# PERCEIVED DISCRIMINATION AND SOCIAL IDENTITY AS ADOLESCENTS' PATHWAYS TO EARLY SUBSTANCE USE

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#### **ABSTRACT**

This study investigated the influence of discrimination and social identity on adolescent's substance use in selected secondary schools in Ibadan – an investigation predicated on the argument that angry, maladaptive and externalizing behaviours such as substance use could emerge from sustained social hostility and one's identity confusion. Three hundred and forty-six (346) adolescents were randomly selected from four schools to take part in the study. Results of univariate analysis show that social stress associated with perceived and actual discrimination led highly discriminated adolescents to report high levels of substance use compared to adolescents who experienced low levels of discrimination (F=8.84, df=1, 338, p<.001). Also, adolescents' social identity did not show significant influence on substance use but a tendency to use drugs among adolescents with low social identity compared to those with high social identity reported. This situation suggests the experience of identity confusion by adolescents who experience group hostility and discrimination. Also, a comparison of gender on drug use reveals males using more drugs than females (F=14.10, df=1, 338, p<.001). Based on these outcomes it was recommended that several social and governmental organizations starting from families should work together in the enlightenment of adolescents and the general populace on the need to respect the rights of every individual and live harmoniously. With this, adolescents will share more social acceptance and reduce the frequency of involvement in emotion-regulated substance use and other maladaptive and externalizing behaviours.

Key Words: Discrimination, Social Identity, Adolescents, Substance Use

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#### INTRODUCTION

Substance use is one among the many dimensions of adolescent delinquent and addicted behaviours. The coincidence of adolescence as a period of schooling lends credence to numerous research reports indicating that drug and alcoholic activities are prevalent among in-school adolescents (e.g. Eneh & Stanley, 2004; Obot, Ibanga, Ojiji & Wai, 2001). While some young persons may "detachedly" experiment with alcohol and drugs, others become firmly attached to them and with time become serious or chronic substance users.

Drug use and dependence continues to present a significant public health problem and are associated with disproportionate costs to society in terms of criminal activity, spread of HIV infection and other diseases, medical expense, deaths on and off the road and disruption of local communities and families (Sussman & Ames, 2001). Drug and alcohol use during teen and adult years can lead to many problems for young persons and their families including skipping school, bad grades, conflict in relationships with friends and peers, rocky family relationships as well as poor brain function, concentration and development (National Institute on Alcohol Abuse and Alcoholism NIAAA, 2009). The sensitivity and importance of the adolescent stage of development to the overall success of an individual - especially school successmakes the present study very significant. Moreover, drug-abusing teens may also get into trouble with the law and end up in court and spend time in juvenile detention (United States Department of Justice USDOJ 2003).

Some research-based investigations have revealed that serious or chronic

juvenile offenders of the law are much more likely than other juvenile offenders to be substance users who may also exhibit some forms of substance use disorders (Mulvey, Schubert & Chassin, 2010). Basically, adolescent developmental tasks include challenges of identity, autonomy, sexuality, academic function and peer relationships (Cicchetti & Rogosch, 2002; Erikson, 1968).

Generally, substance use is a multifactorial bio-psychosocial process (Sussman & Ames 2001). This implies that there are multiple factors and causal pathways that influence peoples' propensity to substance use and dependence. There are several suspected influences contributing to substance use ranging from the not easily-modified intra-personal predictors to the easily-modified extra-personal variables. While intra-personal processes contributing to individual differences in substance use etiology include physiological susceptibility as measured in research on genetics (Goodwin, 1986, Cloninger, 1981), extra-personal predictors take into cognizance environmental, cultural and social influences.

Our present study is interested in investigating selected extra-personal predictors of drug use. These are discrimination and social identity. To be able to understand this, it is important for comparative reasons to review some dimensional aspects of intrapersonal inclinations to drug use. Studies have shown that affective disorders and personality correlates of neurobiological processes make certain individuals vulnerable to drug use (e.g. Bourgeois, Nelson, Slack & Ingram, 1999). There are also some research evidence that explicit cognitions such as beliefs or expectations may serve as some forms of motivation to engage in alcohol or other

drug use behaviours (Brandon, Herzog Irvin & Gwaltney, 2004). Intrapersonal motivational sources of drug use such as depression, trauma and post-traumatic stress disorder have also been implicated in some studies (e.g. Jaycox, Ebener, Damesek & Beecker (2004). In the same way, neuropsychological differences such as behavioural self-regulation, emotional regulation, inattention and cognitive function are also aspects of noticeable individual differences in drug and alcohol using behaviour among teen drug users and non-users. (Scheier & Botvin, 1996). This guiding information, which necessitates this study will help to examine discrimination and social identity as important social predictors of drug and alcohol use in a Nigerian sample.

# Discrimination and Vulnerability to Drug Use

In considering the role of discrimination and social identity on adolescent drug use, it is important to understand the relationship between stereotyping and prejudice and the workability of the minority stress model (Meyer, 1995, 2003). This model posits that discrimination, internalized homophobia and social stigma can create a hostile and stressful social environment for human populations. The model, according to Dohrenwend (2000) cited in McCabe, Bostwick, Hughes, West and Boyd (2010), connects the literature demonstrating higher odds of mental health problems and alcohol use disorders among lesbian, gay and bisexual populations with well-established social science research that demonstrate the link between stress or stressful life events and poor health outcomes. Most research treats perceived discrimination as an independent variable and finds it to be positively associated with a variety of negative outcomes for young people (e.g. Brody, Kogan & Chen, 2012; Taylor & Turner, 2002). One study suggests that discrimination may lead to substance use or be mediated by adolescent anger and delinguent behaviours (Whitbeck, Hoyt, McMorris, Chen & Stubben, 2001). This appears possible when young persons ruminate (i.e., think about very carefully) on unpleasant discriminatory experiences from others. When McCabe et al (2010) examined the relationship between discrimination and substance use among three sexually-differentiated groups (Lesbian, Gay and Bisexuals), more than twothirds of the participants reported at least one type of discrimination in their lifetimes which also combined with either racial/ethnic discrimination or gender. These were associated with the tendency for the participants to use more substances with attendant disorders. In a South African study, Brook, Pahl, Morojele and Brook, (2006) examined the effect of demographic, personal, peer, parental and environmental factors on adolescent drug use. Among the environmental stressors examined were low socioeconomic status (assessed by measures of number of amenities and prevalence of hunger), victimization and discrimination. Results relating the environmental stressor domain showed that adolescents with higher levels of drug use reported greater discrimination and more violence directed toward themselves than those with lower levels of drug use. This result shows that the discrimination-drug use relationship may be reversible.

# Social Identity and Drug Use

The group engagement model distinguishes among three aspects of identity:

identification, pride and respect (Tyler & Bladder 2000). The group value model, later renamed the relational model emphasizes that inclusion within a group can provide a sense of self worth and identity (Tyler & Lind, 1992). Hartshom, Whitbeck & Hoyt (2012) had reported in their study that discrimination experiences contribute to the etiology of anger and aggressive behaviours, including substance use, among indigenous adolescents. A selfidentity approach to behaviour suggests that people engage in behaviours that express their self-concept (Swann, Stein-Seroussi & Giesler, 1992). On the other hand a social-identity approach to behaviour addresses the role of social-identity as a determinant of health-related behaviour (Verkooijen, 2006). Group identity, which also encompasses engagement, has consistently been found to differentially influence people's drug use attitude depending on the value-structure of the group. For example Verkooijen, de Vries and Nielson (2007) examined the impact of group identity on frequent tobacco, alcohol and marijuana use among adolescents who reported involvements with either one, two or three subgroups. Results reported from the study showed that members of groups characterized by noisy and active activities were associated with higher risks of substance use compared to the groups with quiet and religious orientations. Interestingly, even among drug users, individuals still strive to reconstruct favourable identities to impute some forms of virtue to drug use. It has also been found that activity participation is the central nucleus of social identity in the same way that peer group membership and activity involvement are linked to identity exploration and to a sense of belonging to a particular type of peer group (Barber, Eccles & Store, 2001). In a recent study, Ravn (2012) examined young recreational drug users' self- and other- identity constructions using a focus group method, and found that participants clustered along six dimensions of drug practice which include: general drug knowledge, context specific drug knowledge, practices for checking drugs, acknowledging one's position in surrounding drug scene and age.

Based on research evidence that both discrimination and social identity could influence the use of drugs by adolescents, the researchers elected to investigate perceived discrimination and social identity among secondary school adolescents in Ibadan in relation to drug use. It is a common occurrence for group members to be treated either respectfully or rudely based on existing social stereotypes about group membership. Like other groups, adolescent natives of Ibadan usually come face to face with many stereotypes including the "historical identity" of the city as "dirty" and "filthy" (Ajala, 2011). Among suggestions listed by the present researchers to these adolescents during a face to face interview, they reported that "filthiness" and "hygiene issues" were among the reasons given by their "aggressors" in taunting and alienating them. Other issues were laziness, talkativeness and school performance. Aware of these forms of social hostility towards them as members of a group over erroneous stereotypes, victims keep on ruminating about such disrespectful and discriminatory attitudes which they feel also imply the violation of their moral values. Discrimination violets the three dimensions of an individual's group engagement, which include identification, pride and respect. A suitable empirical evidence guided by the

transactional models of stress is people's responses when encountering discrimination and prejudice as well as the effect of discrimination and prejudice on self-esteem and other coping variables (Major, McCov, Kaiser, & Quinton, 2003a) Accordingly, such individuals may no longer identify with the group, feel proud about the group nor feel respected by the group. Deductively, discrimination tends to reduce social identity because of the stress and shame associated with social disapproval. To compensate for this, individuals may choose to engage in drug use or other self-defeating behaviours in order to inhibit helplessness. This presents as an open justification to constantly probe and understand the roles of discrimination and social identity in the context of in-school adolescents' drug use.

# **Gender and Drug use**

A general trend in substance use research has been a greater occurrence of illicit substance use among males than among females. (Anderson, 1994, Svensson, 2003) In Nigeria, studies (e.g. Eneh & Stanley, 2004; Obot et al, 2001) have reported gender differences in the use of drugs by males and females. In the United States, the National Household Survey on Drug Abuse (NHSDA) and the Monitoring the Future (MTF) groups have remained leading sources of data on substance use, and have consistently documented this pattern over the years (Anderson, 1994). Drug use for both males and females usually start in the early teen years of a person's life. However, due to traditional ideas of patriarchy and gender role ideologies, it is believed that young men are more likely to use drugs than young women (Aggleton, Ball & Mane, 2006). A wide review of preclinical studies in the vulnerability of drug use revealed however, that females are more vulnerable than males during transition periods of drug use (Roth, Cosgrove & Carroll, 2004). While women are reported to use less drugs than men, they however become more addicted to alcohol than men (Zilberman, Tavares & el-Guebaly, 2003). Similarly, fewer women than men use alcohol, yet the frequency that young women are becoming intoxicated on alcohol on a regular basis is rising and the medical consequences of chronic alcohol consumption are more severe for women than for men (Becker & Hu, 2008). Based on all these factors (discrimination, social identity and gender) predicting substance use among adolescents, the study formulated and tested the following hypothesis:

 Adolescents who express high levels of group discrimination and low levels of social identity as natives of Ibadan will significantly report higher levels of early involvement in substance use than those who experience low levels of group discrimination and high levels of social identity respectively.

## **METHOD**

# **Research Design**

We employed a cross-sectional survey method, specifically the ex-post facto design for the study. The independent variables were discrimination and social identity while the dependent variable was drug use.

# **Participants**

Participants in the study were three hundred and forty six (346) adolescent students randomly but proportionately selected from the SS1-SS3 populations of four secondary schools in Ibadan, Nigeria namely: AL-Hayyu Group of Schools (67), Urban Day Grammar School (1) (136) Ogbere Community High School (1), (133) and Bolande Universal College (10). Their ages range from 12 to 25 years with a mean age of 16.2 years. Two of the schools were privately owned while two others were publicly managed. Among the students selected, 157 (45.4%) were males while 189 (54.6%) were females.

## Instruments

A self report questionnaire was used for data collection. The questionnaire contained sections capturing the different aspects of participants' information. Section A assessed participants' demographic characteristics. Section B contained items from Whitbeck, Hoyt, McMorris, Chen & Stubben (2001) Perceived Discrimination Scale. It is a 10-item measure of individual and general discrimination trait, experiences and feelings. The authors reported a Cronbach alpha of 0.80 for the scale. The present study yielded a Cronbach alpha of 0.78. Section C of the questionnaire contains items which measure social identity. They were drawn from Cheek, Smoth and Tropp's (2002) Aspects of identity questionnaire. The 45-item questionnaire has a 7-item subscale that measures social identity. It has a Cronbach alpha of 0.61 and the present study reported a reliability coefficient of 0.51. Section D of the questionnaire was made up of items from Whitbeck, et al, (2001) 23-item alcohol and substance abuse scale. It is divided into three parts. Serially, participants are to describe their opinion about their attitudes towards alcohol and drinking (5 items), indicate their pattern of involvement in alcohol abuse (5 items), and indicate how they

have used variously named substances in the past six months (13 items). It basically surveys the number of problems experienced in the past year by adolescents due to alcohol use. Items measure family and school issues related to alcohol. Responses were rated 0 = no. 1 = lifetime.2 = past year and 3 = past month. For the section assessing substance use, adolescents are required to list the number of substances used in the past six months from a range of 0-11 substances including tobacco, alcohol, marijuana, inhalants, depressants, stimulants and hallucinogens. The scale has a Cronbach alpha of 0.80. The present study found a Cronbach alpha of 0.89.

### **Procedure**

Pilot Study: A pilot study was conducted to standardize the instruments for Nigerian participants. Twenty-two (22) participants (8 males and 14 females) were selected from Adedamola College, Tokunbo Ojo Street, Orogun, Ibadan, for the study. They were 11 SS1 students, 7 SS2 students and 4 SS3 students. The students understood and responded to the items without difficulty. Reliability statistics of the scales showed that the social identity scale had a Cronbach alpha of 0.41, discrimination scale had 0.55 alpha coefficient while the substance abuse scale had a reliability coefficient of .61, .75 and .71 for the respective subsections.

## **Main Study**

The researchers visited each of the schools after a written permission from the principal. The students were met in their respective classes where the purpose of the study was explained to them. In each of SS1, SS2 and SS3 classes the researchers told the students they were in

their school to compare the percentage of Ibadan indigenes who were in school with those of non-indigenes in order to know if they were responding to government's "goodwill" towards the education of the indigenes, as a way of preventing young persons from engaging in child labour and begging. Each class was therefore divided into two groups of "Ibadan indigenes" and "others". The "non-indigene" group was therefore excused while the researchers administered the research instruments to qualified participants after detailed instructions and explanations were given. This approach of 'placating' non-participants was used in order to carry all students along without feelings of disrespect or mistrust regarding the purpose of the study. In all, a reasonable number of students in these schools were indigenes especially in the publicly managed schools. At the end of the exercise participants were properly debriefed.

# Data analytic approach

Both descriptive and inferential statistics were used in data analyses. Frequency distribution of participants and their corresponding percentage values were used in describing participants' location, and class distribution. A correlational approach was alternatively used to examine the relationships among variables. The Analysis of Variance (ANOVA) was the statistical tool for testing hypotheses.

#### **RESULTS**

A careful analyses of the results showed that participants in the study emerged from eight out of the 11 local government areas that make up the Ibadan metropolis. There are however 33 Local Government Areas in Oyo State. A percentage distribution of the participants by Local Government Area is shown in Table 1 below.

**Table 1.** Descriptive statistics showing frequency distribution of study participants on location/Local Government Area and class level bases

59 20 72	17.1 5.8 20.8
72	
	20.8
	20.0
68	19.7
48	15.9
20	5.8
43	12.4
16	4.6
346	100.00
Frequency	Percentage
96	27.7
147	42.5
103	29.6
346	100.00
	68 48 20 43 16 <b>346</b> <b>Frequency</b> 96 147 103

**Table 2.** Summary of Zero-Order bivariate correlation showing means, standard deviations and interrelationships among major study variables

	Variables	1	2	3	4	5	Mean	SD	N
1	Age	-					16.15	1.77	346
2	Class level	.321**	-				2.02	0.76	346
3	Social identity	.028	035	-			20.97	5.26	346
4	Discrimination	.091	066	.070	-		18.89	7.30	346
5	Substance Use	.188**	018	061	.227**	1.00	22.82	14.52	346

<sup>\*\*</sup> P<.01 (2 tailed)

The inter-correlation shows that there is a significant positive relationship between age and class level (r=.321; P<.01). There is also a significant positive relationship between age and substance use (r=.188; P<.01) and a significant positive relationship between discrimination and substance use (r=.227; P<.01). There was no significant relationship between class level and substance use (r=.018; P>.01) and also between social identity and substance use (r=.061; P>.01).

In order to test the hypothesis, a univariate analysis (ANOVA) was performed using the SPSS software 15.0 versions as shown in Table 3.

From the table, there are significant main effects of discrimination (F= 8.84, df=1, 338, p<.001) and gender (F= 14.10, df=1, 338, p<.001) on substance use among adolescents. Mean differences indicate that highly discriminated participants ( $\bar{x}$ =25.67, SD=15.93) significantly use more drugs than lowly discriminated participants ( $\bar{x}$ =19.80, SD=11.30). However, the social identity of participants does not have any influence on substance use. Mean differences indicate that participants who rate themselves higher on social identity use lesser drugs ( $\bar{x}$ =21.10, SD=12.77) than participants who report lower levels of social identity

**Table 3.** ANOVA Summary table showing main and interaction effects of discrimination, social identity and gender on substance use among adolescents

Source	Type III Sum of squares	df	ms	F	Sig.
Correlated model	6304.45	7	900.64	4.58	000
Intercept	167138.52	1	167138.52	850.75	000
Discrimination (A)	1735.79	1	1735.79	8.84	<.001
Social identity (B)	585.09	1	585.09	2.98	ns
Gender (C)	2770.01	1	2770.01	14.10	<.001
AxB	67.84	1	67.84	.35	ns
AxC	2.18	1	2.18	.01	ns
BxC	15.96	1	15.96	.08	ns
AxBxC	149.32	1	149.32	.76	ns
Error	664003.72	338	196.46		
Total	252810.00	346			
Correlated Total	72708.16	345			

R squared = .078 Adjusted  $R^2 = .068$ 

( $\bar{x}$ =23.91, SD=15.46). There is therefore no significant difference between the two mean values. There are however no interaction effects of discrimination and social identity on drug use. No such interaction also exists in terms of gender and other variables.

## DISCUSSION

The results of this study show that discrimination predisposes adolescents to early substance use. This finding confirms the research outcomes by Brody et al (2012), Hartshorn et al (2012), and Okamoto et al (2009). Other studies (Whitbeck et al, 2001; McCabe, et al, 2010; Brook & Pahl, Morojele & Brook, 2006) are also supported. Persons experiencing group discrimination tend to lose some aspects of their group-validated self-concept leading to the experience of stress and loss of self-esteem. In this way the basic aspects of an individual's groupbased attributes - identification, pride and respect - will adversely decline. Discrimination is a very strong psychological statement made by group members on an individual and can affect people in diverse ways leaving feelings of distress, disappointment, anger, sadness or disquiet depending on the level of one's attachment to the group. In the case of adolescents discriminated against by peers or community members, feelings of disillusionment can lead to the desire to acquire new selves through drug or alcohol use or other forms of social vices, which they may erroneously construe as "powerful" self-presentation.

Also, in the results, a prediction that low levels of social identity will lead to high levels of early substance use among adolescents compared to high levels of social identity remained unsupported. This outcome did not support the research findings of Verkooijen et al (2007) and Ravn (2012) specifically because it was not clear whether adolescent boys and girls of Ibadan, as students, belonged to specifically defined active or inactive group structure. This is because regulated school activities and programmes served to moderate the activities of the students and may not have allowed them, on their own, to determine the tempo of their group activities. Moreover, participants' social identity in this context remained threatened, as students may not show much enthusiasm and pride for being members of a group that discriminates against them. It is even more complex when the adolescents concerned belong to many groups who treat them with disdain. The marginal differences between the two means may represent the students' identity confusion about being indigenes of Ibadan thereby inhibiting their participation in group activities. The slightly lower mean appears to represent the students' 'unwavering' understanding that no matter the circumstances, they cannot "reconstruct" their ethnic (social) identity and so must accept their ethnic identity while the slightly higher mean may represent their unconscious psychological reactions and helplessness to discrimination as a form of hostility. The adolescents' view of their social identity appears to experience some forms of "approach-avoidance conflict" which the students find difficult to resolve. This assessment is in line with Barber et al's (2001) finding that peer group membership and activity involvement are linked to identity exploration. Our present study also failed to support the findings of James et al (2000) that high levels of cultural identity were associated with heavy drug use. The reason may be that these adolescents may not be happy and may then not use their group platform as a rallying point for "social networking and related peer activities".

The differential use of drugs by males and females in this study corroborates a number of studies which found that discrimination leads more to substance use specifically among males. Among these are conventional findings on gender and drug use such as Aggleton et al, (2003) and Zilberman et al, (2003). Other studies supported by our finding include Eneh and Stanley (2004) and Obot et al, (2001). This is in line with general research trend that males tend to use more substances than females. Culturally however, alcohol and drug use has not been a popular "pastime" among Nigerian girls and women for mostly social reasons. Women have however been known to encourage the "responsible" use of alcohol by men because they believe it is a sign of their men's virility. In most cases therefore, women "bask in the reflected glory" of male substance users and this, apart from indicating their virtual use of substances, also help the men to use more substances. However the difference is in where the line is drawn between "responsible" substance use and substance abuse.

## Conclusion

Overall, findings of this study have shown that the roles of discrimination and social identity as adolescents' pathways to substance use are mixed and greatly depend on situations, roles and types of groups and the quality of peoples' attachment to their groups. While discrimination has clearly led to detrimental experiences that push adolescents into substance use as shown in

this study, social identity has shown some forms of complexity that makes it malleable across situations. The non-significant role of self-identity in this study as a predictor of substance use may be explained as an outcome based on the difficult and multifarious conception of self-identity by different people (males and females) across different situations. In this study, adolescents were surveyed in their classrooms without relevant laboratory conditions to address confounding variables. It is therefore possible that adolescents' responses to the measures could have reflected some situational or other extraneous assumptions. Future research should therefore address such limitations to increase the external validity of the study.

#### REFERENCES

Aggleton, P., Ball, A. & Mane, P. (Eds.) (2006). Sex, Drugs and Young people: *International Perspectives*. New York, NY: Routledge.

Ajala, A.S. (2011). Space, Identity and Health Risks: a study of domestic waste in Ibadan, *Nigeria Perspectives*, 1, (1), 193-212.

Anderson, T.L. (1994). "Drug Abuse and Identity: Linking micro and macro factors". *The sociological quarterly, 35*, 159-174

Barber, B.L., Eccles, J.S. & Stone, M.R. (2001). Whatever happened to the Jock, the Brain, and the Princess? Young Adult Pathways Linked to Adolescent Activity Involvement and Social Identity. *Journal of Adolescent Research*, 16(5), 429-455.

Becker, J.B. & Hu, M. (2008). Sex Differences in Drug Abuse. Frontiers in Neuroendocrinology, 29(1) 36-47.

- Bourgeois, J.A., Nelson, J.L., Slack, M.B. & Ingram, M. (1999). Comorbid affective disorders and personality traits in alcohol abuse at an Air Force Medical Centre. *Military Medicine* 164(2), 103-106.
- Brandon T., Herzog, T., Irvin, J. & Gwaltney, C. (2004). Cognitive and social learning models of drug dependence: Implications for the assessment of tobacco dependence in adolescents. *Addiction 99*, 51-77.
- Brody, G.H., Kogan, S.M. & Chen, Y. (2012). Perceived discrimination and longitudinal increases in adolescent substance use: gender and mediational pathways. *American Journal of Public Health*, 102(5) 1006-1011.
- Brook, J.S; & Pahl, T., (2006). Predictors of drug use among South African adolescents. *Journal of Adolescent Health*, *38* (1), 26-34.
- Cheek, J.M., Smith, S.M., & Tropp, L.R. (2002). Relational Identity Orientation: A fourth scale for the Aspects of Identity Questionnaire. Paper presented at the meeting of the society for personality and social psychology, Savannah, G.A.
- Cicchetti, D., & Rogosch, F.A. (2002). A developmental psychopathology perspective on adolescence. *Journal of consulting and clinical psychology, 70,* 6-20.
- Cloninger, C.R. (1981). Inheritance of alcohol abuse. *Archives of General Psychiatry* 38, 861-868.
- Eneh, A.U, & Stanley, P.C. (2004). Pattern of substance use among secondary school students in Rivers State, Nigeria. *Nigerian Journal of Medicine*, *13* (1), 36-39.
- Erikson, E. H. (1968). Identity, youth and crisis. New York: W.W.Norton Company.

- Goodwin, D.W. (1986). Genetic factors in the development of alcoholism. PCNA 9:427.
- Hartshorn, K.J.S., Whitbeck, L.B. & Hoyt, D.R. (2012) Exploring the Relationships of Perceived Discrimination, Anger, and Aggression among North American Indigenous Adolescents. *Society and Mental Health 2, 1,* 53-67.
- Jaycox, L.H., Ebener, P., Damesek, L., & Becker, K. (2001). Trauma exposure and retention in adolescent substance abuse treatment. *Journal of Traumatic Stress*, *17*, 113-121.
- Major, B., McCoy, S.K., Kaiser, C.R. & Quinton, W.J. (2003A). Prejudice and Self-esteem: a transactional model. In W. Strobe & M. Hewtstone (Eds), European Review of Social Psychology (Vol. 14, pp. 77-104). London. Psychology Press.
- McCabe, S; Bostwick, W; Hughes, T., West, B; & Boyd, C. (2010). The relationship between discrimination and substance use disorders among lesbian, gay and bisexual adults in the United States. *American Journal of Public Health*, 100 (10), 1946-1952.
- Meyer, I.H. (1995). Minority Stress and Mental Health in Gay men. *Journal of Health and Social behaviour, 36(1),* 38-56.
- Meyer, I.H. (2003). Prejudice, social stress and mental health in lesbian, gay and bisexual populations: Conceptual issues and research evidence. *Psychological Bulletin* 129(5) 674-697.
- Mulvey, E.P., Schubert, C.A. & Chassin, L. (2010). Substance Use and Delinquent Behaviour Among Serious Adolescent Offenders. Juvenile Justice Bulletin, Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice.

- National Institute on Alcohol Abuse and Alcoholism (NIAAA) (2009). NIAAA five year strategic plan: FY 09-14: Alcohol across the lifespan. National Institute of Health- US Department of Health and Human Services.
- Obot, I.S; Ibanga, A.J., Ojiji, O.O., & Wai, P. (2001). Drug and alcohol consumption by out of school Nigerian adolescents. *African Journal of Drug and Alcohol Studies*, 1 (2), 98-109.
- Ravn, S. (2012). Contested identities: Identity construction in a youth recreational drug culture. *European Journal of Cultural Studies*, *15(4)* 513-527.
- Roberts, B. (2007). Gender Differences in Drug Abuse and Addiction A cross cultural perspective. Contributor Network
- Roth, M.E. Cosgrove, K.P., & Carroll, M.E. (2004). Sex differences in the vulnerability to drug use: a review of preclinical studies. *Neuroscience and biobehavioural reviews 28*, 533-546.
- Scheier, L.M. & Botvin, G.J. (1996) Cognitive effects of marijuana. *Journal of the American Medical Association*, 275, 1547.
- Sussman, S. & Ames, S.L. (2001). The social psychology of drug abuse. Buckingham, U.K. Open University Press.
- Svensson, R. (2003). Gender differences in adolescent drug use: The impact of parental monitoring and peer deviance. *Youth and society 34* (3), 300-329.
- Taylor, J. & Turner, R.J. (2002) "Perceived Discrimination, Social Stress, and Depression in the Transition to Adulthood: Racial Contrasts". *Social Psychology Quarterly*, 65(3): 213-225.

- Tyler, T.R. & Bladder, S.L. (2000). Cooperation in groups: Procedural justice, social identity, and behavioural engagement. Philadelphia: Psychology Press.
- Tyler, T.R. & Lind, E.A. (1992). A relational model of authority in groups. In M. Zanna (Ed). *Advances in Experimental Social Psychology* (25, pp. 115-191). San Diego: Academic Press.
- United States Department of Justice. (2003). Children at clandestine methamphetamine labs: Helping meth's youngest victims. *OVC Bulletin, June 2003*, office for victim of crimes.
- Verkooijen, K. (2006). Identity and Health-Risks Behaviour in Adolescence. PhD Thesis University of Southern Denmark.
- Verkooijen, K.T; Devries, N.K; & Nielsen, G.A. (2007). Youth crowds and substance use: The impact of perceived group norm and multiple group identification. *Psychology of addictive behaviours*, 21, 55-61.
- Whitbeck, L.B., Hoyt, D., McMorris, B., Chen, X., & Stubben, J. (2001). Perceived discrimination and early substance abuse among American Indian Children. *Journal of Health and Social Behaviour, 42*, 405-424.
- Zilberman, M., Tavares, H. & el-Guebaly, N. (2003). Gender similarities and differences. The prevalence and course of alcohol and other substance-related disorders. *Journal of Addictive Diseases*, 22, 61-74.