Study of risk factors in adolescence in terms of demographic changes

Noshin Tarannum1*, F. M. Shafiqur Rahman2, Mehnaz Hossain M.3, Fahariaz Tasnim T.4, Shaila Islam5, Nabila Afrin3, Noshin Tabassum6 and Mohammed Abu K. S.7

1Armed Forces Medical College, Dhaka, Bangladesh.
2Sir Salimullah Medical College Mitford Hospital, Dhaka, Bangladesh.
3Ibn Sina Medical College, Dhaka, Bangladesh.
4Anwer Khan Modern Medical College, Dhaka, Bangladesh.
5ZH Sikder Women’s Medical College, Dhaka, Bangladesh.
6Cape Breton University, Sydney, Nova Scotia, Canada.
7Furness General Hospital, University Hospitals of Morecambe Bay NHS Foundation Trust, Barrow-in-Furness, United Kingdom.

Received 18 August, 2023; Accepted 11 September, 2023

Adolescence is addressed as a life phase where the prospects for health are tremendous and future patterns of adult health are confirmed. Health in youth is the consequence of communications between prenatal and early childhood development and the precise biological, social-role, and demographical changes that accompany puberty, molded by social determinants, risk, and protective factors that affect the uptake of health-related attitudes. The model of adolescence is speedily changing; the average age of onset of adolescence is declining, and the age at which mature social roles are achieved is rising. In this work, several adolescent risk factors have been studied. Statistical data on the preference for drug consumption among adolescents was collected. Surveys were conducted, and data were gathered from ten different regions covering the world’s entire demography. The health problems because of drug consumption and the consequences of drug abuse among adolescents were analyzed. The reasons for drug abuse and adolescents’ age groups were statistically analyzed. A statistical report establishes the relationship among drug preference, health problems, and crime rates and demonstrates a way to reduce adolescent drug abuse and risk behavior. The report can demonstrate how demographic changes vary the risk factors, abnormal behaviors, and adolescent health problems. Details of the study will provide more information.

Key words: Life, attitudes, social, report, behaviors, statistical.

INTRODUCTION

Adolescence is known as a transitional stage of physical and psychological development that usually occurs during the period from puberty to adulthood. It is witnessed as a period of peak physical health and normal emotional turmoil. Nevertheless, it is also known as a period when many young people are involved in...
dangerous behaviors. For example, drug consumption, substance misuse, and unprotected sex can precede immediate and future health-risks (Department of Health, 2004; Millstein et al., 1992). Regarding sensitive security, a range of epidemiological studies (Offer, Howard, and Ostrov, 1991) have found that around 20% of adolescents suggest psychological discomfort in their responses to symptom surveys. A higher percentage of teenagers’ report needing assistance with personal, emotional, or behavioral challenges (Barker and Adelman, 1994; Boldero and Fallon, 1995). In first-world countries, the rates of intentional self-harm increased by over a quarter between 1995 and 2020, with the principal reasons for mortality among—young people being accidents and self-destruction (Department of Health, 2004). Parents and friends are considered more likely to provide support than professionals to be named by young people as sources of help and advice (Boldero and Fallon, 1995; Ciarrochi et al., 2002; Friedman, 1991; Harrison and Harrington, 2001; Offer et al., 1991; Oppong-Odisent and Heycock, 1997; Tishby et al., 2001), but there may be medical, social and emotional difficulties which are beyond the scope of parents and friends to solve the issue. In first-world countries, at this moment, there is a drive to deliver specialist services to adolescents that address government goals for minimizing national rates of drug consumption, teenage pregnancy, smoking, substance misuse, sexually transmitted diseases, and suicide among young people. There is also an acknowledgment that adolescence is regarded as a period when the shape of facility use is advanced, which tends to continue during adulthood. If young people have positive premature understandings of retrieving assistance from professionals, they are likely to continue requesting assistance when required throughout their lives (Department of Health, 2004).

Adolescence has been a matter of importance since the mid-20th century. After World War II, most health concepts have centred on the non-appearance of disease and disability (Cooke and Melchart, 2016) Psychology has focused on repairing defects in the diseased model of human functioning (Seligman and Csikzentmihaly, 2000), concentrating almost specifically on pathology and abandoning the examination of the positive characteristics that make life worth living (Seligman and Csikzentmihaly, 2000). It is now recognized that the absence of pathology does not necessarily correlate with positive dimensions of health and well-being (Keyes, 2002; Keyes et al., 2003), and psychologists have started to understand well-being as an important research goal and factors that contribute to its promotion (Vazquez, 2019). Positive psychology has recently emerged as a new viewpoint that focuses on the study of well-being, quality of life, strengths, and resources (Delle et al., 2011). Various approaches have emerged in that framework. To be precise, well-being can be understood as an ideal psychological operative and experience (Ryan and Deci, 2001). More precisely, some theorists defined it as a state branded by high life gratification and the knowledge of high positive affect (Deci et al., 2008), while others fixed on the concept of human potential, ability, and virtue (Ryan and Deci, 2001). Despite this categorization of the theory, the diversity of terminology observed in diverse studies caused some conflict. While this situation has indeed fostered fruitful scientific debate, it has also led to significant uncertainty and theoretical and methodological confusion. On the other hand, these approaches primarily epitomize personal judgments about well-being and only briefly address the social dimension of the individuals’ involved (Gomez et al., 2019).

Another primary concern among young adults is drug abuse or drug consumption at the pre-mature stage of life (Freake et al., 2007). Drug abuse remains a major public health problem, with an estimated 70 million people and their families affected by material use disorders and 30 million abusing or dependent on illegal drugs and alcohol (Substance Abuse and Mental Health Services Administration, SAMHSA). According to SAMHSA, approximately 18% of the nation’s 12-year-old and older population has used illegal drugs in the past month, and there are nearly 8,000 illegal drug consumers daily. According to Proceedings of the American Thoracic Society (PATS), while the use of illegal drugs among young adults has declined or remained comparatively stable for much of the last decade, the latest survey results show that the use of cannabis (19%) and ecstasy (67%) has increased sharply in the last year among the high school students. The same study predicts that drug use will increase in the coming years as more students adopt attitudes and behaviors that support drug use. Other research findings from 2021, including the Monitoring the Future study, are also alarming as youth cannabis consumption and overall drug consumption are increasing, and attitudes toward cannabis consumption appear to be relaxing (Johnston et al., 2009). Similarly, SAMHSA recently reported a decrease in the proportion of youth who perceived a high risk of regular cannabis consumption and fewer youth reporting drug prevention activities. The increase in youth drug use is concerning because early initiation of drug consumption and increased drug use during adolescence are particularly strong predictors of chronic drug problems and crime in adulthood (Gustavson et al., 2007). STD/HIV (Malow et al., 2001) is among a range of long-term negative consequences of substance abuse and crime (Stenbecka et al., 2007). In addition to the increase in youth substance abuse, substance abuse among older adults is also a demanding concern among element abuse epidemiologists and clinicians (Simoni-Wastila et al., 2006). SAMHSA reported that the prevalence of past years’ illicit drug consumption among Americans aged 50 increased from 2.7% in 2012 to 4.6% in 2020. This dramatic increase is due to the aging of the baby boom
generation, which had more lifetime illicit drug consumption than previous allies. The pervasiveness of substance abuse among older adults, particularly prescription drug abuse, is a major concern given the limited knowledge base regarding the effects of substances on the aging brain (Dowling et al., 2008). As the need for treatment exceeds available resources, clinical capacity must be increased to meet the intervention needs predicted by these trends. Only approximately 10% of substance abusers aged 12 and older in need of treatment receive treatment in a specialized substance abuse center (SAMHSA). To aid young people, services are required to attract the young generation to seek assistance in the first place, deliver a service that inspires them to return for additional arrangements, and produce an atmosphere where teenagers feel gifted to disclose to professionals' opinions, spirits, or behaviors which may be putting them at risk.

According to the World Health Organization (WHO), Adolescence is defined as the period between 10-21 years, is an important period when the transition from childhood to adulthood takes place, and the behaviors and lifestyles are shaped (Arnett et al., 2013; Baltes et al., 1987). The whole stage can be divided into 3 stages: Early (10-13), Middle-Early (14-16), Middle-Late, (16-18) and Late (19-21) so, this is the time which has a profound impact on the survival and development of the next generation. Moreover, they are a large and growing segment of the globe and a country’s population. Therefore, it is crystal clear how important young adults are for the future world’s progress. However, in recent times, many young populations are moving towards drug abuse. If initiative is not taken to control drug abuse among young adolescents, our future will be destroyed sooner or later. Researchers worldwide continue to figure out a way to minimize drug abuse among young adults (Chasteen et al., 2020; Diehl et al., 2014; Giles et al., 2002; Kornadt et al., 2011). For this purpose, we devised an effort to help reduce adolescent drug consumption. In our work, statistical surveys have been conducted (Meisner et al., 2012; Perry et al., 2017; Rodulph et al., 2017; Weiss et al., 2018; Weiss et al., 2019; Weiss et al., 2020). We collected data from among adolescent people of from different continents of the world. We gathered information about preferable drugs among young adults and then figured out why those drugs are preferable. We highlighted the health problems associated with drug abuse.

The consequences of drug consumption have been discussed as well. The emergence of fascination towards crime from drug abuse at an early stage has been studied. We generated a statistical report relating to all these risky behaviors among adolescents. We demonstrated how to solve this issue. Our report will help to reduce drug abuse among adolescents and eventually will assist in reducing the effects of drug abuse. Further study will provide a clearer picture.

**MATERIALS AND METHODS**

**Case study**

In this work, we devised an idea to reduce the risky behavioral problems among young adolescents. In the past, physiologists and criminologists addressed that youngsters have a much higher tendency than adult ones to try out something new (Asato et al., 2010; Bechtold et al., 2014; Littlefield et al., 2010; Loeb et al., 2014; Luciana et al., 2013). At a young age, they want to explore something new, and in these regards, they fall into the trap of consuming drugs, and at a certain period, they become addicted to those drugs. Therefore, drug addiction leads to serious crimes, and eventually, they have severe health problems. This drug abuse among adolescents has become a global issue, and if action is not taken immediately to solve the problem, the world's future will be in deep trouble. Our current research proposed an idea to fight against this issue.

In this work, at the very beginning, literature surveys were conducted (Monahan et al., 2009; Ordaz et al., 2013; Pickett et al., 2019; Achterbergh et al., 2020; Backes et al., 2015; Booth, 2016; Bowins, 2015). In all parts of the world, adolescents- both boys and girls- are subjected to risky behaviors. Many do not have the information, strength, or confidence to resist these pressures. Adolescent people experience violence, sexual harassment, and other forms of gender discrimination and are vulnerable to drug/substance abuse, accidents, and hazardous work. Among all these issues, the most common and biggest threat to young adults was found to be drug consumption or substance abuse. It has been witnessed that drug abuse leads to major problems among adolescents and eventually damages the development of the young generation. We addressed that drug abuse is the main reason for risky behaviors among adolescents. We generated a statistical report that will help reduce drug abuse among adolescents.

**Statistical report generation**

Our aim in this work is to figure out how to reduce adolescent drug consumption. We studied different types of reports/models/data sheets such as medical, mathematical, simulation, experimental, statistical, economical, engineering, socio economic etc. (Hossain, 2021; Couseenas et al., 2011; Pedicelli et al., 2022; Hossain et al., 2020a; Fiorentino et al., 2018; Morshed et al., 2019; Hossain et al., 2020b; Romanenko et al., 2022; Pereira et al., 2019; Hossain et al., 2022a; Lobstein et al., 2019; Quek et al., 2017; Hossain et al., 2022b; Park et al., 2012; Inchley et al., 2020; Masud et al., 2021; Wijnhoven et al., 2014; van Eekert et al., 2016; Hossain, 2020; Waters et al., 2011; Homer et al., 2019; Hossain and Kim, 2020; Rutter et al., 2017; Finegood et al., 2010; Hossain, 2023; Savona et al., 2021; Malik et al., 2013; Idris et al., 2023; Monzani et al., 2019). We tried to figure out what would be the best-suited model/report to represent our investigation. Then, we came up with a statistical report. We generated our model, which will aid in decreasing drug abuse among adolescents. Initially, we studied the consequences of drug consumption among adolescents and developed a flow chart.

This flow chart (Figure 1) shows why drug abuse among young adults needs to be stopped immediately. Our report undoubtedly will help to reduce and eventually stop drug consumption. At the commencement of our report generation, we collected data on drugs preference among-adolescents from ten different regions of the world. Then, we gathered data on the health problems associated with drug consumption at an early age; next, we collected data on the types of crimes adolescents commit due to drug abuse. Histograms have been generated from these collected data to determine the most common preferable drugs, health problem, and crimes young adults commit. Next, we studied the
Becoming addicted to drugs
Loss focus in studies and other works
Increment number of school dropouts
Get involved in criminal offence
Increment of national crime rate
Damage health condition
Immature death

Figure 1. Flow chart of consequences of drug abuse from the adolescents.

reason behind drug consumption by youngsters, and data was collected from the same regions. We also determined the age groups of adolescents based on the collected data, then, developed a pie chart on the reason-consuming drugs, and age group. These pie charts and histograms give us an entire picture of adolescents’ drug consumption rate worldwide. We developed relationships among drug consumption, health problems, types of crime committing, reason of drug consumption and age group of adolescents by generating our statistical report. Our report has demonstrated that demographic changes are changing drug preferences among adolescents. In specific areas of the world, if certain drug production rates can be restricted/stopped and risk behaviors, health issues, and other problems among the young generation will be lessened.

RESULTS AND DISCUSSION

As mentioned earlier, we collected a lot of data from various sources. We compared all the data to come up with a statistical report that can certainly help to reduce risky behavior in adolescent people. We started our data collection on drug preference among young adults. We gathered all the data, compared the results and then decided.

Analysis of the preference of drug among adolescents

The data collected from several countries of ten different regions helped us to view an overall picture of the drug consumption scenario. At first, we made a list of commonly consumed drugs in the selected regions, and then we gathered the data from several surveys. Next, we normalized all the data, and then converted those into percentages. We normalized all the data, so that we could put all our data under the same graph and see the comparisons. For example, in Figure 3, we In South Asia, among all the drugs consumption, alcohol has the highest percentage (40.16%), whereas in North America, Tobacco is leading the race (33.83%). How did we plot all the data under the same plot? It’s simple. First, we made the percentage of individual drugs that were consumed. For example, a survey was done among approximately 1,000 young adults in Bangladesh (South Asia) who consumed different drugs. Among them, 401 young adults preferred alcohol and were addicted to that. We got the percentage of it. Next, another survey was conducted in India among 1,000 adolescents to check who tried LSD. Only one was found among 1,000 candidates. We made the percentage of that amount. Similarly, all the amounts of other separate drugs that adolescents tried were converted into percentage values. A summation of all the individual shares of preferred drugs was made for each region. Then, the total number was normalized to 100. So that, we can find this are the most preferred drugs among the adolescents (Figure 3).

This way, data from other regions were normalized and transformed into percentages to bring all the data under the same graph. Then, the histogram plot was made. It is
Table 1. Collected data form ten various regions of the world.

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<td>64.94</td>
<td>36.65</td>
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Table 2. List of references of collected data of Table 1.

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<th>Content</th>
<th>References</th>
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<tr>
<td>Preference of drugs</td>
<td>Monzani et al., 2019; Dumbili et al., 2021; Itanyi et al., 2018; Obadeji et al., 2020; Adamson et al., 2015; Abdulkarim et al., 2005; Peltzer et al., 2018; Obadeji et al., 2020; Moonajilin et al., 2021; Obadeji et al., 2020; Singh et al., 2017; Suwanwela et al., 1986; Shaikh et al., 2018; Mamtazi et al., 2007; Al-Hinaai et al., 2021; Jungerman et al., 2009; Opaley et al., 2013; Ewald et al., 2016; Pinsky et al., 2020; Hinden et al., 2019; Medina-Mora and Gibbs, 2013; Bitancourt et al. 2016; Antunes et al., 2018; Pinsky et al., 2020; CDC, 2023; NIDA, 2023; SAMHSA, 2023; NIH, 2023; Wu et al., 2008; SAMHSA, 2020; Nigeria: Alcohol use among students a rising problem. Movendi International, 2021; Government of South Australia, 2023; ADF, 2023; National Drug Strategy Household Survey, 2023; Owen et al., 2019; EMDCCA, 2023; Estévez-Lamorte et al., 2021; United Nations Office on Drugs and Crime Regional Office, 2021; WHOSIS, 2022. Resendiz Escobar et al., 2017, Janahi et al., 2006, Vazquez et al., 2006, Ensign et al., 2002, Gomez-Lopez et al., 2016, Roncero et al., 2015, Rudolph et al., 2017.</td>
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<td>Health Problems</td>
<td>To et al., 2012; Adegbhein gb e et al., 2005; Adewole et al., 2017; Oyedepo et al., 2020; Odoki et al., 2019; Akokuwebe et al., 2016; Kuranga et al., 2021; Adewole et al., 2017; Obadeji et al., 2020; Kuranga et al., 2021; Hassan et al., 2002; Hossain et al., 2016; Sutradhar et al., 2019; Anam et al., 2022; Khanum et al., 2021; Capps et al., 2015; Mojtahab et al., 2014; World Drug Report, 2022; Minhas, 2023; SAMHSA, 2022; Fatiregun et al., 2020; Wu et al., 2008; UNODC, 2023; UNAIDS, 2023; Oetting et al., 1988; Olanisun et al., 2017; Bener et al., 2006; Miguez et al., 2020; World Health Rankings, 2023; Naushad et al., 2022; STD Rates by Country, 2023; Al-Kaabi et al., 2017; Xiaoshan et al. 2004; Karuphiah et al., 2021; SingHealth, 2023; Voorberg et al., 2022; Csikszentmihaly, 2023; National Cancer Institute, 2023; Canadian Health Measures Survey, 2019; AAD, 2023; Medscape, 2023; OASH, 2023; Owen et al., 2019; Estévez-Lamorte et al., 2021; Medina-Mora et al., 1989; Roncero et al., 2015.</td>
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<tr>
<th>Content</th>
<th>Africa, South Asia, Middle East, South East Asia, Oceania, Western Europe, Eastern Europe, South America, Central America, North America</th>
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Table 2. Cont’d

<table>
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<tr>
<th>Types of crimes</th>
<th>Murder, human trafficking, prostitution, robbery, smuggling, drug dealing, gambling, others</th>
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<tbody>
<tr>
<td>Reason of consuming drugs</td>
<td>Boredom, adventure seeking, broken family, loneliness, depression, peer pressure, social glorification, others</td>
</tr>
<tr>
<td>Age group</td>
<td>Below 13, 13-15, 16-18, 19-21</td>
</tr>
</tbody>
</table>

to be noticed that the most preferred drug is dissimilar in different continents. For example, alcohol is preferred in Africa, South Asia, Eastern and Western Europe, South and Central America. In comparison, Tobacco is popular among adolescents in Southeast Asia and North America. It’s because of demographic changes. From our gathered information (WEF, 2023), It was found, in most Middle Eastern countries, consuming alcohol in public is prohibited. Adolescents in Middle Eastern countries shifted towards other drugs, such as Stimulants and Sedatives. Whereas, in other continents, Alcohol consumption among adults is higher in comparison, especially in Western countries, Alcohol is easily available. Even though, Alcohol and Cannabis consumption are strictly prohibited for people below 21 in most countries. But Easy access to these drugs has attracted young adults to try those drugs. From our data analysis, government officials and law enforcement of the countries in the continent can get information and become aware of the type and amount of drug consumption adolescents consume.

Study of health problems associated with drug abuse

In this segment, we explored the health problems.
among the young group of people. We focused on the health issues adolescents’ face by consuming drugs during their growing age. Like the previous section, we collected data from the same countries on the same continents and studied how types of diseases differ among adolescents with demographic changes. This time, data has been presented in more detail. From our study, we figured out that diseases such as Asthma, Cancer, Malnutrition, Behavioral disorders, Infectious disease, conduct disorder, Urinary Tract Infections (UTI), sexually transmitted infections, and mental disturbance are most common in the entire world regardless of male and female. So, we demonstrated a histogram chart of these human diseases on ten continents.

In the previous section, we selected ten different regions of the world where surveys of drug preference among adolescents have been conducted. Then, the data we collected were converted into percentages and then normalized by the total summation of the percentage, and then multiplied by 100% so that we could set all the data under the same chart. In Figure 4, we found out Mental disturbance is most common among the adolescent group of people in Africa; whereas, in South Asia, infectious disease is leading the race. On the other hand,
in Eastern Europe, Behavioral disorder is common among young people. In the case of data collection from Africa the survey was conducted in 1,000 young adolescents. In contrast, the case survey was conducted in Bangladesh, India, and Pakistan among 1000 people in South Asia. To compare the data from both regions, the actual number has been converted to percentage, and the percentage summation of the disease from each region has been done; then normalized the entire percentage to 100, so that the comparison of data can be precisely demonstrated. Our study clearly shows how health problems differ with demographic changes. Our histogram chart shows that mental disturbance is the most common form of health problems among adolescents in Africa. On the other hand, if we check the data of South Asia, we see infectious diseases (Cholera, Measles, Influenza, Tuberculosis, Hepatitis etc.) is the most general type of health problem, followed by UTI. According to economists’ reports (UNICEF, 2023, UNFPA, 2023, WEF, 2023) most of the poor countries in the world are situated in Africa and South Asia. The adolescents of poor countries do not earn very little compared to the young people of first-world countries, and they invest their little earnings in drug consumption. They cannot afford a better lifestyle such as proper housing, food, and medication. As a result, infectious disease, mental disturbance, and Malnutrition are comparatively higher among the adolescents of the countries of these two regions.

Whereas, if we check the data of Oceania and North America, where first-world countries are located, the common health problem is Behavioral disorders. In the countries of those regions, young people usually earn handsome money and spend most of their money on consuming alcohol, cannabis, and other toxic drugs (Figure 3, drug preference data). Hence, they possess abnormality in activities and suffer from Behavioral disorders from the early stages of their life. Our statistical data demonstrates how health problems change with changes in demography and adolescent drug preference.

**Investigation of the types of crime adolescents commit because of drug abusing**

In this section, we focused on young adults committing
crimes due to drug consumption. First, we accumulated data on the types of crimes adolescents usually execute to arrange money or drugs. Among all the crimes, murder, human trafficking, prostitution, robbery, smuggling, drug dealing, gambling etc. are highly committed by both male and female adolescents. To get a clear picture of what is happening worldwide, just like the previous two sections, we collected numbers of those ten regions previously used for studying drug preference and health problems identification. Likewise, in the previous methods, the data were converted from integer to percentage and then for each region total percentages of crimes committed were calculated. Then, the data were normalized to 100% to make comparisons among each continent. For example, in South Asia, a survey has been conducted among 1000 adolescents in Bangladesh. Bangladesh represented entire South Asia here in this survey. Then, the numbers were converted into percentages. It is seen (Figure 5) that Murder has been committed by 1.58% of the adolescents, 28.49% have been involved in human trafficking, and 6.85% have been engaged in prostitution to arrange money to purchase their preferred drugs. Similarly, 12.12% in robbery, 5.60% in smuggling, 37.46% in drug dealing, 5.31% in gambling, and 2.59% have been involved in other types of crimes. The summation of all these crime rates is 100%. Figure 5 exhibits the vertical histogram of crime rate in ten regions.

In this way, the crime rate of the other nine regions has been calculated. It has been witnessed that the variation of crimes is comparatively less in the regions where first-world countries are located. Most adolescents are engaged in similar types of crimes. For example, in Western Europe, adolescents are involved in prostitution (64.52%), in North America, adolescents mostly engage in (21.33%) smuggling. It is because, in some European countries, even though prostitution is illegal, law enforcement is flexible. Therefore, young people take this comparatively easy route to make instant money to purchase drugs. In the North America, especially in the United States, gun law is very flexible, and, in some parts of North America, especially in the United States, guns are readily available, and anyone can purchase them easily. Therefore, young people are leaning towards easy money-making by smuggling and murdering. On the other hand, in South Asian and African countries, the variation of crimes is higher. Adolescents are committing various crimes.

Our statistical report demonstrates what must be done to eradicate the crime rate. If law enforcers become stricter in South Asia and the African region, strong laws will be imposed against prostitution in Western Europe. Gun laws become strict in the United States and other North American countries, so the adolescent crime rate...
Reason of drug consumption among adolescents

In this section, we studied why adolescents consume drugs and gradually become addicted. In the beginning, common reasons behind drug abuse by the growing number of young people have been identified. Unsurprisingly, the reasons behind drug consumption are also expected in all regions, such as boredom, adventure-seeking, broken families, loneliness, depression, peer pressure, and social glorification. However, when we converted the numbers into percentages, the data was represented in pie charts. It is observed that in most regions, Peer pressure is the main reason young adults consume drugs. Figure 6a shows that in Africa, about 19.48% of adolescents are addicted to drugs because of Peer pressure. At the same time, 14.58% of young adults take drugs to seek adventure in life. Due to the complexity, frustration, and depression in life adolescents in the countries in the region of third-world countries are more addicted to drugs. In Figure 6(b), Boredom and Peer pressure are the leading races in South Asia. Due to a lack of knowledge of the dire consequences and the scarcity of entertainment, young people get addicted to drugs daily.

On the other hand, in the first world countries where plenty of entertainment sources are available, young people don’t take drugs because of lack of entertainment. However, In North America and Western European regions where first-world countries are located, adolescents are addicted to drugs because of being stuck in the broken families, loneliness, etc. The numbers are higher in these regions than in Africa and South Asia. The pie chart makes it clear that the reason for drug consumption differs due to demographic changes. Due to a lack of knowledge of the bad dire consequences and
the scarcity of entertainment, young people get addicted to drugs daily. If the source of entertainment, awareness of drug abuse can be increased in the regions of third world countries and loneliness, breaking of the family can be decreased in first world countries, drug consumption will be lowered significantly. Our investigation suggests that. It also identified, Peer pressure as a common reason for consuming drugs. From our report, Organizations such as the WHO can create awareness among the countries to find a way to reduce Peer pressure from adolescents.

**Age group among adolescents**

As we discussed earlier, in the growing age, young people are branded as adolescents. A group of people under specific periods falls under the category of adolescents, in this study, we did a literature survey to figure out the population of which age group falls inside adolescents. From our study (WHO, 2023; Fabris et al., 2020; Göktas et al., 2018; Su et al., 2020; Dong et al., 2019; Akbari et al., 2021; Shan et al., 2021; Gupta et al., 2021; Khademi et al., 2021; UNICEF, 2023; Age limits and adolescents, 2023; UNAIDS, 2023; UNODC, 2023; ISPAC, 2023; GRCI, 2023; BPDS, 2019; CUMSPH, 2023; AAD, 2023; OASH, 2023; World Health Rankings, 2023; WHOSIS, 2022; EMCDDA, 2023) we witnessed that adolescents can be divided into four categories such people whose age is just below 13, people aged between 13 to 15, youngsters between 16 to 18 and young adults whose age is between 19 to 21. People above 21 are considered adults, and youngsters below 12 are considered as children (Age Limits and Adolescents, 2023; WHO, 2023). After defining the age group, we started collecting data from the countries of our selected ten regions, and we converted the numbers into percentages and then normalized them so that all the gathered data could be compared among each other. We represented all the collected data in the pie chart. In
Figure 6e. Pie Chart of reason of drug consumption in Oceania.

Figure 6f. Pie Chart of reason of drug consumption in Western Europe.

Figure 6g. Pie Chart of reason of drug consumption in Eastern Europe.
Figure 6h. Pie Chart of reason of drug consumption in South America.

Figure 6i. Pie Chart of reason of drug consumption in Central America.

Figure 6j. Pie Chart of reason of drug consumption in North America.
Figure 7. Age group pie chart of (a) Africa (b) South Asia (c) Middle East (d) Southeast Asia (e) Oceania (f) Western Europe (g) Eastern Europe (h) South America (i) Central America (j) North America.

Figure 7, the collected data from ten targeted regions has been presented in ten individual pie charts respectively. In this case, numbers vary significantly. In Africa and South Asia, adolescents aged between 13-15 commit a major percentage of crimes. In the Middle East, young adults aged below 13 commit most of the crimes. Whereas in Southeast Asia, adolescents aged between 16 and 18 commit most crimes. In other selected regions such as Oceania, Western Europe, Eastern Europe, South America, Central America, and North America, the dominant candidates involved in drug abuse fall under the 19-21 age group.
It is seen that the children of African and South Asian countries are branded as economically neglected compared to the children of first-world countries such as Western Europe and North America. Also, because of poverty, children of poor countries under 13 are forced to work by their parents. To make quick money, these kids get involved in drug dealing and consume drugs alone; whereas, in first-world countries, children are provided with better facilities. But, when they reach their pick of adolescence, especially in their late adolescence, due to different circumstances they get involved in drug abuse. These issues need to be taken care of. Our investigation suggests, if parents, teachers, and guardians of the youngsters of this age group become more aware of the whereabouts of their kids, school governing bodies, law enforcement, and child welfare associations come up with innovative ideas to engage youngsters in sports, cultural programs, extracurricular activities, and the authorities of especially 3rd world countries emphasis more on providing child education and regularly monitors the mental health of the young adults. Adolescent people can be stopped from getting addicted to drugs.

Our statistical report here certainly paves the way to reducing adolescent drug abuse. Our study first showed which harmful drugs youngsters are mostly taking, and then the subsequent analysis depicts the scenario of major health problems of the adolescents due to drug abuse, 3rd observation exhibits the types of crimes youngsters are committing to arrange money for their preferred drugs. Then, the pie charts give you, idea of the percentiles of the reason for consuming drugs and age group. Gender discrimination has been deliberately avoided here because it is a global concern regardless of gender.

**Conclusion**

In this work, the risk factors and behaviors among adolescents have been studied. A statistical report has been generated which can help reduce drug abuse among adolescents. Ten regions of the world have been selected, covering the world’s demography. The first study deals with drug preference among adolescents in different areas, and the numbers have been converted to percentile so that a comparison can be made. Our investigation here exhibits, the choice of drugs varies with the change of demography, and it also shows how the preference of drugs can have an impact on health problems, types of crimes committed, reason for consuming drugs, and age groups of adolescents. If the production of the most preferred types of drugs can be minimized in certain regions of the world, drug abuse can be reduced significantly. Our model helps analyze the data and indicates which types of drug production, import, and supply should be stopped in which part of the world. A country’s progress relies upon the development of the youngsters. However, drug abuse at a very early age blocks the mental growth of adolescents. Suppose it cannot be reduced or stopped immediately, the development of the world technology economy. In that case, health will be in considerable danger, and future generations will be at massive risk of becoming autistic. Thus, our study and own generated statistical report comes as a rescue to minimize drug abuse among adolescents and eventually reduce the risk behavior of the youngsters, which has become an important issue to be resolved in the topmost nations of the world.

**CONFLICT OF INTERESTS**

The authors have not declared any conflict of interests.

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