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Effect of Life Skills Training Towards the Prevention of Drug Abuse among Adolescents in Nigeria

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Abstract: *School-based intervention is an appropriate approach for improving adolescents' knowledge on drug abuse. The study aimed to examine the effectiveness of life skill program as an interventional tool in the prevention of drug abuse among adolescents. This quasi-experimental (control and experimental group) design was carried out using a random sampling technique to recruit 287 adolescents. A semi structured questionnaire on effectiveness of life skills assessment regarding drug abuse was developed while knowledge was assessed using a standard instrument (DAST-10). After the initial data collection, intervention program was administered for six weeks, after which a second data were collected. Data were analyzed using SPSS version 26. For experimental group, the mean score of the general knowledge of adolescent increased from 5.00 to 13.08, perception, from 3.67 to 9.84, and Life Skill Programs (LSP) efficacy, from 2.98±58 to 15.66±1.48 while control group remains unchanged. The effect of the training shows a statistically significant different between the general knowledge, knowledge on prevention, and perception of adolescent before and after intervention at 95% CI. Also, adolescents' intentions for abusing drug were significantly related with(age), (gender) and (family structure) at 95% CI. Life Skill Training (LST) was discovered to promote interactive, decision-making, problem-solving, critical thinking and stress management skills and lead to more social acceptability, which in turn reduce drug abuse tendency.*

Keywords: Life skill training, Drug Abuse, Adolescents, Nigeria

INTRODUCTION

Drug abuse continue to be important public health problems and contributes greatly to morbidity and mortality rates globally, and rapidly increasing in developing countries.[1,2] Drug abuse is a pattern of compulsive drug use marked by recurrent significant social, occupational, legal, or interpersonal adverse consequences.[3]

Over a decade now, the annual death from substance abuse among young people is estimated to about 320, 000[4] and contributes to approximately 4·6% of disability adjusted life years.[2] In Nigeria, about 20% of secondary school students, has consumed psychoactive drug at least once in time.[5] In Lagos state, the recent study by Soremekun *et al.,*[7] has revealed the prevalence rate of 40.3% among secondary students, doubled the rate in Edo state.

Recent observation has shown that the most frequent used drug among teens are marijuana, cocaine, stimulants, painkillers and prescription drugs, spice and K2, heroin, crystal meth, MDMA, hallucinogens, DXM and inhalants.[7] Many studies have shown that the initiation and prevalence of drug abuse is most common during adolescence age.[4,8] The consequences are numerous such as poor academic performance, illegal behaviors and development of mental disorders. A study from Taraba State Nigeria has found that eating disorders, poor academic performance, family problems and social deviances such as practicing unsafe sex, rape, murder, theft, thuggery among adolescent substance abusers[5] affect attention span, decision making among the users[9] addiction[10] increase libido, boosting up criminal, economic burden, family instability.[11]

Over the years, communities across the globe particularly in affluent society have used Life Skills Training (LST) as an intervention to curb the menace of drug abuse targeting adolescents. And more than a few studies have scrutinized their outcome with high success rate in different areas such as Australia[12] and Europe.[13] The Life Skills Training Program demonstrates general classroom course that is delivered to adolescents. The principal objectives of the program are to educate adolescents on how to resist drug, self-management, and general social skills. And this works towards delaying the onset of drug use and decrease their general consumption during adolescence.[14]

Globally, school-based trainings that center on behavioral modification are vital measures in curbing drug abuse. In developing countries like Nigeria, program like life skills training is yet to be acknowledged and introduced as a component of health education in schools. Despite the effectiveness of Life Skills Training Program as recorded by Griffin and Botvin[15] studies have barely evaluated its strength and usefulness in Nigeria.

METHODOLOGY

Research Design

Quasi experimental design was employed for the study. This type of design identifies a comparison group that is as similar as possible to the treatment group in terms of pre-intervention features.[16] The experimental group received training while the control group did not, and difference observed in the scores of the two groups post-intervention were due to the influence of the training.

Study Setting

This study was conducted in Ikorodu Lagos State. The population for the study consisted of the adolescents two selected secondary schools in Ikorodu among students at Senior Secondary school 2 and 3.

Instrument for Data Collection

A standardized instrument (DAST-10) with self-structured questionnaire was adopted based on the related literature reviewed which are in line with the objectives of this study. All the questions were close ended question type with either option A, B, C or Likert scale 'Yes or No' or Agree, Strongly Agree, Disagree and Strongly disagree.

The questionnaire consisted of five (5) sections. Section one contains six (6) items with option A, B, C which elicited the socio-demographic characteristics as age, gender, class level, family structure, parents' level of education etc. Section two consists of ten (10) standard questions developed by Skinner in 1982 which covers the general information pertaining drug abuse (DAST-10) with Yes or No options. Section three comprised thirteen (13) items on the perception of adolescents towards drug abuse with options like strongly agree, agree, disagree and strongly disagree.

Questions related to reasons for drug abuse are contained in section four. It involves seven (7) items with Yes or No options. Lastly, the section five has eight (8) items with yes or no options. The questions focused on the components of life skills. In total, the questionnaire comprises forty-four (44) close ended items prepared in English language.

Sampling Techniques

Recruitment of the participants was through a multistage approach. First, clustered randomization was used to group the facilities into two groups. The second stage encompassed simple judgmental/purposeful sampling technique where the class level and adequate facility were considered before selecting the centers.

The third stage of the sampling involved random selection of adolescents that were willing to participate in the study.

Study Procedure

The first data was collected pre training while the second phase was post-training. The entire process of data collection and training lasted for eight weeks.

Upon initial data collection in first week, the training started on the second week through week seven for those only in experimental group.

The training was carried out in a classroom, and it was an interactive class. Each training, per day lasted for two (2) hours, thirty minutes (30mins.) break inclusive. All participants were tested using the study instruments. In the last week (week 8), the same questionnaire was re-administered.

Sample Size Determination

The sample size was estimated using the Taro Yamane[17] formula for finite population.

$$n = \frac{N}{1+N\,(e)2}$$

Where:

n= Sample size

N= the finite population (972)

e= Level of tolerance (0.05) therefore,

sample size is calculated as

$$n= \frac{972}{1+972\,(0.05)2} =283$$

Hence, two hundred and eighty-three (283) adolescents were adequate to represent the population.

Data Analysis

Data analysis was done using Statistical package SPSS version 26 to analyze the data. Data was analyzed through descriptive (frequency and percentage and mean and standard deviation) and inferential statistics (Analysis of Covariance-ANCOVA and Analysis of Variance-ANOVA) were used to compare pre-test and post-test mean responses of the two groups.

Ethical Consideration

An introduction letter requesting for permission to collect data was approved by the Lagos State Government. Ethical approvals were obtained from the two schools.

RESULTS

The study shows that male accounted for 89 (61%) and 91 (65%) in experimental and control group respectively. Middle adolescents dominate 70 (48%) in experimental group and late adolescents had 62 (44%) in control group. Only fewer adolescents live alone, experimental group 7(5%) and control group 12(9%).

Table 1: Distribution of the Respondents According to Personal Characteristics

		Experimental group N=146	Control group N=141
Variables	**Options**	**Frequency (%)**	**Frequency (%)**
Gender	Male	(61%)	(65%)
	Female	(39%)	(35%)
		(39%)	
Age category	Early adolescent	(23%)	(15%)
	Middle adolescent	(48%)	(41%)
	Late adolescent	(29%)	(44%)
Class level	SS2	(53%)	(70%)
	SS3	(47%)	(30%)
Living with	Biological parents	(63%)	(55%)
	Foster parent(s)	(32%)	(36%)
	living a lone	(05%)	(09%)
Father's education	None	(03%)	(04%)
	Primary	(05%)	(10%)
	Secondary	(09%)	(16%)
	Diploma	(22%)	(30%)
	Degree	(61%)	(40%)
Mother's education	None	(10%)	(08%)
	Primary	(16%)	(21%)
	Secondary	(41%)	(33%)
	Diploma	(25%)	(28%)
	Degree	(08%)	(10%)
	Total	(100%)	(100%)

Table 2 shows that before training, the mean score of the general knowledge of adolescent regarding drug abuse stood at 5.00±1.46 for experimental group and 5.08±1.54 for control group. However, after the training, the mean score obtained among the experimental group doubled almost three folds (13.08±1.46) with minor change in

control group, just only 0.5 increase in the mean score. This shows that, training have a significant effect on the knowledge of adolescent on drug abuse.

Table 2: Mean general knowledge of drug abuse scores among adolescents pre and post training

Group of adolescents	Pre-test		Post-test		
	Number	Mean	SD	Number	Mean	SD
Experimental group	146	5.00	1.46	146	13.08	1.46
control group	141	5.08	1.54	141	6.03	1.48

On Perception of Adolescents on Drug Abuse, the pre training mean score of experimental groups was 3.67±1.32 while control group had 3.50±0.94. Adolescents post-training mean scores were 9.84±1.42 and 3.48±0.90 in the experimental and control group respectively. There was no recordable change in the control group before and after training but the mean score of those in experimental group skyrocketed from 3.68 to 9.84.

Furthermore, concerning Reasons for Drug Abuse Among Adolescents the mean score of the experimental group tripled after the intervention (2.10±1.12 before and 6.52±1.16 after the intervention). Conversely, the mean score of the control group before and after intervention remains almost the same (2.26±1.16 before and 2.37±1.08 after the intervention).

On efficacy of Life Skills program in Preventing Drug Abuse Among Adolescents there was a significant rise in the mean score among the experimental group, from 2.98±58 to 15.66±1.48. Nonetheless, among the control group, the participants' mean score maintained almost the same score, just from 2.94±1.71 to 2.99±1.10 (Figure 4.5). The differences in the mean scores of the experimental group (pre and post scores) was 13.08 while that of control group was 0.05. this means the intervention yielded a great outcome among the experimental group.

There is no significant statistical difference in the general knowledge of adolescents on drug abuse during the pre and post training program. Table 3 shown the analysis of covariance yielded a probability value of 0.033 which is lesser than 0.05, the significance level. The result led to non-acceptance of the null hypothesis. This means that there is significant difference between the mean scores of the two groups in the general knowledge of drug abuse among adolescents. This further implies that the training significantly influences the knowledge of adolescents.

Table 3: Summary of One-Way ANCOVA of Pre and Post Training on Adolescents' knowledge of Drug Abuse

Source	**Sum of Squares**	**Df**	**Mean Square**	**F**	**P.**
Treatment	5.67	1	5.67	2.81	0.033
Error within	272.863	286	2.86		
Total	278.533	287			

Significant at 0.05

There is no significant statistical difference in the perception of adolescents towards drug abuse before and after training. Table 4 shows the result of the analysis of covariance of pre-test and post-test scores of adolescents' perception. The ANCOVA yielded a probability value of 0.002, which is less than 0.05, the significance level. This result led to the rejection of the null hypothesis. This implies that there is a significant statistical difference in the perception of adolescents towards drug abuse before and after training.

Table 4: Summary of One-Way ANCOVA of Pre and Post Training on Adolescents' Perception of Drug Abuse

Source	Sum of Squares	Df	Mean Square	F	P.
Treatment	8.47	2	4.84	3.10	0.002
Error within	205.394	285	1.94		
Total	213.864	287			

Significant at 0.05

The training will not have any significant impact on adolescents' knowledge of drug abuse prevention. Table 5 show the analysis of covariance yielded a probability value of 0.027 which is lesser than 0.05, the significance level. The result led to rejection of the null hypothesis. This finding shows that a significant difference between the mean scores of the pre-test and post-test regarding the knowledge of drug abuse prevention among adolescents.

Table 5: Summary of One-Way ANCOVA on Impact of Adolescents' Knowledge of Drug Abuse Prevention Pre and Post Training

Source	Sum Squares	Df	Mean Square	F	P.
Treatment	10.384	3	7.84	4.20	0.027
Error within	213.749	284	3.82		
Total	224.133	287			

Significant at 0.05

Demographic characteristics of the respondents has no relationship in prevention of drug abuse after the intervention Six demographic variables were examined against the prevention of drug abuse. The F-calculated (1.123, 5.287 and 1.084) yielded from the analysis of variance were higher than the tabulated value (0.726, 0.022 and 0.299) respectively at 0.05, the significance level on three variables (gender, age and type of family adolescents live). This result led to the rejection of the null hypothesis. To this end, adolescents' gender, age and family structure influence the prevention of drug abuse.

Contrarily, other variables (class level, father's and mother's educational exposure) do not affect prevention of drug abuse.

Table 6: Two-way ANOVA of pre and post training on adolescents' demographic characteristics and prevention of drug abuse

Variables	**Sum of Squares**	**Df**	**Mean Square**	**Fcal.**	**Sig.**
Gender	0.220	1	0.220	1.123	.726
	410.194	230	1.783		
	410.414	231			
	0.761	1	0.761	5.287	0.022
	33.097	230	0.144		
Age category					
	33.858	231			
	3.554	1	3.554	0.002	0.006
	108.097	230	0.470		
Class level					
	111.651	231			
	0.750	1	0.750	1.084	0.299
	159.142	230	0.692		
Family structure					
	159.892	231			

	1.281 39.943	1 230	1.281 .174	0.005	0.007
Father's educational level					
	41.224	231			
	4.899 228.204	1 230	4.899 .992	0.018	.027
Mother's educational level					
	233.103	231			

Significant at 0.05

DISCUSSION

The present study indicated that, training has a significant effect on the knowledge of adolescent on drug abuse. While the results of the pre and post intervention relatively remained the same for control group, the experimental group had almost a threefold increase in knowledge of drug abuse after intervention. Also, the assumption on the relationship between effect of training on the general knowledge/ knowledge of prevention were significant. This shows that the intervention substantially improved the adolescent's knowledge of drug abuse. This result is not surprising because, similar result was documented in the study carried out by Nagar and Hamed[18] that there were statistically significant improvements in the level of knowledge after implementation of the program in many forms, about tenth.

This study also shows a significant impact on adolescents' knowledge of drug abuse prevention. Significant improvement in the students' knowledge of prevention is consistent with what has been found in the previous studies that examined the effect of structured teaching program on knowledge of prevention among nursing students regarding substance use and found that the intervention significantly improved students' preventive knowledge at one-week posttest.[19,20] This means that, the use of life skill does not only informed the adolescents on what drug abuse is and it dangers but has enhanced their knowledge of prevention through self-confidence, self-efficacy and correct decision making. Kaur *et al.*[21] has posited the importance of education about life skills as an emerging concept that focuses on healthy psychosocial development of youngsters, which has the potential to play a key role in the prevention of drug abuse.

This study found a weighty statistical difference between the result obtained pretraining and post-training regarding the perception of adolescents towards drug abuse. After adolescents' exposure to the training on drug abuse, their level of perception on the consequences associated with drug abuse, need for help triplicated positively among the experimental group. A comparable study that used the same intervention method from

India indicates that the intervention delivered to the experimental group had a significant effect in bringing about a desirable shift in the adolescents' thoughts and approaches towards alcohol and drug abuse.[21] Similar reports has been documented in several studies.[22,23] Adolescent perception of drug abuse varies and correlates with the dominant cultural norms. Adolescents who perceived a strong parental disapproval of drug use were less likely to abuse drugs.[21] Previous studies[24,25] have established the common reasons why people, particularly adolescents engage in drug abuse.

This present study has discovered a trajectory advancement in the awareness on the reasons why adolescents take drug abuse. This was the result upon comparing the mean of the scores (before and after the intervention) for both groups. Peoples' intentions for abusing drug relate to the social-cognitive determinants which has direct effects both on initiation of and persistence in behavior.[26]
And this describes the state of permanent interaction between a person's characteristics, their behaviors, and their environment.[27] This impressive result could be due to extensive training they received on socio-cognitive determinants.

This study found that, age, gender and family structure influence the reason why adolescents engage in drug abuse. Similar findings have been reported that, social demographic variables such as age, gender, parental education and family structure influences the intention to take drug abuse among adolescents.[18,19,27]

The present study compared the mean score of the two groups and the results show a significant rise in the mean score among the experimental group after the training. The outcome of this study depicts the effectiveness of Life Skill Program as a tool in the fight against drug abuse among adolescents. The dramatic rise within the short period of the intervention in the mean score shows that if properly introduced in various schools, it will go a long way in curating the issue of drug abuse early enough in children. The effectiveness of Life Skill Training has been proved in many studies worldwide.[12,13,21]

Evidences have shown that, life skills enable the young people to handle various psychosocial skills that help them cope better in high-risk situations and peer pressure,[18,21,22] heighten adaptive and appropriate behaviors that enable individuals to deal effectively with the demands and challenges of everyday life.[28] Also, Life skills program empowers adolescents to make responsible and healthy choices, thereby paving the way for reduction in drug abuse.[29]

CONCLUSION

There was a significant improvement in the general knowledge of adolescents towards drug abuse. This strongly suggests that the life skills training intervention is useful in boosting knowledge of adolescents towards drug abuse. Also, there was a remarkable value-added on knowledge on prevention, perception, reasons for misusing drugs and the knowledge of Life Skills in prevention of drug abuse after the intervention. This indicates that training the youngsters would be a better approach in winning the war against drug abuse.

Competing Interest
The authors declared no conflicts of interest.

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Author Contributions
BM and PA conceived of the presented idea. BM developed the theory and performed the computations. PA and BA verified the analytical methods. PA encouraged BM to investigate and supervised the findings of this work. All authors contributed to the article, discussed the results, and approved the final version for submission and publication.

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