.3% and 28.7% had high and low self esteem respectively. Furthermore 65.6% of the respondents were not depressed as against 24.0% and 10.4% who were mildly and moderately depressed respectively. No case of severe depression was noticed. Previous studies had observed that adolescence is the critical period for the development of self esteem and self identity, and that low self esteem may endanger adolescents' emotional development; that Self esteem has prominent effect on one's mental health as well as personal balance [6, 11-12]. The WHO [10] had further argued that even though adolescents are generally perceived as a healthy age group but still about 20% of them in any given year experience mental health problems, most commonly depression and anxiety. The pattern of findings noticed in this study corroborates these previous reports. The presence of mild and moderate depression noticed among the subjects may be as a result of poor mental health facilities in the rural communities studied. In Nigeria there were few mental health facilities and they were all situated in urban centers and this will limit access to mental health services by people residing in these areas. In this regard Black, Roberts and Li-Leng [21] opined that factors associated with compromised mental health in rural residents include deprivation and lack of access to healthcare services.

The high percentage of external locus of control, low self esteem and depression noticed among the respondents may be attributed to the hash economic conditions in Nigeria which impacts negatively more on rural dwellers. Most parents residing in rural communities in Nigeria do not have steady means of livelihood and may not be able to provide for the educational, daily upkeep and health needs of their children, especially adolescents. This condition can increase the adolescents stress level thereby predisposing them to external locus of control, low self esteem and depression. Furthermore, studies had revealed that self esteem influences depression and some had suggested that depression lead to low self esteem. For instance Furnham and Cheng [22] had reported that self esteem is an important predictor of happiness and that higher levels of self esteem predict lower levels of depression. Equally, Jennifer *et al*. [23] had observed that low self esteem leads to feelings of depression and hopelessness in adolescence. Whereas Benassi, Sweeney & Dufour [25] found a relationship between locus of control and depression. Interestingly this association between locus of control, self esteem and depression noticed in this study was equally observed by other researchers [26-29].

Significant association was noticed between locus of control and age group, as well as self esteem and age group. This may be because of the influence age has on cognitive ability. As the adolescent advances in age he/she becomes more aware of the realities of the environment and begins to think more rationally and positively by facing the realities of existence instead of procrastination. In this regard Learner and Spainer, [9] defined adolescence as the period within the life span when most of a person's biological, cognitive, psychological and social characteristics are changing from what is typically considered child-like to what is considered adult-like. Significant association was equally noticed between gender and locus of control as well as class in school and locus of control. This is not surprising because similar findings had been previously documented. For instance Grifin [26] in his study of locus of control and psychological wellbeing among university students reported that external LOC predicted unique variance in self-esteem, depression, and stress, while internal LOC was found to have no unique association with psychological well-being.

## CONCLUSION

Generally the study noticed high levels of internal locus of control, self esteem and absence of depression, especially severe depression among the school going rural adolescents who took participated in the study. In spite of this about 30.1% had external locus of control, 28.7% had low self esteem, and 24.0% had mild depression, while 10.4% indicated moderate depression. Consequently, there is need to introduce regular adolescent counseling in rural communities with a view to identifying those with low self esteem, external locus of control and depressive symptoms so that adequate measures will be put in place to help uplift their positive self image and improve their mental health profile.


## Acknowledgement

The authors thank all the respondents who gave their consent to participate in this study.

## Funding

No form of funding to carry out this research work was received by the authors.


## Conflicts of Interest

The authors declare no conflict of interest

## REFERENCES


1. Rotter JB. Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 1966; 80:(1, Whole No. 609).
2. Brian Rotsztein MA. Problem Internet use and locus of control among college students:Preliminary findings1. Lynch School of Education Boston College Poster presented at The 35th Annual Conference of the New England Educational Research Organization Portsmouth, New Hampshire, 2003.
3. Zimbardo E. Achievement Motivation; Conceptions of ability, Subjective experience, Task choice, and Performance. Psychological Review, 1985; 91,328-346.
4. Ome BN, Okorie NA, Azubuike EE. Assertiveness, Self-Esteem and Locus of Control as predictors of Aggression in a Nigerian sample. International Journal of Research in Arts and Social Sciences. 2014; 7(2):217-229
5. Blascovich J, Tomaka J. Measures of self esteem. In: Robinson JP, Shaver PR, and Wrightsman LS (Eds.) Measures of personality and social psychological attitudes, vol. 1. San Diego, CA, Academic Press, 1991.
6. Hewitt JP. Oxford handbook of positive psychology. Oxford university press. 2009; 217-224.
7. United Nations Children's Fund, Climate change and children: A human security challenge. Policy review paper. UNICEF Innocenti Research Center, Florence, 2008, pp. 9-12.
8. Pesterson F. The Relation between group Collusiveness and Performance. An Intergration. Psychological bulletin 1988; 115:210-227.
9. Learner MR, Spainer SC. Self – efficacy, Social anxiety and Inhibition in interpersonal encounters. Journal of social and clinical psychology. 1980; 18(12):200-209.
10. World Health Organization: Investing in mental health. Geneva: WHO 2003.
11. Tsang SK, Yip FY. Positive identity as a positive youth development construct: Conceptual bases and implications for curriculum development. International journal of adolescent mental health. 2006; 18:459-466.
12. Gamefeski N, Kraaij V, Van Etten M. Specificity of relations between adolescents' cognitive emotional regulation strategies and internalizing and externalizing psychopathology. Journal of Adolescents. 2005; 28:619-631.
13. DSM-IV-TR. Diagnostic and statistical manual for mental disorders. American Psychiatric Association, Washington DC, 2000.
14. Abramson LY, Metalsky FI, Alloy LB. Hopelessness depression: A theory based subtype of depression. Psychological Review 1989; 96(2):358-372.
15. Zawawi JA, Hamaideh SH. Depressive Symptoms and Their Correlates with Locus of Control and Satisfaction with Life among Jordanian College Students Europe's Journal of Psychology 2009, 71-103. www.ejop.org
16. McCauley E, Mitchell J, Burke E, Moss S. Cognitive attributes of depression in children and adolescents. Journal of Consulting and Clinical Psychology. 1988; 56:903-908.
17. Lewinsohn PM, Clarke GN, Seeley JR, Rohde P. Major depression in community adolescents: age at onset, episode duration, and time to recurrence. J Am Acad Child Adolesc Psychiatry. 1994; 33:809-18.
18. Kessler RC, Walters EE. Epidemiology of DSM-III-R major depression and minor depression among adolescents and young adults in the National Comorbidity Survey. Depress Anxiety 1998; 7:3-14.
19. Murray CJ, Lopez AD. Evidence-based health policy--lessons from the Global Burden of Disease Study. Science. 1996; 274:740-743.
20. Chinawa JM, Manyike PC, Obu HA, Aronu AE, Odutola O, Chinawa AT. Depression among adolescents attending secondary schools in South East Nigeria. Annals of African Medicine 2015; 14:46-51 Doi: 10.4103/1596-3519.148737
21. Black G, Roberts RM, Li-Leng T. Depression in rural adolescents: relationships with gender and availability of mental health services. Rural and remote health, 2012; 12:2092. Epub 2012 Aug.12.
22. Furnham A, Cheng H. Lay theories of happiness. Journal of Happiness studies 2000; 1:227-246.
23. Jennifer MC, Sanel P, Lanra F, Kamini M. The Relation of Age, Gender, Ethnicity and Risk behaviours to Self – esteem among Students in Non mainstream School. Adolescence 2004; fall.
24. Alifathi-Ashtiani, Javad Ejei, Mohammad-Karim-Khodapanahi, Hamid Tarkhorani. Relationship between self esteem, anxiety, depression and academic achievement in adolescents. Journal of Applied Sciences. 2007; (7):995-1000.
25. Benassi VA, Sweeny PD, Dufour CL. Is there a relation between locus of control orientation and depression? Journal of Abnormal Psychology. 1988; 97:3597-367.
26. Griffin DP. Locus of Control and Psychological Well-Being: Separating the Measurement of Internal and External Constructs – A Pilot Study (2014). EKU Libraries Research Award for Undergraduates 2014. http://encompass.eku.edu/ugra/2014/2014/2
27. Emmons RA, Diener E. Personality correlates of subjective well-being. Personality and Social Psychology Bulletin, 1989; 11(1):89-97.
28. Emmons RA. Personal strivings: An approach to personality and subjective well-being. Journal of Personality and Social Psychology. 1986; 51:1058-1068.
29. Klonowicz T. Discontented people: reactivity and locus of control as determinants of subjective well-being. European Journal of Personality. 2001; 15:29-47.
30. Mohammed M. Academic performance and locus of control. British Journal of Educational Psychology. 1998; 63:215-221.
31. Salami SO. The relationship between Locus of control, study behavior and academic performance. Nigeria Journal of Psychology. 1991; 8:54-57.
32. Rosenberg M. Society and the adolescent self-image. Princeton, NJ: Princeton University press, 1965.
33. Al Khatib SA. Satisfaction with life, self-esteem, gender and marital status as predictors of depressive symptoms among United Arab Emirates college students. International journal of psychology and counseling. 2013; 53-61.
34. Terna A. Perceived parental care, self esteem and depression among adolescents in Makurdi secondary schools. Journal of education and entrepreneurial research. 2014; 219-226.
35. Beck AT, Steer RA, Brown GK. Manual for Beck Depression Inventory-2. San Antonio, TX: Psychological Corporation, 1996.
36. Steer RA, Ball R, Ranier WF, Beck AT. Further evidence for the construct validity of the Beck depression inventory-2 with psychiatric out patients. Psychological Report. 1997; 80(2):443-446.
37. Beck AT, Guth D, Steer RA, Ball R. Screening for major depressive disorders in medical inpatients with the Beck depression inventory for primary care. Behavior Research and Therapy. 1997; 35(8):785-791.
38. Winter LB, Steer RA, Jones-Hicks L, Becks AT. Screening for major depressive disorders in adolescent medical outpatients with Becks depression inventory for primary care. Journal of Adolescent Health. 1999; 24(6):389-394.
39. James BO, Omoaregba JO, Eze G, Morakinyo O. Depression among patients with diabetes mellitus in a Nigerian teaching hospital. South African Journal of Psychiatry. 2010; 16(2):61-64.