

Psychosocial Predictors of Drug Involvement Among Secondary School Students

Rachel B. ASAGBA*, Catherine O. CHOVWEN**,
Aderemi I. ALARAPE***, Samson F. AGBEROTIMI****

Abstract

Predictors of drug involvement among secondary school students in Ibadan were examined in this study. Two hundred and four (204) students comprising 113 males and 91 females, whose age ranged between 13 and 25 years ($M = 16.32$, $S.D. = 1.81$) participated in the study. Data collected with a structured questionnaire were subjected to independent sample t-test, and regression analysis. Psychosocial factors (life purpose, need for achievement and self-esteem) significantly predicted drug abuse [$F(6, 113) = 7.75$; $p < .01$, $R^2 = .29$]. Participants with low score on life purpose reported higher substance abuse than those with high score on life purpose, $t(161) = 2.62$, $p < .05$; those with low score on the need for achievement reported higher substance abuse than those with high score on the need for achievement, $t(162) = 4.09$, $p < .01$; those with low score on the need for achievement reported higher substance abuse than those with high score on the need for achievement $t(162) = 2.62$, $p < .05$; female participants reported higher substance abuse than male counterparts, $t(176) = -4.05$, $p < .01$. In conclusion, it is expedient that efforts be intensified on actions that will reawaken the strive for excellence and sense of self worth through engagement in self development activities, thereby minimizing the prevalence of substance abuse among Nigerian youths.

Keywords: Drug, Involvement, Predictors, Psychosocial

Introduction

In the past, cases of substance abuse were commonly linked to the adult population, until the 1980's, when the world began to witness the spread of psychoactive use among the younger populations (World Health Organization, 2005). People abuse substances such as alcohol, tobacco, and other drugs for various and complicated reasons, but it is clear that the society pays a significant cost for it.

For instance, the United Nations Office on Drugs and Crime (UNODC, 2012) estimates that in 2010, between 15.5 and 38.6 million people worldwide were problem drug users. It was further stated that around 200,000 people worldwide die each year from drug related deaths. According to the World Health Organization (WHO) (2011), 320,000 young people between the ages of 15 and 29 die from alcohol-related causes each year.

Recently, more cases of psychoactive substance abuse has been reported in Nigeria among adolescents. For instance, (Azulike, Oni & Dirisu 2012) noted that substance abuse has gradually become a cause for concern due to the alarming increase of consumption over the years in Nigeria. Nigeria has also been rated as the highest consumer of cannabis and amphetamines in Africa

(UNODC 2011). A study conducted using a representative sample of Nigerian adults reported that a high proportion (58%) use alcohol, followed by tobacco (17%), sedatives (14%), cannabis (3%), while other substances constituted the remaining 8 % (Gureje, Degenhardt, Olley, Uwakwe, Udofia, Wakil, Adeyemi, Bohnert, & Anthony 2007). Oshodi, Aina, & Onajole (2010) also gave a similar report about the recent increasing rate of substance abuse among Nigerian adolescents. Similarly, Atoyebi & Atoyebi (2013) reported an increasing rate of drug involvement by Nigerian youths. In their investigation among secondary school students in Southwestern Nigerian city, they found that majority of the sampled students claimed awareness of existence of substances of abuse, while most of the students had history of substance use. Analgesics, cannabis, tobacco, alcohol and sedatives constituted the most commonly substances of abuse among the students.

The increasing rate of substance abuse among the young population has been said to be a strong determinant of moral decadence and loss of societal values and ideals, (Abudu, 2008; Fareo, 2012; Masibo, Mndeme & Nsimba 2013). Asagba (2009) posited that the increasing rate of drug involvement in the contemporary society is a reflection of existential frustration that people experience, which

* Ph.D, Senior Lecturer, Department of Psychology, University of Ibadan, Ibadan, Nigeria.
E-mail: rbasagba@gmail.com

** Ph.D, Senior Lecturer, Department of Psychology, University of Ibadan, Ibadan, Nigeria.
E-mail: chowwenc@yahoo.com

*** Ph.D, Senior Lecturer, Department of Psychology, University of Ibadan, Ibadan, Nigeria.
E-mail: ai.alarape@gmail.com

**** M.Sc, Department of Psychology, University of Ibadan, Ibadan, Nigeria.
E-mail: femiagberotimi@gmail.com

also drive them to all sorts of nefarious acts in the bid to find satisfaction and in the end they do not find what they desire. They have the good things of life yet remain unsatisfied and thus say, "I am sick of living." (Lukas, 1986) (as cited by Asagba, 2009).

According to the Nigerian Drug Law Enforcement Agency (NDLEA, 1997), the use of drugs by adolescents has become one of the most disturbing health related phenomenon in Nigeria and other parts of the world. Further, substance abuse and dependence have been described as one of the most frequently occurring disorders in adolescents, young adults, and the general population. For instance, drug abuse was described as a major public health problem all over the world (Asagba & Talabi 2001; UNODC, 2005). Ojiji, Okediji and Udeagha, (2006) stated that alcohol abuse over a long period of time results into brain malfunction. They also highlighted several consequences of substance abuse on users and community at large, which include several acts of violence, such as domestic and sexual assault, problems at workplace including hazard and low productivity, family and relationship problems, poverty and burden of disease. In addition, concern over behaviour change was also reported by 64.7% of respondents with history of drug abuse, while 50% reported poor school performance, and sustaining injury in conflict, (Masibo, Mndeme & Nsimba, 2013).

Curiosity, peer group influence, lack of parental supervision, personality problems, the need for energy to work for long hours, availability of the drugs, and the need to prevent the occurrence of withdrawal symptoms are the commonest triggers of drug abuse reported by most Nigerian youths (Haladu, 2003; Masibo, et al., (2013); Gebreslassie, Feleke & Melese (2013); Nalah & Audu (2014). Furthermore, Idris & Sambo (2006) investigated the triggers of psychoactive substance among in-school adolescents in Zaria, North western Nigeria, where 54% of the sampled students, who have history of substance use reported that they used the substances out of curiosity. Nalah & Audu (2014) identified peer pressure as another strong trigger of substance use and further observed that the majority of the students, who are substance dependent, saw formal education as a platform to explore their curiosity. Asagba and lfeaka (2007) also reported that knowledge and beliefs of users of local herbs containing alcohol are associated with indiscriminate consumption of local alcoholic drink (ogogoro) in Lagos, Nigeria.

Need for achievement, which has been described as an individual's desire for significant accomplishment, mastering of skills, control, or high standards, has previously been examined to understand its relationship with drug involvement among Nigerian youth. For instance, Elegbeleye (1995) investigated the role of need for achievement in the drinking habit of secondary school students in Ibadan and found out that students' need for achievement did not influence their alcohol consumption.

A negative relationship between self-esteem and drug use was reported by McNeal and Hansen (1999), who postulated that the deterioration of self-esteem can lead to adolescent drug use/abuse. Similarly, students from a selected secondary school in Somolu Lagos, who had low self-esteem reported more involvement in substance use and abuse (Uba, Yaacob, Talib, Mofrad, & Abdullah, 2013).

Gender difference on alcohol and drug abuse has been repeatedly reported. Most of the studies on substance abuse showed that males abuse substances more than their female counterparts. A special project carried out by the WHO on gender, alcohol and culture in eight countries including Nigeria, found out that females reported significantly lower rate of alcohol consumption than their male counterparts in all the eight countries (WHO, 2005). Johnston O'Malley and Bachman (1998) explained that males are more likely to use illicit drugs and at a younger age than females. They also established that heavy drinking is more identified with males than females. Obikeze and Obi (2013) in their descriptive survey study investigated the relationship between alcohol and violence among undergraduate students, they found that there is a high involvement of students in alcohol use and that male students consume alcohol more than females. Furthermore, Asagba and Talabi (2001), Oshi-

koya & Alli (2006), Asagba & lfeaka, (2007), Oshodi, et. al., (2010) and Masibo, et. al., (2013) also gave similar reports on gender difference on substance abuse. However, Elegbeleye (1995), Giusti, Sañudo, and Scivoletto (2002), and Bouthoorn, van Hoof and van der Lely (2011) reported no significant gender difference in alcohol consumption and intoxication.

People, who reported low life purpose, have been found to abuse alcohol and have alcohol addiction problem more than people with high life purpose in the general population. For instance, Waisberg & Porter, (1994) as cited by Ali, Leigh, Jan & Bill, (2003) reported a negative relationship between heavy alcohol use and life purpose. In a similar study on substance abuse in underground rave culture and other related settings by the Research Subcommittee of the Action Committee Against Narcotics (ACAN) (2004) in China, drug abusers were found to have less purpose in life compared to non-drug abuser participants.

The present study investigated the predictive power of life purpose, need for achievement, and self-esteem on substance abuse among Nigerian youths. In order to actualize the purpose of this study, the following four hypotheses were generated: (1) life purpose, need for achievement, and self-esteem will significantly predict substance abuse, (2) students with low life purpose will report higher involvement in substance abuse than their counterparts with high level of life purpose, (3) there will be a significant difference in substance abuse of students with low and high level of need for achievement, and (4) there will be a gender difference in substance abuse.

Methods

Design

A descriptive survey was used in this study. The dependent variable of the study was substance abuse, while the independent variables include life purpose, need for achievement, self-esteem, and gender.

Setting

The study was conducted in St. Luke's College in the heart of Molete Ibadan, Ibadan South East local government, Oyo State. Molete is an area of Ibadan, which is notorious for its availability of psychoactive substances that can be also accessed by school students and was thus purposively selected for the study. The inclusion criteria were based on being a student in the school for a minimum of one academic calendar year and in a senior secondary class. Ibadan is the state capital of Oyo state. According to 2006 census, it is the third largest metropolitan city in Nigeria after Lagos and Kano, with population of 1,338,659. Ibadan is also the largest metropolitan geographical area in West Africa and is located in south-western Nigeria, 128km inland northeast of Lagos and 530 km southwest of Abuja.

Participants

Two hundred and four (204) randomly selected students participated in the study. They were drawn from a population of about 600 senior secondary students in the school. Participant comprised of 113 males and 91 females, their ages ranged between 13 and 25 years with a mean of 16.32, and standard deviation 1.81. Fifty-two percent were from monogamous family.

Instrument

A structured questionnaire was used to collect data in the present study. It was divided into four sections. Section one was used to

elicit demographic information such as gender, age, religion, and family background.

Section two is the Drug Involvement Scale developed by Lam, Ng and Boey (2002). The scale is a 22-item instrument designed to measure drug involvement among adolescents. It has five response options ranging from "Absolutely Untrue" (1) to "Absolutely True" (5). A minimum score of 22 and a maximum score of 110 is obtainable. Cronbach's alpha of 0.90 was obtained by the authors. The scale was also found to be internally consistent in the present study ($\alpha = 0.78$).

Section three of the questionnaire was the Life Purpose Questionnaire (LPQ) developed by Hablas and Hutzell (1982). The LPQ is a 20-item questionnaire designed as a simpler version of the Purpose in Life Test to measure life purpose attained by an individual. Participants used "agree" or "disagree" to respond to the items. A total score of 20 is obtainable on the scale. The scale has been reported valid and reliable in Nigerian population. For instance, Asagba, Alarape, and Chovwen (2009) reported a Cronbach's alpha of 0.63 in their study among students of University of Ibadan.

Section four of the questionnaire contains the nine-item adjusted version of Murray's need for achievement by Oyefeso (1988). The scale was developed to measure an individual's desire for significant accomplishment, mastering of skills, control, or high standards. Items of the scale are responded to on a five response options ranging from "Strongly disagree" (1) to "Strongly Agree" (5). Oyefeso (1988) reported a test-retest coefficient of 0.61 ($p < .01$, $n = 121$); a split half reliability of 0.82; internal consistency using Spearman Brown of 0.82 and a convergent validity with the original scale test-retest of 0.68 ($p < .01$, $n = 123$). Reliability coefficient of Cronbach's alpha .80 was established in the present study.

Procedure

A letter of approval was obtained from the Commissioner of Education of Oyo state, in order to conduct the study among the target population. The principal of the school was intimated with the purpose of the study and permission was obtained to use the students in the senior class category as participants of the study. The consent of the participants was obtained before questionnaire administration. Questionnaires were administered in a classroom setting after the purpose of the study had been explained. Confidentiality of response was also assured. Data collected were subjected to the Statistical Package for Social Science (version 20). The independent sample t-test and regression analysis were used to test the hypotheses.

Results

The first hypothesis of the study stated that life purpose, need for achievement, and self-esteem will significantly predict psychoactive substance abuse among students. The stated hypothesis was tested with a multiple regression analysis. The result obtained was presented in Table 1.

Table 1: Multiple regression analysis for variables predicting psychoactive substance abuse

	B	B	t	R ²	*R	F ²
Life purpose	-.9	.20*	2.2	.08	.18	11.20*
Need for achievement	.6	.31*	3.9	.05	.12	7
self-esteem	-.3	-.11	-.3	.00	.00	.00

*= $P < .05$ **= $p < .01$

The result in Table 1 revealed that life purpose, need for achievement and self-esteem significantly jointly predicted psychoactive substance abuse ($F(3, 135) = 11.20$; $p < .01$, $R^2 = .20$). The result further indicated that life purpose, need for achievement and self-esteem jointly accounted for 20% of the variation in substance abuse reported by the students. Life purpose significantly predicted substance abuse among the participants ($t(138) = -2.28$, $\beta = -.20$, $p < .05$). The negative value of the beta implies that the lesser the life purpose the more involved in the abuse of psychoactive substances reported by the students. A similar outcome existed for need for achievement as it was found to significantly predict substance abuse among the students ($t(138) = -3.94$, $\beta = -.31$, $p < .01$). Although self esteem did not significantly predict substance abuse among the students, the significant joint prediction of the three predicting variables on substance abuse confirmed the stated hypothesis.

Hypothesis two stated that students with low life purpose will report a higher involvement in the abuse of psychoactive substances than their counterparts with high level of life purpose. This hypothesis was tested using an independent sample t-test analysis. The result is presented in table 2.

Table 2: Differences in substance abuse between participants with low and high life purpose

Life purpose	N	M	SD	df	t	p
Low	84	54.07	11.74	161	2.62	< .05
High	79	48.86	13.65			

The result in Table 2 showed a significant difference between students, who reported low level of life purpose and their counterparts, who reported a high level of life purpose on psychoactive substances abuse ($t(161) = 2.62$, $p < .05$). Further, it was revealed that students with low life purpose were involved in the abuse of psychoactive substances ($M = 54.07$, $S.D = 11.74$) than students with high life purpose ($M = 48.86$, $S.D. = 13.65$). The stated hypothesis was therefore accepted.

The third hypothesis stated that there will be a significant difference in the abuse of psychoactive substances by students with low level of need for achievement and their counterparts, who reported high on need for achievement. This hypothesis was tested with a t-test for independent samples.

Table 3: Differences in substance abuse between participants with low and high need for Achievement

Need for achievement	N	M	SD	df	t	p
Low	8	55.0	12.0	16	4.0	< .05
High	3	6	2			
Low	8	47.2	12.5	15	1.2	.25
High	1	1	5			

The result presented in Table 3 revealed that there was a significant difference in the abuse of psychoactive substances reported by students with low level of need for achievement and their counterparts, who reported high on need for achievement ($t(162) = 4.09, p < .01$). Students with low level of need for achievement scored higher ($M = 55.06, S.D = 12.02$) on psychoactive substances abuse than their counterparts with high need for achievement ($M = 47.21, S.D. = 12.55$). The hypothesis was confirmed.

The fourth hypothesis stated that there will be a gender difference in substance abuse among the students. The hypothesis was tested with t-test of independent samples. The result obtained is presented in Table 4.

Table 4: Gender difference in substance use

Gender	N	M	SD	df	T	P
Male	101	47.74	13.03	176	-4.05	< .01
Female	77	55.25	11.12			

A significant gender difference in psychoactive substance abuse ($t(176) = -4.05, p < .01$) was shown from the result presented in Table 4. It was further revealed that female students reported a higher involvement in substance abuse ($M = 55.25, S.D. = 11.12$) than male students ($M = 47.74, S.D. = 13.03$). The hypothesis was therefore accepted.

Discussion

The present study examined psychosocial factors such as life purpose, need for achievement and self-esteem as predictors of psychoactive substance abuse among senior students in a secondary school in Ibadan. The researchers found that life purpose and need for achievement predicted substance abuse among the students. Contrary to expectation, self-esteem did not predict substance abuse in the present study. This is in contrast to several studies that reported negative correlation between self-esteem and substance abuse (McNeal & Hansen, 1999; Uba, Yaacob, Talib, Mofrad & Abdullah, 2013).

In line with the assertion by Lukas (1986) as cited by Asagba (2009), it can be inferred that adolescents with a clear and definite life purpose tended not to get involved in drug abuse unlike those with poor life purpose. A probable explanation is that people with definite life purpose are likely to be more focused and satisfied with life, they also tend to value the present and have good hope about the future. People with low life purpose, are however more likely to be depressed and hopeless about the future. The feeling of existential frustration leads them to engage in behaviour like hazardous alcohol consumption and use of psychoactive substances of different kinds. Consistent with the findings of this study, Waisberg and Porter (1994) and ACAN (2004) reported a negative association between life purpose and drug abuse. They noted that the more meaningful the life purpose reported by the participants the less their involvement in substance abuse.

A previous finding on substance abuse and need for achievement among Nigerian youths reported by Elegbeleye (1995) concluded that the drive to consume excessive amount of alcohol was not influenced by their level of need for achievement. In contrast, we found a significant influence of need for achievement on substance abuse.

Finally, abuse of psychoactive substances was found to be more pronounced among the female students. This finding is in contrast to many previous studies that investigated gender difference on overall use and abuse of psychoactive substances. For

instance, Oshodi, Aina, and Onajole (2010) reported that male secondary school students were more involved in drugs than their female counterparts except for antibiotics, analgesics, heroin and cocaine. Furthermore, Johnston, O'Malley and Bachman (1998) in their survey on drinking behaviour among adolescents in United States of America reported a higher percentage of male students reporting drinking than female students.

In conclusion, the present study examined the psychosocial predictors of psychoactive substance abuse among senior students in a secondary school. The findings of this study established that the abuse of psychoactive substances among adolescents in secondary school remain a problem in the educational system and in our contemporary society. It is quite obvious that psychosocial variables are paramount in the abuse of such substances among secondary school students. Surprisingly, female students reported higher drug involvement than male. This calls for further study especially to explore the specific types of drugs of abuse among this target population and observe the types that female are likely to be more involved with. Self esteem was however not found to be a significant factor by the present researchers even though several other researchers had found an inverse relationship between it and substance abuse.

It is recommended that further research on the relationship between self esteem and substance abuse be done. Also, workshops should be organized for students and teachers in all secondary schools in Nigeria on psychosocial factors like need for achievement, life purpose and self esteem in order to equip students with better life skills. In addition, efforts should be intensified by school authorities towards reawakening strive for excellence among their students, which would make them engage in more profitable tasks and have their sense of self worth increased. Furthermore, parents and guardian should provide proper guidance to their children and wards in order to live better purposeful lives. Finally, regular assessment of substance abuse should be conducted among secondary school students, in order to identify students in need of help, and for proper orientation.

References

- Abudu, V. (2008). Young People and Drug Abuse. A Paper Presented at the 8th Biennial International Conference on Alcohol, Drugs and Society in Africa, Abuja, Nigeria between 23rd – 25th July, 2008.
- Action Committee against Narcotics (ACAN) Research Sub-committee, (2004). Report on A Study of Substance Abuse in Underground Rave Culture and Other Related Settings.
- Ali, M., Leigh, S., Jan, P., & Bill, S. (2003). The purpose in life scale: psychometric Properties for social drinkers and Drinkers in alcohol treatment. *Educational and Psychological Measurement*, Vol. 63 No. 5, October 2003 859-871
- Asagba, R. B. (2009). Logotherapeutic Management of Persons with Substance Abuse/Dependence. *Ife Psychologica: An International Journal of Psychology in Africa*, 17(1), 89 – 98.
- Asagba, R. B., Alarape, A. I., Chovwen, C. O. (2009). Cross-cultural validation of selected logotherapy tests among undergraduate students of university of Ibadan. *International Forum for Logotherapy*, 32, 78-83
- Asagba, R. B. & Ifeaka, C. D. (2007). Correlates and Trends of 'Ogogoro' Alcohol Herbs Use among Traders of Lagos Mile Two. *Nigerian Journal of Clinical and Counselling Psychology*. 13(1), 187-202
- Asagba, R. B. & Talabi, S. A. (2001). Effect of Alcohol on Health and Academic Performance of a Selected Secondary Students in Ibadan. *African Journal of Education*, 6(2), 135 – 145.
- Atoyebi, O. A. & Atoyebi, O. E. (2013). Pattern of Substance Abuse among Senior Secondary School Students in a Southwestern Nigerian City. *International Review of Social Sciences and Humanities* Vol. 4, No. 2 (2013), pp. 54-65
- Azuike, R., Oni, A. & Dirisu, O. 2012. "Stakeholders' view on Substance Abuse and the Development of Effective and Substance Interventions in Nigeria." Findings from a Consultative Forum. Retrieved from: <http://www.freedomfoundation.ng.org/userfiles/Stakeholders27%20views.pdf>.
- Bouthoorn, S. H., van Hoof, J. J., & van der Lely, N. (2011). Adolescent alcohol intoxication in Dutch hospital centers of pediatrics: characteristics and gender differences. *Springer-Verlag, Eur J Pediatr*
- Elegbeleye, S. O. (1995). Drinking Habit and Need for Achievement in Nigeria Adolescents. *Nigerian Journal of Clinical and Counselling Psychology* 1(1), 51 – 65.
- Fareo, D. O. (2012). Drug abuse among Nigerian adolescents strategies for counselling. *The journal of international social research*, 5 (20), 341 – 347
- Gebreslassie, M., Feleke, A. & Melese, T. (2013). Psychoactive substances use and associated factors among Axum university students, Axum Town, North Ethiopia. *BMC Public Health*, 13: 693
- Giusti, J. S., Sañudo A., & Scivoletto, S. (2002). Differences in the pattern of drug use between male and female adolescents in treatment. *Rev Bras Psiquiatr* 2002;24(2):80-2
- Gureje, O., Degenhardt, L., Olley, B., Uwakwe, R., Udofo, O., Wakil, A., Adeyemi, A., Bohnert, K. M. & Anthony, J. C. 2007. "A Descriptive Epidemiology of Substance Use and Substance Use Disorders in Nigeria during the early 21st century." *Drug and Alcohol Dependence* 9(1): 1–9. [33]
- Haladu, A.A. 2003. "Outreach strategies for curbing drug abuse among out-of-school youth in Nigeria: A challenge for community Based Organization (CBOS)." In *Youth and drug abuse in Nigeria: Strategies for counseling, management and control*, edited by A. Garba. Kano: Matosa Press. [23]
- Hablas, R., & Hutzell, R. R. (1982). The Life Purpose Questionnaire: An alternative to be the Purpose-in-life test for geriatric, neuropsychiatric patients. In S. A Wawrytko (Ed.) *Analecta Frankliana* (pp. 211-215) Berkeley: Strawberry Hill.
- Idris, S. H. & Sambo, M. N. (2006). Psycho-active substance use among in-school adolescents in Zaria, North western Nigeria: What are the triggers?
- Johnston. L. D., O'Malley, P. M., & Bachman, J. G. (1998). Alcohol use among Adolescents. *Alcohol Health & Research World*, 2(2)
- Lam, C. W., Ng, H. Y., & Boey, K. W. (2002). Measuring drug abuse: The development of the Chinese Drug Involvement Scale (CDIS) in Hong Kong. *Research on Social Work Practice*, 12 (4), 525-533
- Lukas, E. (1986). *Meaningful Living: A Logotherapy Guide to Health*. The Institute of Logotherapy Press, Berkeler CA USA.
- Masibo, R. M., Mndeme, E., & Nsimba, S. E. D. (2013). An Assessment of Knowledge, Attitudes and Practices of Psychoactive Substance Use among Secondary School Students in Dodoma Municipality, Tanzania. *American Journal of research Communication*
- McNeal, R. B. Jr. & Hansen, W. B. (1999). Developmental Patterns Associated with the Onset of Drug use: Changes in Postulated Mediators During Adolscence. *Journal of Drug Issues*, 29(2) 381-400
- Nalah, A. B. & Audu, G. (2014). Substance Use and Violent Behaviour of Students in Nasarawa State University, Keffi – Nigeria. *European Academic Research* Vol. I, Issue 10
- National Drug Law Enforcement Agency (1997). Drug data collection and research, Lagos: Drug Demand Reduction Unit, National Drug Law Enforcement Agency.
- Obikeze, N. & Obi, I (2013). *Research Journal in Organizational Psychology & Educational Studies* 2(1) 18-24
- Oijji, O. O., Okediji, A. A. & Udeagha, C. F. (2006). Socio-cultural Practices Related to Alcohol and Drug Use in Nigeria: Implications for Health Related Policies. A Paper Presented at the 7th Biennial Conference on Drugs and Society in Africa. Held at Abuja 26th and 27th July, 2006.
- Oshikoya K. A., & Alli A. (2006). Perception of Drug Abuse Amongst Nigerian Undergraduates. *World Journal of Medical Sciences* 1 (2): 133-139.
- Oshodi, O. Y., Aina O. F., & Onajole A. T. (2010). Substance use among secondary school students in an urban setting in Nigeria: prevalence and associated factors: *Afr J Psychiatry* 2010;13:52-57
- Oyefeso, A.O. (1988). Cross validation of Edward Personal Schedule. Unpublished research paper, Ibadan: University of Ibadan.
- Uba, I., Yaacob, S. N., Talib, M. A., Mofrab, S. & Abdullah, R. (2013). Effects of Self-Esteem in the Relationship between Stress and Substance Abuse among Adolescents: A Mediation Outcome. *International Journal of Social Science and Humanity*, 3(3)
- United Nations Office on Drugs and Crime (2005). *World Drug Report Volume 1*. (United Nations Publication, Sales No. E.05.XI.10)
- United Nations Office on Drugs and Crime (2011). *World Drug Report* (United Nations Publication, Sales No. E.11.XI.10)
- United Nations Office on Drugs and Crime, (2012). The contemporary drug problem: Characteristics, pattern and driving factors. In *World drug report 2012*. Retrieved from United Nations Office on Drugs and Crime Web site: http://www.unodc.org/documents/data-and-analysis/WDR2012/WDR_2012_Chapter2.pdf

Waisberg, J., & Porter, J. (1994). Purpose in life and outcome of treatment for alcohol dependence. *British Journal of Clinical Psychology*, 33, 49-63. - Cited by Ali, Leigh, Jan & Bill, (2003)

World Health Organization (2005). *Alcohol, Gender and Drinking Problems: Perspectives from Low and Middle Income Countries*.

World Health Organization. (2011). *Alcohol: Fact sheet*. Retrieved from World Health Organization Web site: <http://www.who.int/mediacentre/factsheets/fs349/en/index.html>