



An Overview of Drug Abuse: Causes, Effects, and Control Measures

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

This study was conducted to assess the causes, effects, and control measures of drug abuse. The review was composed of literature search from databases (Google Scholar, Science Direct, Springer, Scopus and PubMed). Major findings from this study includes:

a) Causes of Drug Abuse: The causes of drug abuse varies from social, interpersonal, cultural, environmental, and family factors. People abuse drugs due to pleasure derived from it. Drug abuse can be socially learned through drug use by peer group members, exposure to offers to use, and easy access to drugs. Pressure from friends that abuse drugs including their frequent escalation of drug experience may appeal others to start the use of drugs. Curiosity arising from recurrent references to drugs by public media generate curiosity for having a personal experience of the drugs. Growing up in a single-parent family, lack of parental support or supervision as well as low involvement with the child, and exposure of children to elders in the family who take drugs can promote drug use. Frustration and depression could make some people to take drugs to experience relief or relief from pain mostly from a prolonged use of pain-relieving drugs prescribed by a doctor.

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b) Effects of Drug Abuse: The signs or harmful effects of drug abuse could be physical, emotional, family dynamics, school behaviours, and social problems. They include cardiovascular disease; abnormalities in brain structure and function; respiratory problems; weakened immune system; insomnia; reduction in libido or sexual dysfunction; anxiety and irritability; loss or increase in appetite; and poor judgment. Different crimes such as armed robbery, kidnapping, and rape have been identified with young people under the influence of drugs. Family dynamics will reflect in the form of secretiveness, withdrawing from family, starting arguments, and breaking rules. For the school behaviours, the teenager will begin to play truancy, display discipline problems, decline in grades, decreased interest, many absences, and subsequently withdrawal from school. In terms of social problems, the teenager will begin to have problems with the law, have new friends, abnormal request for money, changes to less conventional styles in dress and music.

c) Control Measures for Drug Abuse: Effective drug prevention programs should involve the family, schools, communities, and the media. This includes creating healthy home environment (functional family communication or interaction, parents taking extra measures to monitor the activities of their children including their associations, reduce child's exposure to drug users in the family). Government should provide easy and affordable access to rehabilitation centres, implement effective addiction counselling and prevention programmes, provide policies that would address the wider availability of drugs in the society, create job opportunities for youth to become self-reliant; develop effective awareness/campaign programs on drug abuse; establish recreational centres; and finally religiosity can prevent people from using drugs even if they are exposed to drugs in the environment.

Keywords: Drug abuse; substance abuse; illicit drugs; social habits; mental health.

1. INTRODUCTION

Drugs are effective substance for good health- they are used for beneficent therapeutic purposes but they are being abused by people especially youths. Drug abuse is also referred to as substance abuse and can be defined as the harmful intake of drugs by individuals in ways or quantities hazardous to them or people around them, or both Ahmad et al. [1]. On the other hand, World Health Organisation [2] described substance abuse as the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs. The effects of drug abuse differs depending on their mechanism of action, the amount consumed and the history of the user among other factors. However, it has been reported that a at a global level drug abuse have negative effects on the health, wealth and wellbeing of nations Abidemi [3]; Kabbash et al. [4]. In addition to the negative health consequences experienced by members from use of drugs in the society, drug use also puts a heavy financial burden on individuals, families and society [2].

Drugs that are commonly abused include *cannabis* (marijuana or Indian hemp); *amphetamines* - Central Nervous System (CNS) stimulants used in medicine to counteract narcolepsy, sometimes to overcome drowsiness; *Valium* - a CNS depressant for calming effect in

individuals suffering from sleep disorders; crystal methamphetamine used for inducing sleep and appetite for food; *Narcotic analgesic /Opiate and opioids* (heroin, morphine, opium, methadone, dipipanone and pethidine) – prescribed by doctors to patients to provide pain relief, euphoria, and sedation; *Cocaine; inhalants* like glue, nail polish, inhaler, gasoline and other similar toxic substance which are poured or sprayed into a plastic bag, clothes, etc. - the fumes are inhaled by users and intoxication starts after two or three deep breaths; *hallucinogens* which cause changes in a person's perception of reality; *alcohol* includes ethyl, methyl, propyl, butyl and amyl; *OxyContin* used in treating severe pain and cancer; *tobacco*; and others such as *codeine; caffeine; aspirin cough syrups, laxatives, antacids, vitamins, tranquilizers, benzodiazepine, barbiturates, steroids, lysergic acid diethylamide, phencyclidine, gamma hydroxy butyrate – GHB, barbiturates, benzodiazepines, Percocet and Vicodin* Barerah [5]; Adetiloye & Abel [6]; Machhi et al. [7]. In 2008, 155 to 250 million people representing 3.5% to 5.7% of global population within the age of 15-64 used other psychoactive substances such as cannabis, amphetamines, cocaine, opioids, and non-prescribed psychoactive prescription medication [2]. Furthermore, at a global scale, WHO [2] reported that cannabis is the most commonly used accounting for 129-190 million users, followed by

amphetamine type stimulants, then cocaine and opioids.

2. METHODS

The review was composed of literature search from databases (Google Scholar, Science Direct, Springer, Scopus and PubMed) with keywords such as drug abuse, substance abuse, illicit drugs, causes of drug abuse, consequences of drug abuse, control of drug abuse, and prevention programs for drug abuse.

3. CAUSES OF DRUG ABUSE

In outlining theoretical perspectives on drug use, Yang et al. [8] discussed the following three factors to influence drug use: 1) *Social control* which involves use of drugs due to pleasure derived from it; *social learning* which argues that drug use is not inborn but socially learned through differential association, imitation, and differential reinforcement which implies that the more drug users there are in the network, the more likely that the individual will learn the same behaviour; *sensation seeking* (factors within individuals) which entails intrapersonal traits as contributing factors of drug abuse – these traits characterized by a drive for novel and complex thrills and willingness to take risks to seek sensations/thrills (individuals with higher level of sensation seeking are more likely to seek the thrill of drugs).

Motyka and Al-Imam [9] classified causes of drug abuse into *cultural*, *environmental*, *family*, and *social* factors. The *cultural factors* includes the creation of a liberal attitude towards drugs by the media; existence of prodrug content in popular culture productions; beliefs about the low harmfulness of drugs. *Environmental factors* involves drug use by peer group members, exposure to offers to use, and easy access to drugs. *Family factors* of drug abuse includes growing up in a single-parent family, lack of parental support, lack of parental supervision and low involvement with the child, exposure to drug users in the family. Finally, *social factors* comprises of increased offers of new drugs, increased availability of drugs, exposure to online offers to use, lack of information and education about the consequences of use, which encourages new initiations.

Machhi et al. [7] outlined the following as causes of drug abuse: 1) curiosity arising from recurrent references to drugs by public media generate

curiosity for having a personal experience of the drugs; 2) Pressure from friends that abuse drugs including their frequent escalation of drug experience may appeal others to start the use of drugs; 3) Frustration and depression could make some individuals to take drugs to experience relief; 4) Desire for more work like students occasionally take drugs to keep awake the whole night to prepare for examination; 5) Looking for a different world can make young people to start taking drugs a wrong impression that the drugs open up a new world tempts; 6) Relief from pain mostly from a prolonged use of pain-relieving drugs prescribed by a doctor may result to addiction; 7) Family history which includes high tendency of children taking drugs due to exposure of the children to elders in the family who take drugs; 8) Excitement and adventure can make young people to take drugs to satisfy their instinct for excitement and adventure.

4. EFFECTS OF DRUG ABUSE

Globally, drug abuse have negative effects on the health, wealth and wellbeing of nations (Abidemi, [3]; Kabbash et al. [4]. This includes livelihood and security of nations [10]. Drug abuse impacts negatively on individuals' social status and responsibilities, and abusers usually suffer from different concurrent medical, psychological and social conditions [11]. Tremblay et al. [12] highlighted that young people that are involved in drug abuse have high chances of developing abnormalities in brain structure and function, later addictions, and mental health problems with high tendencies to experience criminal justice system involvement. Different crimes such as armed robbery, kidnapping, and rape have been identified with young people under the influence of drugs Ahmad et al. [1].

Barerah [5] classified the warning signs that can be identified in a teenage that has problem of drug abuse into physical signs, emotional signs, family dynamics, school behaviours, and social problems. The physical signs include lasting cough, fatigue, red and glazed eyes, and repeated health complaints. Emotional signs that may be seen in the teenager are general lack of interest, irritability, personality change, sudden mood changes, irresponsible behaviour, and poor judgment. Family dynamics will reflect in the form of secretiveness, withdrawing from family, negative attitude, starting arguments, and breaking rules. For the school behaviours, the

teenager will begin to play truancy, display discipline problems, decline in grades, decreased interest, negative attitude, and many absences. In terms of social problems, the teenager will begin to have problems with the law, have new friends, abnormal request for money, changes to less conventional styles in dress and music as well as sudden disregard in physical appearance.

Harmful effects of drug abuse include: cardiovascular disease including heart rate irregularities or heart attack; seizures, stroke, brain damage; respiratory problems like lung cancer, emphysema; weakened immune system; insomnia and other sleep problems; reduction in libido or sexual dysfunction; persistent changes in mood including anxiety and irritability Meier et al. [13]; Singh & Gupta [14]; Machhi et al. [7]. Similarly, Fareo [15]; Kabbash et al. [4] reported cases of mental health problems, nervous tension, tiredness, depression, loss or increase in appetite, inability to focus on academic activities, and subsequently withdrawal from school for students who abuse drugs.

5. CONTROL MEASURES FOR DRUG ABUSE

Kabbash et al. [4] suggested the necessity of establishment of interventions, implementation of effective addiction counselling and prevention programmes including implementing programmes to raise awareness and increased attention of local authorities and families for university students who are involved in drug abuse. Effective family socialization (functional family communication or interaction) can be helpful in detecting destructive effects of drug abuse at early stage and also religiosity can prevent people from using drugs even if they are exposed to drugs in the environment Machhi et al. [7].

Effective drug prevention programs should involve the family, schools, communities, and the media which includes creating healthy home environment with parental control on the children; easy and affordable access to rehabilitation centres; creating employment opportunities for the youth; effective awareness/campaign programs on drug abuse; establishment of recreational centres; and compulsory physical fitness classes in the schools and colleges [5].

According to Fadaei et al. [16], theory-based education can help the adolescents to promote their drug abuse preventive behaviours. They

concluded that health belief model (HBM) based educational programs are effective and cost-effective methods that can change the behaviour of drug abuse prevention in adolescents [17].

6. CONCLUSIONS

From the results of this study, it can be concluded that the causes of drug abuse varies from social, interpersonal, cultural, environmental, and family factors. Social control involves use of drugs due to pleasure derived from it. Excitement and adventure can make young people to take drugs to satisfy their instinct for excitement and adventure. Social learning which argues that drug use is not inborn but socially learned through differential association which implies that the more drug users there are in the network, the more likely that the individual will learn the same behaviour. Individuals with higher level of sensation seeking are more likely to seek the thrill of drugs. Looking for a different world can make young people to start taking drugs a wrong impression that the drugs open up a new world tempts. Environmental factors involves drug use by peer group members, exposure to offers to use, and easy access to drugs. Pressure from friends that abuse drugs including their frequent escalation of drug experience may appeal others to start the use of drugs. Curiosity arising from recurrent references to drugs by public media generate curiosity for having a personal experience of the drugs. Family factors that causes drug abuse includes growing up in a single-parent family, lack of parental support or supervision as well as low involvement with the child, and exposure of children to elders in the family who take drugs. Other factors that may result to drug abuse include frustration and depression that could make some people to take drugs to experience relief or relief from pain mostly from a prolonged use of pain-relieving drugs prescribed by a doctor.

The signs or harmful effects of drug abuse could be physical, emotional, family dynamics, school behaviours, and social problems. They include cardiovascular disease - heart rate irregularities or heart attack; seizures, stroke, abnormalities in brain structure and function (mental health problems); respiratory problems like lung cancer, emphysema; weakened immune system; insomnia; reduction in libido or sexual dysfunction; persistent changes in mood including anxiety and irritability; nervous tension,

tiredness, depression, loss or increase in appetite, inability to focus on academic activities, personality change, sudden mood changes, irresponsible behaviour, and poor judgment. Different crimes such as armed robbery, kidnapping, and rape have been identified with young people under the influence of drugs. Family dynamics will reflect in the form of secretiveness, withdrawing from family, negative attitude, starting arguments, and breaking rules. For the school behaviours, the teenager will begin to play truancy, display discipline problems, decline in grades, decreased interest, negative attitude, many absences, and subsequently withdrawal from school. In terms of social problems, the teenager will begin to have problems with the law, have new friends, abnormal request for money, changes to less conventional styles in dress and music as well as sudden disregard in physical appearance.

In terms of control measures for drug abuse, effective drug prevention programs should involve the family, schools, communities, and the media. This includes creating healthy home environment with parental control on the children (parents should take extra measures to monitor the activities of their children including their associations, reduce child's exposure to drug users in the family), effective family socialization (functional family communication or interaction) can be helpful in detecting destructive effects of drug abuse at early stage; Government should provide easy and affordable access to rehabilitation centres including implementation of effective addiction counselling and prevention programmes; Government should provide policies that would address the wider availability of drugs in the society; Government should create job opportunities for youth to become self-reliant; effective awareness/campaign programs on drug abuse; establishment of recreational centres; compulsory physical fitness classes in the schools and colleges; and finally religiosity can prevent people from using drugs even if they are exposed to drugs in the environment.

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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