

Risk Factors Associated with Substance Abuse among Adolescents

ABSTRACT

Substance abuse is a global public health problem with physical, social, psychological, economic, and health implications. Adolescent age is an important transitional period and comes with a high level of vulnerability, curiosity, experimentation, and making choices that may be detrimental to them in the long run. The problem of substance abuse has become very popular among adolescents, several researchers from different parts of the world have reported a high prevalence rate of substance abuse among teenagers and its resultant health and social problems. This study identified four different levels of factors that influence substance abuse among teenagers which includes family-related problems, and individual, psychological and social factors. Different preventive measures have also been identified, highlighting roles that should be played by family, the community, schools, as well as the government. These measures will have a great impact on curbing the menace of substance abuse among young people in societies, they will be able to avoid risky behaviors, function effectively, and achieve their dreams.

Keywords: Adolescents; substance abuse; addiction; risk factors.

1. INTRODUCTION

Substance use and abuse remain one of the major global public health challenges. The problem of substance abuse has grown to become an integral part of our contemporary society, and more worrisome is the recent surge in the rate of involvement of the young population in this damaging phenomenon. Before now, cases of substance use and abuse are commonly associated with the older population, but current findings have established the spread of psychoactive substance use to the younger populations potentially leading to addiction [1].

Adolescence is a fundamental developmental period that appears to be essential with regard to substance use initiation as well as the development of mental and behavioral disorders due to psychoactive substance use [2]. This stage of life is a dynamic developmental period and involves physical, emotional, social, and psychological changes which makes them more vulnerable to health risk behaviors like substance use disorders [3]. Over the years, the number of young people using illicit drugs has significantly increased and the age of onset of use keeps dropping. Youths aged between 18 years and 25 years old constitute the populace that demonstrates the most vulnerable traits to psychoactive drug misuse, at the same time,

young people between 11 and 17 years accounted for the second most astounding populace with vulnerability to drug abuse [4].

Substance use disorder has become very popular among adolescents, several researchers have reported a high prevalence rate of substance abuse among teenagers and the resultant health and social problems associated with it in different parts of the world [5]. A number of negative cognitive, psychosocial or mental health consequences including psychiatric disorders have been linked to adolescent substance use with strong evidence [6]. Many adolescents engage in substance use activities, despite being aware of the risk associated with the behavior because it is acceptable within their peer groups, as well as their strong experimental tendency which usually leads in most cases to the continuation of the use of various substances. Although this adolescent period is notably characterized by increased adventurous tendencies, peer influences, and risk-taking behavior [7].

Several factors have been seen to influence the decision to use substances among young people at different times in their adolescent and young adult years. Access has been identified as an important factor, which might be the reason why young children of age 12 and younger are mostly

represented in the prevalence of inhaled substances and domestic product use such as gasoline, cough syrup, cleaning fluids, spray paint, and computer keyboard cleaner [7]. Although the use of tobacco, alcohol, marijuana and stimulants increases throughout adolescence, alcohol is by far the most commonly consumed substance among adolescents, followed by marijuana [8-9].

The National Institute on Drug Abuse [10] stated that substance use among adolescents is associated with multiple negative health consequences, with associated important gender variance existing between males and females of this age group; Girls who use substances tend to have more associated internalizing and traumatic stress disorders while the boys usually have more associated juvenile justice problems and externalizing disorders. Another direct effect of substance use according to the National Highway Traffic Safety Administration [11], is the high rate of motor vehicle crashes and fatalities among adolescents under the influence of alcohol and marijuana in many cases. If this menace of substance abuse is not curbed among our adolescents, it will snowball into serious academic problems and by extension a dysfunctional society with its negative consequences on all and sundry. To effectively minimize or possibly completely eradicate this menace, this study seeks to identify the common risk factors that expose vulnerable adolescents to substance abuse and suggest possible ways of curbing and preventing drug use problems.

2. LITERATURE REVIEW

2.1 Overview of Substance Abuse

According to the National Institute on Drug Abuse, substance abuse is the use of a substance to modify or control mood or state of mind in a manner that is illegal or harmful to oneself or others and is considered problematic use, or abuse. Substance use disorder (SUD) is a mental health problem that alters an individual's brain function and behavior, thus leading to the inability to control the use of substances such as alcohol, tobacco, and other illicit drugs or prescription medications [12]. The problem of substance abuse poses a great danger to individuals, families, and society in general. Examples of the potential consequences of harmful use include road traffic accident accidents or injuries, blackouts, juvenile delinquency, and risky sexual behavior that

predisposes to harmful infections such as HIV [13]. It's been shown that the majority of people with substance use disorders are at high risk of developing other psychiatric conditions [14].

2.2 The Burden of Substance Abuse

Globally, the prevalence of substance abuse among adolescent and adult populations aged between 15 and 64 years in 2018 was 5.5% (representing about 275 million people). About 62 million people out of the 275 million abused opioids, while about 36.3 million were projected to suffer from drug use disorders in 2019 [9]. In 2017, it was estimated that 271 million people (aged 15-64) globally had used drugs in the previous year with a projection of 35 million incidents of substance use disorder [15]. This shows a 4 million increase above the previous year's prevalence, indicating an alarming rate of new incidents and problems of substance abuse across the world. Between 2010 and 2019 the number of individuals using drugs was estimated to have increased by 20%, and this has been associated with the increased population growth across the globe. Currently, the number is projected to increase by 11% in 2030 and a substantial 40% rise in Africa owing to its abruptly growing population of young people [9]. The problem of substance use including usage, abuse, and trafficking has been associated with some areas that are of international concern such as corruption, illicit financial flow, organized crime, and terrorism/insurgency [16].

Alcohol is one of the most widely abused substances globally, and it is both legally and socially accepted [17]. According to WHO, harmful alcohol use contributes to about 3 million yearly mortalities globally and accounts for 5.1% of the global burden of disease. Alcohol-related death accounts for approximately 13.5% of the total death of young people between the age of 20 and 39 [18]. More so, more than 8 million people die yearly from tobacco and more than 7 million of those deaths are the result of direct tobacco use while around 1.2 million are the result of non-smokers being exposed to secondhand smoke [19]. Studies have shown a past year's drug use prevalence of 14.4% (14.3 million people) in Nigeria with cannabis being the most prevalent drug, followed by opioids, majorly tramadol, cough syrup, and sedatives. Hallucinogen is reported to be the least consumed substance. 3 million out of this population were reportedly diagnosed with substance use disorder [9]. Despite the known negative consequences of substance abuse,

there has been an overwhelming rise in the prevalence of substance abuse.

2.3 Prevalence of Adolescent Substance Abuse

Substance use is becoming a common phenomenon among adolescents due to their high level of curiosity and experimentation. Substance use among adolescents ranges from the use of alcohol, tobacco, and marijuana (in places like the USA), to the use of illicit substances like cocaine, heroin, cannabis, and others. When this group is introduced to a particular substance, there is usually a high tendency to proceed into other illicit substances [6]. More worrisome is the new trend among these young folks who have graduated from the use of conventional substances like alcohol, tobacco, marijuana, cocaine, heroin, and cannabis to create their own mixture of different substances usually called “science students” to achieve better-desired result [6]. For example, a mixture of substances like cannabis, tramadol, and codeine with soft drinks, popularly known as “gutter water”.

In the United States, the National Center for Drug Abuse Statistics [20] reported that about 50% of teenagers have misused drugs at least once in their lifetime, 1-in-8 teenagers abused illicit drugs in the past year, and a 61% increase rate in substance use among 8th grade was recorded between 2016 and 2020. The report also showed that 62% of teenagers in 12th grade have abused alcohol. According to [8], alcohol is the most commonly used substance among adolescents, accounting for 64% of lifetime alcohol use, followed by marijuana and cigarette use respectively at 45% and 31%.

A lifetime substance use prevalence of 26.7% was reported among preparatory school students in Ethiopia with alcohol being the most popular substance with a prevalence of 16.0%, closely followed by cigarettes, khat, and Hashish [21].

In recent years, the high prevalence of illicit drug use among the youth within the age range of 25 and 39 years in Nigeria has been documented in several works of literature. An annual prevalence of 13.4% was recorded among those between 20 and 24 years of age while a lower prevalence of 7.3% was recorded among those aged 15 to 19 years, with cocaine, opioids, and cough syrup being the most prevalent across all age groups [9]. A lifetime prevalence of 17.3% for any substance use among adolescent high school

students was reported by [22], while the prevalence for current use was put at 11.7%. As with other studies, alcohol has the highest lifetime and current use, followed by tramadol and tobacco.

2.4 DSM-IV-TR Criteria for Substance Abuse

According to the American Psychiatric Association [23], substance abuse is described as a maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:

- Recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household).
- Recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use).
- Recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct).
- Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights).

2.5 DSM-IV-TR Criteria for Substance Dependence

Substance dependence refers to a maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring any time in a 12-month period [23]:

- Tolerance, as defined by either; a need for markedly increased amounts of the substance to achieve intoxication or desired effects, or markedly diminished effect with continued use of the same amount of the substance.
- Withdrawal symptoms, as manifested by either; the characteristic withdrawal syndrome for the substance, or the same

(or a closely related) substance taken to relieve or avoid withdrawal symptoms.

- The substance is often taken in larger amounts or over a longer period than was intended.
- There is a persistent desire or unsuccessful efforts to cut down or control substance use.
- A great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain-smoking), or recover from its effects.
- Important social, occupational, or recreational activities are given up or reduced because of substance use.
- The substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption)

3. RISK FACTORS FOR SUBSTANCE ABUSE AMONG ADOLESCENTS

This study categorized the risk factors for substance abuse among adolescents in terms of family-related factors, individual, psychological, and social factors.

4. FAMILY-RELATED FACTORS

4.1 Parent's Positive Attitude towards Substance Use

The Family is the first socialization point for every individual, children grow to imbibe the family norms and values, and this ultimately forms a significant part of their adult life. Parents and older family members serve as inevitable role models to the younger ones, and children learn largely by observation and imitation. Therefore adolescents who grew up observing their parents or family members use alcohol or any other substance are most likely going to experiment the same. Studies show that children of alcohol-dependent parents are four times at risk of developing alcoholism when compared with the general population [24]. Excessive alcohol use by parents increases the risk of illicit substance use by adolescents [25]. That is to say that adolescents with alcoholic parents are more likely to use other illicit substances. According to

Obadeji et. al. [22], adolescents whose parents use any form of substance are significantly at greater risk of having a history of lifetime substance use. Other studies have also linked parental substance abuse to the current and all-time history of substance dependence [21,26]. Parents' positive attitude toward the use of substances encourages adolescents' curiosity about substance use.

4.2 Poor Parenting / Neglect

Parenting strategies go a long way to shape a children's behavior. It can either expose or protect adolescents from association with deviant peers and involvement in maladaptive behaviors like substance use. Adolescents whose parents employ less control of their deviant behaviors are more likely to abuse substances. Moreover, less parental strictness and affection, poor parental monitoring, emotional support, and negative evaluation lead to increased tendencies for use of alcohol and other substances [25]. Similarly, parental neglect, domestic violence, broken home, parents not being able to cater to their children's needs (especially in families with multiple children), parental inattention or lack of interest in their children's education and future, poor child care approaches, extreme discipline or extreme lack of discipline also increases the risk for substance use [27]. Children who are exposed to these life challenges may find succor in the 'streets' with its associated deviant and risky behaviors, such as substance abuse, unhealthy sexual behaviors, violence, and crime.

4.3 Poor Parent-Child Connectedness

Level of parent-child connectedness can influence an adolescent's attitude toward substance use. In their study on parents-adolescent relationships and substance use. Parental psychological and behavioral control as well as the level of relationship with their adolescent children are strong indicators of early initiation of substance use in adolescents. Families who maintain good parent-child relationships will foster connectedness, the children will develop a strong bond and maintain adequate communication with their parents thus reducing risky adolescent behaviors such as substance use [28]. When the level of connectedness and communication is high, children tend to refrain from the use of psychoactive substances so as not to disappoint their parents. Conversely, when the parent-child relationship is low, adolescents' use of substances might come in form of rebellion

against their parents [29]. This suggests the need for parents to be more intentional in their parenting and behavior around their children.

5. INDIVIDUAL FACTOR

Although every child is a product of a family, a number of individual factors that influence substance use among adolescents have been documented including, male gender, sleep problem, exposure to traumatic life events early in life, having access to excess pocket money, psychiatric co-morbidities like attention deficit hyperactivity disorder and depression [2], as well as low self-esteem [30]. The male gender has been significantly associated with substance use and misuse both in young people and older adults.

5.1 Mental Health Disorders and Other Comorbidities

Mental health disorders such as attention deficit hyperactivity disorder (ADHD) have been found to have a positive correlation with substance abuse. Mochrie et. al. [31] observed that students with ADHD have an increased likelihood to be involved in the habitual use of alcohol, binge drinking, as well as frequent use of marijuana and other illicit substances. Other disease comorbidities like adolescent catastrophizing pain have been linked with opioid use disorder [32]. The researcher argued that adolescents who have been prescribed opioids for acute pain management have an increased risk of developing an addiction. Moreover, the indiscriminate prescription of opioid, which is highly addictive for pain management by physicians for cases that can be taken care of by Non-Steroidal anti-inflammatory drugs (NSAIDs) poses a great risk of early introduction of the substance to young individuals and possible risk of abuse.

5.2 Academic Challenges

Some children face difficulties coping in school due to academic stress, poor performance, or the attitude of teachers. According to ÖztaG et. al. [27], in their descriptive cross-sectional study conducted among tenth-grade students aged between 14 and 17 years, results showed that there is significant evidence of substance use among students who have negative feelings about school, those who perceive themselves as not being unsuccessful in their academic pursuit, those who repeated a class, and those who are

usually absent from school for one reason or the other. Having negative feelings about school could result from the student's perception of the teacher's mode of teaching or behavior, it could also occur as a result of the difficulty in coping with academic stress experienced by the individuals, thus feeling unmotivated about school. The individual might resolve in taking drugs to boost their confidence.

Furthermore, some students reported using drugs as a means of getting relief from stress [21]. Also, the desire for pleasure and to keep awake, as well as being in possession of excess pocket money were also [21].

6. PSYCHOLOGICAL FACTORS

The presence of psychopathology may also put adolescents at risk of substance use in an adolescent. Young people with mental health problems may have impaired judgment about the negative impact of substance use, they may experience poor performance in school and psychological breakdown prompting them to associate with deviant peers and engage in risky behaviors.

6.1 Bullying

Adolescents who are victims of different forms of bullying (physical, verbal, and relational) have more tendency to engage in substance abuse. In their study, Afifi et. al. [33] reported that adolescents who have been physically bullied were about two times more likely to be current water-pipe and cigarette smokers. Physical bullying was associated with six times increased risk of lifetime use of illicit substances. On the other hand, verbal bullying was most predominantly linked with illicit drug use. Individuals who reported being ridiculed on the account of their body shape, physical looks, and their nationality or made sexualizing comments were mostly associated with illicit substance abuse. It was also reported that students were bullied for their looks and body or those who were made sexual jokes had two times odd of current use of nonmedical prescription drugs, whereas respondents who reported being ridiculed with sexual jokes had 2 and 4 times likelihood of water-pipe and cigarette use respectively. Lastly, those who reported being segregated, ignored, and excluded from activities on purpose were observed to have a 9-fold likelihood of illegal drug use.[33] Therefore, bullying should be discouraged as it may lead individuals to a greater risk of substance dependence.

6.2 Abuse

Physical, psychological, and sexual abuse of children has been linked with adolescent substance abuse. Hogarth et al. [34] noted a striking association between emotional, physical, and sexual abuse and increase alcohol use problems among adolescents. Alcohol was mostly used as a means of coping. Similarly, in a systematic review by Fletcher [35] on the relationship between child sexual abuse and substance use problems, most of the studies indicated child sexual abuse as a predictor for poly-substance abuse. He opined that the majority of children who experience molestation tend to use substances as a coping strategy to deal with the trauma, thus resulting in drug dependence. In addition, exposure to interpersonal trauma such as direct physical, or sexual assault, or witnessing intimate partner/parental violence was also found to increase the tendency for adolescent substance abuse. More so, two third of individuals who experience childhood trauma exhibit risky drug use patterns such as regular and multiple substance use and as well lifetime tobacco consumption [2]. However, in adolescents with mental illness, there is a 15-fold odds increase in regular substance use and a 12-fold increase in lifetime cannabis use [2].

6.3 Impulsivity

Adolescents with impulsivity traits and other behavioral problems have an increased risk of substance abuse. Studies showed that young people who exhibit highly impulsive traits have increased odds for use of alcohol, tobacco, and marijuana [36]. This is also associated with increased susceptibility for multiple substance use as well as risk for future drug use for non-drug users [36].

7. SOCIAL FACTORS

The social environment has a great influence on adolescent substance use. Factors such as availability, social acceptance, peer pressure, and romantic relationships have a great impact on vulnerable young adolescents in the environment. They may engage in the use of substances out of curiosity, or even worse still if their family or society has a carefree attitude toward substance use.

7.1 Availability

Substance availability in the community is one of the major predictors of substance abuse among teenagers. Availability may be viewed in terms of the ease at which the substance is procured [37] as well as the effect of advertisement [38]. Both licit substances and some illicit substances such as alcohol, tobacco, and cannabis are readily available and affordable in most societies, this makes it easy for individuals both young and old to be able to access the substances. Cannabis is easily purchased from drug dealers who are located within the immediate environment [1]. The availability of shops in schools and residential environments where substances are sold openly promotes the involvement of school children in substance use [21]. Also, the influence of advertisement, popular culture, and social media has further popularized the use of substances, also, social media have aided drug transactions to become much easier [39-40]. Drug users do not necessarily have to meet in person for purchase but rather have specific codes for their transaction arrangement.

7.2 Sociocultural Acceptance:

Most cultures permit the use of some psychoactive substances, especially alcohol, which explains why alcohol is the most prevalent among other substances [22]. In some societies like Nigeria, the intake of alcoholic drink is socially accepted and are served freely in social and cultural events [41], people take alcohol as a form of relaxation at parties, clubs, and in their homes including cigarettes [38]. Also, celebrities are paid wholesomely to advertise alcoholic drinks and tobacco, and some of them are role models to these adolescents. All these stimulate the imagination and desire of these young children to use psychoactive substances.

7.3 Peer Pressure

The adolescent age is a period laced with great curiosity, adventure, and experimentation. During this period most adolescents spend the bulk of their time with their peers and thus are highly susceptible to getting influenced by them [40]. Several research works have reported peer influence as one of the most prevalent risks for adolescent substance abuse. Over 60% of adolescents started using substances through their peers [22,39,42]. Association with delinquent peers who abuse substances may expose others to a high risk of engaging in such maladaptive behavior. Lawal & Aliyu [42] noted in their study on the assessment of causes and

effects of drugs and substance abuse among youth that the major cause of adolescent substance abuse is peer pressure and their desire to have fun and enjoy themselves. Furthermore, this could be due to the need to attain a certain social status, adventurous venture, or novelty-seeking [37]. Also, those in romantic relationships influence their partners into joining them to take psychoactive substances [43]. Individuals who use any form of substance(s) are more likely to introduce the same to their partners, this exposes them to the risk of multi-substance especially if both of them have a preference for different substances [44]. Ajayi [30] established in their study on prevalence and the determinant factors among youths that peer pressure is a positive predictor of substance abuse. According to him, having friends who take any form of psychoactive substance predisposes their peers to the risk of doing the same. There are two major ways in which peers' influence affects substance abuse; initiations and supply [37]. This is executed by coaching them on the appropriate means of getting the substances and how to use them. This buttresses the fact that having people of like minds who abuse substances exposes their peers to substance use.

8. PREVENTION STRATEGIES FOR ADOLESCENT SUBSTANCE ABUSE

8.1 Family-Based Interventions

- **Positive parenting**

The family is a major protective factor in the lives of children and adolescents. Family bonding promotes relationships between parents and children [45], this can be reinforced through parenting skill training on child support and effective parent-child communication, substance abuse education/information, and enforcing stern family policies on drug use [46,47]. Parental supervision and monitoring are also important in the prevention of substance use [45]. Studies show that parenting patterns such as setting out strict rules against the use of psychoactive substances, adequate monitoring of children's activities, and effective communication have a significant effect on preventing and curtailing adolescent substance use [48]. Therefore, parents should establish a set-out rule for their family, adopt effective techniques for monitoring the children's activities, and encourage them to uphold positive behaviors as well as modest but

consistent punishment to enforce the laid out rules [40].

- **Negative attitude towards substance use and moral values**

Children learn through role modeling, several studies show that children of parents who take any form of substance and have a positive attitude towards substance use have an increased tendency for current abuse of substances, future abuse as well as all-time abuse of both licit and illicit substance [21-22,24,26]. Therefore, to control adolescent substance abuse, it is expedient for parents to control or abstain from the use of psychoactive substances in the presence of their children.

High family morals and strong religious beliefs taught to children in families and communities protect adolescents from the use of substances [49]. Afifi [33] in his study comparing bullying and substance abuse, only about 11% of the highly religious group were reported to have a positive association between bullying and substance use. This shows the importance of religious teachings in curbing the menace of substance abuse.

- **Parental disapproval of substance use**

Studies show that parental disapproval of substance use protects children from drug abuse [50]. Similarly, Monica et al. [51] reported parental disapproval of substance use as a protective factor for alcohol, cigarette, and marijuana use among adolescents. These buttresses the importance of parents' attitude toward substance use in preventing adolescent substance abuse, preventive interventions should incorporate a family-oriented approach.

8.2 Community-Based Interventions

The environment where a child is raised has a great impact on their lifestyle. A society that sees the consumption of psychoactive substances as a normal way of life will encourage the younger generation to indulge in such risky behavior. However, a community that frowns at the use of substances serves as a protective factor against involvement with substance use by adolescents [41].

In a study evaluating the impact of a community-based intervention aimed at promoting non-smoking behavior, a report shows a positive outcome for interventions that

involve community leaders in the development and support of community intervention programs [52]. Training individuals in the community who forms a coalition of stakeholders to execute and superintend the interventions, involving both government and non-governmental organizations, community organizations, healthcare providers, social workers, sports organizations, business owners, law enforcement agencies, media organizations, and schools [52]. Das [53] in a systematic review reported other studies involving media campaigns, policy changes, price increases, as well as school-based programs and policies which show evidence of a remarkable decrease in smoking initiation [54]. These findings suggest a significant impact in increasing awareness of the negative effect of smoking, reduction in the smoking rate, and desire to smoke.

8.3 School-Based Interventions

School-based prevention programs have been shown to be an effective substance use prevention strategy. This is a universal program designed to cater to children at all levels; elementary schools, junior schools, and high schools [45]. When implemented adequately it should address risk factors such as poor social skills, aggressive behaviors, and poor academic performance [55,56]. The following strategies have been shown to be rewarding;

- **Awareness and Sensitization Programs**

The implementation of awareness and sensitization programs aids in educating students on the negative consequences of substance abuse and addiction. This usually includes print media such as posters and banners with attractive captions against substance abuse at different locations in schools, publishing articles in school bulletins and newsletters, as well as the use of handbills, teasers, and stickers to pass the information on the dangers of substance abuse [57].

- **Create Drug Abuse Prevention Clubs**

The idea of creating drug prevention clubs in schools and making it exciting for students actively participate in the club activities have demonstrated great positive effect. As this has built inherent ability in many young students not only to resist the pressure to abuse drugs, and consolidate their personal commitment against psychoactive substance abuse but also make

them to become ambassadors against substance use in their schools [55,56].

- **School Connectedness**

According to the Center for Disease Control [58], school connectedness is a strong conviction maintained by students that both the adults and peers within their school environment have regard for them and care about their learning experience. They further explained that school children who have a sense of connectedness in school stand a chance of having better positive health and academic outcomes. They are more likely to be regular in school and have good test scores and higher grades which will improve their self-esteem and reduce the need to belong to deviant peer groups [58]. Studies show that students with good school connectedness are less likely to engage in risky behaviors like cigarette smoking, alcohol consumption [21], and non-medical use of prescription opioids [59].

- **Positive School Environment**

School programs are attractive vehicles for curtailing drug abuse and its menace because most schools teach health education as part of personal health and social education. The role of a positive school environment as a protective factor has been emphasized in many studies [60]. Creating enabling learning environment is said to promote psychological well-being for students which encourages them to thrive and compete favorably. It helps to build confidence as well as improve their self-esteem [60]. This positive school environment includes an effective classroom management approach through the use of a reward system to motivate positive behaviors both academic and non-academic related [61]. These structured school activities have been demonstrated as a protective factor against substance abuse among adolescents in many review studies [49].

8.4 Government-Based Interventions

Addressing the use of illicit drugs, especially among adolescents, has long been a focus of government policy due to the awareness and concern over the adverse outcome it can have on the health and well-being of young people [62]. The government through her agencies is saddled with the responsibility to effectively coordinate and implement a strategic national response to drug misuse, and make progress toward restricting children's access to drugs. For instance, in some states in the US, increasing restrictions on tobacco advertising and political

pressures have reduced tobacco marketing to youth, and as a result, made it less attractive to school-age children [63]. This policy strategy work in conjunction with government-funded primary prevention programs such as; a well-captivating health education jingles with clear messages. In addition, the provision of adequate social amenities in schools and communities has proven to be a positive distraction for adolescents rather than indulging in deviant behaviors [57].

9. IMPLICATIONS FOR NURSING PRACTICE

- The nursing profession caters to every individual from newborn to the aged, nurses have a major role in creating health awareness and educating patients on healthy living, disease etiologies, and prevention strategies. In adolescent substance use prevention and control, nurses have a major role in teaching parents positive parenting skills such as monitoring and supervising their children's activities, adequate behavioral control skills, effective parent-child communication, and setting age-appropriate limits. This can be achieved through hospital-based health education programs, or community-based sensitization and intervention programs.
- School nurses should maximize every opportunity to enlighten school children on the consequences of substances, and organize awareness programs in their schools. They should create a friendly environment for students to build trust in them and share their fears, concerns, or any pressure from peers to use substances. They should be very observant to identify students who might be at risk of substance abuse and counsel them appropriately. Also, school nurses should provide prompt intervention for students who are already engaging in substance abuse to prevent the development of drug dependence and other psychiatric problems.
- Nurses are an integral part of the health management team for patients with substance use problems, they participate in both individual and group therapies, planning, monitoring, and evaluation of patient care. At every step, nurses should

provide adequate unique care and support for patients, reassure patients and family members and ensure their needs are met.

10. CONCLUSION

Substance abuse is a global public health problem and affects an individual's wellbeing and functioning, adolescents are the most vulnerable group and have an increased tendency of engaging in substance use and developing addiction problems. This study identified family-related factors, individual, psychological and social factors that predispose adolescents to increase risk of substance use/misuse. There is no clear-cut measure or technique to solve drug problems, therefore, individuals, families, organizations, schools, and the government have a pertinent role to play in the prevention of drug abuse and prompt intervention for drug use problems.

11. RECOMMENDATION

- Government should develop an independent school curriculum to educate school children on the effects of substance abuse, addiction problems, and prevention strategies
- At the community level, the government should organize and fund family and parenting skill training to equip adults with the relevant skills to train and nurture adolescents, monitor and supervise their activities and adopt an effective parent-child communication technique
- Government should effectively execute laws against substance use and trafficking

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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