

Public Health Epidemic: Prescription Drug Abuse Among Adolescents in Pakistan

Sharjeel Chaudhry^{1*} and Zarmina Ehtesham²

¹Department of Pharmacology, Dow University of Health Sciences, Sindh, Pakistan

²Department of Health and Medical Science, Hamdard University, Sindh, Pakistan

Corresponding Author*

Sharjeel Chaudhry
Department of Pharmacology,
Dow University of Health Sciences,
Sindh, Pakistan,
E-mail: sharjeelchaudhry1999@gmail.com

Copyright: © 2023 Chaudhry S, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Received: January 18, 2023, Manuscript No. JPSDD-23-87330;
Editor assigned: January 20, 2023, PreQC No. JPSDD-23-87330 (PQ); **Reviewed:** February 03, 2023, QC No. JPSDD-23-87330; **Revised:** April 19, 2023, Manuscript No. JPSDD-23-87330 (R); **Published:** April 26, 2023, DOI: 10.375322/JPSDD.23.5.1.1-4.

Abstract

The use and abuse of prescription drugs by teenagers is one of the fastest growing drug issues in Pakistan, and it has a significant negative impact on the mental and physical health of adolescents. The majority of drug overdose deaths are attributed to prescription drug abuse. Given that the majority of people believe that illegal drugs like crack, cocaine, and heroin have the highest rate of overdose related deaths, this statistic is shocking. Prescription drug abuse among adolescents is common for many reasons. Some people misuse drugs to get high, to relieve pain, or because they think it will make their schoolwork easier. Opioids, stimulants, and depressants are the three prescription drug classes that are abused most frequently. Adolescents frequently believe that prescription medications are less dangerous than "street drugs" like marijuana, cocaine, heroin, and methamphetamine. This kind of ignorance when it comes to abusing prescription medications is typically caused by adolescents not being aware of the numerous adverse effects that can occur if the drug is not administered by a doctor or is combined with other drugs. The seriousness of prescription drug abuse is often overlooked by parents, and many do not talk to their children about it. Even though many of the drugs that teenager's abuse is considered legal, this does not necessarily mean that they are safer because they often have the same negative side effects as illegal street drugs. Prescription drug is typically just as dangerous and addictive as many street drugs. This study looks into why adolescents abusing prescription drugs is a problem in Pakistan in particular and what is being done to reduce the number of adolescents abusing and overdosing on prescription drugs. Many adolescents' lives could be saved if the general public was made aware that teen substance use is a serious public health issue and that addiction is a medical condition that requires attention.

Keywords: Drug • Psychological • Medical • Disease • Amphetamines

Introduction

Prescription drug abuse among adolescents is a costly public health issue that has proven to be a formidable obstacle to date. When and where can teenagers get their hands on these substances? The majority of fatal overdoses are the result of people misusing their prescription medications. Opioid pain relievers were the main cause of the drug overdoses. More

people die from taking prescription pain relievers, heroin, methamphetamine, or amphetamines than from taking any other kind of drug. Currently, only marijuana use is comparable to prescription drug abuse. The slang term for the misuse of prescription drugs is "pharming." Abusing multiple drugs at once is strongly linked to psychological decline and dependency. During adolescence, the brain undergoes extensive changes in terms of its chemical make-up, structural organisation, and hormonal makeup. At the same time, substance abuse among young people is at an all time high, with many teens engaging in poly substance abuse. Substance abuse at a young age creates a false reward system, which increases the risk of addiction as well as mental and physical health issues later on in life. Many teenagers risky behaviour is rooted in the early on set of prescription drug abuse. Drug use has been normalised in Pakistan society thanks to media representations in popular culture. Teenagers who mistakenly believe that prescription drugs are safer than street drugs are in for a rude awakening. Young people today are medicating themselves with prescription drugs that they obtain dishonestly at alarming rates.

Materials and Methods

The current problems surrounding adolescent prescription drug abuse are a major issue affecting Pakistan today. It is indicative of the public's lack of knowledge that prescription drug abuse is the leading cause of drug overdose deaths among teenagers. We looked into the reasons why drug abuse rates have remained relatively stable over the past few years. Our interest in this subject stems from the fact that we feel like we have seen more examples of prescription drug abuse in our time at college than we ever did in high school. Adderall and Ritalin abuse is on the rise as students try to cram for their final exams. In addition to the more obvious purposes of getting high and throwing parties, students are abusing prescription drugs for less noble purposes. Overdosing on illegal substances is common among teenagers because they frequently ignore the dangers of these substances and have no idea how much to take. Many college students develop addictions to medications they never needed in the first place, and as a result, their physical and mental health deteriorates. We were curious about the causes of this growing public health crisis and why people my age is disproportionately affected.

At the outset of our investigation, we sought to quantify the scope of the issue and identify emerging patterns of abuse. Can doctors be blamed for this outbreak of disease? we looked into the current trends of teen drug obtaining and the factors that encourage them to try to get their hands on prescription drugs that are not meant for them. This included looking for potential environmental contributors to abuse. We were able to do this by consulting Google scholar. Furthering my investigation into this phenomenon. Prescription drug abuse among adolescents was identified as a major public health issue in Pakistan, and this revelation provided some of the most eye-opening data of the study. Once we learned which drugs were being abused and by whom, we looked into the long-term effects that drug abuse has on the developing brains of adolescents. So, we did the logical thing and looked into what communities are doing to address the issue and how much existing programmes are charging to assist young people.

Results

In our study of adolescent drug use, we repeatedly came across oxytocin and its potential for abuse and addiction. There is an estimated 1 in 20 high school seniors who have tried oxytocin, and 5 times as many 11 year olds who have tried oxytocin as those who have tried methamphetamine (tween abuse of painkiller oxycontin on the rise).

A nearly 40% increase in oxycontin use among graduating high school seniors since 2016 [1]. Twelve million pakistani (or one in every 20) admitted to misusing prescription pain relievers in 2021. (How teens abuse medicine). As much as 72.5 billion PKR a year in direct health care costs are attributable to teens misuse of prescription pain relievers (how teens abuse medicine)! It's shocking that drug addicts are wasting 72.5 billion PKR annually. New evidence into the motivations behind teens drug abuse points to the fact that many are turning to prescription drugs as a means of self-medicating for issues they perceive they have, rather than just for the high. Teens self-medicate for a variety of issues, including anxiety, staying awake to study, and weight loss [2].

The brain's structure changes quickly during adolescence. As a result, people's interactions with one another and their ability to function socially shift. Adolescents, whose brains are still developing, are widely believed to be particularly vulnerable to the effects of environmental factors like substance abuse. Substance abuse can have serious consequences for brain function, including the development of long lasting defects in memory and motor control [3]. Substance abuse among teenagers is viewed as a public health issue because using substances during a formative period of brain development greatly increases the likelihood of developing an addiction and other negative psychological symptoms. In this country, drug and alcohol abuse are being normalised and are widely seen as harmless. The likelihood that a tween will experiment with prescription drugs is greatly increased by the prevalence of such beliefs and the normalisation of harmful behaviours like binge drinking and substance abuse. Only 42.6% of parents say they are very concerned about their teen not smoking cigarettes, drinking alcohol, using marijuana, misusing prescription drugs, or using other illicit drugs; almost 21% of parents say that marijuana is a harmless drug. Pakistan is the most heavily medicated country, and yet prescription drugs seem to be part of everyday life. Likewise, media such as popular music, films, and social media frequently serve to promote and normalise the use of harmful substances like tobacco, alcohol, and prescription drugs [4]. Adolescent drug use is increasing due to the widespread availability of prescription drugs and the normalisation of substance abuse.

Another shifting public health concern is the composition of those who abuse prescription drugs. Substance abuse of prescribed medications is more common among rural youth. This runs counter to what we see in the media. Though media portrayals suggest otherwise, in 2014, 8.6% of rural adolescents reported abusing prescription drugs, compared to only 6.5% of adolescents in large urban areas who reported abusing prescription pills [5]. This is especially worrisome because, in contrast to their urban counterparts, rural adolescents are getting their drug abuse supplies legally through their doctors prescriptions rather than through their networks.

Isolation makes it easier to obtain illegal street drugs, and as a result, many young people are abusing prescription drugs without realising the dangers they pose. Adolescents who engage in a pattern of risky behaviour, such as abusing prescription drugs, have a much higher risk of becoming addicted to hard drugs, as was mentioned earlier. Due to the similarities between heroin and prescription painkillers, some studies suggest that once teenagers lose access to or cannot afford to abuse prescription painkillers, many will turn to heroin to achieve the same high they felt as young adults [6]. In addition, some people may find heroin to be a more financially viable option because its price is significantly lower than that of painkillers.

A growing number of adolescents are spending considerable amounts of time on social media sites, so we continued my investigation into whether or not this trend was contributing to the nationwide problem of prescription drug abuse. This new study reveals a fascinating correlation between the widespread availability of the Internet and social media and the alarming increase in prescription drug abuse [7]. Approximately 66% of the 2,100 tweets analysed that mentioned prescription opioids had a positive abuse connotation, according to a separate study on the topic [8]. Evidence suggests that opioid and prescription drug abuse are accepted as socially acceptable behaviours. People feel comfortable enough tweeting about it, with most tweets praising the drug's positive effects. Further investigation of tweets revealed that many college students discussed their Adderall use and drinking during exam periods [9]. Amphetamines and dextroamphetamines include stimulants like Adderall and "focus study drugs." Furthermore, prescriptions for additional ADHD medications are on the rise, and corresponding, adolescent abuse rates are increasing [10]. Amphetamine prescriptions for adolescents increased by 133% between 2014 and 2021 prescription drug abuse and a rise in the number of adolescents diagnosed with attention deficit hyperactivity disorder go hand in hand.

The next step in our research was trying to understand how many teenagers find prescription drugs so readily available to them. There has been an increase in online pharmacies as the number of teenage prescription drug abuse increases. Prescription drugs are available without a doctor's note at online pharmacies. There are 33,579 active online pharmacies that have been deemed illegitimate [11]. Teenagers can use these fake online pharmacies to buy prescription drugs without a prescription, despite the fact that the pharmacies themselves are not licenced to distribute drugs. Multiple studies have found that college students make up the vast majority of customers at these online pharmacies (Table 1).

Table 1. Prescriptions per year.

| Prescriptions | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|------|------|------|------|------|------|------|------|
| Methylphenidate, 3-19 y, n | 4 | 4 | 3 | 4 | 4 | 6 | 5 | 6 |
| | 321 | 314 | 927 | 378 | 964 | 189 | 598 | 583 |
| | 239 | 736 | 715 | 518 | 447 | 644 | 132 | 232 |
| Amphetamine, 3-19 y, n | 2 | 3 | 3 | 4 | 4 | 5 | 4 | 5 |
| | 245 | 078 | 610 | 347 | 628 | 244 | 946 | 228 |
| | 307 | 505 | 587 | 830 | 906 | 148 | 829 | 809 |
| Amphetamine and methylphenidate, 3-19 y, n | 6 | 7 | 7 | 8 | 9 | 11 | 10 | 11 |
| | 566 | 393 | 538 | 726 | 593 | 433 | 544 | 812 |
| | 546 | 241 | 302 | 348 | 353 | 792 | 961 | 41 |
| Amphetamine, % | 34 | 42 | 42 | 50 | 48 | 46 | 47 | 44 |

Discussion

The research revealed recurring patterns. Because of the rapid changes occurring in the brain at this time, experts agree that adolescents are at particularly high risk for developing and addiction. The formation of the brain's reward system occurs at this pivotal stage of evolution. Adolescent brains become increasingly addicted to the rush of dopamine after repeated exposure to stimuli like prescription drugs that can cause intoxication. To satisfy the growing number of neurotransmitters in the brain that require the external stimuli of a drug as a reward, this increases the likelihood that the individual will engage in risky behaviour. Most professionals agree that because prescription drugs are illegal, adolescents do not see the danger associated with abusing them, making it extremely difficult to break the cycle once it has begun. Prescription drug abuse is a major problem in Pakistan, and neither the culture nor the media do anything to educate young people about the risks involved. Nearly 1700 young adults aged 18-24 died in 2017 from prescription drug overdoses. Insurers also incur high costs due to the frequency of these hospitalisations. Insurance companies typically have no choice but to pay for treatment of addiction related illnesses now that it is recognised as a disease.

Our research also showed that teenagers living in rural areas were more likely to abuse prescription drugs than their urban counterparts. The fact that teenagers in rural areas are turning to prescription drugs as a convenient alternative to self-medication and abuse is fascinating but not surprising given the lack of ready access to illegal street drugs. Teenagers in rural areas are less likely to steal from their own families and more likely to obtain drugs legally from doctors prescriptions, according to the research [12]. Doctors in these rural areas prescribe opioid painkillers and other medications at much higher rates than their urban counterparts. This is intriguing because it runs counter to the popular belief that youth in urban areas are more likely to abuse prescription drugs. This disturbing trend emphasises the critical need for education on prescription drug abuse and for public health interventions in less populous areas.

Parents should be as open to talking to their kids about the dangers of prescription drug abuse as they are about the effects of illegal drug use. Shockingly, four out of ten teens who have abused prescription drugs get their hands on them from home. Parents have a significant impact on their children's attitudes toward drug abuse. Only about one-fifth of teenagers say they've had a conversation about prescription drug abuse (teen medicine abuse: An epidemic). Few parents understand the scope of the issue or the critical part they can play in reducing their child's vulnerability to prescription drug abuse [13]. Community health workers and family physicians play an essential role in educating parents. Prescriptions for drugs to treat attention deficit hyperactivity disorder have risen steadily. A possible explanation is that many parents believe that their child's academic performance will improve after starting treatment for ADHD (Teen medicine abuse: An epidemic) [14]. Many experts agree that kids learn their attitudes toward drugs from their parents, so adults need to have open conversations with their kids about this sensitive topic. Since far too few parents teach their children about this topic, some studies highlight the value of having school counsellors have these conversations with teenagers at school. Most teens know that using drugs is bad for them, and school counsellors can send prevention messages with factually correct information that teens can relate to in a non-confrontational way. Educating adolescents about the fine line between experimentation and addiction is an effective way for counsellors to discourage dangerous drug use (Watkins 135). Having access to these types of interactions and education led by counsellors can be especially beneficial for people living in rural areas.

Conclusion

An enormous public health issue facing Pakistan is that of prescription drug abuse. Prescription drug abuse poses significant risks to Pakistanis youth, but few of them are aware of these dangers. Teenage prescription drug abuse and overdoses are at shockingly high rates and have become a very expensive epidemic in Pakistan. When young people begin abusing and self-medicating with illegal prescription drugs, they put themselves at risk for addiction as well as other negative psychological and physiological effects. The

long term effects of adolescent drug abuse and the modifications to the brain's reward/neurochemical systems are important to think about because brain development persists into early adulthood. Educating the public is the only way to dispel the belief that prescription drugs are safer simply because doctors recommend them. Parents should learn about the dangers of prescription drug abuse and start the conversation with their children. Some 72.5 billion PKR year are spent directly on health care because people are abusing prescription pain killers for reasons other than medical (how teens abuse medicine). The misuse of ADHD medications mirrors the rising trend of prescribing them. Restricting access to these medications is essential, as is cracking down on Internet pharmacies that sell them without a prescription.

Teens in rural areas are more likely to abuse prescription drugs than their urban counterparts because they are easier to obtain than illegal street drugs. Many of these communities where adolescents engage in such behaviour pose a public health risk because they are increasing the likelihood of adult addiction and multi-substance abuse. Media and popular culture in Pakistan contribute significantly to normalising substance abuse, which in turn encourages young people to try drugs like adderall and vicodin under the false impression that they are harmless. Teens are strongly influenced by popular culture, including social media sites, television shows, movies, and music. Adolescents in Pakistan are suffering from the effects of a culture that accepts the use of pharmaceuticals as a panacea. To combat the growing problem of teenager prescription drug abuse in Pakistan, which has made it the world's most medicated nation, it is crucial to revise existing policy and overhaul existing educational programmes.

References

1. Somani, S., & Meghani, S. "Substance abuse among youth: A harsh reality". *Emerg Med.* 6.330 (2016):2.
2. Sahar, M., Riaz, S., & Khan, S.Z. "Substance abuse among educated youth: Challenges and problems faced by the families in Karachi, Pakistan". *The Spark A Hec Recogn J.* 5.1 (2020):188-208.
3. Ahmed, T., et al. "Prevalence and determinants of drugs abuse among youth in Hyderabad, Sindh, Pakistan". *J Manage Pract Humanit Soc Sci.* 6.5 (2022):1-9.
4. Haseeb, A., & Bilal, M. "Prevalence of using non prescribed medications in economically deprived rural population of Pakistan". *Arch Public Health.* 74.1 (2016):1-7.
5. Newcomb, M.D., Maddahian, E., & Bentler, P.M. "Risk factors for drug use among adolescents: concurrent and longitudinal analyses". *Am J Public Health.* 76.5 (1986):525-531.
6. Sehra, L., & Patnaik, S. "Substance abuse in Punjab on the India-Pakistan border s from anthropology". *Acta Criminol: Afr J Crim Vict.* 30.1 (2017):1-22.
7. Masood, S., & Us Sahar, N. "An exploratory research on the role of family in youth's drug addiction". *Health Psychol Behav Med.* 2.1 (2014):820-832.
8. Karim, S., et al. "Pakistan mental health country profile". *Int Rev Psychiatry.* 16.1 (2004):83-92.
9. Yamaguchi, K., & Kandel, D.B. "Patterns of drug use from adolescence to young adulthood: II. Sequences of progression". *Am J Public Health.* 74.7 (1984):668-672.
10. Michael, J., et al. "Knowledge and practice of adolescent females about menstruation and menstruation hygiene visiting a public healthcare institute of Quetta, Pakistan". *BMC Womens Health.* 20.1 (2020):1-8.
11. Morgan, A.K., et al. "Correlates of non-prescription drug use among adolescents during a Pandemic: Evidence from Ghana". *Aca J Cli He Re Med sci.* 2.1 (2022):8.
12. Mahmood, A., Kushtiwala, D., & Faisal, A. "Self-medication and inappropriate drug use in geriatric population of Karachi, Pakistan". *IOSR J Dental Med Sci.* 13 (2014):66-71.
13. Mackey, T.K., et al. "Twitter based detection of illegal online sale of prescription opioid". *Am J Public Health.* 107.12 (2017):1910-1915.

14. Sherazi, B.A., et al. "Prevalence and measure of self-medication: A review". *J Pharm Sci Res.* 4.3 (2012):1774.

Cite this article: Chaudhry S, et al. "Public Health Epidemic: Prescription Drug Abuse Among Adolescents in Pakistan".
J Pharm Sci Drug Dev, 2023, 5(1), 1-4.