

2020

## Association Between Mentoring Interventions and Drug Abuse Among African Americans Aged 10-24 Years

Anthonia Ifeyinwa Dunkwu  
*Walden University*

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# Walden University

College of Health Sciences

This is to certify that the doctoral study by

Anthonia Dunkwu

has been found to be complete and satisfactory in all respects,  
and that any and all revisions required by  
the review committee have been made.

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Walden University  
2020

Abstract

Association Between Mentoring Interventions and Drug Abuse Among African

Americans Aged 10-24 Years

by

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MPH, University of Benin, 2007

B. Pharm, University of Ibadan, 2000

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Public Health

Walden University

November 2020

## Abstract

Drug abuse represents a significant public health problem worldwide, with socioeconomic consequences shaped by a cluster of behavioral, cognitive, and physiological phenomena and serious social, physical, emotional problems. The purpose of this study was to assess the association between mentoring interventions and drug abuse among African American young people. The health belief model was the theoretical framework. The secondary data analysis was done using the data set from the 2014 National Survey on Drug Use and Health. The dependent variable was drug abuse, while the independent variable was mentoring interventions. The Chi-square analysis revealed an association between participation in school-based intervention programs and drug abuse [ $\chi^2(1, N = 3533) = 8.567, p = .003$ ]. There was no association between participation in drug abuse prevention activities and drug abuse nor between the number of school- and community-based activities participation and drug abuse. The observed association observed between drug abuse and school-based intervention programs as a mentoring approach suggests that other mentoring intervention programs need to be modified for effectiveness, which would result in positive social change.

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## Dedication

This study is dedicated to two people who mean the world to me.

First, to my mom of blessed memory, whose ‘handbag’ I was for many years, who taught me so much that I have stuck with; *Ezinne (Mrs.) Cecilia Ifeoma Dunkwu*, whom my siblings and I secretly and fondly called Chief Mrs. The only regret I have in achieving this milestone is that you are not here to celebrate it with me. I am, however, glad that your prayers in heaven immensely contributed to the success of this program. Every day I remember you and still cry. I celebrate you today as always because, in you, I learned many values of life.

Second, to my first love and best friend, *Chief Peter Adinma Dunkwu*; the Odogwu of Okpanam. Odogwu, indeed you are dad. I celebrate you today as always too. Your solid support for me when I commenced this program I deeply appreciate; you single-handedly made sure I completed it. You walked and worked every step of this program with me, my greatest cheerleader to the completion of this study. You have been my rock, encouraging me from childhood. I am proudly a daddy’s girl!

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## Section 1: Foundation of the Study and Literature Review

### **Introduction**

Drug abuse is one of the growing significant public health and socioeconomic issues globally and has dramatically increased, particularly in developing countries (Olawole et al., 2018; Osman et al., 2016). The analysis of drug abuse is complex due in part to its varieties, degree of secrecy, health challenges, and different legal connotations globally (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).

Drug abuse may lead to drug dependence characterized by a cluster of behavioral, cognitive, and physiological phenomena as well as a substantial, irresistible, social, physical, emotional, and job-related problems and persistent urge to engage in abuse of the drug, despite its deleterious effect (NCI, 2020). Along with this consuming need, there is often tolerance for the drug, and when deprived of this drug, a physical withdrawal state may result (McLellan, 2017; World Health Organization [WHO], 2019). Other consequences of drug abuse are decreased academic performance, psychiatric disorders such as lethargy, hopelessness, insomnia, depressive symptoms, and increased risk of contracting HIV and other sexually transmitted diseases (STDs; Birhanu et al., 2014).

The United Nations (2019) estimated in the 2016 *World Drug Report* that 275 million persons were involved in illicit drugs, including cannabis, amphetamines, opioids,

and cocaine. When combined, these present an annual prevalence of illicit drug abuse of 5.6% (WHO, 2018). Of the approximately 11 million people who inject drugs, 1.3 million are living with HIV, 5.5 million with hepatitis C, and 1 million with both HIV and hepatitis C (WHO, 2018).

Adolescents are a high-risk group for the use of drugs, and use by young people has risen to epidemic proportions worldwide, resulting in negative impacts on health, family, society, and educational and professional life (Osman et al., 2016). The global survey on drug abuse among the general population consistently indicates that the extent of drug abuse is greater among young people than the older population, and the peak of drug abuse occurs between ages 18–25 years (United Nations Office for Drug and Crime [UNODC], 2018). There is an increased significance in the global prevalence of drug abuse; drug abuse-related disorders have increased considerably in the period 2010–2016. As a result, drug abuse disorder is responsible for 160,235 deaths worldwide (WHO, 2018a).

While the prevalence of drug abuse differs from country to country, and time to time (Moher et al., 2015), studies report dramatic increases in the use of drugs, especially in developing countries (Birhanu et al., 2014; Gizaw et al., 2020; Kumar et al., 2017; Osma et al., 2016). In the United States, half of the American adolescents by Grade 12 reported abusing an illicit drug at least once (Johnston et al., 2018). Several factors can predispose an individual to the risks of drug abuse, including aggressive behavior, lack of parental supervision, drug availability, and poverty (NIDA, 2003).

According to Poudel et al. (2017), the early-onset of drug abuse by adolescents 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. The predisposing factors for initiating or continuing drug abuse, including peer group influence, socioeconomic status, quality of parenting, and biological/inherent predisposition toward drug addiction. This addiction ends in a cycle where these individuals can no longer perform as effective members of society, and instead, are consumed by the addictions (Das et al., 2016). A representation of risk-factors of drug abuse are presented in Table 1.

Table 1

*Risk Factors Associated with Drug Abuse*

<b>Risk Factors</b>	<b>Definition</b>
	<b>School</b>
Academic failure from late elementary school.	Poor grades in school.
Lack of commitment to school	A young person no longer considers the role of the student as meaningful and rewarding or lacks investment or commitment to school
	<b>Community</b>
High availability of drugs	Numerous and accessible outlets in defined geographical area.
Community laws and norms	Community reinforcement of norms favorable to suggesting drug abuse is acceptable substance use or youth.
Low neighborhood attachment	Low level of bonding to the neighborhood
Community disorganization	Living in neighborhoods with high population density, lack of natural surveillance of public



Low socioeconomic status	places, physical deterioration, and high rates of adult crime Parent's low socioeconomic status, as measured through a combination of education, income, and occupation
Transitions and mobility	High rates of mobility among communities

### **Individual**

Social, emotional, behavioral, cognitive, and moral competence	Interpersonal skills that help youth integrate feelings, thinking, and actions to achieve specific social and interpersonal goals.
Self-efficacy	Individual's belief to modify, control, or abstain from drug abuse
Spirituality spiritual	Belief in a higher being, or involvement in practices or religious activities

### **Family, school, and community**

Opportunities for positive social involvement	Developmentally appropriate opportunities to be meaningfully involved with the family, school, or community.
Recognition for positive behavior	Parents, teachers, peers, and community members providing recognition for effort and accomplishments to motivate individuals to engage in positive behaviors in the future.
Bonding	Attachment and commitment to, positive communication with family, schools, and communities.
Marriage or committed relationship	Partner in a relationship who does not misuse drugs
Healthy beliefs and standards for behavior	Clear and consistent communication among family, school, and community about not drug abuse.

The economic effect of drug abuse refers to the loss of potential workforce, low productivity, and the creation of an unfavorable environment for investors, which certainly impacts a country's gross national income (GNI; Eric, 2017; Hall, 2017). The social effect of drug abuse begins with the drug abusers and their families as it plays a role in divorce, family violence, and other related problems (Hall, 2017). The social

consequences on the larger society relate to issues dealing with increasing criminal activities associated with drug abuse like robbery, burglary, rape, vandalization of public properties, increasing rate of HIV/AIDS, the congestion of penitentiaries resulting in huge government expenditure on maintenance of prisoners, and of course the growing numbers of destitute requiring social welfare administration system attention which depletes government's budget (Eric, 2017; Hall, 2017). The behavior of young adults is dependent on the socio-economic environment in which they were raised as children. A good understanding of this relationship is an essential step in identifying persons at risk, and an assessment of the socioeconomic factors that influence attitudes and behavior of young people toward drug abuse is critical in identifying the risk and protective factors associated with drug abuse among young people (Janicijevic, 2017).

### **Problem Statement**

Worldwide, drug abuse among teenagers has risen over the past decade (McLellan, 2017; WHO, 2019), it continues to rise despite various prevention programs, and it is negatively impacting both physical and mental health, often leading to increases in social problems (Das et al., 2016; Tran et al., 2019). The age of adolescence has been defined as the ages between 10 and 19, while youth is defined as the 15-24-year age group. These overlapping age groups are combined in the group *of young people*, covering the age range 10-24 years (Sawyer et al., 2018; United Nations Department of Economic and Social Affairs [UNESDA], 2006). The age of adolescence is that period for commencement of behaviors and conditions that impact health at this age and may also lead to adulthood disorders (Sawyer et al., 2018). Drug abuse and other unhealthy

behaviors often begin during adolescence and can be associated with increased morbidity and mortality and significant public health challenges (Das et al., 2016). Drug abuse by young people is both socially and biologically risky, and it negatively impacts crucial developmental phases (Davis, 2015). Drugs are intended for valid medical and psychological issues; however, when taken differently from the intended use, at the specified period or taken by other individuals, results in abuse. (American Addiction Center [AAC], 2020; UNODC, 2011).

Adolescence is a developmental stage marked by significant physiological, psychological, and social changes; hence, adolescence is when mental disorders such as anxiety, impulsive and aggressive behavior, stress, and depression appear (Pons et al., 2016). The adolescence and young adult stage are also characterized by the observed desire to experiment with drugs while playing down the danger, overconfidence, and a false sense of feeling in control, hence promoting the young people's predisposition to drug abuse and future development of drug dependency problems (Jordan et al., 2017; Pons et al., 2016).

Adolescents arrested in the United States represent approximately 30% of the more than two million adults, and more than 84% of these adolescents reported involvement with various drugs (Cohall, 2016). Welty et al. (2016) reported that annually about 1.4 million adolescents are arrested with more than 250,000 cases resulting in detention. Drug abuse is a significant problem among these youths in the juvenile justice system. An alarming proportion of youths in the United States continue to use drugs despite the deleterious effects on their well-being (Johnson et al., 2015; Salas-Wright et

al., 2015). In a study by Salas-Wright et al. (2017), investigating trends in drug availability among adolescents in the United States between 2002 and 2014, a general decline in drug availability was observed among adolescents in the United States. However, racial/ethnic differences in the prevalence of drug offers. The decreases in drug availability were more limited among African Americans and Hispanic youths than Caucasian youths.

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 abuse are more likely to abuse them later in life when it becomes much more difficult to quit (Youth.gov, 2019). Preventive interventions have proven to be useful; families and influential adults play a critical role in determining how youth handle prescription drugs and the use of illegal drugs. Recent studies indicate that parents, guardians, and adults influence young people when they regularly speak to their children about the issues at leisure times, resulting in children with a lower rate of drug use and abuse (The National Center on Addiction and Substance Abuse at Columbia University, 2010). Prevention programs can support family mentoring relationships by providing parenting/mentoring skills and communication strategies (Males et al., 2019). Rates of drug abuse by young people suggest that prevention and intervention efforts geared towards these young people are critical (Ranes, 2015).

The prevention of drug abuse among young people begins with setting a strong foundation in childhood development. The adolescents' perception, expectation, and social norms regarding the behavior of others, play a significant role in whether

adolescents consume drugs (Vasquez et al., 2015). Young people exposed to high levels of positive involvement by parents and older individuals through school involvement or other healthy involvement are unlikely to report drug abuse (Hayakawa et al., 2016). Children and adolescents who are consistently exposed to clear expectations by parents and role models about drug abuse are less likely to engage in drug abuse (Ranes, 2015).

Mentoring involves an older or more experienced person providing beneficial support in one or more areas to a young person with the intent of guiding positive self-development (Lerner et al., 2014). 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). Generally, few studies on drug abuse intervention have focused on the impact of youth mentoring associated with adolescent and youth drug abuse prevention. These studies adopted either primary prevention, which addresses problems before they occur, or targeted a broad population of youth by applying a secondary prevention framework focused efforts on youth determined to be at-risk of drug abuse (Erdem et al., 2020). However, limited evidence suggests the effectiveness of mentoring to positively impact prevention and reduce drug abuse among young people (Erdem et al., 2020). While many drug abuse prevention programs exist, I proposed mentoring through varying approaches as an alternative approach for reducing drug abuse.

### **Purpose of the Study**

I designed this quantitative study to investigate whether there is a statistical association between the dependent variable (drug abuse) and the independent variable (mentoring) in young people.

### **Research Questions and Hypotheses**

Research Question 1 (RQ1): What is the association between school-based intervention programs and drug abuse among African American adolescents and young adults?

Null Hypothesis ( $H_0$ ): There is no statistically significant association between school-based intervention programs and drug abuse among African American adolescents and young adults.

Alternate Hypothesis ( $H_a$ ): There is a statistically significant association between school-based intervention programs and drug abuse among African American adolescents and young adults.

Research Question 2 (RQ2): What is the association between participating in drug abuse prevention activities and drug abuse among African American adolescents and young adults?

Null Hypothesis ( $H_0$ ) - There is no statistically significant association between participating in drug abuse prevention activities and drug abuse among African American adolescents and young adults.

Alternate Hypothesis ( $H_{a1}$ ) - There is a statistically significant association between participating in drug abuse prevention activities and drug abuse among African American adolescents and young adults.

Research Question 3 (RQ3): What is the association between the number of school- and community-based activities participation and drug abuse among African American adolescents and young adults?

Null Hypothesis ( $H_01$ ) - There is no statistically significant association between school- and community-based activities participation and drug abuse among African American adolescents and young adults.

Alternate Hypothesis ( $H_{a1}$ ) - There is a statistically significant association between school- and community-based activities participation and drug abuse among African American adolescents and young adults.

### **Theoretical Foundation for the Study**

The theoretical framework underlying this study was the health belief model (HBM; Rosenstock, 1974). According to social psychologists working in U.S. Public Health Service, the HBM was created to explore the widespread failure of individuals to participate in programs to prevent and detect disease (Hochbaum, 1958; Rosenstock, 1974). The HBM was later extended to study people's responses to symptoms and their subsequent behaviors in response to a diagnosed illness with particular reference to their adherence to medical regimens (Glanz et al., 2015; Kirscht, 1974). The theory suggests that health messages will be better received if they target perceived susceptibility, perceived severity, perceived barriers, perceived benefits, self-efficacy, and cues to

action. Further, the theory suggests that the health messages will be better received if there is extensive use of the theory to assess individual-level factors that influence preventive health behavior and access to health services (Glanz et al., 2015; Rosenstock et al., 1994).

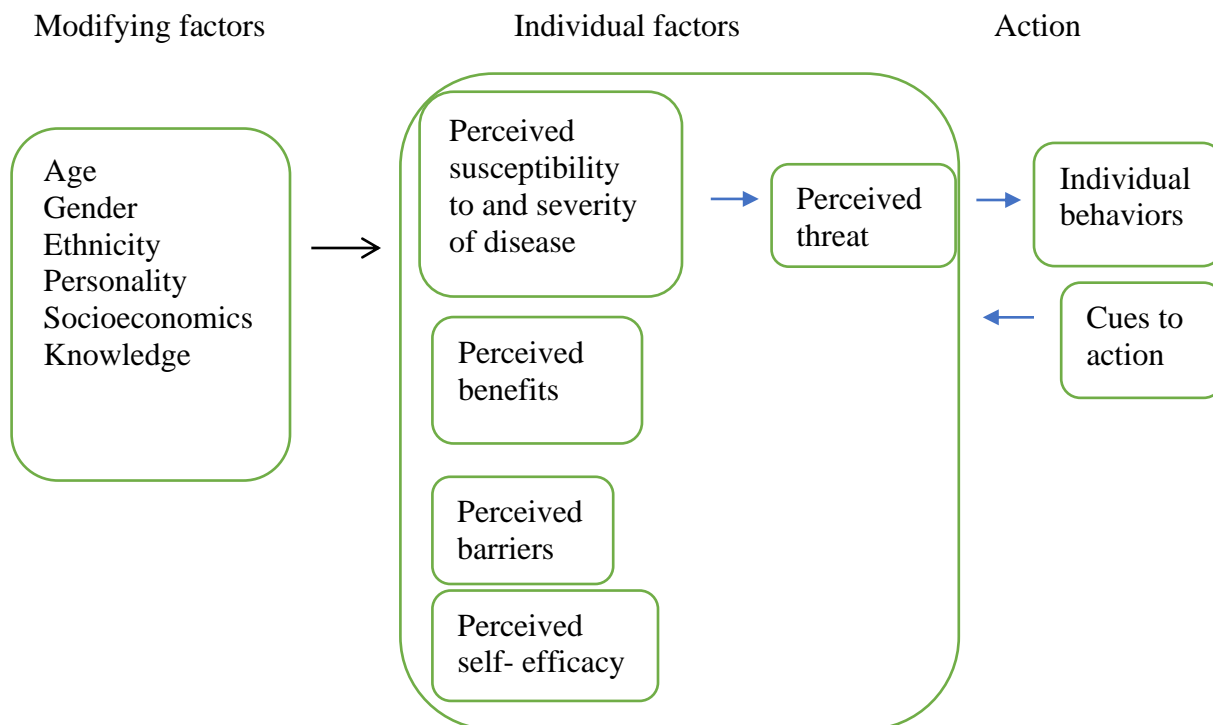
The knowledge of the susceptibility, seriousness, benefits, barriers to interventions, cues to action, and self-efficacy, may make individuals take action to prevent, screen for, or to control illnesses (Glanz et al., 2015). When individuals believe that they are susceptible to a condition, that the condition has serious consequences, that a course of action available to them can reduce either their susceptibility to or severity of the condition, and that anticipated benefits of taking action outweigh the barriers to taking the available action, they are likely to take action that they believe will reduce their risks (Glanz et al., 2015). The major constructs of this HBM are perceived susceptibility, perceived severity, perceived benefits, perceived barriers, perceived self-efficacy, and perceived cues to action (Figure 1; Glanz et al., 2015; Hochbaum et al., 1952; Rosenstock, 1990).

Thus, the HBM theory assumes an adolescent is more likely to adhere to preventive interventions actions against drug abuse if he believes in self-susceptibility to the negative impact of drug abuse, understands the severity of the impact and the benefits of taking action as a result of the intervention or can overcome barriers.



**Figure 1**

*Components of the health belief model*



*Note.* Adapted from *Health Behavior: Theory, Research, and Practice*, (5<sup>th</sup> ed., p. 79) by Glanz, Rimer, and Viswanath, 2015. San Francisco, CA: Jossey-Bass.

### **Nature of the Study**

I conducted a retrospective, cross-sectional quantitative study. I applied a correlational research design, utilizing several statistical test, including Pearson's Chi-square analysis and Fisher's exact test to assess any associations between mentoring intervention and drug abuse among African American adolescents and young adults, and to examine effects of age, age of first use of drug, gender, and other identified variables.

I used the 2014 National Survey on Drug Use and Health from the Interuniversity Consortium for Political and Social Research (ICPSR). I performed the data analysis using Statistical Package for Social Services (SPSS, v. 25).

### **Literature Search Strategy**

I accessed the databases for this study through the Walden University Library. I included PubMed, CINAHL Plus with Full Text, MEDLINE with Full Text, Cochrane Database of Systematic Reviews, Dissertations & Theses, Dissertations & Theses at Walden University, ProQuest Central, SAGE Knowledge (formerly SAGE Encyclopedias), SAGE Stats, Science Journals, and ScienceDirect. Scholar Google, Google, Walden Library Search, WHO, UNICEF, UNODC, PubMed, PsycInfo, and ProQuest search engines.

I used the following key terms for the search: *drug abuse, interventions, mentoring, African Americans, United States, the prevalence of drug abuse, drugs commonly abused, CDC drug abuse, UNODC report on drug abuse, and WHO report on drug abuse among young people.*

I used an open-ended search was restricted to literature published within the last five years (2015 – 2020). I emphasized peer-reviewed primary publications, except for foundational support for methodology, hypothesis, and research structure.

### **Literature Review Related to Key Variables and Concepts**

#### **Population**

According to the U.S Office of Management and Budget, *African American* refers to a person having origins in any of the African American racial groups of Africa. There

are about 41 million (13%) African Americans in the United States, representing the second-largest minority population. The states having the largest African American population include; Texas, Georgia, Florida, New York, North Carolina, California, Illinois, Maryland, Virginia, and Louisiana, representing 58% of the total black population. (USDHHS, Office of Minority Health, 2019a; CDC, 2019; Kaiser Family Foundation [KFF], 2018). Young people between the ages of 10 – 24 make up almost 65 million (20%) of the United States population (U.S. Census Bureau, 2017), and African American adolescents make up 13.8% of this population (USDHHS, Office of Population Affairs, 2019b).

### **Drug Abuse in the United States**

In the United States, drug abuse has increased across most generations, genders, and demographics (Unity Behavioral Health [UBH], 2018), and several surveys, studies, and reports show that drug abuse in America is extremely high and approaching historical levels (CDC, 2020; Nasralla, 2016).

The 2013 NSDUH survey reported that an estimated 24.6 million (9.4%) Americans aged 12 or older used illicit drugs such as marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics (pain relievers, tranquilizers, stimulants, and sedatives; NSDUH, 2014). This 2013 drug abuse was similar to the rates of use from 2010 (8.9%) and 2012 (9.2%). However, the rate of drug abuse between 2002-2009 and in 2011, ranged from 7.9-8.7% (NSDUH, 2014). The 2014 drug abuse survey reported that 27.0 million people aged 12 or older were involved in the use of an illicit drug; this represented 10.2% (1 in

10) Americans, which is higher than the 2002 through 2013 survey report (Substance Abuse and Mental Health Services Administration [SAMHSA] (2015). About 19.8 million (80.6%) individuals aged 12 and above were involved in the illicit use of marijuana as the most commonly used illegal drug in 2013, with daily or almost daily use by 5.1 million people from 2005 to 2007 and 8.1 million people in 2013 (NSDUH, 2014). Similarly, in 2014, marijuana use predominated drug abuse, with 22.2 million users aged 12 years and older (SAMHSA, 2015).

In 2015, approximately 27.1 (10.1%) million Americans aged 12 or older used an illicit drug, a statistic similar to the 2014 survey report. 22.2 million marijuana and 3.9 million prescription pain relievers users predominated the population of drug abusers in 2015 (SAMHSA, 2016). This upsurge in the use of marijuana among people aged 12 or older is a reflection of the upsurge in marijuana use by adults age 26 or older, and also reflects the increase in marijuana use among young adults aged 18 to 25, though this is to a lesser extent. The 2016 drug survey reported that 28.6 million (10.6 %) people aged 12 or older used an illicit drug, representing 1 in 10 Americans and 1 in 4 young adults aged 18 to 25. The 2016 drug abuse was primarily driven by marijuana use and the misuse of prescription pain relievers (SAMHSA, 2017). 24.0 million people aged 12 or older, 24.0 million used marijuana users, 3.3 million individuals used prescription pain relievers. In contrast, a smaller number of persons used cocaine, hallucinogens, methamphetamine, inhalants, heroin, or were prescription tranquilizers, stimulants, or sedatives (SAMHSA, 2017).

The 2017 drug survey reported an increase in the number of drug abusers. 30.5 million (11.2%) people aged 12 or older used an illicit drug, representing 1 in 9 Americans, including 1 in 4 young adults aged 18 to 25 (SAMHSA, 2018). As in previous years, users of marijuana and prescription pain relievers were the primary users of illegal drugs. Of the 30.5 million people drug abusers in 2017, 26.0 million were marijuana users, 3.2 million users of prescription pain relievers (SAMHSA, 2018). As reported in 2016, smaller numbers of people used cocaine, hallucinogens, methamphetamine, inhalants, heroin or prescription tranquilizers, stimulants, or sedatives in 2017. The percentage of individuals aged 12 or older who used marijuana in 2017 was higher than the percentages from 2002 to 2016. The increase in marijuana use reflected an increase in marijuana use among young adults aged 18 to 25 and adults aged 26 or older. In comparison, the use of marijuana among adolescents aged 12 to 17 was lower in 2017 than in most years from 2009 to 2014 (SAMHSA, 2018).

As in previous years, 2018, drug abuse was driven primarily by marijuana use representing 43.5 million (15.9 %) of people aged 12 or older in 2018 who used marijuana in the past year (15.9 percent). The 2018 survey program also reported an increase in previous year marijuana use for persons aged 12 or older, reflecting an increase in marijuana use amongst both the young adults aged 18 to 25 and adults aged 26 or older (SAMHSA, 2019). However, there was no increase in the past year use of marijuana among adolescents aged 12 to 17 between 2014 and 2018. As in the past year also, the abuse of prescription pain reliever was the second most common form of drug abuse in the United States in 2018, with 3.6 % of the individuals abusing misusing pain

relievers (SAMHSA, 2019). The percentage of individuals aged 12 or older and young adults aged 18 to 25 abused prescription pain relievers in the past year were lower in 2018 than in 2015 to 2017. A similar decrease in abuse of pain reliever was observed for adolescents from ages 12 to 17 and adults aged 26 or older in 2018 compared with 2015 and 2016 (SAMHSA, 2019).

### **Prevention of Drug Abuse**

The predisposing factors to drug abuse differ between individuals, and a single factor may be insufficient to lead to the harmful use of drugs. A critical combination of the risk factors present and protective factors that are absent may make the difference between a young person's brain that is primed for drug abuse and one that is not (UNODC, 2018). Following the perspective of preventing the initiation of drug abuse, as well as preventing the development of drug use disorders, it is essential to understand of the patterns of drug abuse, as well as the personal, social, and environmental predisposing influences that may result in drug abuse and drug use disorders among young people (UNODC, 2018).

Traditionally, the prevention and treatment services for drug abuse and resulting disorders is delivered separately from other mental health and general health care services. This separation of services is because drug abuse is conventionally seen as a social or criminal problem. Therefore, prevention services are not typically considered a responsibility of health care systems. People needing care for substance use disorders have had access to only a limited range of treatment options that were generally not covered by insurance (USDHHS, 2016). Effective integration of prevention across health

care systems is key to addressing substance abuse and its consequences. It represents the most promising way to improve access to and quality of treatment. Recent health care reform laws and a wide range of other trends in the health care landscape, are facilitating greater integration to serve better individual and public health, reduce health disparities and reduce costs to society (USDHHS, 2016). A concerted effort is essential for prevention, awareness, identification, and routine monitoring of young people's health data. The overall burden and impact of drug abuse in young people necessitate the identification and implementation of effective interventions such as mentoring through delivery platforms to enhance social skills, problem-solving skills, and self-confidence (Das et al., 2016).

### **Mentoring for Preventing and Reducing Drug Abuse and Associated Risks Among Adolescents and Young People**

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. However, the science of mentoring as a preventive approach and its effects and health outcomes on adolescents and young adults is still developing. Though there are studies on some mentoring

programs and their impact on drug, a gap still exists in the literature about the processes by which mentoring can serve as an effective prevention tool (Erdem et al., 2020). The implementation of successful mentoring programs requires a careful evaluation of the targeted young people's characteristics and risk profiles (Herrera et al., 2013). Various theoretical approaches emphasize the procedures through which formal and informal mentoring relationships promote positive youth developmental outcomes and avert problem behavior predisposing to drug abuse (Erdem et al., 2020).

Mentoring provides young people the opportunity to engage in workshops and activities; providing a range of inclusive activities such as art, music, dance, sport, and employment training can also help individuals and communities overcome racial, cultural, social, and economic barriers that may lead to drug abuse. Mentoring programs may also serve as a tool to address the availability of drugs in the broader community (Alcohol and Drug Foundation [ADF], 2018). Tucker et al. (2019) examined the holistic impact of mentors in the lives of young people coming of age in an impoverished and dangerous context, concluded that mentoring could foster substantial academic and personal success and resistance from crime even in the most difficult of circumstances including drug abuse.

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). According to



the National Institute of Justice (NIJ; 2020), mentoring settings may be informal involving a youth relating with an older person such as a teacher, coach, or family friend guiding frequent unstructured contacts. 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). Organized mentoring programs deliver real results, from raising self-esteem and encouraging healthier behavior, among other benefits (ADF, 2018).

### **Definitions**

*Adolescence:* The period between the ages of 10 and 19

*Drug abuse:* The use of illegal drugs or the misuse of prescription or over the counter drugs for purposes or amounts different from those for which they were prescribed.

*HBM:* Health belief model

*Mentor:* A person or friend who guides a less experienced person by building trust and modeling positive behaviors.

*NSDUH:* National Survey on Drug Use and Health

*SAMHSA*: Substance Abuse and Mental Health Services Administration

*UNODC*: United Nations Office for Drug and Crime

*USDHHS*: United States Department of Health and Human Services

*WHO*: World Health Organization

*Young people*: Adolescents and young adults

*Youth or young adults*: Persons between the ages of 15 and 24

### **Assumptions**

In this study, I assumed that the information from the secondary data was accurate and free of error. I also assumed that the interviewers were objective and did not manipulate the survey questions or data while entering the data management systems. Another assumption for this study was that respondents gave truthful information about their use and nonmedical use of drugs.

### **Scope and Delimitations**

This study was based on the 2014 National Survey on Drug and Health; there was no primary data collection or contact with the participants in the study.

A limitation to the use of the Inter-university Consortium for Political and Social Research (ICPSR) is inherent in the nature of the utilization of secondary data that the original data collection methodology and purpose may not perfectly reflect the aims of the existing data study. While it is common to utilize pre-existing data to inform new studies, variables that include various populations or subgroups of interest may or may

not be equally represented. While every precaution was taken to ensure that an adequate sample was obtained from the data, this limitation must be acknowledged.

### **Significance of the Study and Potential for Social Change**

Currently, there are limited studies focused primarily on the impact of mentoring as a preventive approach to drug abuse by adolescents and young adults. The study was to improve the current knowledge base, increase the understanding of the implications of early mentoring on drug abuse by adolescents and young adults. The study was also to inform future practice on approaches to interventions, reflecting new findings, and improvements in health outcomes. The expected social change is to improve the current knowledge in order to decrease drug abuse among adolescents and young adults.

In African including Nigeria, drug abuse remains a major concern to the government, the academia, and the society at large; there is significant abuse of drugs among young people, posing severe similar social and public health problems, as in most Western societies (Birhanu et al., 2014). Several countries in sub-Saharan Africa, including Nigeria, are experiencing swift economic, social, and cultural transitions, creating conditions conducive to increasing drug abuse (Osman et al., 2016).

It is expected that the findings from this study will add to the current knowledge and suggest further research on the impact of mentoring as an intervention against drug abuse among young people, and by extension, young people in Nigeria.

### **Summary and Conclusions**

This study was to examine the association between mentoring interventions and drug abuse among African American adolescents and young adults by quantitative study

design to investigate whether or not there was a correlation between the dependent variable (drug abuse) and the independent variable (mentoring) in young people. According to Erdem et al. (2020), mentoring is an intervention that shows tentative promise for a positive effect on the prevention and reduction of drug abuse among young people, hence the determination of the relationship between the two variables.

This section elaborately described drug abuse among adolescents and young adults with an emphasis on African Americans and the potentials in mentoring as an intervention against drug abuse among this population. Also, the section described the nature of the study, the research questions, hypothesis, literature including limitations, delimitations, and assumptions of the study. The section ended with a description of the social change impact of the study.

This study's outcome could support the introduction of mentoring as a social change initiative and serve as evidence for policies that would implement mentoring programs targeted at adolescents and youths against drug abuse. Also, the study could increase the knowledge on mentoring a preventive approach against drug abuse resulting in a reduction in drug abuse by young people and also a reduction the associated health repercussion.

## Section 2: Research Design and Data Collection

### **Introduction**

Drug abuse among adolescents and young adults is one of the most detrimental risk behaviors threatening their current and future well-being. Drug abuse is considered one of the leading causes of mortality as well as a key contributor to suicide, homicide, poisoning, and the spread of infectious disease among young people globally (Oh et al., 2017). The purpose of carrying out this quantitative cross-sectional study was to examine the association between mentoring intervention and drug abuse among African American adolescents and young adults aged between 10-24 years.

This section includes the description of the research design for the study and the rationale for the choice, the methodology, study area and population, research questions, and the hypotheses. In this section, I also describe the management of the data, statistical tests to answer the research questions, threats to validity, and the ethical considerations for the study.

### **Research Design and Rationale**

In this study, I investigated the associations between the dependent variable (drug abuse) and the independent variable (mentoring) in young people. The research design was a nonexperimental, retrospective correlational cross-sectional inquiry with a quantitative descriptive approach using an existing secondary dataset from the 2014 National Survey on Drug Use and Health (NSDUH). I used this research design to assess if an association existed between the dependent and independent variables. A retrospective study uses existing data recorded for reasons other than research and allows

the examination of various variables (Hess, 2004). Nonexperimental investigation can be used to analyze existing data, analyze variables, and measure statistical associations among variables. In this nonexperimental correlational design, I applied correlational statistics to describe and measure the degree or association between the variables. According to Creswell (2012) and Frost (1933) in a quantitative study, a research problem is identified based on public health need, trend and allows for an assessment of the relationship between variables. Therefore, I have identified drug abuse among young people as a public health problem and in this study, I am assessing the association between drug abuse and mentoring interventions.

The use of secondary dataset made the study both cost and time effective and efficient as secondary data analyses are executed more quickly when compared to primary data collection and analysis, saving time and money, and avoiding duplication of effort (Cheng & Phillips, 2014). This study was cost and time effective as I did not do the data collection but rather accessed the secondary data and carried out the analysis. According to Dunn et al. (2015) and Guusie et al. (2016) secondary dataset allows analysis of large dataset analysis that could not be possible from individually collected dataset and also minimized ethical issues associated with primary data collection, as well as ensured protection of clients' confidentiality and increased the validity of the study and likelihood of generalization. I used a large secondary dataset; however, I had minimal ethical issues since I did not collect the data directly. However, according to Creswell (2009), the use of secondary data presents the possibility of incomplete and inadequate information hence limiting the study to only available variables. I did not

have some variables that may have added value to the study.

### **Methodology**

In the methodology section of this study, I describe the study area/population, secondary data management processes, sampling techniques, threats to validity, and ethical consideration of the data collection and management process. This study was based on a secondary analysis of the 2014 NSDUH from the Inter-university Consortium for Political and Social Research (ICPSR). The data were retrieved from the ICPSR database, which is on the public domain of the site.

### **Study Area and population**

The United States is a country in North America consisting of 50 states (Wallace et al., 2020) and a population of 328.2 million, which is 4.25% of the total world population (Worldometer, 2020). The study population included African American adolescents and young adults aged 12 to 24. The young people were sampled through a national survey that drew participants from 50 states as well as the District of Columbia.

### **Secondary Data Set Management**

In this research, I used the 2014 NSDUH from the Inter-university ICPSR. ICPSR is an international consortium of over 750 academic institutions and research organizations, and it maintains a data archive of more than 250,000 files of research in the social and behavioral sciences. The National Study on Drug Use and Health is a national survey conducted by Research Triangle Institute (RTI) International, North Carolina, 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 NSDUH is the main nationally representative source of annual estimates of drug abuse and mental illness among civilian members of the noninstitutionalized population, providing information about the use of drugs and other substances among members of the United States. The 2014 NSDUH is the 34th in these surveys (USDHHS/SAMHSA/CBHSQ, 2016).

The dependent variable for all RQs was drug abuse (as measured by ever use of a drug or nonmedical use of a drug, which was a categorical variable. For RQ1, the independent variable was mentoring interventions (as measured by the following questions: During the past 12 months, have you had a special class about drugs or alcohol in school? During the past 12 months, have you had films, lectures, discussions, or printed information about drugs or alcohol in one of your regular school classes such as health or physical education? During the past 12 months, have you had films, lectures, discussions, or printed information about drugs or alcohol outside of your regular classes such as in a special assembly?) which were categorical variables. For RQ2, the independent variable was mentoring interventions, (as measured by the question: During the past 12 months, have you participated in an alcohol, tobacco, or drug prevention program outside of school, where you learn about the dangers of using, and how to resist using, alcohol, tobacco, or drug?) which was also a categorical variable. The RQ3 also had the independent variable of mentoring interventions (as measured by the following questions: During the past 12 months, in how many kinds of school-based activities, such as team sports, cheerleading, choir, band, student government, or clubs, have you participated? During the past 12 months, in how many different kinds of community-



based activities, such as volunteer activities, sports, clubs, or groups have you participated?).

### **Sampling and Sampling Procedures**

The dataset was from the 2014 NSDUH. A multistage, deeply stratified sample design through the Computer-Aided Instruction (CAI) was used by NSDUH in selecting the sample.

### **Inclusion and Exclusion Criteria**

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.

### **Data Collection Tools**

The 2014 NSDUH was collected using the Audio Computed-Assisted Self-Interview (ACASI) and the Computer-Aided Instruction (CAI).

### **Instrumentation and Operationalization of Constructs**

I did not review of instrument validity and reliability because I used a secondary data for the analyses. The dependent variable was drug abuse, while the independent variable was mentoring interventions.

### **Quality Assurance and Control**

I carefully reviewed the data and performed all tests with SPSS® Version 25 (IBM Corp, 2018) to ensure quality assurance and control. I also checked for missing data

and consistency of data within the set. I analyzed the data using descriptive and inferential statistics.

### **Procedure for Gaining Access to the Data Set**

I registered on ICPSR and accessed the codebook. After obtaining the Institutional Review Board (IRB) approval, I downloaded the dataset, which was in the public domain to analyze the variables.

### **Data analysis**

Uncleaned data could give incorrect analysis results and erroneous conclusions (Ilyas & Chu, 2015). I conducted the data cleaning, verification, and analysis by using SPSS v 25. Then, I started the data analysis process with a thorough review of the data set, which I cleaned to avoid incorrect analysis and erroneous conclusions.

The variables of interest were moved from the central data set to a new page. I deselected all ethnic groups, leaving the ethnic group of interest, the Non-Hispanic African Americans. I also deselected all age groups except for the target age group, which were those 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.

I merged the dependent variable; responses to ever use of marijuana, cocaine, crack, and heroin, and nonmedical use of hallucinogens, inhalants, pain relievers, stimulants, and sedatives, and recoded as Drug Abuse.

I computed the first independent variable from the questions: During the past 12 months, have you had a special class about drugs or alcohol in school? During the past 12

months, have you had films, lectures, discussions, or printed information about drugs or alcohol in one of your regular school classes such as health or physical education? During the past 12 months, have you had films, lectures, discussions, or printed information about drugs or alcohol outside of one of your regular classes, such as in a special assembly? I merged the variables and recoded as School-based Intervention Programs.

I computed the second independent variable from the question: During the past 12 months have you participated in an alcohol, tobacco or drug prevention program outside of school, where you learn about the dangers of using, and how to resist using, alcohol, tobacco, or drug? I recoded this variable as Participating in Drug Abuse Prevention Activities.

I computed the third independent variable from the questions; During the past 12 months, in how many kinds of school-based activities, such as team sports, cheerleading, choir, band, student government, or clubs, have you participated? During the past 12 months, in how many different kinds of community-based activities, such as volunteer activities, sports, clubs, or groups, have you participated? I merged these variables and recoded as Number of School- And Community-Based Activities Participation.

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.

### **Research Question(s) and Hypotheses**

Research Question 1 (RQ1): What is the association between school-based intervention programs and drug abuse among African American adolescents and young adults?

Null Hypothesis ( $H_0$ ): There is no statistically significant association between school-based intervention programs and drug abuse among African American adolescents and young adults.

Alternate Hypothesis ( $H_a$ ): There is a statistically significant association between school-based intervention programs and drug abuse among African American adolescents and young adults.

Research Question 2 (RQ2): What is the association between participating in drug abuse prevention activities and drug abuse among African American adolescents and young adults?

$H_0$  - There is no statistically significant association between participating in drug abuse prevention activities and drug abuse among African American adolescents and young adults.

$H_a$  - There is a statistically significant association between participating in drug abuse prevention activities and drug abuse among African American adolescents and young adults.

Research Question 3 (RQ3): What is the association between the number of school- and community-based activities participation and drug abuse among African American adolescents and young adults?

$H_01$  - There is no statistically significant association between the number of school- and community-based activities participation and drug abuse among African American adolescents and young adults.

$H_{a1}$  - There is a statistically significant association between the number of school- and community-based activities participation and drug abuse among African American adolescents and young adults.

### **Threats to Validity**

Validity refers to how accurately a method measures what it is intended to measure (Frankfort-Nachmias et al., 2018; Heale et al., 2015). Common threats to cross-sectional studies are internal and external validity (Carlson et al., 2009). Creswell (2009) explains that threats are the influences that would prevent accurate inferences from being made about the dataset; hence may lead to errors in the result.

Internal validity involves the possibility that study conclusions are not indicative of what occurred in the study, which means that the threats to internal validity arise from factors other than the specified dependent or outcome variables which impact the outcome of the research (Babbie, 2013; Carlson, 2009).

One threat to internal validity is the data collector bias, which can occur when data collectors behave differently with different groups in a study. Such bias can influence the results of the study. The NSDUH survey is in all States; hence bias may be introduced. A way to reduce bias in the survey is to train the data collectors to ensure strict adherence to the sampling technique. Another threat to internal validity is maturation (Laerd, 2012);

this is the possibility that mental or physical changes occur within the participants themselves that could account for the evaluation results; participants may not be willing to provide correct answers to some or all of the survey questions. The mitigation of this is to ensure a reduction in the time to respond to the survey tool.

External validity refers to generalizing the study results to the general population and other settings (Allen, 2017). Inferences about cause-effect relationships from a specific study are considered externally valid if they may be generalized from the unique and idiosyncratic settings, procedures, and participants of the study, to other populations and conditions (Carlson, 2009). One of the objectives of studies that use quantitative research design is to ensure generalization from the sample under study to the population where the sample was drawn and across other studies. A threat to external validity is selection bias, which may arise from non-randomized sampling (Laerd Dissertation, 2012). The data for the study was collected through a multistage, deeply stratified sample design, a design suitable for a large population to ensure adequate sampling within the populations (Martínez-Mesa et al., 2016). Another threat to external validity is construct validity; constructs refer to mental abstractions used in expressing ideas, people, organizations, events, objects of interest (Laerd Dissertation, 2012). The construct for this study is mentoring, and this was assessed in this study using measurable variables. Another possible threat is the issue of the ‘real world’ versus the ‘experiment world.’ Some participants may provide false information believing that it may be more beneficial to the study; this may affect the study outcome, making it ungeneralizable.

A consideration of the threats to validity to ensure the external validity of this

proposed study is selecting a database with features of high-quality data. Studies sponsored by either the national or federal governments through its agencies are more likely to include large sample sizes due to the availability of resources such as human, time, and financial contrary to samples from privately funded studies (Koziol et al., 2011). The increased representativeness of the sample enhances the external validity of the study and the data used (Koziol & Arthur, 2011). the NSDUH database contained databases from both state-level and national-level, presenting the prevalence of drug abuse and abuse.

### **Ethical Procedures**

In this study, a secondary dataset was used; therefore, the ethical consideration was minimal due to the indirect contact with the target population. However, the data collection reported adherence to research ethics. According to ICPSR, public-use data files for this study were available for access by the general public. In secondary data analysis, the original data was not collected to answer the present research question. However, the dataset was assessed as being adequate and relevant for the intended study. The data will be kept for no longer than five years. It will be kept safe from unauthorized access, accidental loss or destruction, and stored on as a secured, protected computer.

After the Proposal approval, I sought and obtained permission from Walden University IRB to proceed to analyze the dataset.

### **Summary**

This section described the research design and methodology of the study, which is aimed at examining the association between drug abuse and mentoring. The population of

interest was African American young people aged 12 – 24. The study design was a nonexperimental, retrospective correlational cross-sectional inquiry with a quantitative descriptive approach and used an existing secondary dataset from the 2014 National Survey on Drug Use and Health (NSDUH). The dependent variable was drug abuse, while the independent variable was mentoring interventions.



### Section 3: Presentation of the Results and Findings

#### **Introduction**

In this quantitative study, I examined the association between the dependent variable, drug abuse, and the independent variable mentoring interventions. I used the dataset from the 2014 NSDUH for the analysis. I conducted a descriptive and inferential statistical analysis to assess the association between the independent and dependent variables using SPSS version 25.

RQ1 for this study was: What is the association between school-based intervention programs and drug abuse among African American adolescents and young adults? The dependent variable for this question was drug abuse, as measured by the respondents ever use of marijuana, cocaine, crack and heroin, and nonmedical use of hallucinogens, inhalants, pain relievers, stimulants, and sedatives. The independent variable was mentoring interventions (school-based intervention programs), defined as answering “yes” to any of the following survey questions: During the past 12 months, have you had a special class about drugs or alcohol in school? During the past 12 months, have you had films, lectures, discussions, or printed information about drugs or alcohol in one of your regular school classes such as health or physical education? and During the past 12 months, have you had films, lectures, discussions, or printed information about drugs or alcohol outside of one of your regular classes such as in a special assembly? The  $H_{01}$  was there is no statistically significant association between school-based intervention programs and drug abuse among African American adolescents and young adults, while the  $H_{a1}$  was that there is a statistically significant association between

school-based intervention and drug abuse among African American in adolescents and young adult.

RQ 2 for this study was: What is the association between participating in drug abuse prevention activities and drug abuse among African American adolescents and young adults? The dependent variable was drug abuse as described in RQ1 while the independent variable was mentoring interventions (participating in drug abuse prevention activities ) as measured by answering “yes” to any of the following questions, during the past 12 months, have you participated in an alcohol, tobacco or drug prevention program outside of school, where you learn about the dangers of using, and how to resist using, alcohol, tobacco, or drug? The  $H_0$ 1 is that there is no statistically significant association between participating in drug abuse prevention activities and drug abuse among African American adolescents and young adults, while the  $H_a$ 1 is that there is a statistically significant association between participating in drug abuse prevention activities and drug abuse among African American adolescents and young adults.

RQ 3 for this study was: What is the association between the number of school- and community-based activities participation and drug abuse among African American adolescents and young adults? The dependent variable was drug abuse as described in RQ1, while the independent variable was mentoring interventions (number of school- and community-based activities participation) as measured by: During the past 12 months, in how many kinds of school-based activities, such as team sports, cheerleading, choir, band, student government, or clubs, have you participated and during the past 12 months, in how many different kinds of community-based activities, such as volunteer activities,

sports, clubs, or groups have you participated. The  $H_{01}$  is that there is no statistically significant association between the number of school- and community-based activities participation and drug abuse among African American adolescents and young adults, while the  $H_{a1}$  is that there is a statistically significant association between the number of school- and community-based activities participation and drug abuse among African American adolescents and young adults.

In this section, I presented a description of the secondary data set collection process, a description of the statistical analyses used to answer the research questions, a test of the hypotheses, and determination of the strength of the association between the dependent and independent variables. I presented the descriptive analyses in tables and figures, and the inferential analyses in tables.

### **Data Collection of Secondary Data Set**

NSDUH is sponsored by the CBHSQ, which exists within the Substance Abuse and Mental Health Services Administration. RTI conducted the data collection and 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, noninstitutionalized 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 CAI. The data collected during the included demographic information, drug use, and participation in activities relating to drug use activities and several questions focused on mental health issues. 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;  $N = 3533$ .

## **Results**

### **Univariate Statistics**

#### **Descriptive characteristics of the sample population.**

The total number of respondents was  $N = 3533$ . Descriptively, the highest number of the respondents,  $n = 1136$  (32.2%), were between ages 21-25 years, while the lowest number of respondents,  $n = 524$  (14.8%), were between ages 12-13 years. The respondents consisted of  $n = 1772$  (48.7%) males and  $n = 1811$  (51.3%) females. According to the educational levels of the respondents,  $n = 275$  (7.8%) respondents had less than high school education,  $n = 755$  (21.4 %) respondents were high school graduates,  $n = 599$  (17.0%) respondents had some college education, and  $n = 136$  (3.8%) respondents were college graduates (see Table 2).

**Table 2**  
*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

**Descriptive characteristics of the dependent variable.**

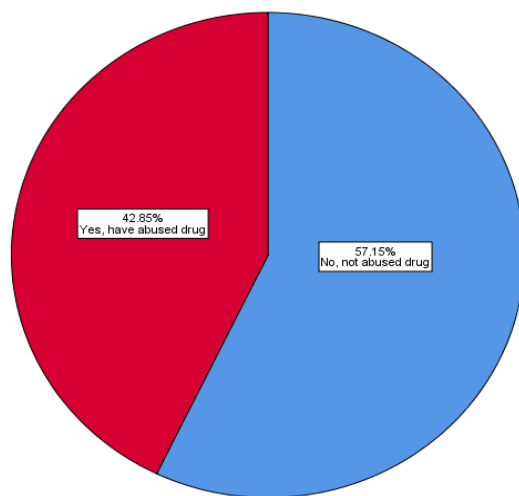
The dependent variable for the study was drug abuse.  $n = 1514$  (42.9%) respondents reported the abuse of drugs while  $n = 2019$  (57.1%) reported no abuse drugs (see Table 3 & Figure 3).

**Table 3**  
*Frequency Distribution for the  
 Dependent Variable (Drug Abuse)*

	Frequency	Percent
Not, not abused drug	2019	57.1
Yes, abused drug	1514	42.9
Total	3533	100

**Figure 2.**

*Drug Abuse Indicating Yes/No Response of Respondent to Drug Abuse*



42.9% reported the abuse of drugs, while 57.1% reported no to *Abuse of Drug*.

### **Descriptive characteristics of the independent variable.**

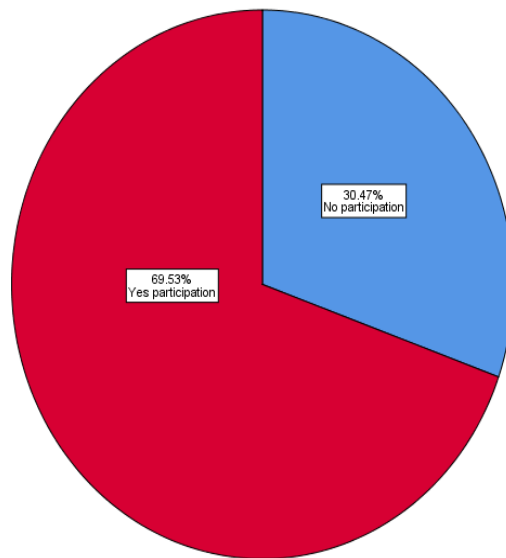
According to the result,  $n = 1100$  (69.5%) of the respondents participated in school-based interventions programs against drug abuse, while  $n = 483$  (30.5%) did not

participate in school-based intervention programs. Additionally,  $n = 280$  (16.1 %) of the respondents participated in the drug abuse prevention activities while  $n = 1462$  (83.9%) did not participate in the drug abuse prevention activities. Further,  $n = 186$  (10.6%) respondents did not participate in any school- and community-based activities,  $n = 333$  (19.0%) participated in one school- and community-based activity,  $n = 741$  (42.2%) participated in two school- and community-based activities, and  $n = 494$  (28.2%) participated in three or more school- and community-based activities (see Table 4, Figures 4, 5, & 6).

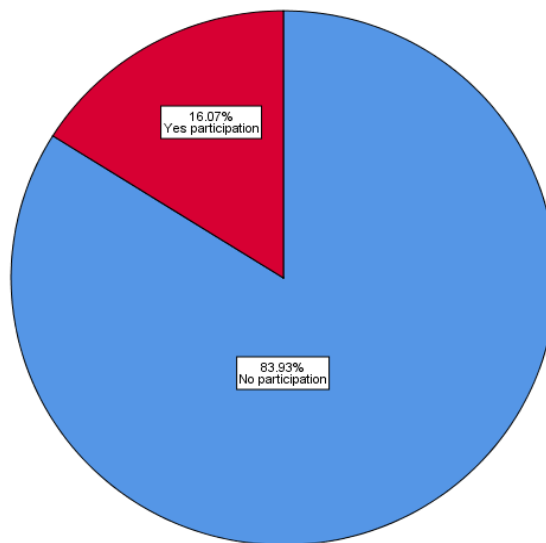
**Table 4**  
*Frequency Distribution for the Independent Variable*  
*(Mentoring Interventions)*

		Frequency	Percent	Valid Percent
Participation in school-based intervention programs	No participation	483	13.7	30.5
	Yes participation	1102	31.2	69.5
	Total	1585	44.9	100
	Missing System	1948	55.1	
Total	3533	100		
Participation in drug abuse prevention activities	No participation	1462	41.4	83.9
	Yes participation	280	7.9	16.1
	Total	1742	49.3	100
	Missing System	1791	50.7	1791
	Total	3533	100	3533
Number of participations in school- and community-based activities	No participation	186	5.3	10.6
	Single participation	333	9.4	19
	Two participation events	741	21	42.2
	Three or more participation events	494	14	28.2
	Total	1745	49.6	100
	Missing System	1779	50.4	
Total	3533	100		

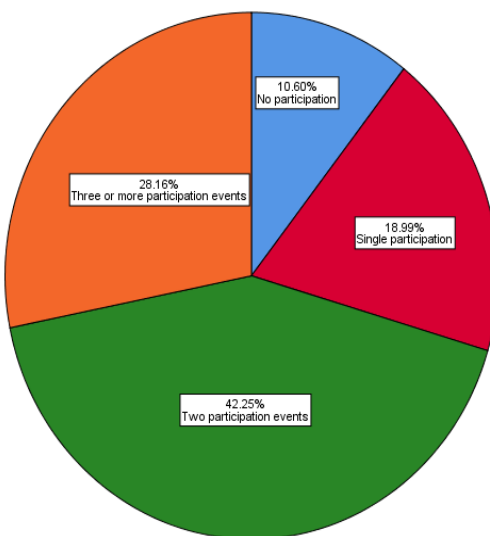


**Figure 3.***Participation in School-Based Intervention Programs*

In this pie chart, 69.5% of the respondents participated while 30.47% of the respondents did not participate in school-based intervention programs.

**Figure 4.***Participation in Drug Abuse Prevention Activities*

16.07 % respondents participated while 83.93% respondents did not participate in the drug abuse prevention activities.

**Figure 6.***Participation in School- and Community-Based Activities*

The pie chart shows the respondents number of school- and community-based activities participation; 10.60% respondents did not participate in any activity, 18.99% participated in one activity, 42.25% participated in two activities while 28.16% participated in three or more activities.

**Bivariate Statistics****Research Question 1**

In the first research question, I focused on assessing the association between school-based intervention programs and drug abuse.

Crosstabulation 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 5).

The results of the chi-square analysis revealed a significant association between participation in school-based interventions and drug abuse. [ $\chi^2(1, N = 3533) = 8.567$ ,  $p = .003$ ]. Thus, we can conclude a statistically significant association between participation in school-based interventions; however, the association is low. The null hypothesis that there is no statistically significant association between school-based intervention programs and drug abuse among African American adolescents and young adults was rejected (see Table 5).

**Table 2**

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

		Participants yes/no response to drug abuse			$\chi^2$	<i>df</i>	<i>P</i>	Phi Cramer's V
		No, not abused drug <i>n</i> (%)	Yes, abused drug <i>n</i> (%)	Total <i>N</i> (100%)				
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				

## Research Question 2

The second research question is focused on assessing the association between drug abuse prevention and drug abuse.

The result of the crosstabulation for participation in drug abuse prevention activities and participants yes/no response to drug abuse showed that, of the respondents who did not participate in the drug abuse prevention activities,  $n = 1024$  (70.0%) reported no abuse of drugs, while  $n = 438$  (30.0%) reported the abuse of drugs. In the case of respondents who participated in the drug abuse prevention activities,  $n = 211$  (75.4%) reported no drug abuse, while  $n = 69$  (24.6%) reported abuse of drugs (see Table 6).

The chi-square analysis results revealed a non-significant association between participation in drug abuse prevention activities and drug abuse [ $\chi^2(1, N = 1742) = 3.219$ ,  $p = .073$ ]. Thus, we can conclude that there is no statistically significant association between participation in drug abuse prevention activities and drug abuse. The null hypothesis that there is no statistically significant association between participation in drug abuse prevention activities and drug abuse was retained.

**Table 3**

*Cross Tabulation and Chi-Square Results for Participation in Drug Abuse Prevention Activities and Participants Yes/No Response to Drug Abuse*

		Participants yes/no response to drug abuse			$\chi^2$	df	P	Phi /Cramer's V
		No, not abused drug n (%)	Yes, abused drug n (%)	Total N (100%)				
Drug abuse prevention activities	No participation	1024 (70.0%)	438 (30.0%)	1462	3.219	1	0.073	-0.043
	Yes participation	211 (75.4%)	69 (24.67%)	280				0.043
	Total	1235 (70.1%)	507 (29.1%)	1742				

### Research Question 3

The third research question sought to assess the association between the number of school- and community-based activities participation and drug abuse.

For the respondents who reported no abuse of drug,  $n = 133$  (71.5%) did not participate in any school- and community-based activities,  $n = 288$  (71.5%) participated in one school- and community-based activity,  $n = 525$  (70.9%) participated in two school- and community-based activities and  $n = 346$  (70.0%) participated in three or more school- and community-based activities. While for the respondents who reported the abuse of drugs,  $n = 53$  (28.55%) did not participate in any school- and community-based activities,  $n = 95$  (24.67%) participated in one school- and community-based activity,  $n = 216$  (29.15%) participated in two school- and community-based activities

and  $n = 148$  (30.0%) participated in three or more school- and community-based activities (see Table 7).

The results of the chi-square analysis revealed a non-significant association between number of school- and community-based activity participation and drug abuse [ $\chi^2(3, N = 1754) = 0.256, p = .068$ ]. Thus, we can conclude that there is no statistically significant association between number of school- and community-based activity participation and drug abuse, and the null hypothesis that there is no statistically significant association between school and community activities and drug abuse among African American adolescents and young adults was retained (see Table 7).

**Table 4**

*Cross Tabulation and Chi-Square Results for Number of School-and Community-Based Participation Vs. Participants Yes/No Response to Drug Abuse*

		Participants yes/no response to drug abuse			$\chi^2$	<i>df</i>	<i>P</i>	Phi /Cramer's V
		No, not abused drug <i>n</i> (%)	Yes, abused drug <i>n</i> (%)	Total <i>N</i> (100%)				
Number of school- and community-based participation	No participation	133 (71.5%)	53 (28.5%)	186	0.256	3	0.068	0.012
	Single participation	288 (71.5%)	95 (24.67%)	333				
	2 participation events	525 (70.9%)	216 (29.15%)	741				
	3 or more participation events	346 (70.0%)	148 (30.0%)	494				
	Total	1242 (70.8%)	512 (29.2%)	1754				

## Summary

In this section, an overview of the Research Questions, dependent, the composite independent variables derived from other variables, the Null and Alternate hypothesis were provided. The dependent variable was drug abuse, while the independent was mentoring interventions as school-based intervention programs, participation in drug abuse prevention activities, and number of school- and community-based activities participation, respectively. Also, the research design and methodology employed in the study were described. The population of interest was African Americans between the ages of 12 and 25. The study design was a quantitative cross-sectional design with data extracted from the 2014 NSDUH.

The analysis included both descriptive and inferential statistics. The descriptive statistics, which were for the characteristics of the target population, dependent and independent, were presented in tables and figures. The inferential analysis was done at the bivariate level with the p-value was set at 0.05. The Bivariate statistics were used to answer the Research Questions. These inferential analyses were presented in tables.

The description of the results of the data analysis are in the next section.



## Section 4: Application to Professional Practice and Implications for Social Change

### **Introduction**

In this quantitative cross-sectional study, I accessed the association between drug abuse and mentoring among African American young people between ages 12-25 years old. In this study, the dependent variable for RQ1, RQ2, and RQ3 was drug abuse measured by ever-use and nonmedical use of the drugs of abuse. The independent variable for RQ1 was mentoring intervention (school-based intervention programs), which I computed from three variables: During the past 12 months, have you had a special class about drugs or alcohol in school? During the past 12 months, have you had films, lectures, discussions, or printed information about drugs or alcohol in one of your regular school classes such as health or physical education? During the past 12 months, have you had films, lectures, discussions, or printed information about drugs or alcohol outside of one of your regular classes such as in a special assembly? The independent variable for RQ2 was mentoring interventions (drug abuse prevention activities) as determined from the variable: During the past 12 months have you participated in an alcohol, tobacco or drug prevention program outside of school, where you learn about the dangers of using, and how to resist using, alcohol, tobacco, or drugs? The independent variable for RQ3 also had the independent variable mentoring interventions (number of school- and community-based activities participation) computed from the variables: During the past 12 months, in how many kinds of school-based activities, such as team sports, cheerleading, choir, band, student government, or clubs, have you participated?

During the past 12 months, in how many different kinds of community-based activities, such as volunteer activities, sports, clubs, or groups have you participated?

### **Concise Summary of Findings**

The study involved  $N = 3533$  African American respondents between ages 12-25 years old. A higher percentage (32.2%) of the respondents were between ages 21-25 years old, while the young people between 12-13 years old were the least represented (14.8%), respondents. 51.3% of respondents were identified as female and 48.7% as male. In the case of education, 7.8% of respondents had less than high school education, 21.4% were high school graduates, 17.0% had some college education, and 3.8% of respondents were college graduates (see Table 16).

Descriptive analysis of the dependent and independent variables showed that 42.9% of the respondents reported the abuse of drugs, while 57.1% of the respondents reported no abuse of drugs. 69.5% of the respondents participated in school-based intervention programs against drug abuse, while 30.5% did not participate in school-based intervention programs. 16.1% of respondents participated in the drug abuse prevention activities, and 83.9% of the respondents did not participate in these drug abuse prevention activities (see Table 16).

**Table 8***Descriptive Statistics for the Population and the Dependent and Independent Variables*

Variable		Frequency	Percent	Valid 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	3533	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		
Drug abuse	No, not abused drug	2019	57.1		
	Yes, have abused drug	1514	42.9		
	Total	3533	100		
Mentoring Interventions	Participation in school-based interventions	No participation	483	3.7	30.5
		Yes participation	1102	31.2	69.5
		Total	1585	44.9	100
	Participation in drug abuse prevention activities	Missing	1948	55.1	
		Total	3533	100	
		No participation	1462	41.4	83.9
	Number of participation in school- and community-based activities	Yes participation	280	7.9	16.1
		Total	1742	49.3	100
		Missing	1791	50.7	1791
	Total	Total	3533	100	100
		No participation	186	5.3	10.6
		Single participation	333	9.4	19
2 events participation		741	21	42.2	
3 or more events participations		494	14	28.2	
Total		1754	49.6	100	
Missing	1779	50.4			
Total	3533	100			

In RQ 1, I sought to assess the association between school-based intervention programs and drug abuse among African American adolescents and young adults. The result of the inferential statistics indicated 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. At a significance level of 0.05, a resulting  $p$ -value  $< 0.05$  was statistically significant, indicating an association between participation in school-based intervention programs and drug abuse. However, the effect of the association between participation in school-based intervention programs and drug abuse was low.

In RQ 2, I sought to assess the association between participating in drug abuse prevention activities and drug abuse among African American adolescents and young adults. The analysis suggested that participating in drug abuse prevention activities did not reduce the number of young people who reported the abuse of drugs. With a  $p$ -value  $> 0.05$ , there is no statistical significance and hence no association between participation in drug abuse prevention activities and drug abuse.

In RQ 3, I assessed the association between the number of school- and community-based activities participation and drug abuse among African American adolescents and young adults. The result may also suggest that the number of school- and community-based activities participation may not affect drug abuse by the young African Americans. The  $p$ -value  $> 0.05$  indicated no statistical significance, and hence no association between the number of school- and community-based activities participated in and drug abuse.

### **Theoretical Framework**

The theoretical framework for this study was the HBM (Rosenstock, 1974), which suggested that peoples' response to programs and interventions are based on the perception of the illness. The theory further suggests that individuals are likely to take action that they believe will reduce their risks (Glanz et al., 2015) if they believe that they are susceptible to a condition, that the condition has serious consequences, that a course of action available to them can reduce either their susceptibility to or severity of the condition and that anticipated benefits of taking action outweigh the barriers to taking the available action (Glanz et al., 2015; Hochbaum et al., 1952; Rosenstock, 1990). Thus applying the HBM theory to adolescent drug use, the general assumption was that an adolescent was more likely to adhere to preventive interventions actions against drug abuse if he believed in self-susceptibility to the negative impact of drug abuse, understood the severity of the impact, and the benefits of taking action as a result of the intervention or could overcome barriers.

In-line with the health belief model, the suggestion may be that by participating in school-based mentoring interventions, the young people were exposed to knowledge regarding self-susceptibility to the negative impact of drug abuse, an understanding of the severity of the impact, and the benefits of taking action which may be responsible for the observed association between the school-based intervention programs and drug abuse.

### **Interpretation of findings**

Previous studies support the findings of the study that there is an association between school-based intervention and drug abuse. Rigg et al. (2018) pointed out the

significance of schools as a venue for implementing drug prevention programs and have also reported school-based programs as an efficacious and cost-effective method of reducing drug abuse among young people. Das et al. (2016) and Chakravarthy et al. (2013) suggested that various types of prevention programs can be delivered through school prevention programs amongst other channels. In addition, Das et al. (2016) noted the necessity for concerted efforts for early identification, awareness 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.

Onrust et al. (2016), in their systematic reviews and meta-analyses investigation about the effectiveness of school-based programs to prevent or reduce drug abuse and determine what works for whom, suggested that the school-based program needed to be aligned with the developmental stages of the intended target group including childhood, early, middle, or late adolescence. Aguttu et al. (2018) established that the schools that have mentoring programs have a significant difference in the prevalence of drug abuse, hence experiencing higher levels of prevalence concerning substance abuse associated with the schools that do not participate in mentoring programs. Pereira and Sanchez (2018) reported that schools are learning environments that contribute to the construction of personal values, beliefs, habits, and lifestyles at the adolescents' stage of high susceptibility to reflect on such issues, and this can directly affect the social production of health. From this perspective, schools offer convenient settings for mentoring activities against drug abuse targeting adolescents and young people who are the population group at the highest risk.

Dhawan et al. (2017) and Ishaak et al. (2014) reported that schools and communities play a protective role by taking active steps to engage young people who consequently avoid drug abuse and other related behavioral problem behaviors. Furthermore, the researchers reported that young people who maintain active involvement in community institutions such as school and church are less likely to engage in drug abuse (Dhawan et al., 2017). Bonyani et al. (2018) investigated the effectiveness of four educational methods, including lecture, presentation of a video clip, presentation of posters and leaflets, and group/class discussion for life skills training and varying in knowledge and attitude of the young people adolescents toward drug abuse. The researcher reported that life skills training program through lecture-based and video clip-based educational methods was significantly effective in changing the high school students' attitude toward drug abuse and addiction (Bonyani et al., 2018).

Hayakawa et al. (2016) and Raney (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. 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.

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). These approaches may be deployed in other drug prevention activities, which, according to this study, had no association with drug abuse.

### **Limitations**

I hereby acknowledge the following limitations of this study:



1. This study involved the use of a secondary data analysis; hence, some variables that may have added value to the study were absent in the dataset.
2. The data analyzed were prone to social desirability and recall biases because they were self-reported and collected retrospectively.
3. This dataset was collected more than 5 years prior to the study, and the current reality on the ground in the United States may have changed markedly.
4. Missing data may have impacted the inferences made from this study.

### **Recommendations**

Further studies could explore the role of individual components of each of the mentoring variables, school-based intervention programs, drug abuse prevention activities and school- and community-based activities to determine what factors, features, content, and approaches may contribute to how mentoring activities can benefit young people and reduce drug abuse. The expectation was the implementation of appropriate quality mentoring program may improve the outcome. Further studies could also explore the association between the number of drugs abused by young people and mentoring interventions, this recommendation is subsequent to the review of the mentoring quality.

Mentoring programs may be included as major activities at various stages of the education of young people. These mentoring activities may also be introduced at various youth activities and in the various communities. Also, considering the global burden of drug abuse among young people and the impact on the individual, family, community,

and society at large, mentoring intervention programs is essential, and this could be made readily available to this most at-risk group.

### **Implications for Professional Practice and Social Change**

In this study, I examined the association between drug abuse and mentoring interventions among African American adolescents and young people. These findings may guide the subsequent design of mentoring interventions to encourage young people against the abuse of drugs. Also, because of the prevalence of drug abuse among young people and the subsequent health and economic consequences that also affect the entire nation, the government may make policies to institute mentoring interventions as part of the academic curriculum at different stages of life for young people.

#### **Professional Practice**

Concerning professional practice, the findings from this study could help in effective delivery of mentoring interventions against drug abuse programs within the formal and informal settings, including schools, youth groups, communities, and organizations interested in providing interventions against drug abuse. Since the result of the study indicated an association between drug abuse and the school-based intervention programs, the components of this form of intervention might be applied to other forms of drug abuse prevention activities.

#### **Positive Social Change**

The findings of this study provide evidence that mentoring via school-based interventions may reduce drug abuse among adolescents and young people. The components of school-based interventions may be modified at community levels and

other activities targeted at young for broader reach. Mentoring intervention activities against drug abuse may also be implemented at individual, family, school, and community levels. At each of these levels, relevant adaptable components may be implemented depending on the age of the target individuals. Also, at these various levels, the mode of delivery or implementation of the mentoring intervention programs may be adapted to capture the interest and engage the targeted individuals to achieve the desired result.

It is of critical importance to note that there is no association between drug abuse and the number of school- and community-based interventions that participated. Logically, it may be expected that since there is an association between drug abuse and school-based interventions, there would be an association between drug abuse and the number of school- and community-based interventions in which adolescents participated. These results may prove important in assisting school leaders, parents, public health officials, and mentors in ensuring that conducting a single mentoring intervention may be the only opportunity to educate the individual and hence the need for effective implementation of the intervention program.

Although this study failed to associate drug abuse with drug abuse prevention activities, particularly with data sets, public health workers, teachers, and other researchers who have an interest in interventions targeted at reducing drug abuse by young people may realize this study's implications for social change. This study has the potential to improve drug abuse intervention efforts by expanding the approach to include various mentoring interventions among African American adolescents and young people.

### **Generalization of the study**

Globally, adolescents and young people are at most risk of drug abuse. The predisposing factors to drug abuse among young people include age, gender, family structure and relations, poverty, and the affordability and accessibility 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. It is one of the health-related problems among Nigerian youth and remains a source of anxiety to various stakeholders, including the educational stakeholders (Okafor, 2020). 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. The drug habits in Nigeria have devolved with young people progressively resorting to potent mixtures of several drugs at the high risk of fatal overdoses. These young people consume several cocktails of drugs, and these include mixtures of codeine, tramadol, rohypnol, cannabis, and water or juice. Also, some of the young adults have turned to crude concoctions, which are not drug, as alternatives, including 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 habits among adolescents and young adults in Nigeria, as a citizen of

Nigeria and a public health practitioner, I expect that the findings of this study may be generalized and implemented in Nigeria to bring about a needed social change.

### **Conclusion**

I sought to assess the association between drug abuse and mentoring interventions among African American adolescents and young people. While the results of this study failed to establish a statistically significant association between drug abuse and drug abuse prevention activities and drug abuse and the number of school- and community-based interventions participated in, statistically significant association was shown between drug abuse and school-based interventions.

Since an association was observed between drug abuse and school-based intervention programs, this suggests that other mentoring intervention programs, including drug abuse prevention programs and school- and community-based interventions, may be modified in line with the components and approaches of the school-based intervention programs for effectiveness.

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