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Substance and Drug Abuse on Human Health; A Case Study of Youth in the USA

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Substance and Drug Abuse on Human Health; A Case Study of Youth in the USA

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Abstract

A drug is a chemical substance that alters the functioning of the whole body and brain. The study sought to determine the effects of substance and drug abuse on human health among the youth in the USA. The study adopted the descriptive research design. The study used a purposive sampling technique to get a sample size of 200. The collection of the data was done using questionnaires. The analysis of the study was done using descriptive and inferential statistics. The study used tables to present the data. The study found that substance and drug abuse is negatively and significantly related to human health ($\beta = -0.548$, $p = 0.005$). Thus, when the rate of substance and drug abuse increases by one unit, the human health among the youth in the USA will reduce by 0.548 units while other factors that influence human health are held unchanged. Substance addiction has numerous negative physiological and psychological health consequences. Drug addiction affects your brain and behavior to the point where you can't control your use of legal or illegal drugs. The study concluded that youth substance and drug abuse is a problem affecting both developing and developed countries. The study recommended that prevention of drug problems can employ knowledge about family dynamics to address personal and social concerns of family members that otherwise would lead to drug abuse, both concerning dysfunctional and intact families. The youth need to be enlightened on the consequences of substance and drug abuse on their health. Measures should be put in place to help the affected youth reform from the use of drugs. Centers for counseling and rehabilitation should be set up to care for the youths who have fallen into this trap of substance abuse.

Keywords: *Substance and drug abuse, human health, youth, USA*

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1.0 Introduction

A drug is a chemical substance that alters the functioning of the whole body and brain (Simpson, Mclellan, Wellemeyer, Matalon & George, 2021). Chemical components in drugs can affect the body in many ways. Some substances and drugs usually change the body and brain in ways that last for a long time, even after the individual has stopped using the drugs; some can even be permanent. Every drug has different effects on the health of one person to another. Substance abuse and its associated effects are increasing across different countries and populations, especially the youthful population in low, middle-income and developed countries (Fernandes, Spiers, Vaidya, Zhang, Sharma, Holla & Benegal, 2021). In 2022, almost 35% of school-going children were said to have used substances and drugs. The issue concerning drug addiction in the USA has reduced in recent years, even in regions where drug overdoses were noted to be high, although deaths due to drug overdose in the USA have risen sharply. About 22 million Americans have at least one addiction and around 15% get medication and therapy. The number of deaths caused by drug and substance overdose has increased since 1990 (Stephenson, 2020).

Substance and drug addiction cost the US economy more than \$700 billion annually. 40% of the residents struggle with illicit drug use and 15% with substance and drug use. Each year, roughly 18 million Americans abuse prescription drugs. These are either drugs prescribed or gotten illegally from another individual. Most of these 18 million people are young (Maust, Lin & Blow, 2019). Adolescence and the transition into adulthood are stages of life marked by independence from parents and older people and a desire for intimate relationships with peers and friends. This period is also characterized by exploring new ideas, lifestyles, and actions that are not always correct (McQuoid, Thrul, Ozer, Ramo & Ling, 2019). These experiments frequently end in unanticipated outcomes, prompting some young people to turn to drugs and substances to escape uncomfortable situations. Substance and drug abuse result from excessive usage of substances and drugs. Substance addiction has numerous negative physiological and psychological health consequences.

Drug abuse, which is still used by the youth to cope with many socioeconomic and psychological problems, should be addressed (Zambling, Russell & D'Aniello, 2022). Bearing in mind that young people are a vulnerable group that is critical for the country's economic progress in the future. Drugs can be taken in different ways like injection, inhalation, and ingestion (Balsamo, Bajardi, Salomone & Schifanella, 2021). The effects of the drugs on the body may differ according to how the substance is taken. Drugs are injected directly into the bloodstream and have an immediate impact, whereas eating takes a long time to produce an impact. All drugs that are abused affect the brain. They induce massive levels of dopamine, a neurotransmitter that assists in regulating emotions, motivation, and pleasant experiences, flooding the brain. Drugs and substances can eventually alter brain functions and impair an individual's decision-making capacity, resulting in strong cravings and compulsive drug usage (Duresso, 2021). This conduct can persist for some time.

Over 8 million people currently suffer from substance and drug abuse disorders, and substance and drug abuse are responsible for two out of every five deaths (Martini, Fregna, Bosia, Perrozzi & Cavallaro, 2022). Furthermore, drug and substance abuse is more responsible for many deaths,

diseases, and disabilities than any other preventable health problem. Individuals who abuse drugs and alcohol are also at a higher risk of unintended injuries, accidents, and domestic violence. Substance use disorders are associated with a wide spectrum of short and long-term health consequences (Allen, Loeb, Narr & Costello, 2021). They may vary according to the type of drug or substance, the amount consumed and frequency of use, and the individual's overall health. Substance abuse and dependence can have far-reaching consequences. They can have an impact on many organs in the body.

Suicide rates among substance and drug users are high (Esang & Ahmed, 2018). Long-term substance and other drug abuse lead to physiological distortion of brain chemistry and social isolation, contributing to the high risk of suicide. Another risk is the immediate intoxication effects of the narcotics, which increase the likelihood of suicide. Suicides are quite common among young people who drink alcohol, accounting for two out of every five suicides. Substance abuse is responsible for approximately 28% of suicides in the United States. Substance and drug abuse are also associated with an increase in the likelihood of committing criminal offenses (Aebi, Bessler & Steinhausen, 2021).

Substance and drug abuse among youth are at higher risk than non-users for mental health issues, like depression, conduct problems, personality disorders, suicidal thoughts, attempted suicide, and suicide. Drug and substance abuse is of great concern to many institutions, families, employers and workers alike (Mutschler, Haines, McShane, Lochran & Bhoi, 2022). However, these concerns must be addressed by giving out relevant information about drug use and abuse. Youths, employees and managers should know and understand the risks of drug and substance abuse at the family level, in society and work places. Drug and substance abuse lowers individual working stability and, by extension, weakens firms' output. The study sought to determine the effects of substance and drug abuse on human health among the youth in the USA.

2.0 Literature Review

Peacock, BrunoGisev, Degenhardt, Hall, Sedefov and Griffiths (2019) noted that throughout human history, drug and substance abuse has posed a substantial threat to public health. The two main techniques to addressing the issue of drug and substance abuse are prevention and treatment. They are considered cross-disciplinary and are linked to different domains like heredity, biology, psychology, cognitive science, family, social growth, and cultural frameworks. The special journal of Drug and Substance Abuse, Environment, and Public Health has indicated study findings from various countries and regions worldwide to improve the global exchange of latest views and findings on the etiology, processes, and effects of substance abuse within various domains, with a multilevel view regarded as more helpful for evaluating its complex nature, courses, and effects. As a result, it is possible that various solutions should be used concurrently and integratively in the prevention and treatment of drug and substance abuse.

Fadus, Smith and Squeglia (2019) discovered that drug and substance abuse has been widely debated both globally and in Russia. The government, educators, parents, pastors, and other non-governmental organizations have been at the forefront of attempting to determine the root cause and regulatory strategies. The study sought to investigate what causes young people in schools to consume drugs, and the consequences of this behavior on their health, with a focus on the Ural

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region. The study also mentioned that methods may be utilized to control drug and substance usage. The target population consisted of five secondary schools. Three hundred and seventy-six students, ten guidance and counselling educators, and five principals were included in the sample. Snowball sampling was used to choose students. Questionnaires were used to collect data. The collected data was analyzed with SPSS and displayed as tables and figures using qualitative and descriptive techniques such as frequencies and percentages. It was shown that peer pressure drives many students to use drugs. Among drug-taking students, the most significant impact of substance abuse is poor physical health. It was advised that all stakeholders be included in addressing substance addiction issues, and counseling and counselling sessions to modify student behavior so that the students may regain their health which has already deteriorated due to drug abuse.

Moore, Cox, Evans, Hallingberg, Hawkins, Littlecott and Murphy (2018) performed research to investigate the extent to which substance abuse affects the health of young workers in processing firms in Salzburg, Austria; to determine the effect of substance abuse on workplace behavior change among workers in processing firms; and to examine the effect of substance abuse on productivity among young workers in processing firms. The study was founded on both reinforcement theory and social cognitive theory. The study focused on young workers who were abusing drugs and alcohol. Participants were recruited from four carefully selected processing enterprises in Salzburg, Austria. Purposive sampling was utilized to choose a sample size of 50 young workers. Key informants were chosen using stratified sampling, which included managers and department leaders. The instruments employed to collect research data were questionnaires and interviews. The descriptive statistics were used to analyze the main data, and theme evaluation was employed to interpret qualitative data from the interviews. The study's findings suggested that substance abuse had a negative impact on the health of young workers at the selected processing enterprises, with a significant relationship observed between drug abuse and each of the three characteristics. The study indicated that drug abuse caused workplace absenteeism, workplace behavior change, and lower levels of production among young workers in Austrian processing firms due to ill health. According to the findings, Austrian processing companies can adopt a substance abuse policy. Furthermore, processing companies might frequently hold awareness campaigns and training seminars on the health risks of substance addiction. These can also be used with staff health coaching to raise overall health awareness among all employees. Processing companies in Austria can create an employee support program to help personnel afflicted by drug usage seek mediation and/or assistance.

Miech, Johnston, O'Malley, Bachman, Schulenberg and Patrick (2020) conducted study to look at drugs, substance abuse, and the effects on youth health in secondary schools in Tennessee, USA. The research used a descriptive survey research design and only included schoolgirls. Deputy Principals, guidance and counseling instructors, and parent association chairpersons were among those present. The qualitative data collected through open-ended questionnaire items, interviews, and focus group discussions was categorized into themes relevant to the research objectives and summarized utilizing frequencies and percentages. According to the findings, a lot of pocket money, media, poor relations between the youth and parents/guardians, poor guidance and counseling, the perception that drugs have no effect on health, peer pressure, stress, single parenting, rejection by family members, and poor collaboration between parents/guardians and

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schools all contributed to drug and substance abuse which eventually lead to poor health among the youths who were abusing drugs. The medications and substances were obtained via chemists, pharmacies, fellow students, drug peddlers, and people of adjacent towns, with painkillers, alcohol, and other substances being the most regularly used and abused drugs. The tactics employed to regulate drugs and substance addiction were provision of basic needs, guidance and counseling, tight enforcement of school rules and regulations, participation of local communities, and advocacy for religious principles, rather than punishment. Drug and substance addiction had an impact on health. It was suggested that policies be developed to bring together teachers, students, local communities, parents, and other stakeholders in the fight against drug and substance abuse which adversely affected the health of the youths. Drug education should be included in the curriculum, and that policy guidelines for monitoring and evaluating methods used to combat drug and substance abuse be established.

Keyes, Gary, O'Malley, Hamilton and Schulenberg (2019) demonstrated that substance and drug use among American teens peaked in 1980. In general, the use of various drugs decreased gradually in the 1980s, stabilized, and then reduced gradually. Lowering substance and drug usage among young people in the United States is a primary focus for federal, state, and local law enforcement officials. The federal government of the United States monitors teenage substance and drug use using three nationally representative surveys: the National Household Survey on Drug Abuse, the Monitoring the Future Study, and the Youth Risk Behavior Survey. Other surveys include the Partnership Attitudes Tracking Study, which is performed yearly to evaluate youth and parental attitudes toward drugs, and the Drug Abuse Awareness Network (DAWN), a national surveillance system that tracks trends in drug-related emergency department visits and deaths. Despite the fact that survey procedures differ, both surveys capture nearly the same trends in drug usage. Tobacco, alcohol, inhalants, marijuana, LSD, cocaine, heroin, and methamphetamine abuse among American teens has remained reasonably consistent. Furthermore, a notable exception is the widespread use of MDMA (methylenedioxymethamphetamine). The physical repercussions of "club and recreational drug use" are reflected in the high frequency of emergency department visits, particularly those connected with MDMA and gamma-hydroxybutyrate use, which can indicate a new and rising trend in substance and drug abuse.

Newcomb, Hill, Buehler, Ryan, Whitton and Mustanski (2020) noted that substance and drug abuse is a global public health issue. The rate of substance abuse among young people is shocking. They not only hurt people's health, but also have a negative impact on families and society. A three-year study was undertaken between 2015 and 2018 by us of different databases, consisting of Science Direct, PubMeds, CINAHL, and other health sciences journals. Finally, 9 research-based papers and other credible reports were included. The scope of substance misuse among children, the determinants of drug abuse, the detrimental impacts of substance abuse, and the structure of the STAR project were all covered in research articles and reports. It has been shown that substance and drug abuse has an impact on the health of youths. The study recommended that centers for counseling and rehabilitation be set for taking care of the youths who have fallen to this trap of substance abuse.

Ghazal (2019) reported that in 2019, the number of drug-related deaths among the youths worldwide was high. Age, gender, family structure and relations, poverty, and the affordability

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and accessibility of substances and drugs are all risk factors for substance and drug abuse among the youth. This is a problem that affects both developing and developed countries. Because of their weak socioeconomic situations, developing countries are particularly vulnerable. There are risk factors for substance misuse, and understanding them may help the community as a whole address substance abuse among the youth. The STAR Project was an example of an effective community-based effort in the United States of America to combat substance and drug abuse among youths.

Schuler, Rice, Evans-Polce and Collins (2018) performed research to investigate the impacts of drug and substance abuse among youths in Hamburg, Germany and make suggestions on proper intervention approaches to stem the tide. The study area was Hamburg. The triangulation design was used in the study, which combines qualitative and quantitative research techniques and measures. In addition to personal observations, data was gathered through self-completion questionnaires distributed to youths and community members, and interview schedules for the area administrators. This served as the primary source of data collection. The research's findings noted that the factors influencing drug and substance abuse among German youths, community initiatives to combat the vice, and the National administrations and other law enforcement agencies' readiness to intervene in the situation. It is hoped that the study's findings and suggestions will help the government minimize the effects of substance abuse on youths, National administration officials, law enforcement officers, and other stakeholders in the security sector make the right decisions in the country's fight against drug and substance abuse.

3.0 Research Methodology

The study adopted the descriptive research design. The study used a purposive sampling technique to get a sample size of 200. The collection of the data was done using questionnaires. The analysis of the study was done using descriptive and inferential statistics. The study used tables to present the data.

4.0 Findings

The findings are illustrated in sections.

4.1 Correlation Analysis

The results presented in Table 1 describe the correlation analysis

Table 1: Correlation Analysis

		Human Health	Substance & Drug Abuse
Human Health	Pearson		
	Correlation	1.000	
	Sig. (2-tailed)		
Substance & Drug Abuse	Pearson		
	Correlation	-. 417**	
	Sig. (2-tailed)	0.000	0.000

The correlation results from Table 1 indicate that the substance and drug abuse is negatively and significantly associated with human health ($r=-.417$, $p=.000$). This concurs with Newcomb, Hill, Buehler, Ryan, Whitton and Mustanski (2020) reported that substance and drug abuse has an impact on the health of youths. Substance addiction has numerous negative physiological and psychological health consequences.

4.2 Regression Analysis

The section includes model fitness, analysis of variance and regression of coefficient. The findings presented in Table 2 show the model fitness

Table 2: Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.417a	0.294	0.148	0.015485

The results from Table 2 indicate that substance and drug abuse was discovered to be satisfactory in explaining the human health in USA. This was supported by the coefficient of determination, also known as the R square of 0.294. This shows that substance and drug abuse explain 29.4% of the variations in the human health in among the youth in USA

Table 3: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.52	1	8.52	163.85	.000b
	Residual	10.45	200	0.052		
	Total	18.97	199			

The result in Table 3 shows that the overall model was statistically significant. The results show that human health is good predictor in explaining the substance and drug abuse among the youth in in USA. This was supported by an F statistic of 163.85 and the reported p-value of 0.000 which was less than the conventional probability significance level of 0.05.

Table 4: Regression of Coefficient

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.645	0.156		4.135	0.075
Substance & Drug Abuse	0.548	0.147	0.426	3.728	0.005

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According to the results presented in Table 4, it was discovered that substance and drug abuse is negatively and significantly related to human health ($\beta=-0.548$, $p=0.005$). This was supported by a calculated t-statistic of 3.728, which is larger than the critical t-statistic of 1.96. The results imply that when the rate of substance and drug abuse increases by one unit, the human health among the youth in the USA will reduce by 0.548 units while other factors that influence human health are held unchanged. Miech, Johnston, O'Malley, Bachman, Schulenberg and Patrick (2020) articulated that drug and substance addiction impacted health. It was noted that peer pressure drives many youths to use drugs. Some substances and drugs usually change the body and brain in ways that last for a long time, even after the individual has stopped using the drugs; some can even be permanent, affecting an individual's health.

Conclusion and Recommendations

The study concluded that drug and substance misuse is a complex phenomenon that primarily affects young people. According to the results, it was discovered that substance and drug abuse is negatively and significantly related to human health ($\beta=-0.548$, $p=0.005$). This was supported by a calculated t-statistic of 3.728, which is larger than the critical t-statistic of 1.96. The results imply that when the rate of substance and drug abuse increases by one unit, the human health among the youth in the USA will reduce by 0.548 units while other factors that influence human health are held unchanged. As a result, more youths are needed to delve deeper into this important issue. Substance abuse is responsible for many suicides in the United States. Substance and drug abuse are related to an increased likelihood of committing criminal offences. All relevant parties, from parents to pastors to government officials, should work together to combat the vice and make more youths productive. The study recommended that drug abuse, which is still used by the youth to cope with many socioeconomic and psychological problems, should be addressed. Centers for counselling and rehabilitation should be set up to care for the youths who have fallen into this trap of substance and drug abuse and their health deteriorated.

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