Association between School-Based Mentoring Intervention Programs and Drug Abuse Among African American Aged 10-24 Years

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Abstract

Drug abuse remains a significant global public health problem having socioeconomic consequences wrought by cognitive and physiological phenomena, as well as a cluster of behavioral, physical, serious social, and emotional problems. Worldwide, adolescents and young people are at most risk of drug abuse. The predisposing factors to drug abuse among adolescents and young people include gender, age, family structure and relations, poverty, and the accessibility and affordability of drugs. This problem is common across developed and developing countries, including Nigeria This study was conducted to evaluate the association between school-based intervention programs and drug abuse among African American young people with the ages of 10 – 24 years. The theoretical framework for the study was based on the health belief model. The study utilized secondary data set from the 2014 National Survey on Drug Use and Health for the analysis. The dependent variable was drug abuse, while the independent variable was mentoring interventions. The Chi-square analysis revealed a significant association between participation in school - based intervention programs and drug abuse [(2 (1, N = 3533) = 8.567, p = .003]. The observed association between drug abuse and school-based mentoring intervention programs suggests that other mentoring intervention programs may be modified for effectiveness, which would result in positive social change. The social implications of drug abuse among adolescents and young people, particularly undergraduates, cannot be quantified and it is one of the health-related problems among and African and specifically Nigerian youth and remains a source of anxiety to various stakeholders, including the educational stakeholders. In view of the profound public health implications of these dangerous drug abuse habits among adolescents and young adults in African and Nigeria, the findings of this study may be generalized and implemented to bring about a needed social change.

Key words: *Drug abuse, Mentoring, Interventions, Adolescents, African Americans, Prevalence of drug abuse, Drugs commonly abused.*

Introduction

Drug abuse rates high among the rising significant public health and socioeconomic concerns globally with dramatic increase, particularly in developing countries (Olawole et al., 2018; Osman et al., 2016). The investigation of drug abuse is multifaceted due in part to its varieties, degree of secrecy,

health challenges, and different global legal connotations (Olawole et al., 2018; Osman et al., 2016). Drug abuse is defined as the use of illegal drugs or the use of prescription or over-the-counter drugs for purposes or amounts different from those for which they were prescribed (National Cancer Institute [NCI] (2020).

Adolescents are a high-risk group for the use of drugs, and this problem has risen to epidemic proportions globally, resulting in negative impacts on family, society, health, educational and professional life (Osman et al., 2016). The early-onset of drug abuse by young people places them at higher risk for psychosocial problems including disruptive behavior patterns, psychiatric disorders, difficult peer relations, poor work adjustment, and negative impacts to leisure and recreational activities, when compared to late-onset drug users (Poudel et al.,2017). Early intervention for drug abuse, among other preventive measures prior to high school, is essential. Studies show that persons who get involved in early drug use are more likely to abuse them later in life where it becomes much more difficult to quit (Youth. gov, 2019).

Mentoring generally refers to the process through which experienced individuals (mentors) share their knowledge, skills, support, and guidance with less experienced individuals (mentees) (Bazzi et al., 2017). Mentoring, role modeling, guidance, and counseling have been instrumental in preventing drug abuse (Aguttu et al., 2018). Studies show that mentoring improves self-esteem, academic achievement, peer relationships, and reduces drug abuse (DuBois, 2018). According to Hawkins et al. (2016), mentoring is a secondary preventive intervention that focuses on 'at-risk' adolescents and young adults. Mentoring provides young people the opportunity to engage in workshops and activities; providing a range of inclusive activities and may also serve as a tool to address the availability of drugs in the broader community (Alcohol and Drug Foundation [ADF], 2018).

Mentoring programs may be one-on-one, group peer, and team, and delivery can be either face-to-face or e-mentoring. Mentoring may also be by structured programs through less apparent ways, including developing positive, supportive relationships and structured, goal-oriented activities in sporting clubs, youth groups, volunteer associations, school, and community-organized programs (Youth Mentoring Hub, 2018). A formal mentoring program is often targeted at 'at-risk young people through a structured setting by community agencies, faith-based programs, schools, afterschool programs, and other youth-serving organizations. Community-based mentoring (CBM) provides a carefully screened volunteer with at-risk youth and may involve various activities, including sports, games, movies, visiting a library or museum within the community (NIJ, 2020). School-based mentoring (SBM) is an alternative to CBM which involves the pairing of a young person with a positive role model that may be an adult or an older student who meet at

a specific location rather than various places within the community and may last for a defined period (NIJ, 2020). Limited studies have explored the impact of mentoring on the use of drugs by adolescents and young adults.

Methodology

A quantitative study was carried out using the 2014 National Survey on Drug Use and Health (NSDUH) data set from the Inter-University Consortium for Political and Social Research (ICPSR). Statistical analysis using SPSS version 25 was carried out to examine the association between the drug abuse and the school-based mentoring interventions.

Study Design

This study was a non-experimental, descriptive and inferential involving secondary data from ICPSR. Non-experimental examination can be used to analyze existing data, analyze variables, and measure statistical associations among variables; thus, it was appropriate for use in this study.

Description of Participants Data collection

The initial data was collected by Research Triangle Institute (RTI) and it is sponsored by the Center for Behavioral Health Statistics and Quality (CBHSQ) within the Substance Abuse and Mental Health Services Administration (SAMHSA). The primary purpose of the survey was to measure the prevalence and correlates of drug use in the United States and provides information about the use of illicit drugs, alcohol, and tobacco among the U.S. civilian, non-institutionalized population aged 12 or older. The survey was conducted across all 50 states in the United States, including the District of Columbia. The sample was selected using a multistage, deeply stratified sample design through the Computer-Aided Instruction (CAI).

The target population for this study was achieved by excluding all ethnic groups and age groups other than non-Hispanic African Americans within ages 12-25 of both genders, resulting in a sample size; N = 3533. The initial study population were adolescents and young adults African American between ages 10-24. However, the NSDUH survey covered individuals between ages 12 and older, and the age 24 was grouped with age 25. Hence for this study, based on the available data, the target population will include African American young people between ages 12-25 years. The study excludes other race/ethnic groups from ages 12-25. The variables of interest were the Non-Hispanic African Americans within the target age group between ages 12-25 years. For the analysis, the age categorization 12-13 years old, 14-15 years old, 16-17 years old, 18-20 years old, and 21-25 years old was used.

Analysis

Following an initial data review, all tests were performed with SPSS® Version 25 (IBM Corp, 2018). The data analysis included descriptive and inferential statistics using Pearson's chi-square analysis and Fisher's exact test to assess any associations between drug abuse and mentoring interventions.

Results

Statistical analysis using Pearson's Chi-Square test demonstrated a significant association between participation in school-based interventions and drug abuse. [p =0 .003] (Table 3).

A Cross-tabulation of the respondents' participation in school-based interventions and drug abuse indicated that of the respondents who did not participate in any school-based intervention program, n = 314 (65.0%) reported no abuse of drugs. In comparison, n = 169 (35.0%) reported the abuse of drugs. However, of the respondents who participated in the school-based interventions program, n = 797 (72.3%) reported no drug abuse, while n = 305 (27.7%) reported the abuse of drugs. The results showed that the number of people who participated in the school-based intervention and reported no abuse drugs was higher than the number of people who did not participate in school-based interventions and did not abuse drugs (see Table 3).

Table 1

Demographic Characteristics of the Sample used in the study

Frequency Distribution for the Characteristics of the Sample Population

		Frequency	Percent
Age of participants	12 - 13 years old	524	14.8
	14 - 15 years old	640	18.1
	16 - 17 years old	604	17.1
	18 - 20 years old	629	17.1
	21 - 25 years old	1136	32.2
	Total	3533	100
Gender	Male	1722	48.7
	Female	1811	51.3
	Total	33533	100
Education	Less than high school	275	7.8
	High school graduate	755	21.4
	Some college	599	17
	College graduate	136	3.8
	12 to 17 years old	1768	50
	Total	3533	100

Table 2

Frequency Distribution for the school-based intervention programs Mentoring Interventions

	Frequency	Percent	Valid Percent
No participation	483	13.7	30.5
Yes participation	1102	31.2	69.5
Total	1585	44.9	100
System	1948	55.1	
	3533	100	

Table 3

Cross Tabulation and Chi-Square Results for School-Based Interventions and Participants Yes/No Response on Drug Abuse

		Participants yes/no response to drug abuse						
		No, not abused drug *n* (%)	Yes, abused drug *n* (%)	Total N (100%)	X^2	*df*	*P*	Phi Cramer's V
School-based intervention	No participation	314 (65.5%)	169 (35.5%)	484	8.567	1	0.003	-0.074 0.074
	Yes participation	797 (72.3%	305 (27.7%)	1102				
	Total	1111 (70.1)	474 (29.9%)	1585				

Result

As indicated in Table 1, the total number of participants; N was 3533. The highest number of the participants, n = 1136 (32.2%), were between ages 21-25 years, while the lowest number of participants, n = 524 (14.8%), were between ages 12-13 years. There were 1772 (48.7%) males and 1811 (51.3%) females. According to the educational levels of the participants, n = 275 (7.8%) participants had less than high school education, n = 755 (21.4 %) participants were high school graduates, n = 599 (17.0%) participants had some college education, and n = 136 (3.8%) participants were college graduates. According to the result, n = 1100 (69.5%) of the respondents participated in school-based interventions programs against drug abuse, while n = 483 (30.5%) did not participate in school-based intervention programs (Table 2).

The cross tabulation of the respondents' participation in school-based interventions and drug abuse indicated that of the participants who did not partake in any school-based intervention program, n = 314 (65.0%) reported no abuse of drugs. In comparison, n = 169 (35.0%) reported the abuse of drugs. However, of the participants who

participated in the school-based interventions program, n = 797 (72.3%) reported no drug abuse, while n = 305 (27.7%) reported the abuse of drugs. The results revealed that the number of individuals who participated in the school-based intervention and reported no abuse drugs was higher than the number of people who did not participate in school-based interventions and did not abuse drugs (see Table 3). The chi-square analysis revealed a significant association between participation in school-based interventions and drug abuse. [^{2}(1, N = 3533) = 8.567, p = .003]. Thus, we can conclude a statistically significant association between participation in school-based interventions; however, the association is low.

Discussion

Limited studies have explored the impact of mentoring on the use of drugs by adolescents and young adults. However, mentoring involving school and community-based intervention has consistently demonstrated success in increasing positive, healthy behavior among adolescents and young adults, including reduced drug abuse (Hayakawa et al., 2016; Ranes, 2015). Mentoring can have a profound impact on the lives of youths and adolescents at high-risk of drug abuse (Weiler et al., 2015).

Early research works support the findings of this study which indicated that there is an association between school-based intervention and drug abuse. A study Rigg et al., 2018 pointed out the significance of schools as a venue for implementing drug prevention programs and reported school-based programs as a worthwhile and cost-effective method of decreasing drug abuse among young people. Further, Das et al. (2016) and Chakravarthy et al. (2013) proposed that various types of prevention activities and programs can be delivered through school prevention programs amongst other channels. Also, Das et al. (2016) noted the necessity for concerted efforts for early identification, consciousness and prevention programs, and routine monitoring of adolescent health data as being important due to the prevailing burden and impact of drug abuse in young people. Hayakawa et al. (2016) and Ranes (2015) reported that mentoring involving school and community-based intervention has consistently demonstrated success in increasing positive, healthy behavior, including reduced drug abuse among adolescents and young adults. The findings of this study indicated no association between the number of school and community-based interventions and drug abuse. It is generally assumed that if participating in school and community-based intervention impacted positively on the young people causing a reduction in drug abuse, the number of school and community-based interventions participated in may further reduce drug abuse by young people. The observed non-association in this study may be attributed to the approach and components of the school and community-based intervention.

Generalization of the study

The predisposing factors to drug abuse among young people include age, gender, family structure and relations, poverty, and the affordability and availability of drugs. This problem is common across developed and developing countries, including Nigeria (Somani, & Meghani, 2016). These mentoring interventions may also be adapted in developing countries such as Nigeria.

The social implications of drug abuse among young people, particularly undergraduates, cannot be quantified. Drug abuse among young people one of the health-related problems among Nigerian youth and remains a cause of anxiety to numerous stakeholders, including the educational stakeholders (Okafor, 2020). According to Idowu et al. (2018), Nigeria like many other countries, have a high prevalence of drug abuse among young people and stated the urgent need to intensify awareness against drug abuse among secondary school students in Nigeria. The emerging drug trends in Nigeria have shown that young people are increasingly resorting to potent mixtures of several drugs thereby exposing them to high risks of fatal overdoses (Idowu et al., 2018). These young people consume several cocktails of drugs, and these include mixtures of cannabis, codeine, rohypnol, tramadol, and water or juice (Kazeem, 2019). Also, some of the young adults have turned to crude concoctions as alternatives for drug use for example smoking lizard parts and dung; as well as sniffing glue, petrol, sewage, and urine as inhalants (Kazeem, 2019). Given the profound public health implications of these dangerous trends among adolescents and young adults in Nigeria, it is expected that the findings of this study may be generalized and implemented in Nigeria to bring about the much needed social change.

Conclusions

The findings from this research suggest that there is an association between school-based intervention and drug abuse. However, this may not be dependent on the number of school and community-based interventions the young adult is exposed to. Drug abuse mentoring interventions may also be implemented in a variety of settings, which could involve the individual, family, school, and community (Youth.Gov, 2020). Research has also shown that school-based interventions that are based on a combination of social competence and social influence approaches have protective effects against the use of drugs (Das et al., 2016). As suggested by Onrust (2016), these interventions may be planned to suit the varying age groups. After the initial participation in an intervention program, subsequent intervention programs may be planned to build and consolidate the previous knowledge for more impact on the young people. According to Herrera et al. (2013), the implementation of successful mentoring programs requires a careful evaluation of the targeted young people's characteristics.

This evaluation may also include an evaluation of the previous knowledge of the targeted young people, which is in line with the suggestions of Erdem et al. (2020) on the availability of various theoretical approaches which emphasize the procedures through which formal and informal mentoring relationships can promote positive youth developmental outcomes while averting behavioral problems predisposing young people to drug abuse.

Studies have established that globally, adolescents and young people are at most risk of drug abuse, this problem is common across developed and developing countries, including Nigeria (Somani, & Meghani, 2016). Drug abuse remains one of the health-related problems among Nigerian youth and remains a source of anxiety to various stakeholders (Okafor, 2020). Also, the predisposing factors to drug abuse among these group of individuals i.e. adolescents and young people include age, gender, family structure and relations, poverty, and the affordability and accessibility of drugs. The social implications of drug abuse among adolescents and young people, particularly undergraduates, cannot be quantified. Idowu et al. (2018) in their study reported that Nigeria, like many other countries, have a high prevalence of drug abuse among young people in Nigeria while stating the urgent need to intensify awareness against drug abuse among secondary school students in Nigeria. Since an association was observed between drug abuse and school-based intervention programs, this suggests that other mentoring intervention programs may be modified in line with the components and approaches of the school-based intervention programs for effectiveness. Given the profound public health implications of these dangerous habits among adolescents and young adults in Nigeria, it is expected that the findings of this study may be generalized and implemented in Nigeria and indeed African as a whole to bring about a needed social change.

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