

Effect of psycho-education on involvement in drug use among adolescent in Ibadan south-east local government Ibadan, Oyo State

Prof Grace Adejuwon¹ and *Lydia Jesutofunmi Adelan²

^{1,2}Department of Psychology, University of Ibadan, Ibadan, Oyo state, Nigeria

*Corresponding Author Email: Fade4real16@yahoo.com², Tel.: 08065177476



*Corresponding Author

Lydia Jesutofunmi Adelan²

Department of Psychology, University of Ibadan, Ibadan, Oyo state, Nigeria

*Corresponding Author Email:
Fade4real16@yahoo.com²,
Tel.: 08065177476

Abstract

The use and abuse of drugs by adolescents have become one of the most disturbing health related phenomena in Nigeria and other parts of the world. Several school going adolescents experience mental health programme, either temporarily or for a long period of time. Some get into mental disorder and eventually drug addiction which is difficult to treat. Therefore, this study examines the effect of psycho-education on involvement in drug use among adolescent in Ibadan south-east local government Ibadan, Oyo state. The study utilized quasi experimental research design (before and after control group design) involving 18 participants with the mean age of 15.89 years and standard deviation of 4.04 years. Data were collected using a 13-item structured questionnaire with five scales: Section A measured demographic variable and section B measured Involvement in drug use. The hypothesis was tested using Analysis of Covariance (ANCOVA) at alpha (α) value = $p < 0.05$ level of significance. The results revealed that there was no significant effect of psycho-education on drug involvement $F(1, 35) = 0.65, p > 0.05, \text{partial } \eta^2 = 0.02$. Psycho-education therapy was responsible for 2% of the change observed in the post-test drug involvement scores. It was revealed that only psycho-education was not effective in treating drug use because treatment of drug use involves combination of different treatment that must be combined in order to achieve recovery. Therefore, prevention is the best method in resisting adolescents from involving in drug use, and this involves psychologist, health practitioners, parents, teachers, governments and guardians.

Keyword: Involvement in drug use and psycho-education

Introduction

Drug use is one of the risky behaviour adolescents engage in, that is why it was important for this study to focus on drug abuse among adolescents. A drug refers to a substance that could bring about a change in the biological function through its chemical actions (Okoye, 2001). It is also considered as a substance that modifies perceptions, cognition, mood, behaviour and general body functions (Balogun, 2006). They could thus, be considered as chemical modifiers of the living tissues that could bring

about physiological and behavioural changes (Nnachi, 2007). Drug use is the harmful use of mind altering drugs. It addition, the term usually refers to problem with illegal drugs, which also include harmful use of legal prescription drugs, such as in self-medication (Oluremi, 2012). Amina (2016) argued that there are different kinds of drugs including the hard drugs and the prescribed drugs. When you abuse any of them, it becomes drug abuse. The term drug abuse, could be the hard drugs including cocaine, weed among others and prescribed drugs codeine even

though it is meant for medication some people use it for something else.

In the last three decades, the world has experienced shocking figures expressing drug abuse prevalence in societies, especially among teenagers and youths. Around 269 million people used drugs worldwide in 2018, which is 30 per cent more than in 2009, while over 35 million people suffer from drug use disorders, according to the latest World Drug Report, released today by the United Nations Office on Drugs and Crime (UNODC 2020). Cannabis was the most used substance worldwide in 2018, with an estimated 192 million people using it worldwide. Opioid, however, remain the most harmful, as over the past decade, the total number of deaths due to opioid use disorders went up 71 per cent, with a 92 per cent increase among women compared with 63 per cent among men. Drug use increased far more rapidly among developing countries over the 2000-2018 periods than in developed countries. Adolescents and young adults account for the largest share of those using drugs, while young people are also the most vulnerable to the effects of drugs because they use the most and their brains are still developing.

Psycho-education on the other hand is to educate clients about substance abuse, and related behaviours and consequences. Psycho-education is a professionally delivered treatment modality that integrates and synergizes psychotherapeutic and educational interventions. Many forms of psychosocial intervention are based on traditional medical models designed to treat pathology, illness, liability, and dysfunction. In contrast, psycho-education reflects a paradigm shift to a more holistic and competency-based approach, stressing health, collaboration, coping, and empowerment (Dixon, 1999).

Statement of Problem

Adolescent's use of drug is among the major social problems in Nigeria. This problem is highly pervasive, and knows no boundary with regard to sex, social class, or place of residence. Although this problem is a global phenomenon, however, the growing number of youths involved in substance abuse in Nigeria, as well as the continuing fall in the age of entry into the act (Oliha, 2014; Igwe, Ojinnaka, Ejiofor, Emechebe and Ibe, 2009; Oshodi, Aina and Onajole, 2010) makes it a serious a problem that requires urgent attention. Several school going adolescents experience mental health programme, either temporarily or for a long period of time. Harmful use of substances has multiple direct effects on adolescents. The likelihood of unemployment, physical health problems, dysfunctional social relationships, suicidal tendencies, mental illness and even lower life expectancy is increased by substance use in adolescence. In the most serious cases, harmful use of drugs can lead to a cycle in which damaged socioeconomic standing and ability to develop relationships feed substance use (United Nations Office of Drugs and Crime, 20018; (UNODC). The problem of the drug use places a significant threat to the social, health,

economic fabrics of the families, society and the entire nations. (Giade, 2012; Oshodi, Aina & Onajole, 2010). Almost every country in the world is affected from one or more drug being abused by its citizen's (UNODC, 2007). The increased use of drug globally has brought problems such as increase in violence and crimes, increase in hepatitis B and C virus, increase in HIV/AIDS diseases, collapse of the veins and collapse in the social structure. (UNODC, 2007; Oshodi, Aina, & Onajole, 2010).

Drug abuse is a general problem in Nigeria today especially in areas where there is no adequate supervision such as monitoring of students and effective use of punishment for deviant behaviours. The curative, rehabilitative and legal modalities earlier employed to combat drug and substance abuse have not yielded appreciable results. One of the best strategies for implementing and attaining this goal is through the use of psycho-education but this study sought to establish the general trend of the drug problem in secondary schools and critically analyze psycho-education as a treatment measure. The findings will aid in evaluating whether these strategies have the potential to help the government in curbing the drug problem among the youths in secondary schools. The objective of this study was therefore to;

- Examine the influence of psycho-education on involvement in drug use among Adolescent.

Research Hypothesis

- The participants who receive psycho-education intervention would report lower levels of drug involvement than participants who do not receive psycho-education.

Theoretical Background and Literature Review

Theory of Psycho-education

Three fundamental assumptions underscore cognitive-behavioral models of treatment (Dobson & Dobson, 2009; Dobson & Dozois, 2001). The first assumption is that cognitive processes and content are accessible and can be known. Although in many instances specific thoughts or beliefs may not be in one's immediate awareness, with proper training and practice individuals can become aware of them. The second key assumption is that our thinking mediates the way that we respond to environmental cues. From this perspective, people do not just react emotionally or behaviorally to life events. Instead, Cognitive Behavioral Theory (CBT) holds that the way we think about our reality is central to how we react to that reality. The third fundamental assumption of CBT is that such cognitions can be intentionally targeted, modified, and changed. Consequently, when such cognitions are changed in the direction of more rational, realistic, and balanced thinking, the individual's symptoms will be relieved, and the person will have increased adaptability and functionality. This

change can occur as a result of the individual's working alone, perhaps with the use of self-help material, or through engagement with a trained practitioner in one of the various CBT approaches.

Drug Abuse Theory

The Cognitive Affective Pharmacogenic Control (CAP) control theory emphasizes the interaction of the individual's style and the affective experience of drug use with the drug's pharmacogenic effect. These are the basic ingredients of (CAP) control theory of addiction (Coghlanetal. 1973; Gold & Coghlan 1976). The cognitive style of the drug abuser is viewed as the pivotal factor in an individual's moving from drug experimentation to drug abuse. The CAP I theory posits that the abuse process begins with conflict as a predisposing factor. People who are having difficulty in meeting demands or expectations placed upon them by society or by themselves are in conflict, and a consequence of the stress of conflict is anxiety. Anxiety is a universal feeling, something most of us experience to some degree each day. It is not the experience of anxiety but the individual's interpretation of the anxiety that is crucial to the theory. Underlying the anxiety of drug abusers is a belief that they cannot alter or control the situation; that they are powerless to affect their environment and decrease or eliminate the sources of stress. The belief that they are powerless to cope with stress is the major cognitive distortion of drug abusers. One consequence of this is the intense feeling of low self-esteem that is a well-known clinical entity among drug abusers (Krystal & Raskin1970). Feelings of self-depreciation, which form the belief that one is powerless, represent the affective component of CAP theory.

Psycho-Education

Bada (2015) in a study which evaluated the effectiveness of psycho-education among female partners of prisoners in Ibadan and enhancing their psychological well-being revealed that, female partners who received psycho-education training reported significantly reduced level of anxiety at follow-up and posttest stage compared to pre-test stage. In other words, the intervention training was more effective in reducing anxiety among female partners of prisoners after the training than before the training.

Adejumo (2004) found out in a study done on influence of psychosocial factors and the effectiveness of behavioural techniques on HIV Sexual Risk Behavior (SRB) among adolescents. Psycho-education intervention participants recorded greater reductions in HIV SRB. The study which adopted a pre-test/post-test control group design revealed significant reductions in HIV/SRBs among the participants in psycho-education group compared to those in the control group.

Littrell, Hilligoss, Kirshner, Petty, and Johnson, (2003) carried out a study over a six month period with an aim of assessing the effect of an education intervention on

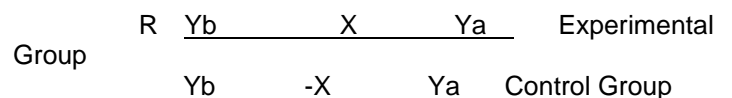
antipsychotic-induced weight gain among patients with schizophrenia who were being treated with olanzapine. The study was a quasi-experimental design with 70 patients with a Diagnostic and Statistical Manual (DSM) of mental disorders, 4th edition diagnosis of schizophrenia or schizoaffective disorder. Patients were randomly assigned to an intervention group or a standard care group. For over four months, the intervention group participated in weekly psycho-education classes that focused on nutrition, exercise, and living a healthy lifestyle. The participants were followed for an additional two months to assess weight change. The study found a statistically significant difference in weight change between the two groups at post-treatment and at endpoint (Littrell et al., 2003). At the endpoint of the study, the mean weight change of the intervention group was -0.06 pounds, while the mean weight change in the standard care group was an additional 9.57 pounds. The study concluded that a structured educational intervention might have a positive effect on antipsychotic-induced weight gain among patients with schizophrenia.

Methods

Research Design

This stage used before and after control group design, which is a quasi-experimental design which considered as an appropriate design for an intervention study. This method became very useful in order to examine the effectiveness of psycho education on adolescent involvement in drug use. The design allowed the researcher to compare the level of risk propensity, peer pressure, self-control, functional belief and involvement in drug use before the introduction of psycho-education and after the therapy had been introduced among adolescents. The participants were divided into experimental group and the control group in agreement with the design.

The experimental group was given pretest (that is. the participants were tested before the psycho-education), the psycho-education therapy and posttest (the participants were tested after the introduction of the psycho-education), while the control group was given pretest and posttest without any psycho-education intervention.



Yb = Pre test

Ya = Post test

X = Treatment

-X = Absence of treatment

R = Randomization

Ya – Yb = Difference

The participants were randomly assigned into two groups where the first group was the experimental group and the

second group was the control group. The experimental group was exposed to the psycho-education while the control group was not given any psycho-education. Experimental group was tested before and after the administration of psycho-education while control group was tested before and after without the administration of the psycho-education. Then, the end line data was compared with baseline data to ascertain the difference between the control group and experimental group. The independent variable was the intervention given while the dependent variable was the level of involvement in drug use.

Study Setting

The intervention program was conducted at the school library of St Luke's College located at Molete Ibadan. This was a convenient venue for the participants to be part of the experimental exercise as this afforded the participants access.

Research Participants

In the second phase of the research, the researcher used one school out of the four schools selected in first phase of the researcher. The result revealed that students who scored high on drug involvement scale were highly populous (40 students) in this selected school than other schools. Forty participants scored high in the first phase of the study with 15 to 18 age range but (36) participants with the mean age of 15.89 years and standard deviation of 4.04 years were able to be reached for the second phase of the study and they were randomly assigned to groups; 18 participants were in the experimental group while 18 participants were in the control group.

Sampling Procedure

The participants for this phase were selected using purposive sampling method and they were therefore selected based on their score in the first stage of the research and the participants were randomly assigned into the two groups that is, experimental and control group. The researcher gave the participants number 1 and 2, participants who were labeled 1 were assigned to the control group while participants that were labeled 2 were assigned to experimental group.

The essence of random assignment of the participants was to ensure that, all the participants had equal opportunity of being assigned into any of the two groups without the researcher having any control over their choice of group and also to ensure that, the participant were similar to each other in the baseline score, before the introduction of psycho-education. The participants were given opportunity to withdraw from the research at any point in time and the researcher also explained the importance of the participant's attendance during the study.

Research Procedure

The second phase was to find out the effectiveness of psycho-education on involvement of drug use among adolescents, and participants who scored high on adolescent drug involvement scale in the first phase were included in the second stage. Participants were psycho-educated by experts on factors that can influence them to continue involving in drug use and how they can overcome those influences, they were exposed to assertiveness training, resilience training, self-confidence and self-compassion to help them during peer influence and how they can say No to any form of pressure coming from their peers.

Intervention Package Development

The intervention program for this study was developed and adapted based on the existing manual on psycho-education and findings from the stage one of the study through the quantitative methods of data collection. The intervention comprised of three modules for three weeks. The training was held during the break- time of the school between 30 minutes to 50 minutes per day for two days in a week with an expert in substance use treatment, a research assistant and the teachers in the school who helped in making sure the student comply and were present for the meeting. Each module included different session with the following activities such as opening discussion, discussions about the purpose of the sessions, review of the last session, the session's topic, the week's assignment, review of assignments and closing.

Outline of the Modules

In this study, three modules were adopted;

- Module 1, introduction and facts on drug use
- Module 2, peer pressure and
- Module 3, skills needed in overcoming peer pressure as adolescents/ conclusion
- **Modules One** (Introduction and Facts on Drug Use)

This module's objective was to introduce drug use to the participants starting from drug use definition, peculiarity of different category of drugs, effects both positive and negative, reasons why adolescent use drugs, consequences of drug use.

The first session was introduction and contained the following activities;

- welcome address
- introduction
- discussion on participants willingness to attend all the session

- setting of ground rules and
- training goals and objectives

Session two was the training and included

- participants being enlightened on drug use
- defining drug use and different category of drugs
- allowing the participants to mention common drug that they use
- explaining positive and negative effects of drug use and
- explaining the influence of drug on the brain functioning and its consequences on individual behaviour

Before session three, participants were given 5 minutes break to relax and return, Session three included reflecting on

- conditions that can hinder adolescents from taking drugs.
- reasoning why adolescent must desist from drug use
- encouraging adolescents in taking responsibility and making decisions
- setting realistic goals to stop drug use and
- providing positive feedback for decision making. This was done through;
- question and answer
- general interaction
- assignment. Each participant was given an opportunity to identify how they can overcome drug use.

• **Module two** had sessions four, five and six – session four consisted of

- welcome and marking of attendance
- review of module one sessions assignments and
- checking in for the next session. On the other hand, session five focused on explaining
- explain facts on peer pressure
- positive and negative effect of peer pressure on adolescents behaviour
- identifying the influences of peer pressure and educate the participant on how to identify the peer pressure.
- explaining the link between peer pressure and drug use and
- identifying ways to overcome peer pressure. Session six dealt with;

Open discussion, summary and an assignment. Under this session,

- here was an open discussion on how participants have been influenced by their peers in time past. Some of the participants shared their experience and they were encouraged.
- An assignment was given on what the participants think they can do to overcome peer pressure.

• **Module Three** - skills needed in overcoming peer pressure as adolescent's conclusion

In this module, there were sessions seven, eight, nine and ten. Session seven covered

- welcome and marking of attendance
- review of module two sessions and review of assignment
- checking in for the next session

Session eight was on skills needed in overcoming peer pressure;

- assertiveness training; explanation of;
- facts on assertiveness
- identification of factors that can enhance assertiveness in adolescents
- teach participants on how to become assertive and
- applying assertiveness technique to specific situation

Before session nine, there was a break that focused on

- explaining facts on self- confidence skill
- teaching how to build self- confidence skill and
- linking between self- confidence and assertiveness in overcoming peer pressure.

Session nine was on skills needed in overcoming peer pressure and dealt with resilience training, that is;

- explaining facts on resilience
- effects of resilience on peer pressure and
- teaching coping skills on resilience to the participant. After this, there was a break that was on explaining
- facts on self-compassion
- how to discover self-compassion
- teaching self-compassion skills and
- explaining link between resilience and self-compassion in overcoming peer pressure

The last session was ten, which was summary and conclusion.

The session was concluded by giving a summary of some major issues discussed during the course of the training the training terminated by disengaging the participants.

Post-test

The post-test and follow-up of the study was done on a separate day (three weeks) after the intervention training. Thirty-six participants who participated in the study were assessed on all the variables in the study during post-test. A comparison was made with the pretest and post-test scores in order to examine the effectiveness of the psycho-education training given to the participants.

Data Analysis

Descriptive statistics was used to analyze the demographic variable and inferential statistics was used to analyze both independent and dependent variable. One-way ANCOVA was used to analyze the effectiveness of psycho-education and the level of significance was set at 5% level of significance.

Result

Figure 1: Distributions of the Respondent Based on Socio-Demographics

| Variable | Socio-Demographic | Frequency | Percent |
|---------------------------|---------------------------|-----------|---------|
| Gender | Male | 20 | 55.6 |
| | Female | 16 | 44.4 |
| Total | | 36 | 100 |
| Age | 15-16 years | 10 | 17.8 |
| | 17 - 18years | 24 | 66.7 |
| Total | | 34 | 100 |
| Class | Senior Secondary School 2 | 20 | 55.6 |
| | Senior Secondary School 3 | 16 | 44.4 |
| Total | | 36 | 100 |
| Religion | Christian | 26 | 72.2 |
| | Islam | 10 | 27.8 |
| Total | | 36 | 100 |
| Occupation | Trader | 6 | 16.7 |
| | Teacher | 10 | 27.8 |
| | Marketer | 6 | 16.7 |
| | Foodseller | 4 | 11.1 |
| | Engineer | 2 | 5.6 |
| Total | | 36 | 100 |
| Father parental education | Primary education | 6 | 16.7 |
| | Secondary education | 26 | 72.2 |
| | Tertiary education | 4 | 11.1 |
| Total | | 36 | 100 |
| Mother parental education | Not educated | 6 | 16.7 |
| | Primary education | 8 | 22.2 |
| | Secondary education | 6 | 16.7 |
| | Tertiary education | 22 | 61.1 |
| Total | | 36 | 100.0 |

Table 1 above shows that larger percentage of the respondents (55.6%) were male while 44.4% were female;66.7% of the respondent were on the age range of 17 to 18 years, while 17.8% were 15 to 16 years; 44.4% of the respondent were SS3 while 55.6% were SS2;27.8% of the respondents were Muslims while 72.2% were

Christians:16.7% were traders, 27.8% were teachers, 16.7% were marketers, 5.6% were engineers, and 11.1% were food-sellers; 72.2% of the respondent's fathers had obtained secondary school certificate, 11.1% of father's respondents had obtained tertiary certificate, while 16.7% of the fathers had primary school certificate; and 16.7%,

22.2%, 16.7%, and 61.1% of the respondent's mothers had no certificate, had primary, secondary school, and tertiary certificates, respectively.

Hypothesis I

The study hypothesis was that participants who receive psycho-education intervention would report lower levels of drug involvement than those who do not. This hypothesis was tested using one-way ANCOVA. The summary of result is presented in Tables2 and Table 3 below.

Table 2: Summary of One Way Analysis of Variance Showing Effect of Psycho-education on Drug Involvement

| Source | Sum of Squares | Df | Mean Square | F | Sig. | η^2 |
|---------------------|----------------|----|-------------|--------|------|----------|
| Pretest (Covariate) | 419.720 | 1 | 419.720 | 18.629 | .000 | .361 |
| Treatment | 14.537 | 1 | 14.537 | .645 | .428 | .019 |
| Error | 743.503 | 33 | 22.530 | | | |
| Corrected Total | 1163.222 | 35 | | | | |

The result of ANCOVA as presented in Table2above shows that the covariate (pre-test scores) significantly influenced the post-test scores $F(1, 33) = 18.63$, $p\text{-value} = 0.019 < 0.05$. This shows that learning or extraneous influences of pre-test assessment influence the post-test assessment. However, the result demonstrated there was no significant effect of psycho-education on drug involvement $F(1, 33) = 0.65$, $p\text{-value} = 0.428 > 0.05$, $\eta^2 = 0.02$ meaning psycho-education therapy was

responsible for 2% of the change observed in the post-test drug involvement scores. Post-hoc t-tests were utilized to determine specific differences between the groups. The summary of result is presented in Table3 below.

Least Significant Difference (LSD)post-hoc t-tests were utilized to determine specific differences between the groups. The summary of result is presented in Table3 below.

Table3: Mean Differences and Post Hoc Analysis

| Intervention | Mean | S.E | Multiple comparison test | |
|--------------|---------------------|-------|--------------------------|------|
| | | | 1 | 2 |
| Control | 42.075 ^a | 1.129 | | 1.29 |
| Experimental | 43.369 ^a | 1.129 | | |

*. The mean difference is significant at the .05 level.

From post hoc analysis (Figure 1), the effects of time within the treatments show that there was no significant difference between the control and experimental group in

drug involvement after receiving psycho-education therapy. The graph below explains the above result graphically.

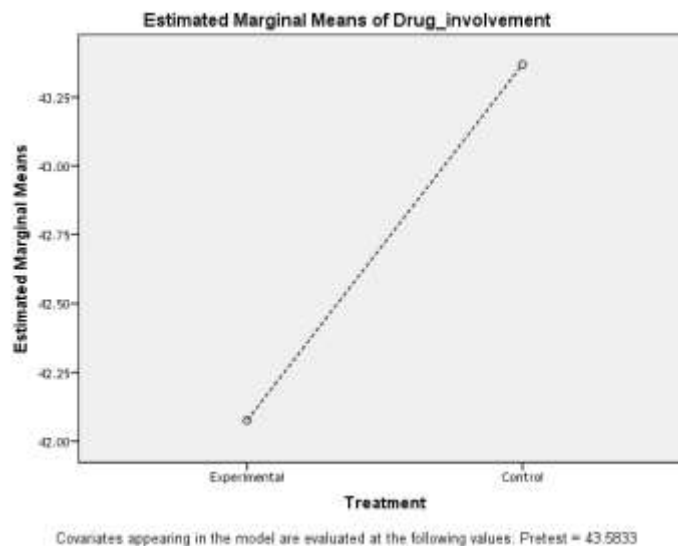


Figure 1: Post hoc analysis in drug involvement after receiving psycho-education therapy

Conclusion

The hypothesis stated that the participants who received psycho-education intervention would report lower levels of drug involvement than who did not receive psycho-education. The result revealed that there was no difference in the level of involvement in drug use among those who received psycho-education intervention and those who did not receive. This showed that only psycho-education as a form of treatment was not effective in making adolescent desist from involving in drug use, because some of them had become addicted to the drug and addiction is a chronic relapsing brain disease that cannot be cured but only be managed through multiple form of treatment. In treating drug addiction or making adolescent desist from involving in drug use; eclectic approach must be adopted that is combining psycho-education with pharmacotherapy, other psychotherapies and other evidenced base practices. Another factor that hinders effectiveness of psycho-education is because of relapse, they relapse easily because of the withdrawal symptoms experienced and this makes it difficult to treat. Substance abuse treatment professionals employ a variety of group treatment models to meet client needs during the multiphase process of recovery. A combined model of treatment will make recovery process easy and better. These result calls for multidisciplinary approach in treatment of drug involvement.

Recommendations

Considering the result revealed from this study, it is noteworthy to know the implication of this study. The study showed that 45.3 percent of the participants involved in drug use and this reflected how adolescents have been indulged in this act that leads to addiction and addiction cannot be treated but only be managed. To achieve recovery process for drug addicts, multi-therapy approach must be adopted and as studies have shown using multi-therapy approach only 30% of the therapy is effective and total treatment cannot be achieved.

Therefore, this study recommends;

- that prevention is the key for total abstinence from drug use
- adopting eclectic approach for treatment of drug use
- psychologist should be involved in treatment and should not limit their work within the walls of academics and
- government should promote and encourage drug prevention at all level of schools.

Some of the strength of this study was that the study used randomization approach and both male and female were used as participants. However, the study had some limitations, which included that the;

- study was carried out using only one local government in Ibadan metropolis
- few schools were selected randomly which might hindered the external generalizations; and
- only adolescents between ages 15 and 18 were used in this research.

References

- Adejumo, A.O. (2004). Influence of Psycho-demographic Factors and Effectiveness of Psycho-behavioural Interventions on Sexual Risk Behaviour of in-School Adolescents in Ibadan City Vol. 20 No. 1 (2012)
- Amina, J. K. (2016) Impact of Drug Abuse on the Mental Health of University Undergraduates: Perspectives of Agbowo Community. *International Journal of Advancements in Research & Technology*, Volume 7, Issue 8, August-20181 ISSN 2278-7763
- Bada, B.V. (2015).The Effectiveness of Psycho-Education on the Psychological Well-Being of Spouses of Incarcerated Males in Ibadan, Nigeria. *African Journal for the Psychological Study of Social Issues*Vol. 16 No. 2 (2013)
- Balogun, S.K. (2006). "Chronic intake of separate and combined alcohol and nicotine on body maintenance among albinorats", *Journal of Human Ecology*, 19(1) 21-24.
- Dobson, K., & Dozois, D. (2001).Historical and philosophical basis of cognitive-behavioral therapy. In K. Dobson (Ed.), *Handbook of cognitive-behavioral therapies* (pp. 3–39). New York: Guilford
- Coghlan, A.J.; Gold, S.R.; Dohrenwend, E.F.; & Zimmerman, R.S. (1973.) psych-behavioral residential drug abuse program: A new adventure in adolescent psychiatry. *International Journal of the Addictions*,8(5):767-777,
- David, W.S., Lorraine, M. &Sacha, R. (2008). School-Based Drug Prevention Programs: A Review of What Works. Vol: 41(2):259-286.
- Dixon, L. (1999). Dual diagnosis of substance abuse in schizophrenia: prevalence and impact on outcomes. *Schizophr.Res.* 35, S93–S100.
- Dobson, D., & Dobson, K. S. (2009).Evidenced-based practice of cognitive-behavioral therapy. New York: Guilford.
- Dobson, K., &Dozois, D. (2001).Historical and philosophical basis of cognitive-behavioral therapy.In K. Dobson (Ed.), *Handbook of cognitive-behavioral therapies* (pp. 3–39). New York: Guilford.
- Giade, A. (2011, June 30). How Nigeria's Latest Drug Abuse Defies Legislator. *Daily Trust Newspaper*. Retrieved from <http://www.dailytrust.com.ng/daily/old/index.php/feature/42852-how-nigerias-latest-drug-abusedefies-legislation>
- Gottfredson D., C. & Wilson D., B. (2003). Characteristics of effective school-based substance abuse prevention. *Prevention Science*, 4(1), 27-38.
- Igwe, W. C., Ojinnaka, N., Ejiogor, S. O., Emechebe, G. O. & Ibe, B. C. (2009).SocioDemographic Correlates of Psychoactive Substance Abuse Among Secondary School Students in Enugu, Nigeria. *EuropeanJournal of Social Sciences* 12.2: 277 –283
- Jahromi, L. Mokri, A. &Ekhtyari, H. (2009).Cardiovascular complications of opioid abuse.*J Addict.* 2009; 7:69–78.
- Krystal, H., & Raskin, H.A. (1970.) *Drug Dependence: Aspects of EgoFunctions*. Detroit: Wayne State University Press,

- Lakhanpal, P. Agnihotri, A., K. (2007). Drug Abuse an International Problem: A short Review with Special reference to African Continent. *Journal of Medicine and Toxicology*, 1(1), 1-11
- National Hilligoss, N.M., Kirshner, C.D., Petty, R.G., & Johnson, C.G. (2003). The effects of an educational intervention on antipsychotic-induced weight gain. *Journal of Nursing Scholarship* 35(3):237-41
- Naderi S., H. Bynazadeh M, Safatian S. & Peyvandi, A., A. (2009). Tehran: Center of Combining Substance Abuse; 2009. Comprehensive package of treatment of addiction; pp. 24–58.
- Nnachi, R.O. (2007). *Advanced psychology of learning and scientific enquiries*, Enugu: J.J. Classic Publishers Ltd.
- Oliha J.A. (2014) Adolescent And Drug Abuse In Tertiary Institution Implication for Counselling. University of Benin, Benin City. *British Journal of Education* Vol.2.No.1, pp.-1-9, March 2014 Published by European Centre for Research Training and Development UK.
- Oluremi, D. F. (2012). Drug Abuse among Nigerian Adolescents strategies for counseling. *Journal of International Social Research*. 5(20), 342 – 347.
- Okoye, N.N. (2001). “The adolescents and hard drugs: A psychological concern in R.U.N”, Okonkwo & R.O. Okoye (eds). *The Nigerian adolescent in perspective*. A Publication of the Nigerian Society for Education.
- 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. *African journal of psychiatry*, 13(1), 52–57.
- United Nations Organizations on Drug Council (UNODC) (2005). “World Health Organization Expert Committee on Dependence Producing Drugs. Fourteenth Report Urban Adolescents”, *Child Development*, 61, 2032-2046.
- United Nations Organizations on Drug Council (UNODC) (2016). *World drug report 2016*. New York: United Nations.
- United Nations Office on Drugs and Crime.(2018). *Drugs and Age, Drugs and associated issues among young people and old people*. Retrieved from https://www.unodc.org/wdr2018/prelaunch/WDR18_Booklet_4_YOUTH.pdf August 14, 2020
- United Nations Office on Drugs and Crime.(2020). *UNODC World Drug Report 2020: Global drug use rising*. Retrieved from <https://www.unodc.org/unodc/press/releases/2020/June/medi-a-advisory---global-launch-of-the-2020-world-drug-report.html> August 14, 2020.