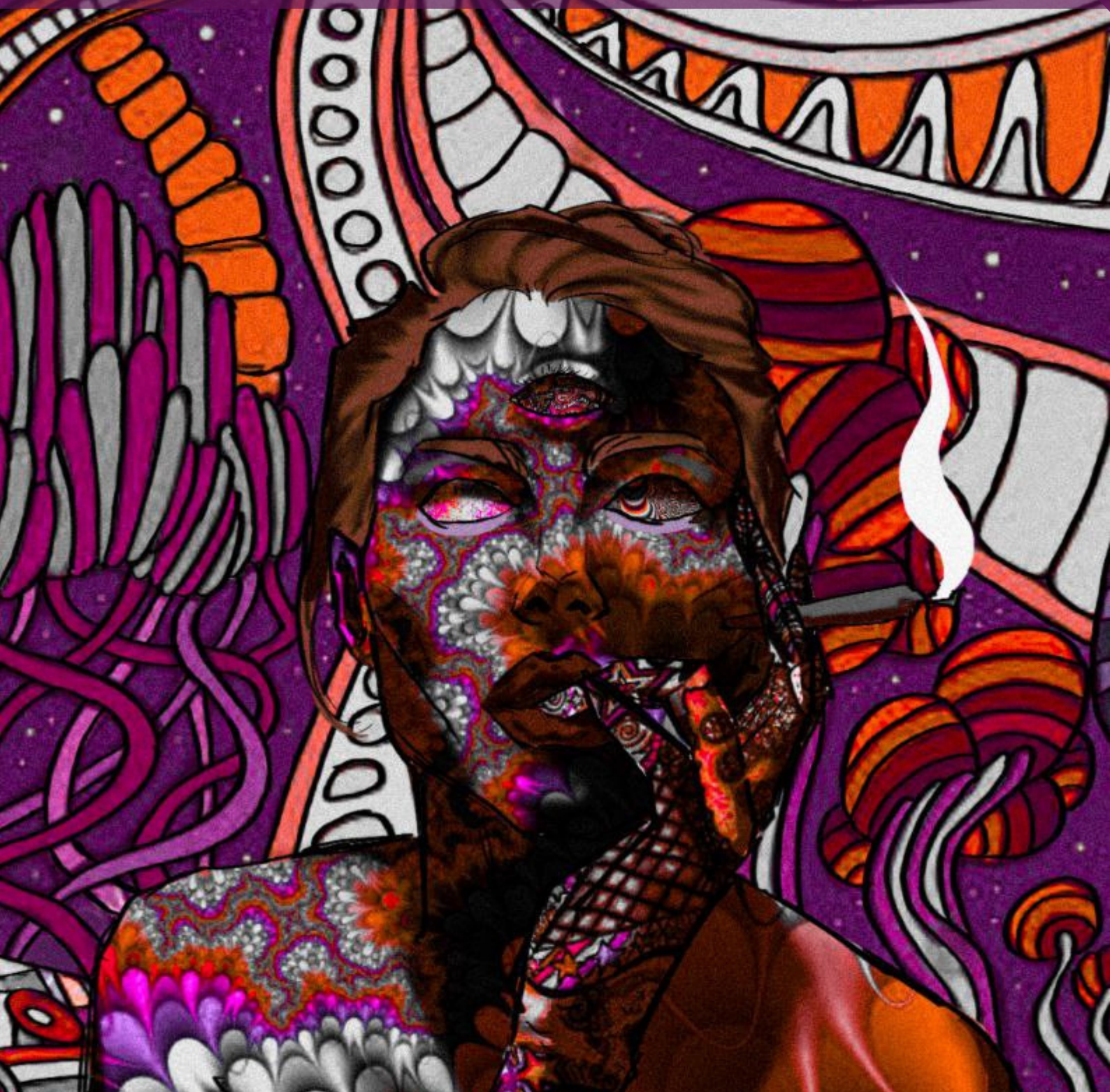


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THE GREY MATTER

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QUARTERLY NEWSLETTER FOR MEDICAL STUDENTS



**LA LA LAND:
A TALE OF DEPENDENCE**

CONTENTS

IN THIS ISSUE

Gaming and Social Media Addiction	4
Muktangan	5
Taaza Khabar	6
Over a thousand titles	7
A Warm Hug can go a Long Way	8
Cortex	9
Pigment & Shutterbug	10
The Psychology of Substance Abuse and Why Medical Students are Prone to it	11
Dialogue	12
Addictive potential of Sugar	13

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Insight

The tale dates back into the history of mankind when drug use became a part of religious rituals, everyday life and medicinal use as early as the 4th century BC. The recreational use of alcohol too had its origin in the early ages. This formed the basis of ever growing research and development of drugs from various psychoactive substances like opium, but along the way of use of these substances came their abuse.

Even though in present day addiction is not limited to substance use, it has made its way into our daily lives. Whether it is the two extra spoons of sugar with your early morning tea or the dopamine high rewarded from Social Media consumption that gets us through the day. It has been termed a complex phenomenon and while it's constantly debated whether it is a choice or a disease, there is no question as to whether someone suffering from addiction must be treated or not.

In this edition 'La la land : A tale of dependence' we choose to delve into the lesser explored aspects of addictions in the present day world, its impact on students and their coping strategies as well as the origins of behavioral addictions. We hope to offer a perspective into dealing with these newer age fixations and inspire more efficient ways of treating the same.

Keep Reading!

- Unnati Shukla & Khushboo Doshi, Co-Editors

GAMING AND SOCIAL MEDIA ADDICTION

by Nikhila Chandran, II M.B.B.S., ESIC PGIMSR Chennai

Living in an age of lightning-fast technological advancements, we have a massive advantage over our previous generations. While the older generations might have seen a slow progression into the digital world, the younger ones such as the millennials and Generation Z have led a technologically advanced lifestyle from the beginning. We often find ourselves scrolling through our social media apps aimlessly throughout the day, without our realization. Among teenagers between the ages of 13-17, social media is the number one way to spend leisure time.

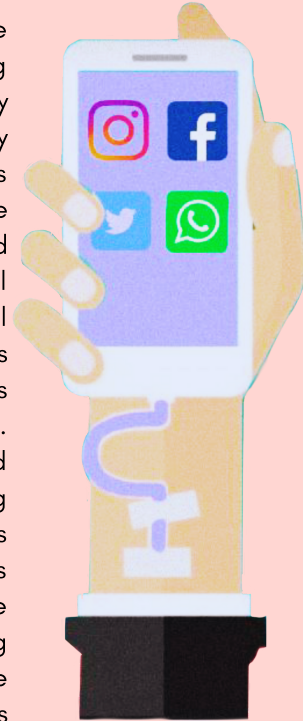
Additionally, access to the virtual world provides teens with opportunities to develop emotionally by engaging in social interactions and building friendships. People who may feel shy or uncomfortable making friends and socializing, find ways to flourish in the gaming world. The virtual world of video games provides an escape from the real world which often gives a sense of happiness and freedom. For some users, however, internet gaming and social media can turn from positive social interaction to addiction.

Research shows that intensive online activity can negatively impact a youth's mental health. The World Health Organization has even listed "gaming disorder" as a behavioral addiction. Addiction is a biopsychosocial disorder that causes a person to develop a compulsive need to indulge in substances or engage in activities that are detrimental to themselves, as well as to those around them. Behavioral addiction is a form of addiction characterized by a person's compulsive need to engage in a rewarding, non-substance related behavior, referred to as the 'natural reward'.

Clinically, gaming addiction is called Internet Gaming Disorder (IGD) and occurs from behavioral patterns over years. A person may be diagnosed with Internet Gaming Disorder when certain criteria are met including the inability to stop playing even when it interferes with other areas of their life such as family relationships, school, work and sleep. Social Networking Site (SNS) addiction on the other hand is a broad condition where a person is overly concerned about their social media presence to an extent it impairs social activity, health and overall well being.

In research conducted by Dr. Halley Pontes along with the International Gaming Research Unit among teens in Portugal, it was found that males have a higher tendency to get addicted to internet games whereas females are more prone to social media addiction.

Both Social Networking Site addiction and Internet Gaming Disorder were significantly correlated to depression, anxiety and stress among the teenagers surveyed. Teens who were dependent on their phones and games experienced a higher level of psychiatric stress. Social Networking Site Addiction was strongly associated with first, stress and then closely with depression. Internet Gaming Disorder showed elevated levels of stress among teens. Research says that it is unclear whether psychiatric stress pushes the youth to become dependent on online networking and gaming or whether the addiction to online activities elevates psychiatric stress.



From the behavioural pattern of youth addicted to online platforms, it seems to be a vicious cycle of mental distress and addiction to games and social media. This deteriorates over time leading to more serious conditions such as depression and anxiety. In 2020, the formation of the model called 'Michael', which was developed by researchers as a visual representation of gaming addicts in 20 years, showed horrifying features including obesity and related problems, bloodshot eyes due to excessive screen time, and stress-induced eczema among others.

However, it would not be accurate to suggest that social media use and gaming is bad. Given the easy accessibility and fun provided by online platforms, there is only a fine line between enjoyment and addiction. As with anything else in life, the key is finding a balance. Using social media triggers the same part of the brain as eating and intimacy to elevate moods by releasing dopamine, proving very beneficial. As much as Internet gaming and social media are important tools for socializing that allow people to develop friendships and relieve stress, it is equally important to recognize and gently guide people away from overuse and dependency.

MUKTANGAN

GUEST
INTERVIEW

Ms. Mukta Puntambekar, Masters in Clinical Psychology

In conversation with Gauri Hirekerur and Neel Waghu | M.B.B.S., M.I.M.E.R Medical College, Pune

On completion of the Masters in Clinical Psychology, Mukta Puntambekar joined Muktangan as a clinical psychologist. Keeping in mind the ever-changing scenario and times, she steered the organization into a more scientific and professional centre. New schemes, techniques and strategies emerged under her leadership.

Muktangan Mitra has enlarged its approach and scope and has introduced modern and innovative modus operandi which has been acknowledged by the Government, NGO bodies and private sector in both India and abroad.



Ms. Mukta Puntambekar

Q) Could you tell us more about the idea that led to the inception of Muktangan?

It was set up on 29th August, 1986 by my parents. My mother, a psychiatrist, Dr. Anita Avchat, had significant experience in handling such an organisation as she used to work in a psychiatric hospital. My father, after talking to numerous recovering drug addicts, was able to find out the root causes of it all and published them in his book. Miraculously we received moral support and financial help from Maharashtra's beloved personality P.L. Deshpande after he read about my father's book! We could then finally establish 'Muktangan' for men and after a few years, 'Nishigandha' for women. The unique feature of our institution is that 70% of our caretakers are recovered addicts themselves; so they understand the gravity of the situation and work wholeheartedly towards helping the patients.

Q) We often see the news flooding with headlines of students and the younger generation falling prey to addiction and losing their lives to overdose even when there is widespread awareness about the same. Why do you think such is the condition today?

There is a saying in Marathi 'kaltay pan valat nahi' (Knowing what is right and still not implementing it). Although the public is educated about the ill effects, misconceptions about these abusive substances providing moments of euphoria pull people towards consuming them. This causes them to chase alcohol and drugs which they think might lead to a better or more carefree life or as a means to escape reality.

Q) How often do you see cases of over-the-counter drug abuse? What difference do you see in addiction intensity in rural and urban areas?

Any substance consumed over a limit can cause addiction symptoms. Easily accessible out of these are cough syrups, pain killers which are common cases in youngsters, whereas anti-depressants and sleeping pills are predominant in middle aged women. Country made foreign liquor paired with party drugs is much more prevalent in urban areas. Rural areas see more addiction towards tobacco and desi liquor.

Q) What are the ways through which you treat different addiction cases?

Admission of the patients is done once every week and after quarantining them for another 8 days as per COVID-19 protocol, they're examined by our physician. After which judging by the intensity of their condition we start with the treatment they need. We begin with yoga every morning, followed by a healthy breakfast and their daily appointment with an individual counsellor. Followed by group therapy where we also handle emotional issues that disturb the patient. After lunch and leisure we make sure every individual is involved with physical exercise. Thrice a week, the evenings are reserved for support groups, alcohol and narcotics anonymous meetings. We use certain detox methods, rehabilitation, therapy in the form of music, art, clay, meditation, Rational Emotive Behaviour Therapy by Dr. Ellis, and psychological help. We also make it a point to try to include family members in the process of treatment as their support to the patient is of utmost importance.

Q) What is the prevalence of addiction in the Indian society? In your opinion what are the common causes that force patients to take up drugs?

It is saddening that it is an increasing issue among youngsters. Many young people resort to drugs because they believe it will help them cope with their stress. They do it to run away from their problems, for that temporary feeling of happiness and satisfaction. Moreover the friend circle matters too. Peer pressure plays an important role and nowadays drinking alcohol and doing drugs is considered to be a normal and "cool" thing to do.

Q) Many doctors in a lot of departments have come across the issue that even if the advice is beneficial for them, the patients deny it and don't co-operate. How do you think we can overcome this communication barrier?

A doctor's approach towards a patient is very important. My mother was a psychiatrist and she always considered this to be a very important skill. In Mukangan we treat patients as our equals. We try to have friendly conversations and listen to them. These days as the number of patients has increased, doctors do not have sufficient time to converse with and listen to the patients. Half of the job is over just by listening. For some people there is no need of medicines. I've heard many patients say- 'Goon changle aheth ty doctorche' (The doctor has a good nature). This refers to doctors who can listen to and explain to the patient and help them heal. Nowadays at Mukangan many youngsters come with a similar issue because they don't talk to their parents and keep it all bottled up.

Q) In your opinion, why is it challenging to end an addiction? Why is there a desperate need for the same?

I think social acceptance and the concept of glamour have evolved so dramatically in recent times that the perception towards alcohol and drugs consumption has changed radically. The entertainment industry has become so influential that it has become very common to drink for minor incidences and people don't realise when this leads to a downward spiral. Also, I presume it is the fear of withdrawal symptoms that holds them back from trying to turn their life around. Some of the recovering addicts are overconfident about their self control, so they consume these substances and still do not find the need to follow up with the centre, which results in relapse. The age old saying of "prevention is better than cure" is very accurate in such cases.

Q) What changes do you feel are necessary in our country to lift up the taboo over addiction and promote a positive attitude towards those recovering?

No amount of awareness is enough in this case to make the public understand just how crucial getting out of this dangerous trap is. Awareness programmes at the school level is one of the keys to provide appropriate knowledge about alcohol, drugs and sex education. In addition, there needs to be openness among teachers, parents and guardians to enlighten the younger generation about what is right and wrong so as to prevent them from being misled.

TAAZA KHABAR



by **Madhav Bansal, II M.B.B.S., Institute of Medical Sciences & Sum Hospital, Bhubaneswar**

When it comes to any activity wherein a comparison between men and women is made, there's always a hidden sense of competition to prove that one gender is superior in performing that very activity or task. Be it sports, adventure activities, cooking, driving (Disclaimer: don't even try to bring up a gender debate here), certain activities are thought to be performed better by a specific gender. Who can 'binge drink' more than the other? I know it seems bizarre to bring competition into this, but there is a clear winner here.

A recent study that appeared on August 23, 2021 in *Nature Communications* has mentioned that female mice are more prone to binge drinking than male mice based on studies performed on a brain region in mice called the bed nucleus of the stria terminalis (BNST) -- a major node in a stress-response network whose activity in humans has been linked to binge drinking behaviors.

The paraventricular nucleus of the thalamus (PVT), a distant cluster of neurons linked into the BNST, acts as a brake on its activity and has a bigger impact on the female BNST than the male BNST, according to the researchers. In female mice, the PVT is able to prevent excessive alcohol consumption through this circuit brake, but not in male mice. Although this controller may provide more safety to females, it may also make them more susceptible to illness if it is impacted.

For reasons that go deep into mammalian biology, women may be more vulnerable to alcohol consumption problems than males. Understanding if and how the underlying processes that drive drinking differ by gender is crucial, since it might lead to new, more tailored therapy approaches for alcohol use disorders.

According to Dr. Kristen Pleil, assistant professor of pharmacology at Weill Cornell Medicine, while the BNST-driven stress response circuit in females is calibrated to be much more responsive, it is also more intensively controlled in females, possibly as an acclimation for more female-centric behavioural patterns. As anxiety disorders and alcoholism are commonly seen to exist parallelly, Dr Pleil also suggested that sex differences might exist in here as well.

Women have traditionally and culturally been cautioned about their alcohol usage by society's moral compass (or in some cultures not even allowed to touch it). However research is now proving that not only do women have a higher tolerance to alcohol, but their decelerating mechanisms are also more effective than men's.

As we have a better grasp of the biological basis of sex variances in 'boozing up', we may justifiably dismiss society's judgements of women who drink "too much" or men who don't drink "as much."

OVER A THOUSAND TITLES

Mrs. Archana Nitin Jawale, Librarian
In conversation with Shriya Shah, MBBS III/I
from Dr. VMGMC, Solapur

Mrs. Archana Jawale has been serving as a librarian at Dr. VMGMC, Solapur since last 8 years. She adores the work of providing necessary information to students and is extremely passionate about various aspects related to library sciences, which she also holds a postgraduate degree in.

Q. Why did you choose to become a librarian?

Library sciences was never my major degree. In the final year of my BSc. course, we were exposed to a career counselling session which introduced me to the world of library sciences. It was something that resonated with my personality and became an obvious career choice for me. After becoming a postgraduate in Library Sciences (B.lib, M.lib), I appeared for an entrance test in DMER and have been posted in this institute ever since.

Q. What do you love the most about your job?

I am extremely interested in Cataloguing and classification of books. I have actually taken courses offered by the central government related to being an information officer. It is very challenging for students to access authentic information when they are undertaking various research projects and I am more than happy to make sure that they have an easy access to the same in my library.

Q. What things other than being a librarian do you keep an interest in?

When I was a student in high school, we used to have library sessions where our teachers would make us read little Marathi books which mostly included those in history and mythological genres. The same practice transformed into a hobby as I grew up and I still find myself engrossed in a historical Marathi book on leisure evenings.

Q. What is your opinion on the practice of pirating e-books done by students who cannot afford to buy them?

I feel that a book is the copyright of the author and he has invested much more than his knowledge in compiling it. Pirating books is not only a financial loss for the author but it can also be considered as an insult to his knowledge and efforts. Pirating books is a legal offense and if the student is facing affordability issues, I am pretty sure that every medical institute has libraries such as ours at students disposal. They only need but approach.

Q. What is the worst condition a library book has been returned in?

I don't take back books that are not in a good condition. I simply ask the student to buy me another copy of the book.

Q. What would be your advice to the future medical practitioners out there?

Hailing from a tiny village in Konkan, I have personally experienced the dearth of qualified allopathic doctors in remote rural parts of the country. So, I would take this opportunity to request all medical students to invest small parts of their stellar careers in rendering healthcare services in rural India. Also, I advise them to work hard in the betterment of their personal, professional and social roles as doctors.



A WARM HUG CAN GO A LONG WAY:

The influence of childhood trauma on addiction

by Ananya Singh, Psychology Graduate, University of Melbourne

Imagine mindlessly scrolling through your Instagram feed, your day was subpar at best, and there is this unexplained weight on your chest. You toss, and you turn, there seems to be this emptiness; you see your friends enjoying experiences that bring no joy to you; it makes you feel hollow and unsatisfied. You try harder to distract yourself from the overwhelming thoughts by watching something on Netflix, but you can't help but feel that you are not good enough, that you are not loved, that you're worthless and a person existing just to satisfy others' needs. The heaviness in your chest is growing, it is consuming you, and you try to feel some relief. You find something; you need to find something; a drink, a smoke, a sexual experience, a bet that helps you escape that feeling. You feel light, understood and happy after perhaps a long time. Yet, the effect does not sustain, and the cycle repeats itself. Many people addicted to substances, gambling, social media and much more experience this daily with greater severity.

Addiction is a bio-psycho-social disorder. It includes compulsive engagement in rewarding stimuli. The person has a deficit in their perceived autonomy (Levy, 2006) over their behavior and continues to engage in them despite adverse consequences. Addiction is a complex disorder. It results in a holistic dysfunction that affects the body, mind and interpersonal relationships.

There is extensive literature on attachment-oriented research in individuals with substance use disorders (SUD) and other types of addiction (Schindler, 2019). The attachment theory is a prevalent theory in psychology that helps us understand the child's attachment with their primary caregivers. Attachment has a fundamentally evolutionary function; it is a behavioral and interactional strategy that offers security to vulnerable offsprings in various species (Simpson & Belsky, 2008).

As a child, when we feel threatened or in danger, we desire and seek closeness and comfort from our attachment figures (mostly parents). In those moments, our parents could either understand those needs and soothe us and provide a sense of safety or neglect those needs, leading to an insecure attachment towards the primary caregivers. Childhood trauma that makes us feel threatened informs the attachment we develop. The insecure attachment style may transform into adolescent (Savcı & Aysan, 2016) and adult attachment styles and perhaps be reinforced based on later life events. But why is this important to discuss? On the surface level, it informs how much we might trust our attachments with other people, which influences our interpersonal relationships.

However, when examined further, a secure attachment is vital to developing one's own coping methods when faced with fear or distress. We learn from our caregivers on how to soothe ourselves in a way that is functional to our wellbeing. When these coping skills are compromised, we struggle to manage our stress when faced with threatening situations (Garami et al., 2018). Such events activate the brain's reward circuits resulting in a common neural substrate to be created, which may improve the sensation and enjoyment of drug use, increase self-administration, raise cravings, and increase the risk of relapse after a period of abstinence (Garami et al., 2018).

According to attachment theory, substance misuse can be viewed as "self-medication" or an endeavour to compensate for an absence of attachment methods (Schindler, 2019) and coping mechanisms we develop in early childhood. As mentioned, those with an insecure attachment have a deficit in developing functional coping mechanisms. Hence, those who are addicted adopt different dysfunctional coping mechanisms that are detrimental. In many heroin addicts, when asked about the effect and the sensation of the drug, they described it as a 'warm, soft hug' (Wonderly, 2021).

This gives an interesting insight into the impact of severe deprivation in developing a secure attachment and how many people perceive the bodily sensations of feeling hugged, of being connected. As humans, we crave interpersonal relationships as it benefits us evolutionarily and also help us replenish emotionally. Trust, and the feeling of connectedness acts as a protective factor against developing an addiction or other mental health conditions and increases our overall wellbeing (Buckingham et al., 2013; Jose et al., 2012).

Addiction usually has high comorbidity with other mental health conditions whose treatment informs the treatment of addiction (Schindler, 2019). Understanding the insecure attachment style is essential in addressing underlying psychological issues to help those with addiction develop functional coping mechanisms (Schindler, 2019).

The experiences of childhood trauma are not exclusive to those who develop an addiction. Many who experience trauma do not develop any mental health conditions. However, knowing about childhood trauma's effect helps us navigate through our own emotions and behaviors. We are not limited and bound to our childhood experiences; as adults, we grow, evolve and make decisions that guide the course of our lives.

Many who develop an addiction experience a lack of autonomy, and treatment attempts to give them the power to make their own choices by their own will. As individuals, we all have experienced trauma in some way or the other. We have developed our own coping mechanisms, and although it might not be an addiction, it may manifest itself in different forms in different severity. By bringing awareness into our compulsive patterns of behaviour and adopting functional coping mechanisms, we can take care of ourselves. It can help us be more compassionate towards those who do develop an addiction. So let's try to be more aware, less mindless, of our thoughts and the actions we choose to do. And if nothing, go hug another person and feel that warmth of being connected.

CORTEX

By Unnati Shukla, II M.B.B.S., M.I.M.E.R. Medical College

Q1) A 21 year old male came to the OPD with a complaint of feeling of insects crawling under the skin. The patient revealed that he felt people were plotting to take his life. On examination blackish pigmentation was seen on his teeth and tongue. Which of the following drugs would you suspect the patient is abusing?

- A. Heroin
- B. Cannabis
- C. Cocaine
- D. Amphetamine

Q2) A 22 year old, final year medical student came to the psychiatry OPD with complaints of lack of motivation, impaired coordination and increased anxiety. He said it affected his performance in college and he has lost interest in daily activities as well. On further questioning he revealed he was indulging in substance abuse. Which of the following drugs could he be taking?

- A. LSD
- B. Cocaine
- C. Alcohol
- D. Cannabis

Q3) A patient is admitted to the hospital on account of symptoms of paranoid schizophrenia. A family member revealed he had displayed aggressive behavior, restlessness and insomnia. He is suspected to have drug induced psychosis. Which of the following drug is most likely to cause the same?

- A. LSD abuse
- B. Cannabis abuse
- C. Amphetamine abuse
- D. Phencyclidine abuse

Q4) A 34 year-old man is found unconscious by one of his family members and is brought to the casualty. On examination he had tachycardia, shallow breathing, constricted pupils, his blood pressure was 100/70 mm of Hg. On waking up he complained of abdominal cramps and excessive secretion from his mouth and nose. On questioning he revealed to be a chronic drug abuser for the past 10 years. What could be causing his symptoms?

- A. Heroin withdrawal
- B. Nicotine withdrawal
- C. Cocaine withdrawal
- D. Cannabis withdrawal

Q5) A 40-year-old man presents to casualty with history of regular and heavy use of alcohol for 10 years and morning drinking for 1 year. The last alcohol intake was 3 days back. There is no history of head injury or seizures. On examination, there is no icterus, sign of hepatic encephalopathy, or focal neurological deficit. The patient was disoriented to time, had visual hallucinations and displayed coarse tremors. Which of the following is the best medicine to be prescribed for such a patient?

- A. Diazepam
- B. Haloperidol
- C. Imipramine
- D. Naltrexone



Answers: 1-C, 2-D, 3-C, 4-A, 5-A

Pigment



Anuja Argade

I M.B.B.S., M.I.M.E.R. Medical College,
Pune




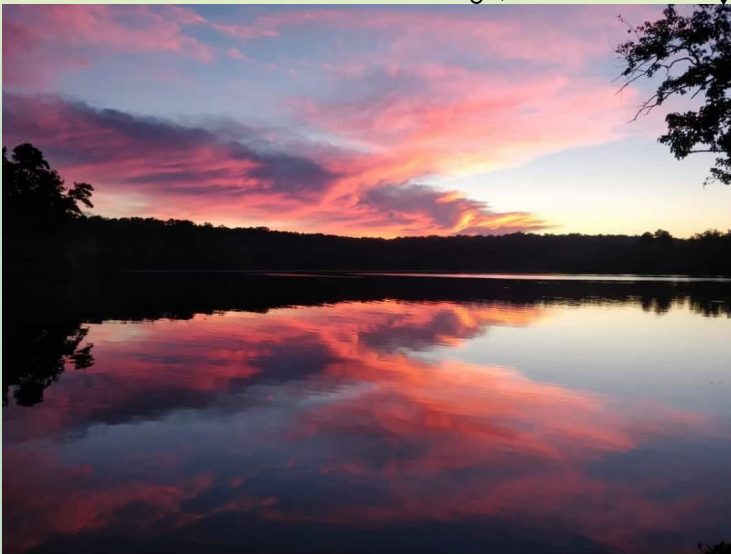
Sharvari Kulkarni

II M.B.B.S., M.I.M.E.R. Medical College, Pune

Shutterbug



Lake Raleigh, North Carolina 



Sagarika Deshpande

I M.B.B.S., M.I.M.E.R. Medical College, Pune



Rushikesh Kholgadge

III M.B.B.S., Dr. Vaishampayan Memorial
Govt. Medical College, Solapur

The Psychology of Substance Abuse and Why Medical Students are Prone to it

by **Foram Doshi, II M.B.B.S., Indira Gandhi Government Medical College, Nagpur**

Substance use has been a pressing concern in light of the rising mental health issues faced by the Indian youth. It has laid deep roots in our society. Despite efforts of creating awareness about it, substance use continues to increase in frequency. The age of first exposure to such substances has decreased and that paints a worrisome picture. Substance use disorders are important to abolish as they cause significant mortality, emotional distress, and economic loss in society. However, as the word disorder suggests, addiction is not a choice, it is a compulsive need to use drugs despite knowing its harmful effects. And hence must be handled delicately not only addressing the issue of addiction but the shame and grappling pain surrounding it.

To ameliorate the efficacy of prevention and de-addiction programs, it is important to understand why a person chooses to use mood-altering substances. The use can be divided into 2 processes:

1. The start: this explores why an individual decided to use something they have never used before
2. Maintenance: after experiencing its effects (and maybe even withdrawal) why does a person continue using drugs.

The epidemic of drug addiction becomes even more alarming when it occurs in medical students and physicians. Drug abuse decreases the efficacy of practice and may cause significant consequences. It must then come as a surprise that substance use in medical students starts early in their career and can persist for a long time. And it is unnerving to know that there is a higher prevalence of substance use in medical students, despite them having a significantly higher knowledge of substances than non-medical students.

Knowledge and respect in the medical field come with a heavy price. The vastness of medical subjects, high frequency of exams, preparing for postgraduate entrance exams, and competing with peers have caused a tremendous amount of stress for medical students. A study in the Indian subcontinent found that the overall prevalence of burnout was 48.8%, anxiety was 45.3%, and was depression was 31%. Simply put, almost half of the medical students suffer from some mental health problem. Furthermore, the timetables of medical curricula are overloaded and students are left with little time for recreation. Additionally, there is easy access to drugs.

The use of substances then becomes a coping strategy, an insidious and dysfunctional one. The short-term benefits

outweigh the long-term adversities as the student longs to either escape from reality or overcome his tiredness to get more work done.

We are far from achieving a drug-free medical campus, but understanding the factors that cause students to take up drugs can play an important role in prophylaxis.

Here are some recommendations on how we can move forward:

- Ensuring that counselling is available for all students.
- Having mentors/seniors that monitor their mentees and help the students to cope.
- Conducting talks on substance use as teenagers are most vulnerable to the disorder.

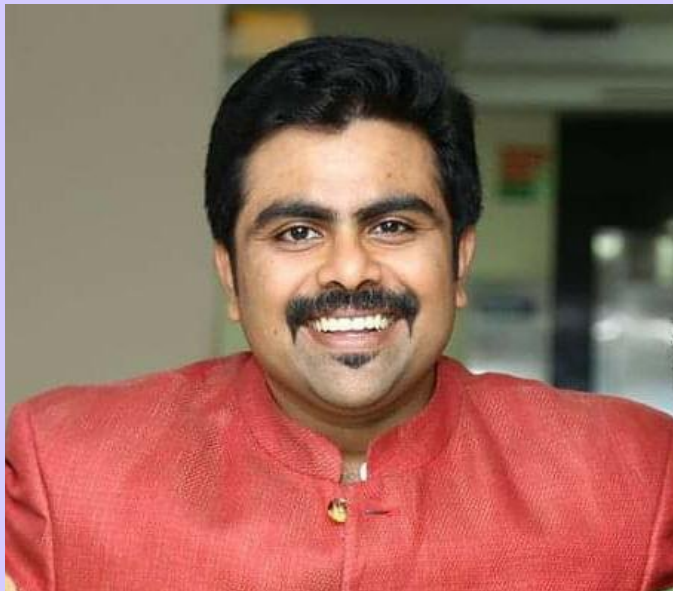
For all medical students reading this, remember to be patient and remind yourself that you are stronger than the negative emotions and the "feel good" effect of drugs.



DIALOGUE

DR. ARDHANAARI MANICKAVASAGAM, DEPARTMENT OF PSYCHIATRY, MEENAKSHI MEDICAL COLLEGE HOSPITAL AND RESEARCH INSTITUTE, CHENNAI

In conversation with Nupur Chaturvedi III M.B.B.S. & Richa Sinha II M.B.B.S., M.I.M.E.R. Medical College, Pune



Dr. Ardhanaari Manickavasagam

Q1) What drew you to the field of psychiatry? Any specific incident?

In all other fields of medicine the patient who comes in has a rough idea of the illness that he has and the organ or the system it is mainly affecting. And 95% of this includes physical complaints. Insights of the illness is not very common when it comes to psychiatry.

I believe the field you choose in your undergraduate days depends a lot upon the kind of impact the teachers teaching that subject have upon you. My psychiatry teachers in college, Dr. Susan Solomon & Dr. Pradeep Thilakan had a great impact on me which eventually drove me towards this branch. Psychiatry is often perceived as a boring subject, but the way these teachers perceived the subject, the way they conducted themselves and their approach towards the subject was one of the major factors that inspired me to choose psychiatry as my speciality in my second year itself.

Q2) How do you deal with medical students suffering from addiction? Are they different than other patients?

The way the human brain reacts to substance abuse and gets addicted to it is the same irrespective of whether the patient is a medical student or not.

What makes it difficult for me as a psychiatrist to treat such patients is that they have prior knowledge and they utilise this half baked knowledge to self diagnose and self medicate. Additionally, there comes in a lot of reassurance from the peers who use this knowledge to justify the use of substance. Which is why I always recommend the students who come in for treatment, to come as a patient and not as a medical student.

Q3) Is there a memorable case you'd like to share with us?

For me, every single case that I come across is unique and equally memorable. The diagnosis from case to case might be similar, but the way each patient presents is distinctive. An example of a case of delusion disorder that I came across, had the patient believing that each one of us around her including herself is a clone. As a clone she believed her responsibility was to go to work, fulfill all the responsibilities she had towards her family, go to the doctor and get treatment. She presented with this psychopathology and even after she was treated, she didn't stop believing that this was all part of her role as a clone. This was quite a different presentation from the usual lot of cases of delusional disorders that we come across.

Q4) Does your field take a toll on your mental health?

I believe that if any person has passion and love towards their work then it cannot take a toll on their mental state. I am mentally prepared that I'm going to face certain kinds of patients on an everyday basis during my career as a psychiatrist. I choose to go there and help these people who need it. It's all about the way you perceive your work. My job makes me a stronger, patient and a better person everyday. It has been seen as a common belief in our society that when you take up a job as a psychiatrist then at some point in your life you're bound to get mentally disturbed. Being a Psychiatrist is a major taboo in our society even when it comes to marriages. The society needs to change their perspective. Even radiologists get exposed to various kinds of radiations on an everyday basis, but they are given breaks to recover from that. In a similar manner even psychiatrists are given or can take a break when their work gets over burdening.

Q5) What is a notion you had about psychiatry that you unlearned during your practice?

When I was in my M.B.B.S. college I thought that psychiatry was a very boring subject majorly because it involved a lot of theory learning. But once I got into the field I realised that despite that, on the other side of all that theoretical learning, was a chance to put all that knowledge to use. Integrating the theoretical knowledge to diagnose disorders of one of the most complex systems of the human body was the most beautiful part. All that you and I are capable of, right from your ability to listen to me or my ability to express is all because of our brains. The study of brain and its correlation with our mind is what psychiatry means. The work of a psychiatrist is more like a detective. The patient may come with the presentation of sleeplessness, and that's where the work starts. We are required to dig deeper in order to try and reach the root cause.

Q6) What do you think are some must-have skills for psychiatric evaluation?

A doctor must be able to develop a good rapport with his patient. Secondly, he should be empathetic. Besides these two factors, one must have a strong base of clinical knowledge to arrive at the correct diagnosis.

Q7) What do you think about the condition of Indian healthcare facilities when it comes to treatment of psychiatric patients?

There has been a phenomenal improvement in the Indian healthcare system as far as psychiatry is concerned, especially after the lockdown last year. This lockdown has taught people to acknowledge the pivotal role that mental health plays in the overall well-being of an individual leading to more people seeking help and thus a boost in the psychiatric health care services provided. However, the one aspect where we are lagging behind is the provision of occupational rehabilitation services. Rehabilitating those with chronic debilitating diseases is very important because it helps an individual make the best out of what he/she has and helps restore his confidence.

Q8) How important is the role of a psychiatrist in a multidisciplinary approach in healthcare?

Multidisciplinary approach is now practiced in almost every hospital globally. I believe that psychiatric counseling does play an important role in healthcare, but it is not necessarily required for every patient admitted to the hospital. During your undergraduate and postgraduate

days, you will be posted in the psychiatry department for a few weeks. This will teach you how to identify patients who require psychiatric help. For instance, a patient with a chronic disease admitted in the ICU for a long period of time will require counseling. On the other hand, a person with a minor ache or pain will not require it. Providing psychiatric help to every IPD patient under the domain of multidisciplinary approach is nothing but a money making racket.

Q9) Given your expertise in treating maternal psychiatric illnesses, what is your take on postpartum depression, its diagnosis and management?

Around 20 years ago, postpartum and antepartum depression weren't considered as illnesses which is why there was no treatment modality available. Over the past few years, there has been a great improvement in providing well rounded maternal health care services laying emphasis on postpartum depression. Today, there are various screening techniques available that help diagnose the submerged part of the iceberg of maternal psychiatric illnesses. Prophylactic treatment is also readily available.

The advent of Electro Convulsive Therapy has helped ease the job of doctors treating postpartum depression in patients not satisfactorily responding to medical therapy. ECTs induce seizure activity in the brain to improve the blood brain barrier permeability, contrary to the age old belief of inducing shock. It doesn't have any side effects. In very rare cases, there could be slight forgetfulness which is momentary. It is safe and extremely effective.

Q10) How often do medical students come to you with complete burnout and how do you tackle that? Given that their field doesn't have any space for adjustments.

Not very often, probably because medical students are becoming aware of what their profession demands from them which makes them better prepared.

Long working hours, seeing patients not responding to treatment modalities and not being able to save a life inspite of doing your best creates negative feelings. These things lead to burnout among medical professionals.

My advice to all health care providers would be to give your best and forget the rest. You must do your best to save a life, but if you can't you mustn't lament. We have to keep going to be able to support those who need us. The more you deal with patients and their suffering, the more resistant you become to negative feelings.

Secondly, whenever you feel like you are experiencing a burnout you must take some time off, go for a short trip or spend some time with family and friends. This helps restore positivity and helps you bounce back.

ADDICTIVE POTENTIAL OF SUGAR

by Zoya Mhaisale, I M.B.B.S., M.I.M.E.R. Medical College,Pune

The ritual of a morning coffee or tea has been undisputed since ages. Knowingly or unknowingly, it has become an important part of our routine. This habit is often attributed to the addictive nature of caffeine, but what we tend to forget is the sugar rush that makes it so irresistible. Life seems unimaginable without sweet foodstuff like chocolates, cookies and soft drinks. We love indulging in them on all occasions- be it in festive gatherings or in solitude.

Eating sugary foods has become ingrained into our lifestyles and routines. Dessert for most of us is the best part of dinner after a tiring day. After realising this, if you've ever tried to cut down on sugar, you may have realised how incredibly difficult it is. For some people, it may even seem downright impossible. This leads to a question: can you be addicted to sugar? Yes, studies have shown that there is a link between sugar overindulgence and addictive behaviour- proven by the fact that sugar releases opioids and dopamine in your brain.

Sweet foods are highly desirable due to the powerful impact sugar has on the reward system in the brain which is called the mesolimbic dopamine system. The neurotransmitter dopamine is a key part of the "reward circuit" associated with addictive behaviour. Drugs such as cocaine, amphetamines and nicotine hijack this brain system which leads to intense feelings of pleasure that can result in cravings and addiction. So drugs and sugar both activate the same emotion in the brain, causing the release of dopamine. When a certain behaviour causes an excessive release of dopamine, you feel a pleasurable "high" that you are inclined to re-experience, and so repeat. And as you repeat that behaviour more and more, your brain adjusts to release less dopamine. The only way to feel the same "high" as before is to repeat the behaviour in increasing amounts and frequency. Hence, every time we eat sweets, we are reinforcing those neuropathways, causing the brain to become increasingly hardwired to crave sugar, building up a tolerance like any other drug.

Research on rats from Connecticut College has shown that Oreo cookies activate more neurons in the pleasure centre of the rats' brains than cocaine does (and just like humans, the rats would eat the filling first). And a 2008 Princeton study found that rats may become dependent on sugar, and that this dependency could be related to several aspects of addiction: cravings, bingeing, and withdrawal.

Furthermore, researchers in France agree that the casual link between sugar and illegal drugs that makes for dramatic headlines, is actually true. They determined that the rewards experienced by the brain after consuming sugar are even "more rewarding and attractive" than the effects of cocaine.

The reason for this is that sugar is more easily available, and socially acceptable than amphetamines or alcohol and so, is harder to avoid. They admit that the drug analogy is always a tough one because, unlike drugs, food is necessary for survival. But whether sugar is more addictive than cocaine is currently not a matter of concern. Researchers and nutritionists suggest that sugar has addictive properties and we need to be getting less of it.

The negative consequences of unrestrained consumption of sugary foods include weight gain, dental cavities and developing metabolic disorders including type-2 diabetes mellitus. Reducing sugar in your diet can help with weight loss, reduce acne, improve sleep and moods, and could even stop those 3pm slumps at work and school. Cutting sugar from your diet may not be such an easy task and those sugar replacements definitely won't help.

Whether we are aware or not, we all have made sugar an irreplaceable part of our lives. Addiction has always been associated to drugs and alcohol, but we need to accept the reality of potential sugar addiction which will help us lead healthier lives. So do watch out the next time you add those spoonfuls of sugar to your tea!



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