

EDITORIAL

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LOCKED UP BEHIND CRYSTAL BARS: THE RISING EVIL OF DRUG ABUSE

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"Drug abusein Pakistan reaches alarming level.In the past few years about 6.7 million youngsters have used drugs in Pakistan" (The Nation.February, 2018)1•

"700 people in Pakistan die every day due to drug-related problems, as compared to terrorism-related activities that result in the loss of average39livesperday•(Pakistan Today.February, 2018)'.

"Youngsters in Pakistan are the most affected by drugs and alcohol andthe number of these addictsisincreasing at the rateof 40,000per year.Oneout of every10 college/university studentsis adrugaddict" (TheNEWSInternational.June,2018)1•

Above are a few excerpts from articles published in some of the leading newspapers of Pakistan in the past year. And we have been seeing such news and discussions on daily basis both in print and electronic media highlighting the monstrous problem of drug addiction. Media has, no doubt, a habit of sensationalizing and blowing the issues out of proportion and depicting them as something humongous.Like all otherissueswe wishit were truewith the issue of drug addiction too. But alas that is not the case. The matterof drugaddiction cannotbe overemphasized!

Drugabuseisasold as the mankinditself.Beitformedicinal purposes in the form of milk of poppy, or use in religious ceremonies like mushrooms and hemp (hashish, marijuana) for the psychedelic, out of world experience, or simply in general population for social purposes like alcohol, caffeine and nicotine. Frozen body of a man recovered in the Alps in 1991, carbon dated about 3300 years BC, carried in his pouch a polypore fungus with antibacterial and hemostatic properties'. Similarly, the health hazards in relation to drug abusehavealsobeendescribed sinceearlytimes.These include the deathof Alexanderthe Greatdue to excessivedrinking, Aristotle's hypothesis of harmful effect of drinking during pregnancy', and evolution of biological explanation for drug abuse in 17th century establishing its status as a disorder rather than just a behavioral problem or a sinful act. Breakthrough works by eminent scientists throughout the 20th century paved the way for modern addiction medicine thatwearefamiliar with today.

According to the United Nation Office for Drug and Crime's annual report in 2015, about a quarter of a billion people used drugs in the year before the report. Of these, around 29.5 million people (0.6 per cent of the global adult population) were engaged in problematic useand suffered fromdrugusedisorders.Among thoseopioidswere the most harmful drug type and accounted for 70 percent of the negative health impact associated with drug use disorders worldwide'.

According to UNODC annual report 2016, Cannabis is the most widely usedillegal drugin the world,withanestimate of 3.8%in 2014 (182 million)'. Asurvey in Pakistanin 2013 estimated 6.7 milliondrug abusers in Pakistan among which Cannabis abuse was the highest, about4million'.

Thereisa hugedichotomy in reaction to thedrugculture.Onone side scientistsand physicians areworking on research projects to find out the harmful effects of the cannabis. That includes increased risk of developing chronic mental illnesses like schiz.ophrenia and bipolar affective disorder. A multi-center case·control study wasconducted in Europe between May 2010 and April 2015, data were obtained from 901 patients with first-episode psychosis across 11 sites and 1237 control subjects from those same sites. This and several other recent studies have concluded that the daily cannabis use was associated with five times increased odds of psychotic disorder as comparedwithneverusers'".

While on the other side, the developed countries are legalizing cannabis for 'medicinal' purposes, like for nausea associated with chemotherapy, anorexia in AIDS patients, and some intractable forms of epilepsy''. As of April 2019, medical marijuana has been legalized in 33 states of US as well as in countries like Australia, Canada, Chile, Columbia, Germany,Greece,Israel,Italy,Netherlands, Peru, Poland, Portugal, UK, and Uruguay". The medicinal cannabis like Sativax, Epidiolex, and other brands of donabinol are being widely used,latter two havebeenapprovedby FDA".

There's an emerging new trend of edible marijuana in the form of cookies,candiesand gummies that areeasily available in market and onlineaher legalization of recreational cannabis in selective places". Following thisthere'sbeen a considerable increase in cannabis use, as well asIn public safetyindicatorslikecannabis-related emergency room visits, hospitalizations, traffic accidents and related deaths'. The question is, are we ready to pay the heavy price for a little recreation?Is it really wonh it? And will the legalization not facilitate the abuseof cannabis?

Drug abuse culture has deeply penetrated all strata of our society. Especially the lower and upper classes, ranging from gutka, pan, chhaliya, to methamphetamine (crystal-meth), cocaine, and other party drugslike LSD,MDMA,and synthetic cannabinoidsetc.Thereis a rise in drug abuse culture in our educational institutes. Be it universities, colleges or even schools, Abuse of methamphetamine, commonly known by the street names of ice/ crystal meth/ speed/ chalk, is dangerously rising leading to multiple serious physical and psychiatric complications. Amphetamine and methamphetamine constitute considerable share of burden of disease, ranking second

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only after opioids". Users of amphetamines have been increased, reaching 37 million globally", and approximately 19,000 people nationwide'.In Pakistan average quality meth costs Rs 5000-10,000/ gram, and low quality costs Rs 1000-2000/gramrendering its abuse more prevalent among youngsters belonging to higher social class. Itsuseasa partydrugalong withLSD,MOMA,ketamine,rohypnol has become an almost integral part of social gatherings with theclaims that their effects are temporary and completely wear off without causing any harm. All this has led to a misconception that these are 'softdrugs' andhencenot harmful.

Due to thissurge, it is mockingly labelled as the 'ice-age' of Pakistan. During a survey in a renowned college In the Capital of the country, when asked if he felt therehad been anIncrease in druguseamongst his peers, a 21 yearsold student said:"Yes,It has increased.It's really easytog.et now;there'sadealer on everycorner,threeor four in every sector"". Drug addiction mostly starts because of curiosity, need for experiment, peer pressure, as iatrogenic, or secondary to some mental illness, most commonly depression and anxiety"·". The greatest lie a drug addict tells himself is that he can stop any time. This lie keeps him going until he gets trapped in the quicksand of drug addiction and is unable to *free* himself. In an Interview in a newspaper, a student of an elite college stated in response of the proposed Compulsory Drug Test of Students Act 2018, "I think it is unfairthat everyone istestedand that all drugs are treated the same. Many of my friends and I do weed.[···] it's harmless. To me, it's ridiculous that cigarettesarelegalandweedisnot"".

Discussing the neurophysiology of drug abuse there are complex pathways and receptor systems involved. The endocannabinoid system plays an important role In brain maturation. Its over­ activation by cannabinoid receptor type 1 agonists (e.g., tetrahydrocannabinol) during adolescence results in changes in neuroplasticity, can airer brain maturation and cause long-lasting changes that persist in the adult brain ". Earlier the age of starting abuse,higher is the risk 21• There is a synthetic mixture of cannabis with street names of K2/ spice/ joker/genie/ black mamba,branded as 'herbal', claiming they don't have any harmful effects as they're made from naturaI sources.Thisistotally false andmisleading".

Similarly,methamphetamineoverdose thatcaneasily occur,canlead to stroke,heartattack,ormultipleorgan failure.Theseconditionscan result in death". In addition to multiple physical and neurological complications, psychotic symptoms and syndromes are frequently experienced among individuals who use methamphetamine (MA). with recent estimates of up to 40% of users affected. Although the recovery period on average is reportedly within a week, in a sizable subset of Individuals, MA-induced psychosis converts over a period of years into a prima1y psychotic disorder, with symptoms present overmonths or longer,evenin theabsence of MAuse".

In addition to cannabinoids and methamphetamine, 739 different new psychoactive substances (NPS) have been reported between 2009-2016. There's been **a** recent emergence of NPS mimicking medicines like fentanyl analogues and benzodiazeplne derivatives, with high potential to cause harm". While the market for NPS is **still** relatively small, users are unaware of the content and dosage of

these,that isreally alarming.Owingto this there isa riseIn the cases of druginduced psychosis inpsychiatric wards• 11•

We are well aware how HIV/AIDS pandemic has spread its horrors worldwide claiming lives of millions. According to world health Organization (WHO) statisticsonlyIn2017,940,000peoplediedfrom HIV related causes globally.36.9 million people werefound infected till theend of 2017 globally, out of which 1.8 million were newly Infected in that year. 47% of these cases belonged to the key population that comprised of homosexuals, drug abusers, sex workers, prisoners and transgender people". HIV/AIDS is related to drug abuse in more than one way. We found 38.8 % HIV positive results in IV drug abusers in a local study conducted in our indoor drug abuse and treatment center in 2014"·". In addition to this, unsafe sexual practice is another significant source of HIV transmission. Methamphetamine abuse causes heightened and unprotected high risk sexual behavior thus increasing the risk of acquisition of HIV. Moreover, studies show its role in HIV-1 pathogenesis, as it causes immune dysfunction, potentiates HIV-1 replication,and enhances viralloadin the brain.It also increases anti­ retroviral resistance". Combined HIV Infection and Meth use increases the likelihood of neural injury in CNS leading to cognitive impairment andimpairedbehavioral inhibition".Hence crystal meth useandHIVcombined becomesa doubleedgedswordready to slice through the health and moral status both at individual as well as community level.

It is a well-known fact that drug abuse and criminality go hand in hand. It's a three-way relationship viz. offenses related to drug possession and distribution, offenses directly related to drug abuse like stealing, and offenses as after effects of drug abuse especially during intoxication that includes violent behavior, sexual offenses and vandalism. A 2009 survey done in USstateprisonsreporteddrug dependence in about halfof theprisoners. Similarly,juvenile prisons also have high number of prisoners who **are** drug abusers". **it** increases the burden on the Justice system. The situation is even worse in the third world countries, where it eventually further compounds the economics of already poverty stricken countries. The drug control comes under domain of multiple agencies. There arecontradicting roles andpoliciesby several departments and there seems contradiction among them on many levels. In the recent national political scenario,,ince health has become a provincial subject, drug abuse comes as one of the lower most priority.It does not enjoy as much importance as it deserves, owing to the health sector political scenario.It should be considered as an epidemic and managedlike one.

We've got to accept the fact thatthegenieis out of bottle.Apart from drug control, the need of time, especially for health care professionals, is to know how to specifically and effectively manage thesecases.Therearewelldefinedguidelinesfor the management of opioids addiction. There is a awful need to establish specific treatment strategies forthesesubstancestoo.According to the latest Maudsley prescribing guidelines in Psychiatry, drugs like dexamfetamine, bupropion, methylphenidate and modafinil have failed to show any effectiveness as replacement therapies for methamphetamine dependence. Although a few RCTs show good results with naltrexone but data is scarce". So basically we're standing nowhere regarding the clear-cut guidelines for its management. The number of cases is rising and it warns of the potential for a ·second wave" of increased methamphetamine use and associated problems (first peak was in early 1990s), thus

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indicating the immediate need for advancements in basic and clinical methamphetamineresearch".

Speaking of management of drug addiction apparently everyone is an 'expert' in thatregard.Somanygood-for-nothingshadowexperts. There Isa dilemma aswho should be dealing With drugaddiction.lsit a domain of psychiatrists7 Clinical psychologists? General physicians? Social workers? NGOs? There are so many private addiction centers being run by unauthorized personnel, and compartmentalization is seen.Whatthisshowsis thatdrugaddiction isnobody'schild and everybody's child! Anotherdilemmaiswhether the drug addiction management should be according to open or close strategy.It is usually seen that rehabcenters are far away from the populated areas,the idea being to keep it 'confidential'. Are we helping the cause or causing more harmin the long run?Drugabuse is already ahighly stigmatized area especially in our society.By doing soarewe increasing the stigma?Rendering it something that should be hidden and not openly mentioned or discussed? This needs speculation.

Following are some more suggestions to curb this menace and improve the management of substance use disorders. First of all,the specialty of addictionology needs utmost consideration. There should be specified professionals and guidelines as who should be dealing with this problem and how. The mental health care professionals, general physicians and evenmedical students should be well versed in the subject, including its incidence, prevalence, effects on physical and mental health and management. There should be refresher courses including the latest updatesand revision of previous literature, for which certificates are rewarded. Medical universitiesshould cometo the front and takethe leadregarding the certificateand diplomacourses.In addition to this,othereducational institutesas wellasour religious scholars must showresponsibility in tackling thisasa socialproblem.Theassigned representativesshould be trained by the concerned departments to spread the awareness, so that the stigma, seclusion, and fear reaction regarding the drug abusecanbehandledon appropriateand realisticgrounds. Weneed these measures on urgent basis, so that this stinky worm of drug addictioncanbe squished thathasbeeneating at the coreof ourvery society.

**REFERENCES**

1. Asghar 5. Drug abuse In Pakistan reaches alarming level. The Nation.2018,February 10.
2. Farrukh 5. Pakistan's huge drug addiction problem. Pakistan Today.2018,February 22.
3. Qasim M. Drugabuse in Pakistani youthreachesalarming levels. TheNEWSInternational.2018, June26.
4. Crocq MA. Historical and cultural aspects of man's relationship

with addictive drugs. Dialogues in clinical neuroscience. 2007;9(4):355-61.

1. O'Brien JM. Alexander and Dionysus: the invisible enemy. Ann Scholarship.1980;1:83-105.
2. UNODC. UnitedNation Office on Drugs andCrime, Pakistan n.d

[Available from: hnps://[www.unodc.org/pakistan/en/country](http://www.unodc.org/pakistan/en/country)­ profile.html.

1. UNODC.World drugreport 2016.Cannabis. n.d [Available from: hnps://[www.unodc.org/wdr2016/en/cannabis.html.](http://www.unodc.org/wdr2016/en/cannabis.html)
2. UNODC.Drugusein Pakistan 2013.2014,February 24.[Avaliable from: https://[www.unodc.org/documents/pakistan/](http://www.unodc.org/documents/pakistan/) Survey\_Report\_Final\_2013.pdf.
3. DIForti M, Quattrone D, Freeman TP, Tripoli **G,** Gayer-Anderson C.Quigley H,**et** al. Thecontribution of cannabis use to variation in the incidence of psychotic disorder across Europe (EU-GEi): a multicentre case-control study. The lancet Psychiatry. 2019;6(5):427-36.
4. Gage SH,Hickman M, Zammit S. Association between cannabis and psychosis: epidemiologic evidence. Biol Psychiatry. 2016; 79:549-556
5. Gage SH. Cannabis and psychosis: triangulating the evidence. TheLancet Psychiatry.2019;6(5):364-5.
6. NIDA. National Institute on Drug Abuse. Marijuana as

Medicine 2018, June [Available from: https://[www.drugabuse.gov/publications/drugfacts/marijuan](http://www.drugabuse.gov/publications/drugfacts/marijuan) a-medicine.

1. Wikipedia. Legality of cannabis n.d [Available from: hnps://en.wikipedia.org/wiki/Legality\_of\_cannabis.

14, Kovacevich N. Budding cannabistrends in 2019. 2019,January 2 [Available from: https://[www.forbes.com/sites/](http://www.forbes.com/sites/) nickkovacevich/2019/01/02/budding-cannabis-trends-in- 2019/.

1. United Nationsofficeon drugs andcrime.UNODCannual report 2017 n.d [Available from: [https://www.unodc.org/unodc/en/](http://www.unodc.org/unodc/en/) about-unodc/annual-report.html?ref=menutop.
2. Aasma Mojiz SZ. Students' drug use: Do we know what we're talking about?Dawn.2018, May 29.
3. Ghazal P. Rising trend of substance abuse in Pakistan:a study of sociodemographic profiles of patients admitted to rehabilitationcentres.Publichealth.2019;167:34-7.
4. Taremian F,Yaghubi H, Pairavi H, Hosseini SR, Zafar M, Moloodi

R. Risk and protective factors for substance use among Iranian university students: a national study. Substance abuse treatment,prevention,and policy.2018;13(1):46.

1. Johnson EC,Tillman R, Aliev F,Meyers JL,Salvatore JE, Anokhin AP, et al. Exploring the relationship between polygenic risk for cannabis use, peer cannabis useand the longitudinal course of cannabis involvement. Addiction (Abingdon, England). 2019;114(4):687-97.
2. Blore LG, Schulze S, Lessing AC. The relationship between

adolescent depressive symptomology and substance abuse. Curationis.2004;27(1):12-22.

1. KrebsMO,Kebir0, Jay TM.Exposure to cannabinoids canlead to

persistent cognitiveandpsychiatric disorders. European journal of pain(London,England).2019.

1. HallW,Degenhardt L.Cannabis useand the risk of developing a

psychotic disorder. World psychiatry: official Journal of the WorldPsychiatric Association (WPA),2008;7(2):68-71.

1. DavidM. TaylorTREB, AllanH.Young.TheMaudsley Prescribing

Guidelines in Psychiatry. 13th ed. West Sussex, POl9 850, UK: Wiley Blackwell; 2018.

1. NIDA. National Institute on Drug Abuse. Methamphetamine 2018, June. [Available from: [https://www.drugabuse.gov/](http://www.drugabuse.gov/) publications/drugfacts/methamphetamine.
2. Glasner-Edwards S, Mooney LJ. Methamphetamine psychosis: epidemiology and management. CNS drugs, 2014; 28(12): 1115-1126.
3. World Health Organization. HIV/AIDS 2018, June [Available

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from: [https://www.who.int/news-room/fact-sheets/detail/hiv-](http://www.who.int/news-room/fact-sheets/detail/hiv-) aids

1. Dogar IA,BaigMYU, Ali MA, Nisar U,Haider N, AliI.Association of

HIV withdrug dependents; Socio-Demographic Characteristics of Substance Abusers inclusive of HIV positive admitted in ModelDrugAbuseTreatment Center, DHQHospital, Faisalabad, Pakistan.ProfessionalMed J2014;21(6):000-000.

1. Dogar IA, Haider N, Baig MY, Nisar U, Ali I. Safety profile of the

practices of the Substance Dependent (including HIV positive) Patients at ModelDrug Abuse Treatment Center, DHQ Hospital, Faisalabad, Pakistan. J Pakistan Psychiatric Society. 2014;11(2):26-28.

1. Passaro RC, Pandhare J, Qian H-2, Dash C. The Complex

Interaction between Methamphetamine Abuse and HIV-1 pathogenesis.JNeuroimmunePharmacol.201S;l 0(3)477-486.

1. Soontornniyomkij V, Kesby JP, Morgan EE, et al. Effects of HIV

and Methamphetamine on Brain and Behavior: Evidence from Human Studies and Animal Models. J Neuroimmune Pharmacol. 2016;11(3):495-510.

1. NIDA. 2014, April 18. Principles of Drug Abuse Treatment for Criminal Justice Populations - A Research-Based Guide. Available from [https://www.drugabuse.gov/publications/](http://www.drugabuse.gov/publications/) principles-drug-abuse-treatm ent-crimin a1-ju sti ce­ populations-research-based-guide
2. Courtney KE, Ray LA. Methamphetamine: an update on

epidemiology, pharmacology, clinical phenomenology, and treatment literature. Drug and alcohol dependence, 2014; 143:

11-21.

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