

# Relative Efficacy of Multimodal Aversion Therapy on Alcohol Dependence Behavior of College of Education Students

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## ABSTRACT

This study sought to investigate the relative efficacy of Multimodal aversion therapy on alcohol dependence behavior of College of Education students. The study used experimental research design involving randomized experimental and control groups. The population for the study consisted of 2,150 NCE 1 (100level (Nigeria Certificate in Education) students of the college. However, the target population was those identified with alcohol drinking dependent behavior. A sample of 42 NCE 1(100level) students constituted the subjects for the study. Both stratified and simple random sampling were adopted for selecting the sample, taking into cognizance, the students' schools, departments and gender. Two instruments Alcohol Drinking Dependence Questionnaire (ADDQ) and Drinking History Questionnaire (DHQ) were used for data collection. Both instruments were validated by expert judgment and had reliability co-efficient of 0.73 and 0.76 respectively. The data collected were analyzed by using both descriptive and inferential statistics to answer the research questions and test the postulated hypothesis respectively. The result indicated that the prevalence of alcohol drinking among FCT College of Education students was on the average. It also revealed that multimodal aversion therapy was effective in the cessation of alcohol drinking dependence behavior of both male and female students. Multimodal aversion therapy was recommended for both psychologists and Guidance Counselors for the modification of alcohol drinking behavior and abuse of drugs among students.

**Keywords:** Efficacy, Multimodal Aversion Therapy, Alcohol Drinking Behavior, College Students.

## INTRODUCTION

Teacher Education is a primary tool for the overall development of the society with a mandate of producing well-motivated teachers with high personal and professional discipline, integrity and competence. Despite the relevance of teacher education, the issue of students' engagement in health compromising behavior such as alcohol consumption is a source of concern to stakeholders in education. Students appear to indulge in alcohol drinking behavior that may not be beneficial to the individual and society and puts them at risk of their educational goals. This is so because academics call for hard work and hard work requires a great demand of time, concentration, energy and resilience before success is achieved. The behaviour of alcoholics is that of incoherence, full of anxiety and lack of concentration and attention as well as the exhibition of truancy, stealing, embezzlement of school fees and other related anti-social activities in school. (Eze ,Njoku, Eseadi, Akubue, Ezeanwu, Ugwu, & Ofuebe, 2017).

Alcohol consumption among students in higher institutions of learning is a major public health issue worldwide; however, the extent of consumption among College of Education students and their understanding of its effects on human health remain relatively unknown in many states in Nigeria. In some climes, it is perceived as a positive and pre- social activity by young people and it is seen as a part of social

contribute to pleasure, enjoyment, confidence-building and maintenance of friendship amongst students on campus. Nevertheless, alcohol drinking dependence by students is associated with a range of adverse effects including brain damage, academic failure, violence, alcohol-related injuries, unprotected sexual intercourse leading to infection of Sexually Transmitted Infections (STIs) and general immorality (WHO, 2014).

Heavy alcohol intake may also lead to depression and liver damage, and may affect many parts of the brain with the most vulnerable cells being those that are associated with memory co-ordination and judgment, which may lead to psychological and physiological effects that may inhibit academic achievement of teacher trainees.

Drinking in any community however, can be influenced by the social and cultural norms of the community and if community members are properly guided, they can play useful roles in controlling alcohol dependence, hence the move to prevent alcohol-related problems particularly among students.

Drinking on campuses has become a ritual that students often see as an integral part of their higher educational experience, while many students come to school with established drinking habits, others are influenced by their peers on or off-campus thus, people with alcohol dependence often are stigmatized and have a higher chance of dropping out of school or tend to live in more crowded places with higher chances of infection and lower chances of recovery (Ajayi, Owolabi & Olutola, 2019). Despite worldwide concerns and education by government, Non-Governmental Organizations (NGOs) about use of alcohol, many NCE students have limited awareness of the adverse consequences.

Most students who engage in heavy alcohol consumption record poor academic achievement because, it contributes to students' missing classes, failing tests and dropping out of school due to poor grades (Johnson, 2009). This compromises the academic mission of the Colleges of Education in Nigeria whose goals according to the National Policy on Education include;

1. Preparing professionally competent teachers to perform their roles effectively according to the needs of the society.
2. Upgrading the standard of teacher education and to enhance the professional and social status of teachers and develop amongst them a sense of commitment (Federal Government of Nigeria, 2014).

It is worthy of note that alcohol does not discriminate and can impact anyone regardless of age, gender, beliefs, body types and ethnicity.

The different causes of alcohol dependence ranges from biological causes which could be genetic, environmental, which could be related to proximity to alcohol retail stores and bars as well as alcohol advertisements that portray alcohol as an acceptable fun and a means of relaxation. One of the strong causes of alcoholism among young people is peer influence while other causes could be psychological since some students drink alcohol to improve their moods and restore their "spirit" (Dumbili, 2013). Cultural and social backgrounds determine to a large extent what constitutes acceptable foods and drinks in many parts of the country. The use of any substance in some societies is accepted or rejected depending on the socio-cultural values and norms of the people.

The use of alcohol in our institutions of higher learning remains a prominent public health problem in our society probably because there are no written alcohol control policies to regulate the production and availability of the beverages, government therefore relies on self-regulatory "drink responsibly" campaign slogan while some religious bodies out-rightly condemn alcohol consumption as an immoral act. The Non-Governmental Organizations (NGOs) on their own have continued the sensitization on the health implications of alcohol but all these have not yielded much positive results hence, the present study sets to use a multidimensional approach which research suggests as the best way to help alcohol drinking

dependents refrain from their drinking behavior. Chikere and Mayowa, (2011).

### **Statement of the Problem**

Alcohol consumption and dependence is an important public health problem because of its physical, psychological and social repercussions among students in higher institutions of learning. The increasing level of alcohol consumption and its consequences are of serious concern for stake holders in the education sector and especially as it affects NCE students who are supposed to be role models, character-molders and transmitters of knowledge by virtue of their training is of concern to the researcher and constitute the problem of this study.

Alcohol drinking behavior is increasing among students in higher institutions and has culminated into unruly behavior such as alcohol-related violence, alcohol-related unprotected sexual intercourse, and alcohol-related injuries on campus as well as traumatic outcomes that kill or disable young people resulting in loss of lives and disability (Chikere & Mayowa, 2011). Onongha, (2012) reported that one in every four students found to indulge in alcohol drinking have been involved in academic after effect.

which include; missing classes, falling behind in class, indulging in examination malpractice, doing poorly in examinations and dropping out of school.

Many researchers have applied unimodal approaches as reported by the American Addiction Centre (AAC) (2019) to help students involved in drinking dependence behavior but have not yielded impressive results, the researcher considered it quite appropriate to apply multimodal aversion therapy to determine its effect on drinking dependence behavior of students of FCT College of Education, Zuba, Nigeria.

The Purpose of the study is to investigate the effect of multimodal aversion therapy on alcohol drinking dependence behavior of students of FCT College of Education Zuba, Nigeria.

### **Research Questions**

The following research questions serve as guide for the conduct of the study.

1. What is the rate of indulgence in alcohol drinking behavior by NCE One Students?.
2. To what extent does Multi-modal aversion therapy affect alcohol drinking behavior of NCE One students?

### **Hypotheses**

Two null hypotheses were postulated for the study and tested at 0.05 level of significance:

1. There is no significant difference between the post-test mean scores of alcohol drinking behavior of students exposed to multimodal aversion therapy and those in the control
2. There is no significant gender difference between the post-test mean scores of students exposed to multimodal aversion therapy.

## **METHODOLOGY**

This study adopted a true experimental research design involving randomized control groups. Pre-test post-test design made up of one experimental and one control group. The design is considered most appropriate because, there is improvement in internal validity. Subjects were randomly selected and assigned to groups which took care of extraneous variables. The experimental group was exposed to multimodal a version

therapy, while the second group served as the control group. This allows one treatment group to be compared to another to establish superiority.

The population for this study consisted of all the 2,150 NCE 1 (100 Level) students of the FCT COE Zuba. The target population that identified with alcohol drinking dependence behavior. The choice of NCE 1 was informed by virtue of the fact that they have a longer period to spend in the College whereby the three months follow-up will be possible.

A sample of 42 NCE 1 (100 level) students who were identified with drinking behavior disorder were selected for this study. The sampling technique adopted was stratified random sampling which involved stratifying the college into the five schools that is; School of Arts and Social Sciences (ASS), Early Childhood Care Education/Primary Education Study (ECCE/PES), Languages (LANG), Sciences (SC) and Vocational and Technical Education (VTE). This sampling technique was adopted to give every identified alcohol abusive student an equal chance and opportunity of being selected. Within each school, the selection also involved sample from each department that make up each of the schools with particular reference to gender.

The researcher made use of the two instruments for data collection; for screening, Classification into groups, evaluation and follow-up

1. Alcohol Drinking Dependence Questionnaire (ADDQ)
2. Drinking History Questionnaire (DHQ)

The ADDQ was a paper and pencil structured questionnaire adapted from Ikediashi (2013). The questionnaire contains 22 items and has two Sections A and B. Section A contained bio data of the respondents while section B consist of items that elicit specific information about an individual's drinking behavior and degree of dependence on alcohol. The items were arranged on a scale with responses ranging from "Always", "Sometimes" and "Never". Those who ticked „Always“ were considered alcohol dependents, those who ticked „Sometimes“ were considered moderately dependent and were not accepted for the study likewise those who ticked „Never“. The respondents who ticked "Always" were the only ones involved in the study.

The DHQ is also a pen and pencil questionnaire adapted from Ikediashi, 1996 and was also modified to reflect only the variables in the present study. For section A, the items in the bio-data that were not relevant to this study were removed completely to sooth the situation of the study while other items were categorized for more distinct responses. There were 14 items in Section B which comprised of some structured and non-structured questions from the original document that were retained as they conform to the information that will be relevant to this study.

The alcohol drinking dependence questionnaire was subjected to experts " judgment to determine the content validity of the instrument in terms of the extent to which the items of the instruments were relevant to the objective of the study. This is in tandem with Awotunde and Ugodulunwa (2004) that the usual process for certifying the content validity is to subject the instrument to expert scrutiny to ensure that the universality of the content is properly represented. Thus the experts were expected to ascertain that the content, research questions, purpose and objectives of the study are appropriate.

To establish the construct validity of ADDQ, the items were subjected to factor. The reliability of ADDQ was established by adopting a test re-test method within three weeks interval. The ADDQ has been observed to compare favorably with reliability co-efficient obtained in other studies using attitude scale such as Ferguson (1983) range of 0.52to0.82 for 20 items (Onongha,2012).

The data generated was subjected to Pearson Product Moment reliability to establish a reliability coefficient of 0.73. The reliability of the DHQ was established by subjecting it to Cronbach ( $\alpha$ ) to determine the internal consistency of the instrument.

The validity of the Drinking History Questionnaire (DHQ) was established through expert judgment involving two lecturers in Guidance and Counseling and one in Counseling Psychology from the University of Abuja who thoroughly scrutinize and criticize the items in the questionnaire and necessary modifications made thereby establishing the content validity. In addition, the construct validity was established by administering the instrument on a sample of 30 students that were not involved in the study and their responses were subjected to factor analysis.

The reliability of the DHQ was estimated by subjecting it to Cronbach ( $\alpha$ ) to determine the internal consistency of the instrument. A reliability co-efficient of 0.76 was established.

The data collected for this study were analyzed using both descriptive and inferential statistics. The descriptive statistics involved simple percentage, mean and standard deviation to answer the research questions 1 & 2 while t-test was used to test hypotheses 1 & 2 at 0.05 level of significance.

## RESULTS

### Research Question One

What is the rate of indulgence in alcohol drinking among NCE Students?

**Table 1: Mean, Standard deviation and Percentage analysis of indulgence in Alcohol**

Rate of				
Indulgence	N	Mean	SD	Percentage(%)
High	65	58.3	8.42	15.5
Moderate	147	41.3	9.33	35
Low	208	28.7	8.02	49.5
Total	420	—	—	100
Cluster Mean		41.7	—	

Table 1 indicates that 15.5% of the NCE students indulge in high level of alcohol drinking while 35% indulge moderately in alcohol drinking. The table however, indicates that 49% of the students indulge in alcohol drinking at a low level. This means that only 50% of the students indulge in alcohol drinking behavior at a low level. This calls for concern and a need for modification of students' alcohol drinking behavior.

### Research Question Two

To what extent does Multi-modal aversion therapy affect Alcohol Drinking Behavior of NCE one students?

**Table 2: Mean and Standard Deviation of Pre-test and Post-test of Alcohol Drinking Behavior of NCE students.**

Group	Pre-test			Post-test Mean		
	N	Mean	SD	Mean	SD	Reduction
Experimental (Multimodal Aversion Therapy)	21	58.4	8.41	40.3	6.81	18.1

Control	21	58.2	8.43	51.8	7.42	6.4
Mean Difference		0.2		11.5		11.7

The result in table 2 shows that experimental group exposed to multimodal Aversion Therapy had a pre-test and post-test scores of 58.4 and 40.3 respectively with Standard deviation of 8.41 and 6.81 respectively. The mean reduction in alcohol drinking was 18.1. The control group had a pre-test and post-test scores of 58.2 and 51.8 respectively with standard deviation of 8.43 and 7.42 respectively. The mean reduction in alcohol drinking was 6.4. The mean difference between experimental and control group was 11.7.

### Hypotheses Testing Hypothesis One

There is no significant difference between the Post-test mean scores of alcohol drinking behavior of students exposed to Multimodal Aversion Therapy and those in the control group.

**Table 3: Test of difference between experimental and Control groups alcohol drinking Behavior.**

Group	N	Mean	SD	SEM	df	t	p-value
Experimental	21	40.3	6.81	2.44			
					40-	1402	0.001
Control	21	51.8	7.42	2.95			

The result of the analysis shown in table 3 reveals that,  $t = 1402$ ,  $df = 40$ ,  $P(\text{sig}) = 0.001$ . Since  $P$  is less than the level of significance ( $\alpha = 0.05$ ), the null hypothesis which states that there is no significant difference between the post test mean scores of alcohol drinking behavior of students exposed to multimodal aversion therapy and those in the control group is hereby rejected. This means that there is a significant difference between the post-test mean scores of alcohol drinking behavior of NCE students exposed to multimodal aversion therapy and those in the control group.

### Hypothesis Two:

There is no significant gender difference between the post-test mean scores of students exposed to Multimodal aversion therapy.

**Table 4: Test of Mean difference between male and female students exposed to multimodal aversion therapy.**

Group	N	Mean	SD	SEM	df	t	P
Male	11	41.2	5.63	1.34			
					19	1.63	0.614
Female	10	39.5	5.71	1.86			

The analysis of data presented in Table 4 indicates that  $t = 1.63$ ,  $df = 19$ ,  $P(\text{sig}) = 0.614$ . Since  $P$  is greater than the level of significance ( $\alpha = 0.05$ ), the null hypothesis which states that there is no significant gender difference between the post-test mean scores of students exposed to multimodal aversion therapy was not rejected. This means that there was no significant gender difference between the post-test mean scores of students exposed to multimodal aversion therapy.

## DISCUSSION

The result of the study reveals that the prevalence of alcoholic drinking among Colleges of Education NCE students is on the average, with 15.5% indulging highly in alcohol drinking while 35% indulge moderately. This is similar to Chikere and Mayowa (2010) report of survey on alcohol use among college students which indicated that alcohol drinking habit is common among students especially those that had their first drinking in family settings. However, the study of Musyoka, Mbwayo and Muthoni (2019) indicated a higher prevalence rate of 77% of alcohol use among substance abuse by 649 students of the university of Ilorin, Kwara State involved in their study.

The result also shows that multi-modal aversion therapy is quite effective in the treatment /reduction of alcohol drinking behavior of students. This is indicated by the significant difference between the post test mean scores of alcohol drinking behavior of students exposed to multimodal aversion therapy and those in the control group Olugbenga, (2010 ) reiterated the need to treat alcohol drinking behavior from a multimodal perspective because no single treatment method is totally distinctive to this approach. Hence, the multimodal aversion therapy is a broad –spectrum approach. The study of Ikediashi (2013) also indicated that multi-modal aversion therapy was effective in the cessation of alcohol drinking behavior of students in Imo State University Owerri.

The result reveals that multimodal aversion therapy was effective in the cessation of alcohol drinking dependence behavior of both male and female college students. There was no significant gender difference in the post- test mean scores of students exposed to multimodal aversion therapy. The result is in line with Smith and Frawley (1993) findings that indicated no remarkable difference between male and female chemically dependent patients in a multimodal programme.

## CONCLUSION

Alcohol dependent behavior impacts on college students academic, social and psychological wellbeing. This study has revealed that alcohol consumption by college students is moderate, but requires modification. However, multimodal aversion therapy was found to be effective in the reduction/cessation of alcohol drinking behavior of College students regardless of gender.

## RECOMMENDATIONS

The following recommendations were made based on the findings of the study.

1. Multimodal aversion therapy should be adopted by psychologists and Guidance Counselors for the modification of alcohol drinking behavior of students found to be involved in such behavior.
2. Multimodal aversion therapy could also be adopted for the reduction of drug abuse among college students and adolescents.
3. More enlightenment should be provided by colleges and school management on the dangers of indulging in alcohol drinking dependence

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