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A BAD TUNE OF GAMING DISORDER



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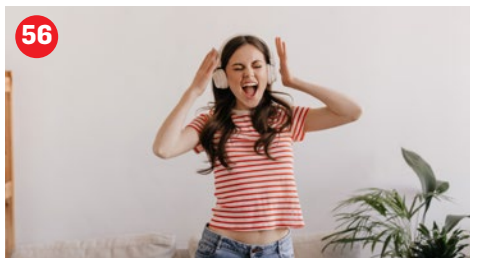
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Can online gaming be addictive???

Dear Readers,

Thank you for your continuous support. Double Helical has been making a difference in the lives of the socially and economically disadvantaged groups through raising awareness as well making voluntary contributions in the areas of education, health, human rights and social services.

The magazine provides a platform to recognize innovation, people, products and services that are helping to transform the healthcare sector in the country and ushering in affordable, high quality and inclusive healthcare for masses.

In the current issue, we focus on current trends of Gaming Disorder which is very popular; at least one person plays video games in two-thirds of American households, according to the Entertainment Software Association. One recent study estimates roughly 160 million American adults play internet-based games,

The games can be very entertaining, and it may be easy to get absorbed in the competition, but can they be addictive? That is a question still being debated among researchers and health professionals.

As per report, several cases are reported every month in which kids are found to be turning violent because of such gaming addictions. It has been found that though they are addicted to an alarming level, these children do not consider their behavior a problem. In fact, even their parents do not react to their behavior.

This is only when they develop mental/physical disorders; they are brought to the clinic. The number of children addicted to gaming might even be more as the parents only visit when these children become very violent. If such children are counseled on time, such issues can be resolved easily; the most worrisome fact about these games is that there is no end to it.

Gaming disorder is defined in the 11th Revision of the International Classification of Diseases (ICD-11) as a pattern of gaming behavior both digital-gaming and video-gaming characterized by impaired control over gaming, increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences.

World Health Organization has already recognized that online game addiction is a mental health disorder as pattern of persistent or recurrent gaming behavior so severe it takes precedence over other life interests. As per a study, about 3.5% of Indian adolescents suffer from Internet gaming disorder (IGD). The rate is 0.5% higher than the global average. Indian studies show that 8% boys and 3% girls fall in the IGD bracket.

Apart from this we also highlight the present trends of “Monkey Pox” which is more common in children in its native Africa, is showing a different epidemiology outside this continent. The surveillance data from the West suggests that it is behaving more like a sexually transmitted disease like HIV and other sexually transmitted infections.

As Monkey pox cases have been reported and most got detected after returning from other countries. We should know the enemy to combat the psychological warfare. As Sun Tzu, the ancient Chinese warrior philosopher says: “If you know the enemy and know yourself, you need not fear the results of a hundred battles. If you know yourself but not the enemy, for every victory gained you will also suffer a defeat.

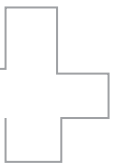
The name monkey pox itself is a misnomer. Monkeys and humans are accidental victims of monkey pox. The name has its origins due to detection of the virus from laboratory monkeys in Denmark around 1958. The virus is found more frequently among small animals like squirrels. The virus belongs to the same family as Smallpox virus. The eruptions have some resemblance to Smallpox. However, Monkey pox is much milder and self-limiting with case fatality rate varying between 0-10% in the African continent. Outside Africa it is near zero, perhaps due to better nutrition and access to health care. There is fever, muscle pain, swollen glands, and rashes which have to be differentiated from chickenpox, and other cases of fever with rashes.

In case of Monkey pox human to human transmission is being carried out by intimate contact while respiratory transmission is possible, but not very efficient. The course of the illness is 2-4 weeks. Smallpox had a case fatality rate over 30%. In Africa, Monkey pox cases were identified in the 1970’s in the last phases of smallpox eradication campaign. Heightened surveillance activities in this phase found this enemy, which turned out to be a pickpocket compared to the killer smallpox. The cases of Monkey pox were scattered in Congo and Western Africa.

There is more such interesting and thought-provoking stuff to savour in this issue. So, happy reading!

Thanks and regards

Amresh K Tiwary,
Editor-in-Chief



Now Kailash Deepak Hospital in Delhi

The new hospital of Kailash Deepak Hospital Group is recently inaugurated near Karkardooma Court located on Vikas Marg, Delhi.

CMD of Kailash Deepak Hospital Group and MP from Gautam Budh Nagar Lok Sabha constituency Dr. Mahesh Sharma and Director SM Garg duly worshiped the idols of Lord Shri Shankar and Lord Shri Ganesh installed in the premises of the constructed hospital.

According to Dr. Mahesh Sharma, the newly built Kailash Deepak Hospital is a 508 bedded hospital. At present 320 beds have been become operational. All state-of-the-art facilities have been arranged in the hospital.

On this occasion, Dr. Uma




Sharma, wife of MP Dr. Mahesh Sharma, former Union Health Minister Dr. Harsh Vardhan, Delhi

MP and famous folk artist Manoj Tiwari, East Delhi MP Gautam Gambhir, SM. Garg, Smt. Sangeeta

Garg, Dr. Kartik Sharma, Sunil Aggarwal, Vijay Kumar Gupta, Kailash Deepak Hospital CMD Shashi Mohan Garg, Sanjay Chitkara and all the doctors and staff of the hospital were present.

Shashi Mohan Garg observed a 2-minute silence fast for the peace of the souls of the departed devotees during the Amarnath Yatra and prayed for the peace of their souls. Shri Garg informed that this hospital has been started of 350 beds, which will be further increased to 500 beds in future. All types of state-of-the-art facilities are available here.

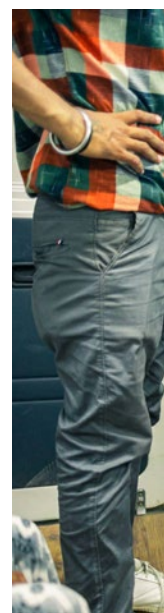
Kailash Hospital was started in the year 1990 with a small clinic in Sector-19, Noida. Now it has become a huge group. This group has a dozen hospitals in Uttar Pradesh, Rajasthan and Uttaranchal. Now the state of Delhi has also been added to this episode. This entire journey of progress is a 'success story' of selfless work done by the dedication of Dr. Mahesh Sharma. 



Free eye care facilities by Shikhar Dhawan Foundation

Shikhar Dhawan Foundation in collaboration with LensBus recently organized a community-based free eye checkup camp for the vulnerable and marginalized communities. LensBus is a free eye screening mobile van service.

The objective is to make basic ophthalmic facilities available to the neediest people deprived of eye care facilities. Awareness, Availability, and Affordability are often barriers to accessing eye care services. This can result in low uptake of eye care treatment which is a challenge. This eye screening mobile van is fully equipped with all the instruments





required for primary diagnosis of the eye and provides free spectacles and medicines simultaneously. This campaign is aimed at serving the neediest people in a holistic manner enabling them to live active, dignified, and healthier lives.


With the objective of providing comprehensive vision correction to the neediest people, LensBus visited schools for underprivileged kids, old age homes, slums, and orphanages. This camp is currently ongoing and it has already impacted more than 600 lives with check-ups, free reading glasses, and medicines.



It is being conducted across various locations in the Delhi/NCR region serving the needy

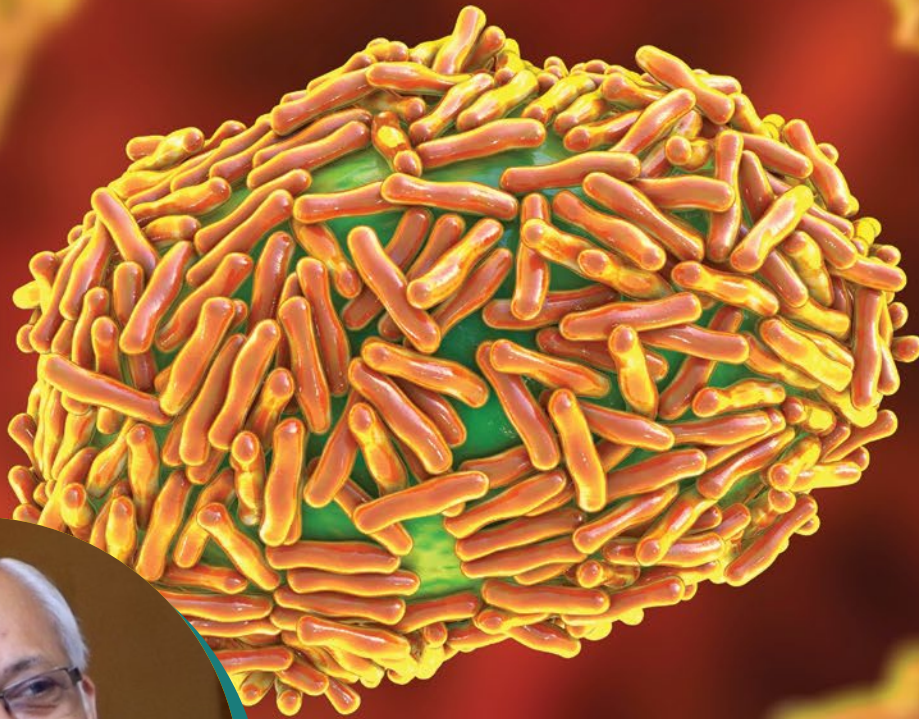
communities. This campaign covers a wide range of beneficiaries from children to old age people. Children with blindness suffer long years of disability which severely impacts their overall development and restrains them from meaningful participation in social activities. Uncorrected refractive error is one of the major reasons for visual loss among children, especially in the age group of 5-15 years with Myopia. So eye check-up for children and dispensation of spectacles continues to be a matter of concern. Yet these problems can be easily diagnosed and treated if children have access to reliable eye check-ups.

Here, the simple solution of LensBus reaching out to the children in their schools and communities is very effective. In slum areas, specific barriers need to be identified and alleviated in order to reach the goal of providing universal access to comprehensive eye care services. Cataracts and refractive errors continue to be a significant eye health concern in slum areas. The intention here is to better understand the refractive error and dispensing of spectacles to remove the visual loss in slum areas. Timely detection of eye health in old age can greatly reduce its morbidity. Elderly Patients should be encouraged to undergo eye testing on a regular basis. Eye disease and visual impairment are frequently encountered in the elderly population.

There are numerous potential causes of visual loss, however, this project aims to highlight the areas of greatest relevance and encountered most frequently in the elderly namely refractive error, cataracts age-related macular degeneration. This campaign has helped in identifying about 150 people requiring additional screening and they have been referred to a local charitable hospital in Gurgaon. 



MONKEY PDX: IS A SERIOUS THREAT???



DR AMITAV BANERJEE

Monkey pox, which is more common in children in its native africa, is showing a different epidemiology outside this continent. The surveillance data from the west suggests that it is behaving more like a sexually transmitted disease like HIV and other sexually transmitted infections.....

BY DR AMITAV BANERJEE



MONKEY POX - **EXCLUSIVE**



As Monkey pox cases have been reported and most got detected after returning from other countries.

We should know the enemy to combat the psychological warfare. As Sun Tzu, the ancient Chinese warrior philosopher says: “If you know the enemy and know yourself, you need not fear the results of a hundred battles. If you know yourself but not the enemy, for every victory gained you will also suffer a defeat.

If you know neither the enemy nor yourself, you will succumb in every battle...” Knowing the enemy the pandemic of Covid-19, which some honourable experts proclaim is not over yet, made us realize that in

contagious diseases we have to fight our battles on two fronts – the disease itself and more importantly, the psychological front which leads to panic right from the policy makers to the people causing much collateral harm.

The name monkey pox itself is a misnomer. Monkeys and humans are accidental victims of monkey pox. The name has its origins due to detection of the virus from laboratory monkeys in Denmark around 1958. The virus is found more frequently among small animals like squirrels. The virus belongs to the same family as Smallpox virus. The eruptions have some resemblance to Smallpox. However, Monkey pox is much milder and self-limiting with case fatality rate varying between 0-10%

in the African continent. Outside Africa it is near zero, perhaps due to better nutrition and access to health care. There is fever, muscle pain, swollen glands, and rashes which have to be differentiated from chickenpox, and other cases of fever with rashes.

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“Knowledge of the spirit world is to be obtained by divination, the laws of the universe can be verified by mathematical calculations, but the disposition of the enemy is ascertainable through spies and spies alone.”

killer smallpox. The cases of Monkey pox were scattered in Congo and Western Africa. The serologic and virologic studies in the 1980s by WHO in Africa had detected antibodies in very few monkeys.

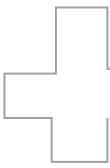
More frequently, antibodies were found in Gambian rats and elephant shrews. Most of the human cases, around 75% were among poor children who lived close to animals and handled their carcasses. Among household contacts the secondary attack rate was less than 10%. In 2003, Monkey pox infection of humans was identified in the US. This was traced to prairie dogs that were infected from African small mammals imported as exotic pets. Gambian rat, rope squirrel and dormouse from the African shipment of exotic species originating in Ghana were implicated. The biggest ever outbreak of monkey pox outside the African continent began in May 2022. By mid-July 2022, over 8000 cases had been reported from over 35 countries. **“Knowledge of the**

spirit world is to be obtained by divination, the laws of the universe can be verified by mathematical calculations, but the disposition of the enemy is ascertainable through spies and spies alone.” Thus spoke Sun Tzu in ancient times.

However, today spying has scaled up and is termed surveillance both in the military and health settings. Some insights from surveillance data from the European continent give useful insights, which can help us to form strategy against the threat of Monkey pox. The European Union together with UK had reported 6892 cases by first week of July. Majority of cases, 42%, were aged between 31 to 40 years, and interestingly, 99.5% were males. Only around 10% needed hospitalization, and only 3 (0.04%) needed ICU admissions. Interestingly 43% of those affected were HIV positive, and around half had history of other sexually transmitted infections in the past [Allied Forces!].

There were no deaths. Only 0.33% of the cases were health care workers. Genomic studies indicated that the less virulent West African strain was responsible for the outbreak. 3 In UK which had more detailed surveillance, 97% of the cases were homosexual or bisexual men. Of these, 54% had history of other sexually transmitted infections, and 31.8% had 10 or more sexual partners in the last 3 months. Implications for preventive strategy from above epidemiological intelligence. “...just as water retains no constant shape, in warfare there are no constant conditions. One who can modify his tactics in relation to his opponent, and thereby succeed in winning, may be called a heaven born captain” Sun Tzu, in Art of War.

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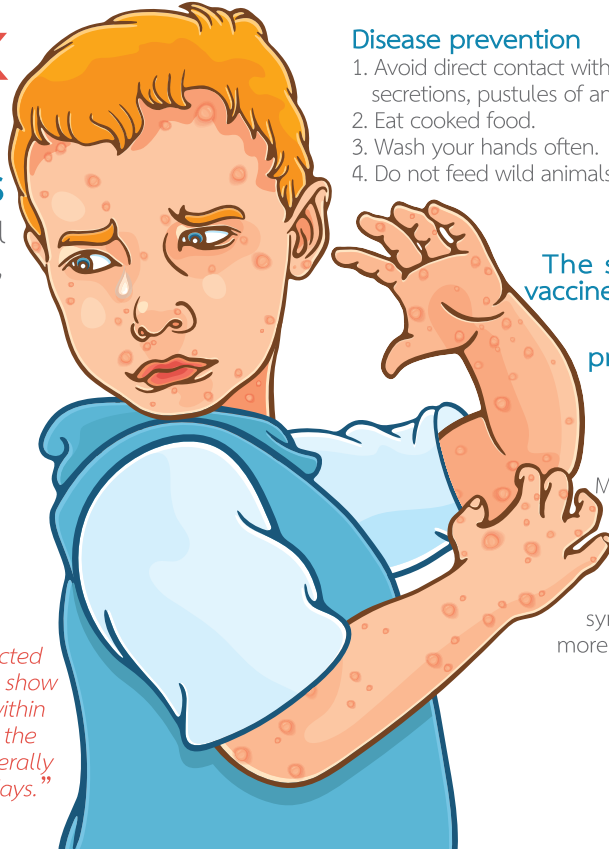
Monkeypox Can Be Transmitted From Animals To Humans

The cases were found spreading in Central Africa, West Africa, the United States, the United Kingdom, Israel and Singapore.

- Bumpy rash or pox ✓
- Fever ✓
- Severe body ache ✓
- Headache ✓
- Muscle rashes ✓
- Swollen lymph nodes ✓
- Chills ✓
- Exhaustion ✓



“Those infected with the virus show symptoms within 5 days and the infection generally lasts for 21 days.”



Disease prevention

1. Avoid direct contact with blood, secretions, pustules of animals.
2. Eat cooked food.
3. Wash your hands often.
4. Do not feed wild animals.

The smallpox vaccine provides **85%** protection.



Most of them recover from the disease themselves. Severe symptoms are more common in children.

like HIV and other sexually transmitted infections. And, fortunately, there is no fatality yet. Perhaps intimate handling of small animals and carcasses by undernourished African children makes them more vulnerable to both infection and a fatal outcome.

“To fight and conquer in all our battles is not supreme excellence. The skilful leader subdues the enemy without fighting; he captures their cities without laying siege (no lockdowns please!); he overthrows their kingdom without lengthy operations in the field.” “This is the method of attacking by stratagem of using the sheathed sword.” Sun Tzu (Promote condom use among high risk groups). With these insights, our policy makers and our people should not panic. Promotion of condom use and safe sex, avoidance






of multiple sexual partners, screening of blood donors, are all practices which we have refined over the years in our fight against AIDS. One thing in the Indian context is that while HIV transmission was more among gay males in the West, in India it was also frequent among people indulging in promiscuous heterosexual behaviour. And in North-East India, particularly

Manipur, transmission was common among injection drug addicts.

Keeping these epidemiological factors in mind, we should put in place Monkey pox surveillance among the high risk population as we have for HIV using the existing infrastructure. We should also augment our public health infrastructure so as to make our position unassailable to present and future threats. A self limiting

disease with almost zero mortality in the healthy with access to health care as the European data indicate should not be cause for panic or stigma. A good public health infrastructure will serve like a strong army to ward off future threats from emerging and re-emerging diseases without causing panic among policy makers and people leading to knee-jerk reactions and collateral harm.

“The Art of War teaches us to rely not on the likelihood of the enemy not coming, but on our readiness to receive him; not on the chance of his not attacking, but rather on the fact that we have made our position unassailable.” Sun Tzu and lastly, we have come full circle. Modified smallpox vaccine is being promoted to build up immunity against Monkey pox. Edward Jenner looking down from heaven must be amused. Jenner improvised smallpox vaccination by using fluid from the lesions of milkmaids suffering from cowpox another milder cousin of the pox family. Today we are improvising vaccination for another milder cousin Monkey pox using the smallpox vaccine! Edward Jenner must be chuckling on the fragility of humans on earth today going to great lengths to prevent a self-limiting disease. There are hundreds of viruses waiting to be discovered by virologists in the race to promote their careers and vaccine manufacturers, who have tasted success, to promote their vaccines. Do we envisage a future where we will have to take hundreds of vaccines to combat real or imagined threats? 

(The author is MD, Post Doctoral Epidemiology and presently, Prof and Head, Department of Community Medicine, Dr DY Patil Medical College, Pune.)



CONCERN - HEALTHY FOOD



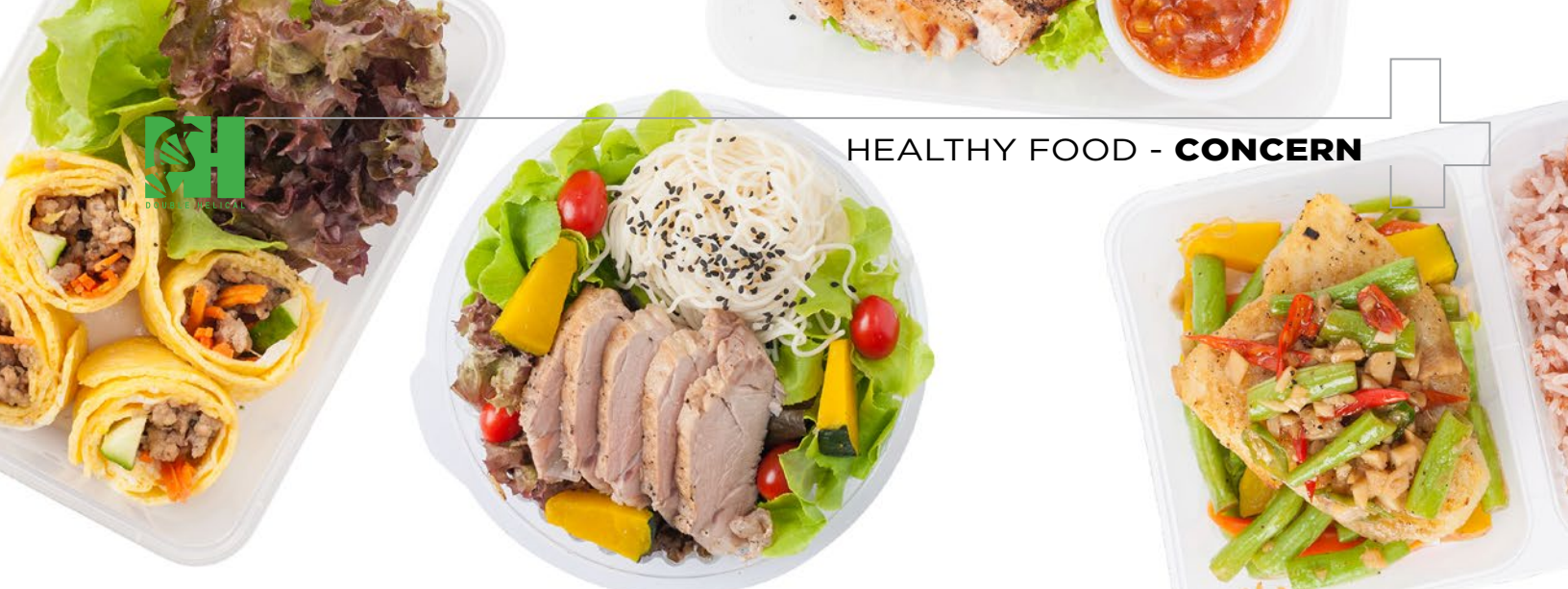
IS THE FOOD YOU BUY HEALTHY?

People deserve to know clearly and truthfully about the contents, ingredients and type of processing in the packaged foods.....

DR. SUNEELA GARG / DR ARUN GUPTA

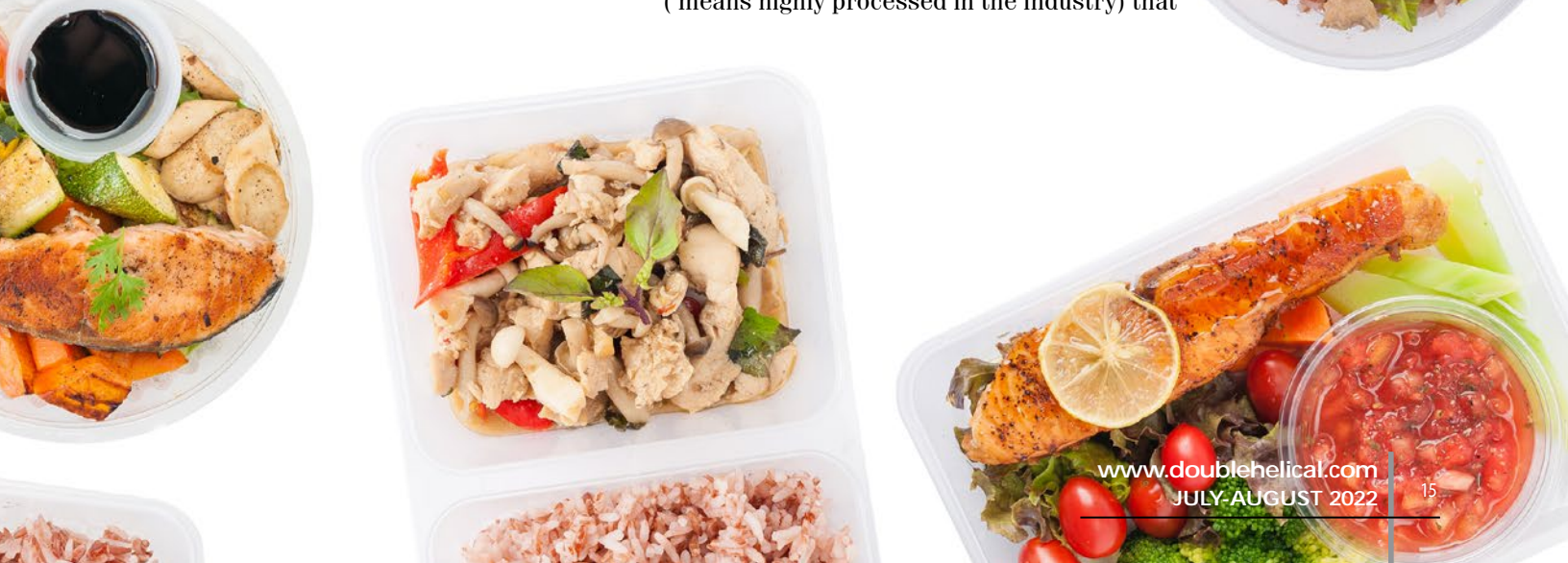


HEALTHY FOOD - **CONCERN**



Most of us are unaware that a big chunk of readymade and commonly projected as 'healthier food' we buy and eat is unhealthy. It came as a big surprise when Nestle admitted that most of its food products are unhealthy, and unsurprisingly it is trying to improve its image rather change the way food is processed, labeled or marketed. When Ronaldo pushed out the bottles of Coca Cola out of the picture frame, the news went viral and share prices of Coke dropped, alerting the brand managers to change.

Food can be either 'healthy or unhealthy. Whether a food is healthy or unhealthy depends upon to the way it is processed, amount of salt, sugar or fat it contains and the preservatives/additives added to it. Highly or ultra-processed foods (UPFs) are inherently harmful to human health. Commonly available and consumed foods like biscuits, cakes, chocolates, or noodles offer unhealthy levels of fats / salt or sugar and are 'ultra-processed' (means highly processed in the industry) that



contributes to poor health.

UPFs are usually made of more than one ingredient, made to have long shelf life, usually high in sugar, salt, or saturated fats. These food products contain ingredients we normally don't use in domestic kitchen like emulsifiers, humectants, dyes, additives, preservatives and stabilizers. These are formulated to be addictive with minimal nutrient value of real foods. These are extensively marketed with use of 'false health claims' and 'celebrity endorsements' through television and other mass/social media.

When you eat UPFs, it drives you to eat more and leads to obesity. Consumption of these foods is found to be associated with increasing type-2 diabetes, cancers, high blood pressure, cardiac disease, depression as well as frailty in the elderly population.

The Comprehensive National Nutrition Survey data revealed that among children between 5 to 19 years of age, 56% of them had cardio-metabolic risk factors (means their blood test show risk

factors), with similar prevalence in those who are believed to be undernourished. India is waiting for an epidemic of 'life style' diseases if these alarming signals are ignored now. The country will pay heavily with a very large wave of Non Communicable Diseases (NCDs) that will attack this generation of children as they grow into adults.

Although there is no dearth of literature and data on these harmful effects of UPFs, their consumption is steadily increasing, thanks to extensive and aggressive marketing by the manufacturers. According to Euro monitor, the sale of such foods has increased from 2 kg per capita in 2005, to 6kg in 2019 and is expected to grow to 8kg in 2024. Similarly, beverages have gone up from less than 2 L in 2005 to about 8 L in 2019 and expected to grow to 10 L in 2024.

SHOULD INDIA REGULATE UPFS?
The World Health Organization's (WHO) has recommended 'cut offs' for nutrient profiling to come up with easily understandable front of pack

labelling for packaged food with high fat, sugar, and/or salt (HFSS) content. The WHO cut-off points have been developed after extensive scientific review and are being applied in all parts of the world.

India needs to urgently formulate regulations and guidelines to identify and display the contents of unhealthy ingredients in ready to eat foods. The Food Safety and Standards Authority of India (FSSAI), that has been created for laying down science based standards for articles of food and to regulate their manufacture, storage, distribution, sale and import to ensure availability of safe and wholesome food for human consumption; is currently working on a regulation on display and labelling.

WAY FORWARD

Front of the Pack Labelling (FOPL) is one of the recommended core interventions to mitigate this alarming situation. FOPL system means information is located on the main display panel of the food product and it is true, clear and simple; displaying that a particular



The Food Safety and Standards Authority of India (FSSAI), that has been created for laying down science based standards for articles of food and to regulate their manufacture, storage,



Evening Snacking?



It does look tempting, but it isn't healthy

Switch to Britannia NutriChoice Digestive Biscuits. Multi-grain biscuits which are healthy and tasty. Packed with the goodness of wheat, corn, rice, lentils, ragi and honey, these 'healthyticious' biscuits control bad cholesterol, and provide you with fibre and a surplus dose of energy.




nutrient is in excess of the cut-off point. That is the only honest way to protect the consumer who is the affected party here.

The food industry being part of the policy process is a problem and situation can be described as serious conflicts of interests. Industry is trying all its means to block or circumvent the regulations to sell and market "healthier" options. It is under consideration of FSSAI and we hope cut-offs are being proposed for different categories must be in line with what WHO has proposed based on extensive scientific analysis and globally accepted in all regions of the world. Food industry usually puts the onus on the consumers for their "food preferences" for the increasing consumption of unhealthy foods but refuses to provide TRUE information of content of unhealthy ingredients in their products. It is time that we demand consumer preference. The consumer deserves to be the king and know whether the product she/he is buying could be harmful to health and then

make an informed decision to consume it or not; using their preferences.

To conclude, it is well known that UPFs are harmful to the health of people and need to be regulated. While key steps to regulate such foods are in process, it is expected that decisions are based on science and not arbitrary. This is the minimum we can do to prevent the epidemic of non-communicable diseases knocking on our doors.

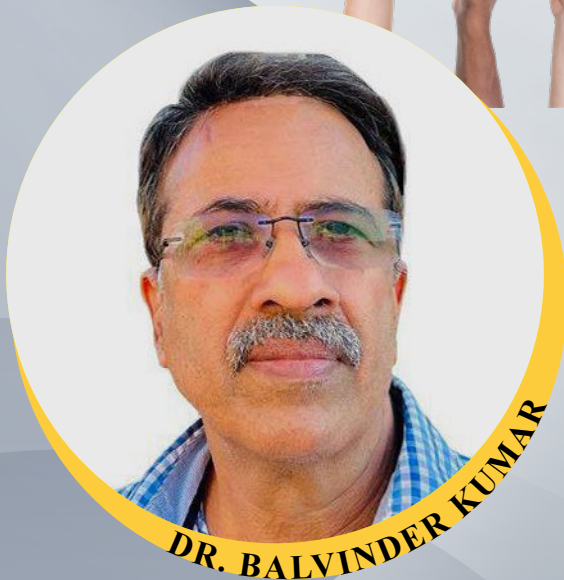
This issue needs informed debate and guidance to the existing process. And it should be free from conflicts of interests. Too much is at stake on this issue of national public health. 

The authors are Professor of Excellence, Dept of Community Medicine, Maulana Azad Medical College, New Delhi and chief Programme Advisory Committee, NIHFV/ Senior Paediatrician, convener of the Nutrition Advocacy in Public Interest (NAPI),



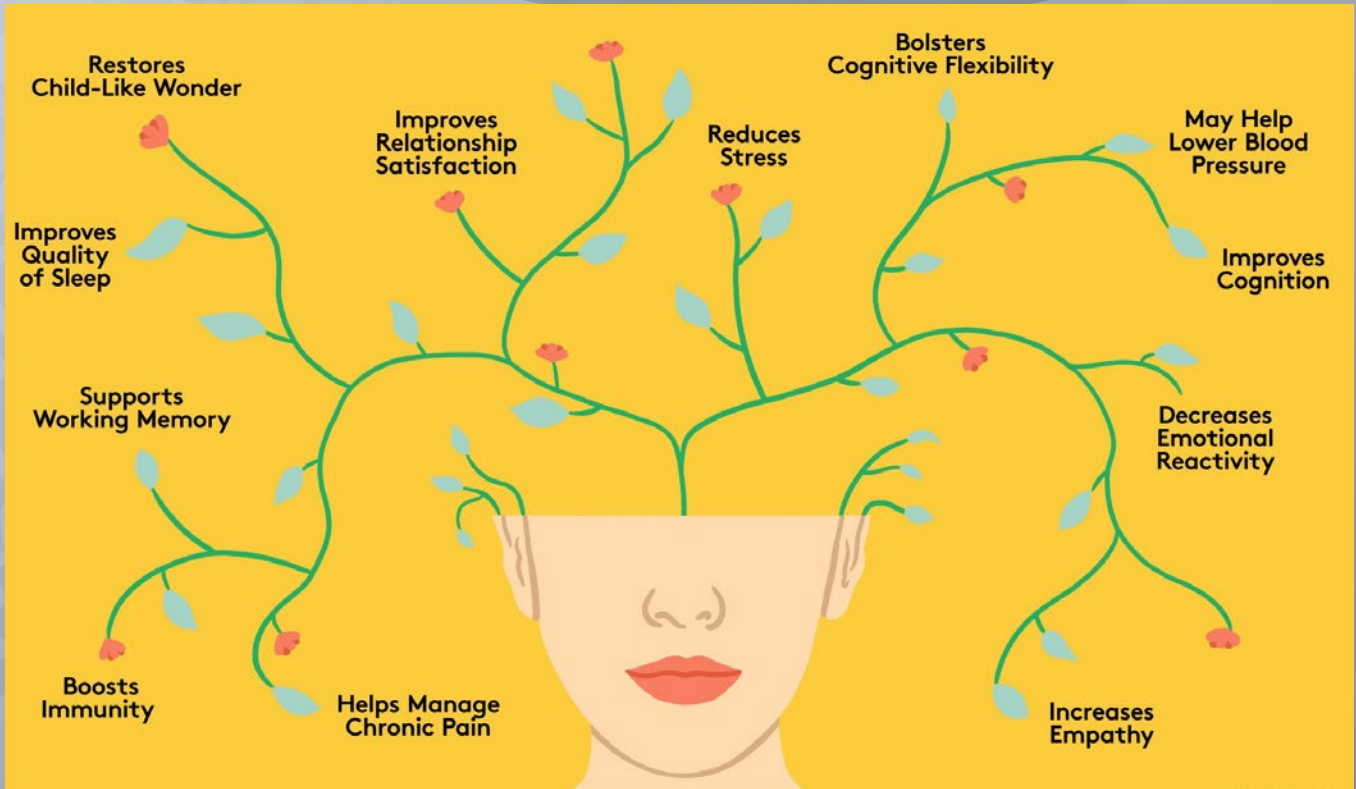
Mindfulness and Mental

Wellbeing



When we are mentally disturbed or bored with the ongoing task, mind wandering increases, it's as high as 70% when we suffer from boredom and loneliness....

**BY BALVINDER
KUMAR**



As we know that Mindfulness is emerging as a great hope for humanity in promoting mental wellbeing through self-awareness and mindful living among the masses. The mindfulness movement, being considered as a multi-billion-dollar industry, gains popularity across the world. Its key factors like Meditation and Yoga, two ancient practices, are now among the most popular alternative health practices in the United States. According to the survey conducted in 2017, nearly 14.2% of people practiced meditation, in contrast to just 4% in 2012.

More and more Fortune-500 companies have introduced mindfulness-based meditation in their workplaces. In addition, many

medical institutions and hospitals have introduced this practice to alleviate chronic stress and pain. Similarly, various forms of meditation, including mindfulness-based meditation, are becoming popular in India among a large segment of society.

Jon Kabat-Zinn, an American professor emeritus of medicine and the Centre for Mindfulness at the University of Massachusetts Medical School, USA, is responsible for making mindfulness a global movement. His initial studies on mindfulness led to the publication of a large number of research papers highlighting its benefits on physical and mental wellbeing. People then started realizing its potential for humanity as a whole. Kabat-Zinn famously remarked in a 2019 publication, “We have the potential to ignite a global renaissance catalysed by the cultivation of

mindfulness and heart fullness at this critical juncture in the arc of human evolution and development.” According to him, the cause of dissatisfaction and distress among us lies in our heads, and it’s a ‘thinking disease.’

LACK OF SELF-AWARENESS:

When we ask people in general whether they are self-aware, the answer would be positive. But you will be surprised to know that majority of us are hardly self-aware. We invariably have very little self-awareness, though we are confident of being fully self-aware. To be self-aware is a meta-skill and limited to find in ourselves. According to one psychologist and researcher, Dr. Tash Eurich, though 95% of people say they’re self-aware, only 10-15% of people actually are. It means nearly 80% of people are lying to



Yoga, two ancient practices, are now among the most popular alternative health practices in the United States. According to the survey conducted in 2017, nearly 14.2% of people practiced meditation, in contrast to just 4% in 2012.



themselves. What a great irony about us – knowing so little about ourselves but feeling so confident about possessing ‘self-awareness.’ This is also why we find it challenging to manage our thoughts and mind.

WE ARE MOSTLY NOT MINDFUL: Besides lacking self-awareness, we miss present moments in our daily lives. Our mind has an inherent tendency to wander unless we are attentive and focused on something. Even for a few minutes at a stretch, it’s extremely tough for anyone ‘to be present in the moments at hand’. Our mind starts wandering in different directions when we try to concentrate or focus on anything. Close to 50% of the time, our mind wanders. Serious efforts are required to keep our minds focused

on any activity. When we are mentally disturbed or bored with the ongoing task, mind wandering increases, it’s as high as 70% when we suffer from boredom and loneliness.

We are often not paying close attention to what’s happening in our minds and body in real-time. Being mindful is when we know what is happening in and around us. As a result, we often become mindless, impulsive, and reactive when we are not present and fully conscious of those moments. We also become prone to miss valuable experiences because we are, in a sense, not ‘awake’ during those times. The same happens when we work, eat, walk, talk to others, and so on; we are in a way ‘unconscious’ and invariably lost in our inner world.

Not being mindful has a huge cost. We tend to keep on worrying, ruminating, and getting trapped in a loop of negative, distressing, and depressive thoughts. This is the reason that these conditions may lead to mental health problems of varying degrees.

ARE WE BECOMING UNHAPPY, HIGHLY STRESSED, INTOLERANT, AND MENTALLY SICK?

There is hardly any doubt in saying that we have been, as a whole, becoming more and more mentally stressed, lonely, agitated, and dissatisfied with our life’s conditions in India. These are modern-day maladies. There is a growing feeling of emptiness and lack of meaning among a large section of society. In addition, lifestyle diseases among



us are rising sharply, making us more mentally and physically sick despite increasing life expectancy.

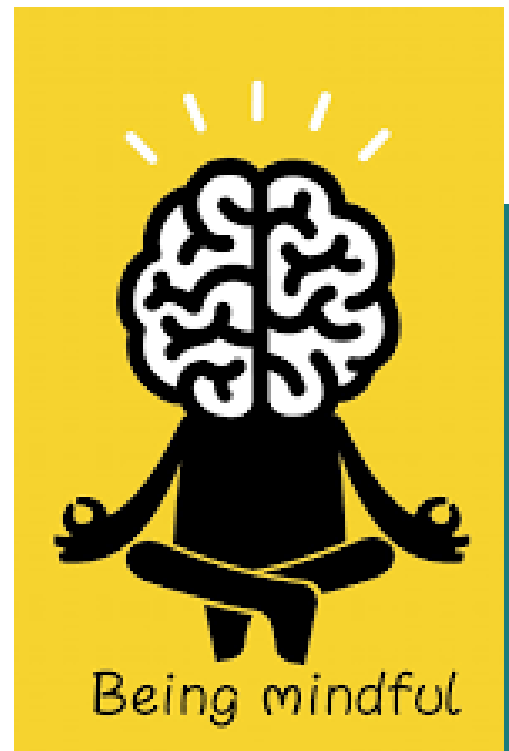
India is supposed to be the worst as far as mental stress is concerned. According to one study, more than 85% of the population suffers from mental and psychological stress. Not only mental stress but even mental illnesses are taking an epidemic shape. So we can say that our country is the worst nation for mental sickness. As per WHO (World health Organisation) report, over nine crores of Indians, or 7.5 percent of the country's population of 1.3 billion, suffer from some form of mental disorder,.

The prevalence rate could even be higher. In between, the suicide rates have become higher than murders in most countries. In India, the rate is five times high. This shows the sorry

state of affairs regarding our mental health. We are not, in general, able to manage our minds and thoughts. We are not self-aware, fully 'awake, and mindful of our inner and outer world. For that, we need to cultivate mindfulness in our lives. Mindfulness must become a part of our lives.

WHAT EXACTLY IS MINDFULNESS?

Mindfulness is nothing but our ability to be present at the moment and observe whatever is happening around us in a non-judgmental way. We experience the highest state of awareness at that time when we are attentive and focused on the moments at hand. This state is known as mindfulness. Those who experience mindfulness are aware and awake in those moments. Hence, they are conscious of the thoughts, emotions, and feelings they





Mind Full, or Mindful?

experience from time to time. Therefore, they are mindful during those times.

Mindfulness is the key to enhancing self-awareness, conscious behaviour, and mindful action in our life: When people are aware of what's happening inside their minds and surrounding environment, their behavior, emotions, and actions are not impulsive and reactive. They are not on 'autopilot mode.' Instead, they respond to the situation as per the demand of that particular moment. They are 'mindful' during those moments. Greater our self-awareness and the ability to be present more, we can start experiencing mindfulness in our day-to-day life. As a result, we begin mindful living.

It's not easy to become 'mindful' and self-aware overnight; we need to cultivate mindfulness gradually and persistently. There are many

ways to practice mindfulness, but meditation is supposed to be the most effective. The more we practice mindfulness, the more we live in the present. Once we start living mindfully, we become increasingly aware of what is happening inside our heads and outside reality. This is called meta-awareness, to be aware of our awareness. When we are stressed or emotionally disturbed, we are able to regain equilibrium much faster if we live mindfully. In other words, we recover more quickly from virtually any emotional disturbance.

When we suffer from anxiety, stress, and negative or depressing thoughts, the amygdale (region of the brain primarily associated with emotional processes.) is very active. As we practice mindfulness, the amygdale, in those moments, starts resuming normal function much

faster. As a result, persons who are mindful can effectively manage their minds and thoughts. They can, with greater ease, come out from the vicious circle of getting trapped in negative and distressing thoughts. Though we can't eliminate mind wandering all the time, through mindfulness, it starts reducing. We become more and more focused and attentive over time.

ROLE OF MINDFULNESS IN OUR MENTAL WELLBEING

There have been a large number of research studies that support the claim of having a positive impact of mindfulness in different areas of mental health, including stress reduction, emotional regulation, reduced worrying and rumination. Even it helps in alleviating symptoms in mild to moderate cases of depression and anxiety. Few studies confirm that mindfulness can benefit



|||||||
A
BAD
TUNE OF

GAMING
DISORDER

Today online games are very popular and it may be easy to get absorbed in the competition, but can they be addictive? That is a question still being debated among researchers and health professionals.....

BY ABHIGYAN/ABHINAV





In recent past two incidents of internet gaming addiction turning minors into criminals have come to the force in the capital city Lucknow of Uttar Pradesh.

While in the first case, a boy stole Rs 4.5 lakh from his house to pay for the game, in the second case, the boy went on to kill his mother. In another incident, a 16-year-old boy killed his cousin in Nagaur, Rajasthan to pay off debts

he incurred through online video games. A 14-year-old boy killed himself by hanging in Central Mumbai over issues related with too much gaming.

As per report, several cases are reported every month in which kids are found to be turning violent because of such gaming addictions. It has been found that though they are addicted to an alarming level, these children do not consider their behavior a problem. In fact, even their parents do not react to their behavior.

Dr. Nimesh G Desai, Former, Director, Institute of Human Behavior and Allied Sciences, Delhi. said, “it is only when they develop mental/physical disorders, they are brought to the clinic. The number of children addicted to gaming might even be more as the parents only visit when these children become very violent. If such children are counseled on time,

such issues can be resolved easily; the most worrisome fact about these games is that there is no end to it.”

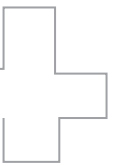
“If you clear one level, you are introduced to another challenge. This keeps the young people captivated round the clock, and they get socially alienated. Further elaborating on battle games, the young mind begins to think that he is getting powerful in the real world also”, he added.

“The parents need to watch if the child is getting aggressive when he is not allowed to watch a show or play an online game on mobile, laptop. If they refuse to eat, and get stubborn with their demands, consider the situation alarming, while claiming that many children who were addicted to such games became normal after a few counseling sessions. .” Dr. Nimesh G Desai, added



“The parents need to watch if the child is getting aggressive when he is not allowed to watch a show or play an online game on mobile, laptop. If they refuse to eat, and get stubborn with their demands, consider the situation alarming,

Dr. Nimesh G Desai



WHAT IS GAMING DISORDER?

Dr Mina Chandra, Professor and Head of department of Psychiatry, Dr Ram Manohar Lohia Hospital, New Delhi, said, “Gaming disorder is defined in the 11th Revision of the International Classification of Diseases (ICD-11) as a pattern of gaming behavior both digital-gaming and video-gaming characterized by impaired control over gaming, increasing priority given to gaming over other activities to the extent that gaming takes precedence over other interests and daily activities, and continuation or escalation of gaming despite the occurrence of negative consequences.”

“World Health Organization has already recognized that online game addiction is a mental health disorder as pattern of persistent or recurrent gaming behavior so severe it takes precedence over other life interests. As per a study, about 3.5% of Indian adolescents suffer from Internet gaming disorder (IGD). The rate is 0.5% higher than the global average. Indian studies show that 8% boys and 3% girls fall in the IGD bracket.”, **Dr Mina Chandra,** added.

Internet gaming disorder refers to the problematic use of on-line or off-





“The parents need to watch if the child is getting aggressive when he is not allowed to watch a show or play an online game on mobile, laptop. If they refuse to eat, and get stubborn with their demands

line video games. Presently the prevalence of IGD among the adolescent group was between 1.3% to 19.9% and males reported more prevalence than females. An aim of this study was to know the prevalence and the various factors associated with the development IGD among adolescents.

Dr. Rushi Tamanna, Head of the Department Clinical Psychology Service, RML Hospital, New Delhi, said, “The gaming disorders can also be linked with anxiety, depression, obesity, sleeping disorders, and stress. People who remain physically inactive for long periods because of gaming may also be at higher risk of obesity, sleep disorders, and other health-related issues. The researchers found that 0.3 to 1.0 percent of the general population might qualify for a potential diagnosis of internet gaming disorder.”

The prevalence differences between age groups, gender, class of the student and availability of smart phone with internet facility act as an important risk factors for the occurrence of IGD among adolescents..



The International Classification serves to record and report health and health-related conditions globally. ICD ensures interoperability of digital health data, and their comparability. The ICD contains diseases, disorders, health conditions and much more. The inclusion of a specific category into ICD depends on utility to the different uses of ICD and sufficient evidence that a health condition exists.

According to Dr. Rushi Tamanna, for gaming disorder to be diagnosed, the behaviour pattern must be severe enough that it results in significant impairment to a person's functioning in personal, family, social, educational, occupational or other important areas, and would normally have been evident for at least 12 months.

A decision on inclusion of gaming

disorder in ICD-11 is based on reviews of available evidence and reflects a consensus of experts from different disciplines and geographical regions that were involved in the process of technical consultations undertaken by WHO in the process of ICD-11 development. Further research showed that there is a need to standardize gaming disorder.

Dr Mina Chandra, added, "The inclusion of gaming disorder in ICD-11 follows the development of treatment programmes for people with health conditions identical to those characteristic of gaming disorder in many parts of the world, and will result in the increased attention of health professionals to the risks of development of this disorder and, accordingly, to relevant prevention and

treatment measures".

The report reveals that gaming disorder affects only a small proportion of people who engage in digital- or video-gaming activities. However, people who partake in gaming should be alert to the amount of time they spend on gaming activities, particularly when it is to the exclusion of other daily activities, as well as to any changes in their physical or psychological health and social functioning that could be attributed to their pattern of gaming behaviour.

Internet Gaming Disorder is defined by a persistent and recurrent involvement with videogames, often leading to significant impairments of daily, work and/or educational activities. Internet gaming disorder as a syndrome in which one



experiences a loss of interest in other social activities, loss of relationships, educational or career opportunities, gaming in order to relieve or escape anxiety, guilt or other negative mood states over a twelve month period. Additionally, researchers have established the negative impact on one's sound mental health, including loneliness, depression and even suicidal thoughts, resulting from excessive digital gaming especially in the last two years of the pandemic when everyone was forced to remain indoors. It was then that there was a significant rise in the number of gaming app downloads across India.

The symptoms of internet gaming disorder include preoccupation with gaming, withdrawal symptoms when gaming is taken away or not possible (sadness, anxiety, irritability), tolerance, the need to spend more time gaming to satisfy the urge, inability to reduce playing and unsuccessful attempts to quit gaming.

Internet gaming disorder has been a controversial entity with various opinions about its clinical relevance as an independent mental disorder. This debate has also included discussions about the relationships between problematic gaming, various psychiatric disorders, and personality traits and dimensions. This paper outlines a developmental-theory based model of Internet gaming misuse inspired by the treatment of two adolescent inpatients.

Addiction to gaming is described in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-5), which is used by mental health professionals to diagnose mental disorders. There was not sufficient evidence to determine whether the condition is a unique mental disorder or the best criteria to classify it at the time the DSM-5 was published in 2013. However, it recognized internet gaming disorder in the section recommending

conditions for further research, along with caffeine use disorder and other conditions.

The DSM-5 includes substance-related addictive disorders, such as alcohol, tobacco, stimulants, marijuana and opioids. Gambling disorder is the only behavioral addiction, so if you are concerned for yourself or a loved one about preoccupation with gaming and related problems, you should contact health care provider or a mental health professional.

The DSM-5 notes that gaming must cause "significant impairment or distress" in several aspects of a person's life. This proposed condition is limited to gaming and does not include problems with general use of the internet, online gambling, or use of social media or smartphones.

Under the proposed criteria, a diagnosis of internet gaming disorder would require experiencing five or more of these symptoms within a



year. The condition can include gaming on the internet, or on any electronic device, although most people who develop clinically significant gaming problems play primarily on the internet.

Whether internet gaming should be classified as an addiction/mental disorder is the subject of much debate and a growing body of research. There is neurological research showing similarities in changes in the brain between video gaming and addictive substances.

According to a report, the validity and reliability of the criteria for internet gaming disorder, compare it to research on gambling addiction and problem gaming, and estimate its impact on physical, social and mental health. The study found that among those who played games, most did not report any symptoms of internet gaming disorder and the percentage of people that might qualify for internet gaming disorder is extremely small.

The research involved several studies of adults in the U.S., United Kingdom, Canada and Germany. They

found more than 86 percent of young adults ages 18 to 24 and more than 65 percent of all adults had recently played online games. The percentages of men and women who recently played was roughly equal. However, the research is mixed on whether those who met the criteria for internet gaming disorder had poorer emotional, physical and mental health than those who did not meet the criteria.

The two clinical vignettes illustrate distinct developmental pathways like an internalized pathway through the development of social anxiety, emotional and behavioral avoidance and an externalized pathway with a low level of emotional regulation strategies and impulsivity. In both clinical cases, attachment issues played a key role to understand the specific associations of risk and maintaining factors for IGD, and gaming behaviors may be seen as specific forms of maladaptive self-regulatory strategies for these two youths. These clinical observations support the assumption that gaming use problematic in adolescents should be viewed with a developmental

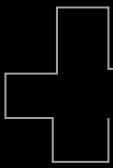
approach, including key aspects of emotional development that represent significant targets for therapeutic interventions.

Adolescence represents a period of vulnerability for the emergence of addictive behaviors with a peak of the incidence during the transition into young adulthood.

Developmentally, teens are focused on establishing autonomy and identity through sets of social experiences within peer groups. The need to integrate multiple, and somewhat conflicting, demands and developmental needs may result in interpersonal conflicts and emotional distress. In this context, addictive behaviors can emerge as a means of developing a new sense of identity within a peer group and relieve emotional distress. While the starting point of addictive behavior is often during adolescence, etiological factors are rooted in childhood, especially early-environmental factors and cognitive and socio-emotional dysfunctions.

The definition of IGD eludes any developmental perspectives. How do





CAUSES OF GAMING DISORDER

By Dr Rushi Tamanna

For gaming disorder to be diagnosed, the behavior pattern must be severe enough to significantly affect a person's functioning in personal, family, social, educational, occupational, or other significant domains, and it must have been present for at least a period of 12 months.

CAUSES

ESCAPISM

According to numerous researches, mental health conditions like depression, anxiety, and stress as well as gaming disorder may co-occur. Users who struggle with these underlying problems may develop the habit of playing video games excessively because it allows them to escape from the uncomfortable emotions they experience; in some cases, this may be the only thing that helps them feel better. The emotional, physical, social, and mental health of those who meet the criteria for gaming disorder is frequently worse.

DOPAMINE DESENSITIZATION

The act of playing video games is more addictive than the actual games (and its effect on our brains). This is due to the fact that

playing video games is very stimulating and results in the release of large amounts of dopamine.

This elevated dopamine makes the gamer feel good in the moment; it can eventually cause their brain receptors to become desensitized. To achieve the same degree of satisfaction as before, they must play more frequently and for longer periods of time.

SENSE OF BELONGING

Building communities and virtually connecting with like-minded people can be accomplished through multiplayer gaming. This is es-

pecially true if you naturally lean toward introversion or experience anxiety in face-to-face social situations. Video games provide social contact that can be had without having to physically engage in a conversation with others. For people who are introverted or have social anxiety, connecting online is particularly appealing due to its anonymity.

INSTANT GRATIFICATION

Video games generate challenges that are easy to accomplish and consistent, which divert us from achieving meaningful goals





outside of gaming. Also people typically tend to feel happy after finishing tasks.

As people experience immediate gratification for achieving these in-game successes, gaming can be addictive. This incentive mechanism eventually results in reinforced behaviour (e.g., more gaming).

RISKS, CONCERNS AND NEGATIVE IMPACTS OF GAMING DISORDER

Even while the majority of the symptoms described appear to have only temporary impacts on

“

VIDEO GAMES GENERATE CHALLENGES THAT ARE EASY TO ACCOMPLISH AND CONSISTENT, WHICH DIVERT US FROM ACHIEVING MEANINGFUL GOALS OUTSIDE OF GAMING. ALSO PEOPLE TYPICALLY TEND TO FEEL HAPPY AFTER FINISHING TASKS.

”

those with gaming condition, if the addictive behavior is not treated, they may cause long-term problems. For instance, while skipping sleep and eating poorly may initially cause short-

term exhaustion, hunger, or weight gain, if these symptoms persist, they might develop into much more serious sleeping disorders or diet-related health difficulties. Additionally, the social isolation that

addicted gamers face might lead to them losing all of their friends and destroying their relationships in the long run.

Additionally, gaming disorder has negative effects on finances, employment, and education. The expense of the equipment and the required high speed internet might add significantly to the financial difficulties. Additionally, the time spent concentrating on playing the games can eat up time that could be spent on academics or a profession.

Drug abuse is another significant concern for those with gaming disorders. Since depression and gaming disorder are strongly correlated, many addicts may find themselves receiving antidepressant prescriptions and using them. Because these medicines are difficult to quit using because of the withdrawal symptoms that arise, such as nausea, anxiety, irritability, and, in extreme circumstances, greater depression, an addiction to them may develop. Additional substance misuse problems could arise as a result of the addict's lack of concern for their health.

PRACTICAL ADVICE AND GUIDANCE TO PREVENT VIDEO GAME ADDICTION

To keep the amount of time spent gaming under control; try these tips for adults and kids alike:

1: Recognize and Admit Your Video Game Addiction. Avoid internalizing the issue by repeatedly telling yourself, "I'm a video game addict," and criticising your previous actions. This will only make you feel more depressed after these negative feelings often lead to more escapism). Adopting the label "addict" offers an "exit"



- whenever times are difficult (i.e., I'm a "addict," hence I can't control myself). Better not to attempt.). The first step is thus self awareness and self honesty.
- 2: Set time limits for play and stick to them.
 - 3: Keep phones and other gadgets out of the bedroom to not play during the night.
 - 4: Try apps or browser extensions to block your access to games
 - 5: Ask friends and family to check in with you from time to time to make sure you're not playing games when you're supposed to be doing other things
 - 6: Consider playing video games a reward for finishing other duties. Make a promise to prioritize those critical tasks first if your gaming is getting in the way of your need to do your homework, chores, or other tasks.
 - 7: If you play games when you're stressed, try other hobbies that can help you relax. When you use gaming as an escape

- from problems that are stressing you out, a gaming addiction may occasionally result. Develop some alternate coping mechanisms so that you have them on hand for times when you feel overwhelmed.
- 8: Do other physical activities every day, including exercise. This will lower the health risks of sitting and playing for long stretches of time.
 - 9: Schedule proper breaks and become conscious of your screen time usage.
 - 10: Schedule daily self-care time. Serious gaming addiction can make it difficult for you to meet your own basic needs. In turn, neglecting your health might make you feel exhausted and uncomfortable, which may drive you to take comfort in your game.

(The author is Associate Professor and Head Department of Clinical Psychology, Atal Vihari Vajpayee Institute of Medical Sciences and Dr Ram Manohar Lohia Hospital, New Delhi)



most of the literature devoted to severe gaming misuse in adolescents comes from studies conducted in general populations, Internet-recruited samples, or outpatient clinics. Only anecdotal reports exist concerning youths with severe psychiatric disorders.



the clinical significance, the natural course, and the therapeutic strategies for IGD vary across age? Indeed, one may think that the impact of severe gaming misuse will depend on how this behavior interferes with normal developmental changes observed at the biological for example cerebral maturation, cognitive like emotion regulation, motor inhibition, psychological like identity formation and social roles construction), and environmental (e.g., academic/professional success, peer and family relationship) levels in a specific time window. The developmental

view focuses more specifically on when and how such that vulnerability factors interfere and may form distinct susceptibility pathways to gaming misuse and/or psychopathology.

YOUTHS WITH SEVERE PSYCHIATRIC DISORDERS

Dr Rushi Tamanna says that most of the literature devoted to severe gaming misuse in adolescents comes from studies conducted in general populations, Internet-recruited samples, or outpatient clinics. Only anecdotal reports exist concerning youths with severe psychiatric disorders. However, in



COVER STORY - GAMING DISORDER



hours of online games per week, during specified times, and made the industry responsible for enforcing the restriction.

In India, legal focus has been on recent laws in the southern States seeking to ban online games such as rummy, poker or even fantasy sports which offer prize money or financial stakes. Kerala High Court quashed such a law in the State, accepting the industry's stance that, as games of skill rather than chance, they should not trigger bans on gambling.

However,



this last group, the aggregation of academic problems, social withdrawal, and the severity of internalized symptoms puts them at very high risk of developing gaming misuse. Moreover, if Internet gaming misuse alters the course of psychiatric symptoms in youths with severe psychiatric disorders, recognizing and treating dual diagnoses would represent a clinically relevant proposal.

Dangers go beyond the monetary motivations of online gambling

Mahesh Shankar, 15-year-old in Kanpur, UP, got a personal smartphone for the first time last year when schools were closed due to the COVID-19 pandemic and online classes began. Within six months, he was on the phone for more than seven hours each day, not for classes but rather to binge on online games.


Worried about the sudden behaviour changes in their teenager — insomnia, withdrawal from social contacts, academic failure, and extreme anger and irritability — his parents took him to the Institute of Human Behavior and

Allied Sciences, New Delhi. Their son was diagnosed with gaming addiction, a disorder that is quickly growing as the pandemic spurred an increased use of Internet devices.

According to the All India Gaming Federation, India's online gaming industry is expected to be worth 15,500 crore by 2023. A 2019 survey by the U.S.-based Limelight Networks found that India had the second largest number of gamers after South Korea, and while time spent online is still not as high as in other countries, it found that almost a quarter of adult Indian gamers had missed work while playing games.

The World Health Organization categorized gaming disorder as a mental health condition in 2018, but as the pandemic increased screen time across age groups, concerns have been growing. Last month, China limited gamers under 18 years to just three

worried parents, psychiatrists and mental health advocates warn that the dangers go well beyond monetary motivations.

Psychiatrists recommend that as a bare minimum, statutory warnings and mandatory breaks should be enforced to prevent binge gaming. Among those who are just beginning excessive use, enforcing breaks after a stipulated time will improve control and prevent bingeing. But among those already addicted, it may not help, as they will just log on a different platform or using a different user name. 

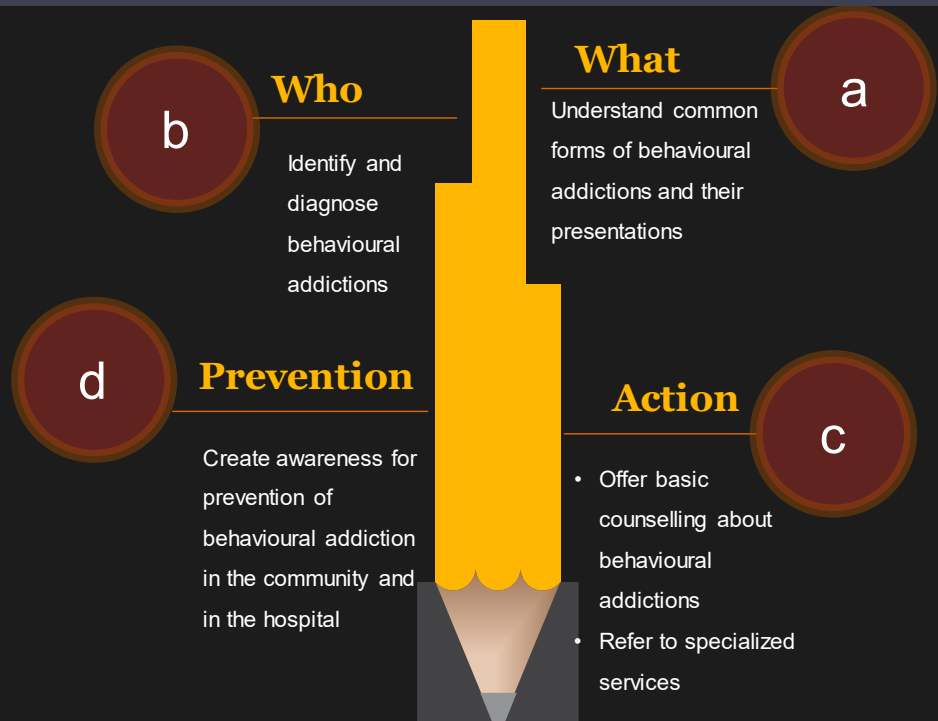


BEHAVIOURAL ADDICTION

National Programme for Tobacco Control and Drug Addiction Treatment, MoHFW, GOI



By the end of this module, the physician should be able to:





BEHAVIOURAL

Introduction: what is Behavioural Addiction?



- Behaviours, besides psychoactive substance use, that produce short-term rewards leading to persistence in the activity despite adverse consequences/interference in several domains of life
- Characterized by a recurrent pattern, **it is analogous to substance addiction wherein both have:**
 - Onset in adolescence and young adulthood
 - Higher rates in younger age groups
 - Impaired ability to control and narrowing repertoire of other pleasurable activities
 - Socio-occupational, financial, legal, familial and marital problems are common
 - High rates of co-occurrence and increased rates of co-morbid psychiatric disorders

Introduction: status magnitude

- It include pathological gambling, both online and offline
- **Pathological gambling:** Risking something of value for the chance of a greater gain. Can be luck based (lottery), or skill based (Poker, sports betting, lotteries, and casinos (in some states only)- are

1.5% prevalence of problem gambling worldwide

7.4% prevalence of problem gambling among high-school/college students; Ind

Diagnosis and screening: Pathological gambling



- **ICD10** criteria for pathological gambling
 - Repeat (two or more) episodes of gambling over a period of at least one year
- **Problem Gambling Severity Index** (self-assessment based on the Canadian Problem Gambling Index)
 - 9-item self-administered questionnaire
 - Evaluates behaviour in past 12 months
 - Maximum score of 27

Problem Gambling Severity Index



Each question is scored

Scoring analysis:

- 0 = Non-problem
- 1 or 2 = Low level
- 3 to 7 = Moderate
- 8 or more = Prob

1. When you think of the past year, how often did you bet more than you could afford to lose?
2. When you gambled, did you ever feel the need to try to win back the money you lost?
3. Have you borrowed money to gamble?
4. Have you felt that you must gamble to feel better?
5. Has gambling caused you any problems, including stress or anxiety?

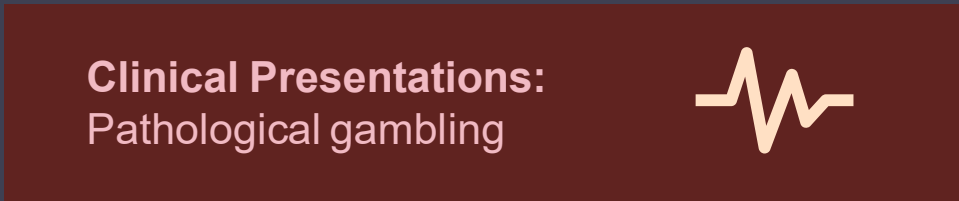


ADDICTION



and Internet addiction
 value in hope of gaining something of greater value.
). Most forms of gambling - except for games of 'skill'
 illegal in India (**Public Gaming Act India, 1867**).

ence of among lege ia	Men gamble more frequently and wager larger amounts
	Recreational gamblers tend to be younger; higher associate complications



Clinical Presentations: Pathological gambling

People with pathological gambling often

- Suffer from emotional impact due to uncertainties in gambling
- Lie to family members and others, may commit illegal acts, such as theft, embezzlement, to either fund their addictive behaviour or cope with its consequences
- Feel the need to gamble more in terms of time and/or money

ed: 0 Never; 1 Sometimes; 2 Most times; 3 Almost always

gambling.

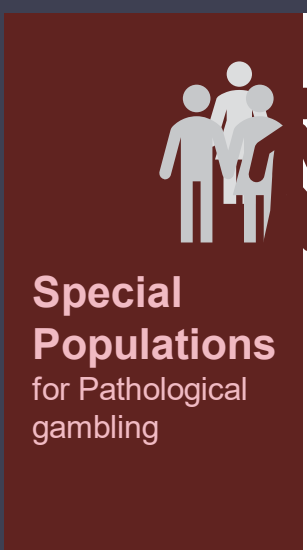
of problems, few/ no identified negative consequences.

level of problems leading to some negative consequences.

em with negative consequences; possible loss of control

9-item self-administered questionnaire

ast 12 months, have you really afford to lose?	6. Still thinking about the last 12 months, have you needed to gamble with larger amounts of money to get the same feeling of excitement?
you go back another day money you lost?	7. Have people criticized your betting or told you that you had a gambling problem, regardless of whether or not you thought it was true?
ey or sold anything to get	8. Has your gambling caused any financial problems for you or your household?
ight have a problem with	9. Have you felt guilty about the way you gamble or what happens when you gamble?
ou any health problems, ty?	



Special Populations for Pathological gambling

Adolescents: susceptible to becoming pathological gamblers due to difficulty in accessing funds, leading to criminal activities.

Elderly: Lack of structure, social support, cognitive decline increases probability of gambling behaviour

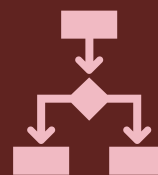
Prison populations: the risk of the pathological gambler is elevated in incarcerated populations due to limited sources of entertainment and increased probability of interacting with past gamblers as inmates

Females: Female pathological gamblers describe loneliness/ relationship problems as precipitants of their gambling. Women progress rapidly to problem gambling and experience related complications to a greater extent



BEHAVIOURAL

Management for Pathological gambling



- Focus on establishment of diagnosis followed by largely non-pharmacological management.
- No medicine approved for BA management; pharmacological management with in those from comorbid psychiatric disorders.
- For primary care physicians, identification of gambling disorder in vulnerable clinical population and referral to specialized care is required.
- Involvement of family members in the treatment process and brief intervention
- Self-help groups like Gambler's Anonymous (GA) and psychotherapy have been helpful
- Cases requiring intensive intervention and with comorbidity, may be referred to specialised services

Understanding Internet addiction

- **Internet addiction:** inability to control one's use of the internet and its consequences in daily life

0.3-0.4%
prevalence across different populations

1.3%
prevalence of internet addiction; India

Clinical Presentations: Internet addiction



Five subtypes of internet addiction:

1. **Cyber-sexual addiction:** engaged in viewing, downloading and trading online pornography
2. **Cyber-relational addiction:** overly involved in online relationship (chat-rooms, social networks)
3. **Net compulsions:** gambling, shopping, trading online
4. **Information overload:** excessive web surfing and information and database search
5. **Computer addiction:** overly engaged with pre-programmed games

Clinical Presentation symptoms of internet

- Preoccupation with Internet activities
- Increasing tolerance
- Development of psychological dependency
- Inability to reduce internet use
- Internet use to cope with negative moods and
- Replacing other activities and relationships with deleterious consequences.

Excessive Internet use among young people has negative consequences on physical and mental health



ADDICTION

Internet

... of the Internet which leads to negative

2.9% male	Reported more commonly in Asian countries and among males aged 12-20 years
1.7% adolescents	
0.6% female	

Understanding key risk factors of Internet addiction

- Male gender
- Staying in private accommodation
- Lesser age of first Internet use
- Using mobile for Internet access,
- Higher expenditure on Internet
- Staying online for longer time
- Using Internet for social networking, online videos, and watching website with sexual content

Signs: addiction

... and withdrawal symptoms

... and reduce stress

... with recurrent internet use despite awareness of the

... g adults and adolescents associated with ... and psychological health; and academic performance

Screening: internet addiction

Internet Addiction Test (IAT)-

- self-administered tool to measure addictive use of Internet
- Consists of 20 items, each scored from 0 to 5 for increasing frequency
- Maximum score up to 100
- Score measures mild, moderate and severe level of Internet Addiction (represented in table below)

Score	Inference
20-39	Average online user
40-69	Experiencing occasional/frequent problems
70-100	Greater level of addiction



BEHAVIOURAL



Special Populations for internet addiction

Children and adolescents: those vulnerable/ at risk are ones:

- Experiencing low self-esteem,
- high pressure to perform in academics,
- poor adult supervision,
- low parental involvement,
- deficient real-life social skills
- lack of emotional and psychological support

Management for internet addiction

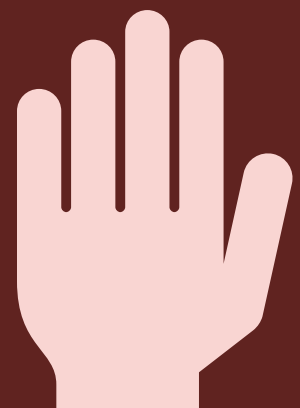
- Abstinence from the internet is not the goal for internet addiction
- Focus on:
 - Abstinence from problematic applications
 - Controlled and balanced internet usage
- Treatment consists of combined pharmacological and psychological interventions



Psychosocial management: internet addiction

Cognitive - behavioural therapy for internet addiction:

- Practice opposite time of Internet use
- Use external stoppers
- Set goals (with regard to the amount of time)
- Abstain from a particular application
- Use reminder cards
- Develop a personal inventory
- Enter a support group
- Engage in family therapy



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ADDICTION

Internet

Interventions

Pharmacological and non-pharmacological approaches

Pharmacological treatment: internet addiction

- As yet, no systematic guideline or treatment algorithm for medication has been established for internet addiction.
- Various medications have been tried but the mainstay of intervention is non-pharmacological treatment.

...es of behavioural addiction (gaming disorder or Internet addiction) requiring more intensive intervention and those with comorbidity may be referred to specialised services.

SUMMARY FLOW CHART

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    graph LR
      A[Screen patients in Primary care settings for Behavioural Addiction] --> B[Assess and diagnose Behavioural Addiction]
      B --> C[Provide Brief counselling for motivation and behaviour change]
      C --> D[Referral if symptoms do not improve or in cases with comorbidity]
    
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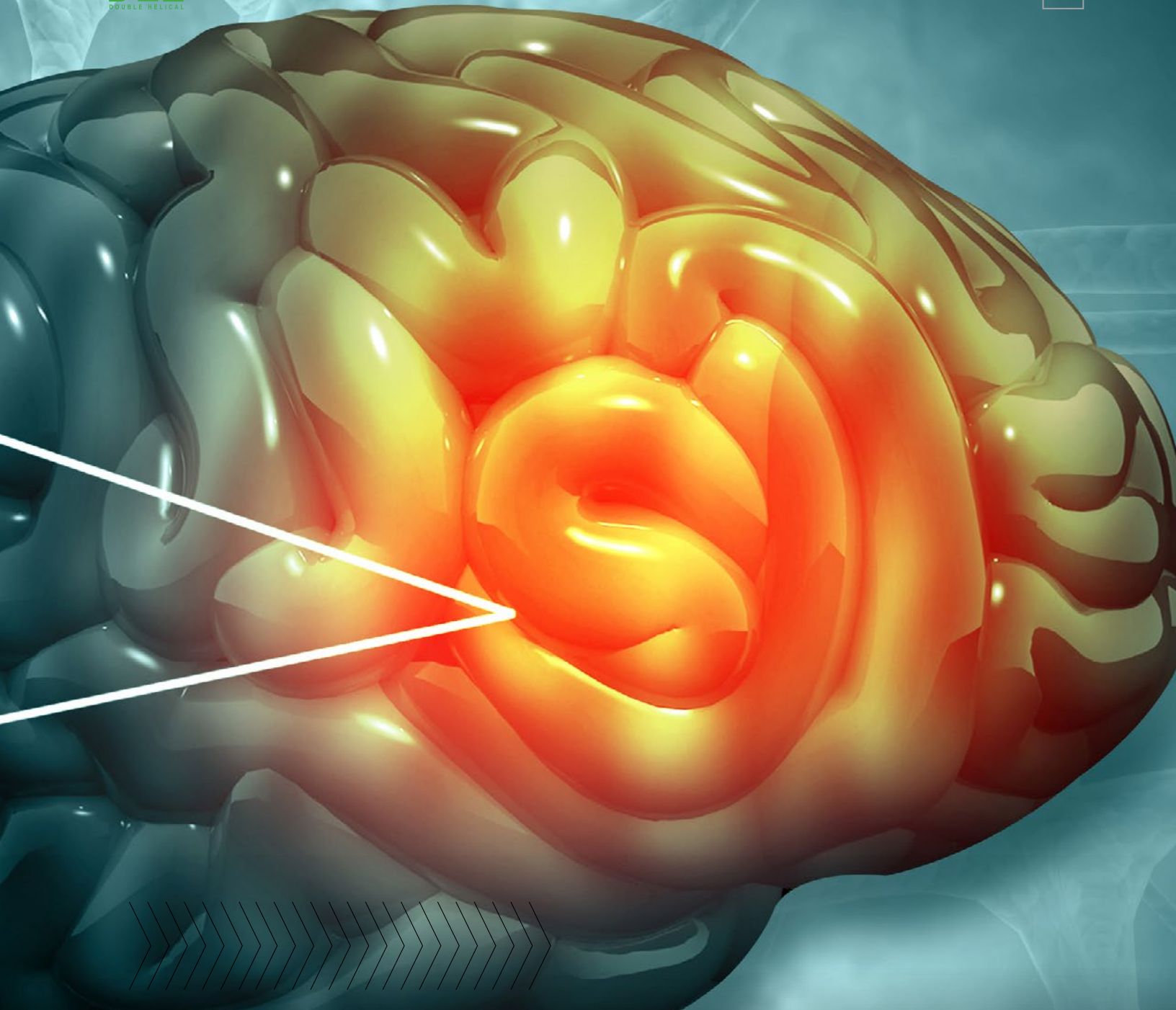
EXCLUSIVE - BRAIN TUMOUR



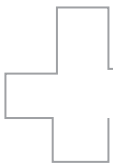
BRAIN TUMOUR



Early symptoms can be subtle or obvious, depending on the type, size, and location of the tumour. However, just because a person has these problems, doesn't mean he or she has a brain tumour. Early



symptoms of brain tumours can be vague or dramatic, depending on the tumour size, type, and location. No one knows what causes brain tumours; there are only a few known risk factors that have been established by research.....
BY DR ARUN SHARMA



The persistent signs and symptoms like headaches that gradually become more frequent and severe, unexplained nausea or vomiting, vision problems like blurred vision, double vision or loss of peripheral vision, gradual loss of sensation or movement in an arm or a leg, difficulty with balance in walking or sitting, speech difficulties and confusion in everyday matters are all

possible symptoms of a brain tumour. As per report, approximately 30,000 new primary brain tumours are diagnosed each year in India. Age is also a risk factor. The incidence of brain tumours is rising steadily in India. No age group is spared from brain tumours. Abnormal and uncontrolled growth of cells in brain is called a brain tumour. Although such growths are popularly called brain tumours, not all brain tumours are

cancerous. Cancer is a term reserved for malignant tumours.

How quickly a brain tumour grows can vary greatly. The growth rate as well as location of a brain tumour determines how it will affect the function of your nervous system. Brain tumour treatment options depend on the type of brain tumour the patient has, as well as its size and location.

TYPES OF BRAIN TUMOURS



No single country ever can claim to handle such a crisis. Some may have excellent infrastructure, some may have pharmaceutical hubs, some may have excellent research institutes

There are two main types of brain tumours- primary and secondary/metastatic. Primary tumours originate in the brain. Metastatic tumours originate elsewhere in the body and reach the brain and grow there. Malignant tumours can grow and spread aggressively, overpowering healthy cells by taking their space, blood, and nutrients. They can also spread to distant parts of the body.

Benign tumours are non cancerous

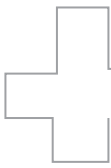
and malignant tumours are cancerous.

Many different types of brain tumours exist. Primary brain tumours have many types. Each gets its name from the type of cells involved. Among them, Gliomas arise from glial cells and include astrocytomas, ependymoma, glioblastomas, oligoastrocytomas and oligodendrogliomas. Non glial tumours develop from meninges, nerves, blood vessels or certain glands.

Meningiomas arises from the membranes that surround the brain and spinal cord (meninges). Most meningiomas are noncancerous. Acoustic schwannomas are benign tumours that develop from the nerves that control balance and hearing. Pituitary adenomas are mostly benign tumours that develop in the pituitary

gland at the base of the brain. These tumours can affect the pituitary hormones with effects throughout the body. Medulloblastomas are the most common cancerous brain tumours in children. A medulloblastoma starts in the posterior part of the brain and has a tendency to spread through the spinal fluid. These tumours are less common in adults, but they do occur.

Primitive Neuroectodermal tumours (PNETs) are rare, cancerous tumours that start in embryonic (foetal) cells in the brain. They can occur anywhere in the brain. Craniopharyngiomas are rare, noncancerous tumours that originate near the brain's pituitary gland, which secretes hormones that control many body functions. As the craniopharyngioma grows slowly, it can affect the pituitary gland and other



structures near the brain.

Secondary (metastatic) brain tumours are tumours that result from cancer that starts elsewhere in the body and then spreads to the brain. Secondary brain tumours most often occur in people who have a history of cancer. But in rare cases, a metastatic brain tumour may be the first sign of cancer that began elsewhere in your body. Any cancer can spread to the brain, but the most common types include breast cancer, colon cancer, kidney cancer, lung cancer and melanoma.

CAUSES AND RISK FACTORS

What causes brain tumours? Despite extensive research, the brain tumour causes are not clear. Tumours are caused by uncontrolled and unwanted growth of cells. This is caused by a mutation in the DNA. What exactly triggers this and why at a particular location in the body, is not known.

Some risk factors have been identified that may increase the risk of brain tumour.

Age: The risk of a brain tumour increases as one ages. Brain tumours are most common in older adults. However, a brain tumour can occur at any age. And certain types of brain tumours occur almost exclusively in children.

Radiation: Exposure to ionizing radiation from radiation therapy, CT scans and X rays increases the risk. More common forms of radiation, such as electromagnetic fields from power lines and radiofrequency radiation from cell phones and microwave ovens have not been proved to be linked to brain tumours.

Exposure to certain chemicals on a regular basis increases the risk of developing a brain tumour. Such chemicals include cadmium, arsenic,

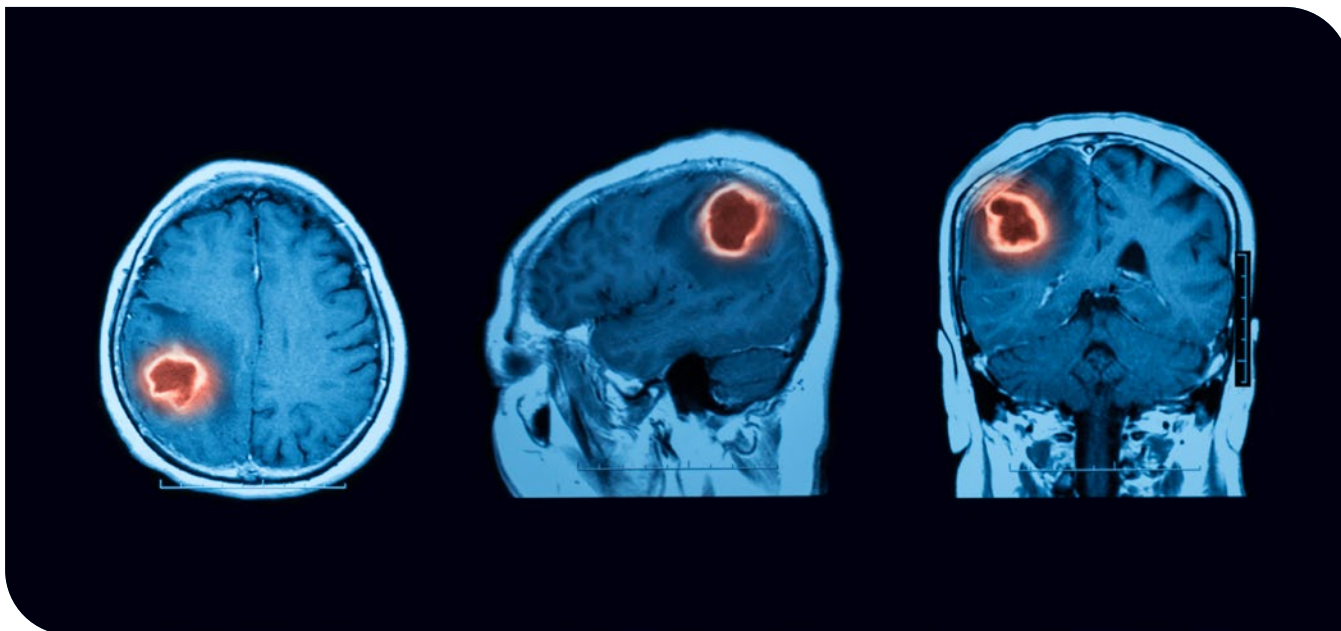
nickel compounds, tobacco smoke and many more.

Family history: A small portion of brain tumours occur in people with a family history of brain tumours or a family history of genetic syndromes that increase the risk of brain tumours.

SIGNS AND SYMPTOMS

The signs and symptoms of a brain





tumour vary greatly and depend on the brain tumour's size, location and rate of growth. General signs and symptoms caused by brain tumours may include new onset or change in pattern of headaches, headaches that gradually become more frequent and more severe, unexplained nausea or vomiting, vision problems, such as blurred vision, double vision or loss of peripheral vision, gradual loss of sensation or movement in an arm or a leg, difficulty with balance, tingling on one side of body, tremors, speech difficulties, changes in hearing or smell, confusion in everyday matters, memory loss, personality or behaviour

changes, seizures, especially in someone who doesn't have a history of seizures and hearing problems, increased sleepiness, drowsiness and loss of consciousness.

Some gender specific symptoms are also seen. Nipple discharge in non nursing women, menstrual abnormalities, excessive body hair.

DIAGNOSIS OF BRAIN TUMOUR

Neurological Examination: The physician clinically examines you for strength of hands and legs, coordination, speech, hearing, vision and other indicators in the your complaints.

Imaging: If it is suspected that the patient can have a brain tumour, the doctor may recommend a number of tests and procedures. Magnetic resonance imaging (MRI) usually with contrast, is commonly used to help diagnose brain tumours. MR Spectroscopy uses the chemical changes in the brain tumour and further corroborates the diagnosis. Other imaging tests may include computerised tomography (CT) scan and positron emission tomography

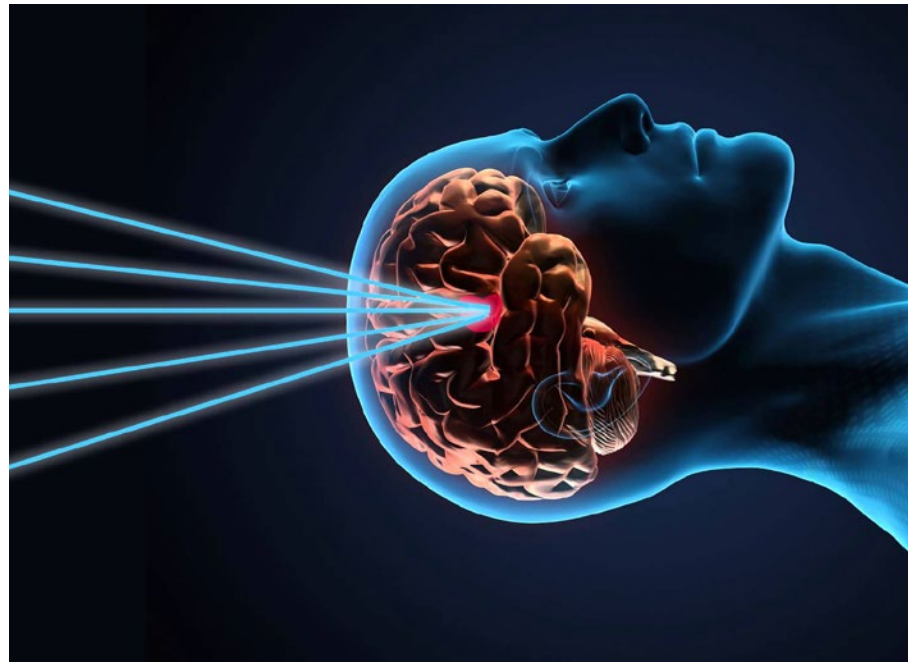
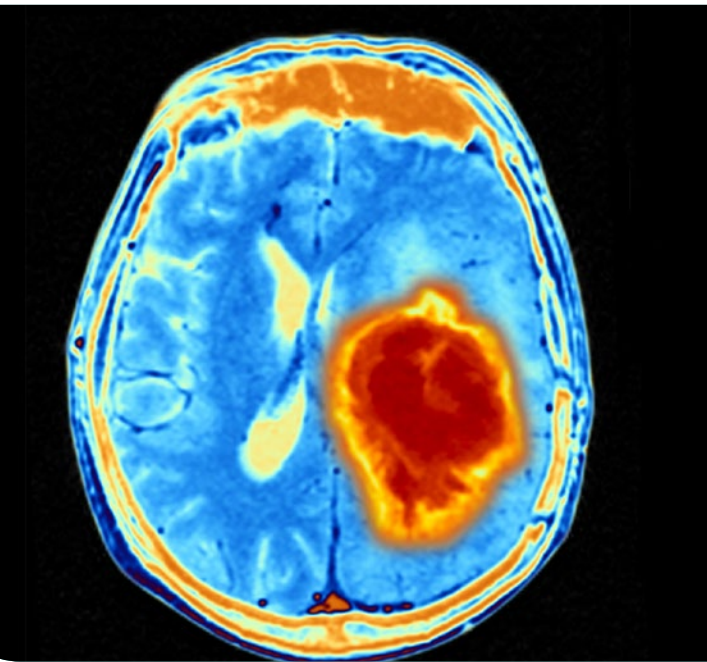
(PET). PET is helpful in diagnosing the tumours in other parts of the body as well.

Angiography: It can be MR or CT based or Digital Substraction Angiography. In this procedure, a fluorescent dye is injected into the bloodstream. The dye on reaching the brain helps the doctor in knowing the blood supply of tumours and engulfment / proximity of large brain vessels to the tumour.

Biopsy : A tiny piece of tumour is removed through a minimally invasive surgery or stereotactic procedure and then sent for histopathological examination to determine whether it is benign or malignant. This information is critical to establish a diagnosis and prognosis and, most importantly, in guiding treatment.

It is suspected that the brain tumour may be a result of cancer that has spread from another area of the body, the doctor may recommend tests and procedures to determine where the cancer originated. One example might be a CT scan of the chest to look for





signs of lung cancer. PET is the gold standard to look for tumours in the whole body in a single investigation.

TREATMENT

Treatment for a brain tumour depends on the type, size and location of the tumour.

Surgery: Brain surgery is a complicated procedure and requires utmost attention and care during the surgery. If the brain tumour is located in a place that makes it accessible for an operation, the neurosurgeon will operate to remove as much of the brain tumour as is safely possible. In some cases, tumours are small and easy to separate from surrounding brain tissue, which makes complete surgical removal possible. In other cases, tumours can't be separated from surrounding tissue or they're located near sensitive / eloquent areas in your brain, making surgery risky. In these situations only the part of the tumour is removed which is safe.

Neurosurgeons can perform tumor resections with the help of brain neuronavigation more precisely,

perform less-invasive procedures, and help improve clinical outcomes. The neuronavigation systems enable surgeons to visualize the anatomy of a patient's brain during surgery and precisely track the location of their surgical instruments in relation to the anatomy.

When the diagnosis of a deep seated tumour is to be confirmed histologically, stereotaxic biopsy is performed. It is a computer guided procedure, which is safe and rarely causes neurological deficit. Radiotherapy & chemotherapy is started according to the obtained histological diagnosis.

Awake craniotomy: This is done when a tumour is located in an eloquent / sensitive area. The patient is kept awake while the tumour is being excised. This avoids or minimises damage to important areas of brain controlling speech and power of limbs.

The advancement of medical technology with the availability of high speed drills, microscope, CUSA, intraoperative ultrasound and stereotactic neuronavigation have further made brain tumour surgery safe.

If a brain tumour is diagnosed, relieving symptoms remain an important part of your care and treatment. Today, most tumours can be removed safely with microsurgical techniques in a manner that maximizes tumour removal and minimizes harm to the patients.

Even removing a portion of the brain tumour may help reduce your signs and symptoms. Surgery to remove a brain tumour carries risks such as infection, bleeding, brain swelling, seizures, memory loss, coma, weakness of hands or legs. Other risks may depend on the part of the brain where your tumour is located. For instance, surgery on a tumour near nerves that connect to your eyes may carry a risk of vision loss.

RADIATION THERAPY

Radiation therapy uses high-energy beams, such as X-rays or proton beams to kill tumour cells. External beam radiation therapy (EBRT) directs high energy beams at a tumour from outside the body. Brachytherapy places radioactive sources inside or next to the tumour to kill cancer cells and



shrink tumours. It uses a highly localised dose of radiation.

External beam radiation can focus just on the area of your brain where the tumour is located, or it can be applied to your entire brain (whole-brain radiation). Whole-brain radiation is most often used to treat cancer that has spread to the brain from some other part of the body. Side effects of radiation therapy depend on the type and dose of radiation you receive. Common side effects during or immediately following radiation include fatigue, headaches and scalp irritation.

Proton therapy is a type of EBRT that uses protons rather than X rays. It is used for tumours when less radiation is needed because of the location.

RADIOSURGERY

Stereotactic radiosurgery is a highly precise form of radiation therapy. Multiple beams of radiation are converged and focused form of radiation treatment to kill the tumour cells in a very small area. Each beam of radiation isn't particularly powerful, but the point where all the beams meet at the brain tumour receives a very

large dose of radiation to kill the tumour cells.

There are different types of technology used in radiosurgery to deliver radiation to treat brain tumours, such as Gamma Knife / Cyberknife / Linear Accelerator. Radio surgery is usually performed on an outpatient basis and referred as a one day treatment. Some large tumours may require more than one session.

Radiosurgery is sometimes advised as the primary modality of treatment in some tumours, which are deep seated or located close to vital structures in the brain

CHEMOTHERAPY

Chemotherapy uses drugs to kill tumour cells. Chemotherapy drugs can be taken orally in a pill form or injected into a vein (intravenous). A chemotherapy regimen usually consists of a specific number of cycles given over a fixed period of time. The goal is to destroy tumour cells remaining after surgery or slow down a residual tumour's growth. Chemotherapy side effects depend on the type and dose of drugs you receive. Chemotherapy can

cause weakness, nausea, vomiting and hair loss.


TARGETED DRUG THERAPY

This treatment targets the tumour's specific genes, proteins or the tissue environment that contributes to a tumour's growth and survival. Bevacizumab and Larotrectinib are the two types of targeted therapies that are used for brain tumours.

REHABILITATION AFTER TREATMENT

A brain tumour and it's treatment causes physical derangements as well as emotional and social problems and financial hardships. Their management requires supportive / palliative care. Since brain tumours can develop in parts of the brain that control motor skills, speech, vision and thinking, rehabilitation may be a necessary part of recovery. Physical therapy can help you regain lost motor skills or muscle strength. Occupational therapy can help you get back to your normal daily activities, including work, after a brain tumour surgery. Speech therapy for speech difficulties can help if you have difficulty in speaking.

Young patients may require psychological counselling as brain tumours may leave a deep impact on the daily activities of the person and their family caregivers. Emotional and spiritual support, yoga and relaxation techniques should be a part of the rehabilitation programme. A strong will power and positive attitude go a long way in overcoming the psychological trauma caused by the brain tumour.

Last but not the least, a large number of brain tumours can be excised safely and the patient may lead a normal life. 

(The author is well known Neuro Surgeon, Indian Spine and Injury Centre, New Delhi)



Primary but Vital

**THERE IS ACUTE NEED FOR SKILLED PRIMARY EAR CARE WORKERS FOR DELIVERING ESSENTIAL EAR AND HEARING CARE SERVICES, CONSIDERING SKEWED DOCTOR POPULATION RATIO IN THE COUNTRY.....
BY DR A K AGARWAL / DR SUNEELA GARG**

In India, the estimated significant auditory impairment reaches up to 6.3% prevalence (moderate to severe hearing loss) out of the total population of 1.25 billion. It is important to note that nearly half of causes of hearing loss are preventable. Lack of awareness regarding importance of ear care is a major challenge in the country. People also have poor knowledge about the resources available for ear care. Myths and Misconceptions worsen the situation. Also, there is inadequate manpower in the country for addressing ear and hearing care issues. In India, the doctor population ratio is skewed with only 0.7 doctor /1000 population as against WHO's recommended ratio of one doctor per 1000 population. When it comes to ENT

specialists, the situation worsens with there being only 6 ENT doctors per one million population. In view of immense disease burden and scarce manpower, the existing ENT manpower is already overburdened. National Programme for Control of Blindness has a provision of Ophthalmic Assistant at the community health care level who is responsible for screening patients with eye ailments, test vision and prescribe glasses, assist in conducting eye care camps and organizing community education. However, there is no provision for such personnel under National Programme for Prevention & Control of Deafness. Therefore, the role of skill-based primary ear-care worker becomes vital for delivering essential ear and hearing care services. A skilled primary ear care worker can



Doctor doing ear examination of patient

perform certain clinical and administrative duties and thereby play a significant role right from early identification of people with hearing loss to awareness generation, screening of patients to making adequate referrals.

Firstly, the primary ear care worker can obtain and record the history of patient having ear morbidities including history of patient's past ear diseases, family history of diseases affecting ear, social history including occupation and details of exposure to industrial or occupational hazards and patient's current and past general health and trauma, including any surgical procedures.

The primary ear care worker would carry out basic examination to screen and recognize patients with common ear diseases (wax, simple foreign body removal, discharging ear etc.) and counsel & refer patients requiring further medical/surgical care. He/she

would also be responsible for promotion of ear and hearing health by creating awareness through community-based actions including promoting and teaching healthy ear and hearing habits, creating awareness of avoidable causes of hearing loss and ear disease, identifying the need for and means of early detection of hearing loss, recognizing signs of hearing loss in infants, children and adults, facilitate in providing and maintaining hearing aids, cochlear implants and other listening and signaling devices and offering support services for hearing aids users.

The primary ear care worker would also be responsible for carrying out hearing assessment and counseling of patients which could be done

“A SKILLED PRIMARY EAR CARE WORKER CAN PERFORM CERTAIN CLINICAL AND ADMINISTRATIVE DUTIES AND THEREBY PLAY A SIGNIFICANT ROLE RIGHT FROM EARLY IDENTIFICATION OF PEOPLE WITH HEARING LOSS

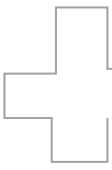
through an audiometer (a machine for testing hearing) or using voice tests.

The worker's responsibility would encompass carrying out public health actions through promotion and implementation of immunization, maternal and perinatal health care and child health care. He/she would also undertake advocacy for appropriate ear and hearing services, including ontological and audiological services at health centres and hospitals as close to the community as possible. He would also facilitate



Dr Suneela Garg





EAR CARE - OPHTHALMIC ASSISTANT



DR A K AGARWAL
FORMER DEAN,
MAULANA AZAD MEDICAL COLLEGE

“The primary ear care worker would carry out basic examination to screen and recognize patients with common ear diseases (wax, simple foreign body removal, discharging ear etc.) and counsel & refer patients requiring further medical/ surgical care”



in training all teachers in the community in aspects of primary ear and hearing care, the impact of hearing loss and provision of an effective learning environment for children with hearing loss.

Regarding the rehabilitative aspect, he/she would be responsible for informing children and adults with hearing loss, family members and the general public of available options for the inclusion and integration of people with hearing loss in the community. He/she would advocate for promoting the use of hearing aids and provide support services explaining the benefits and limitations of these devices. The worker would facilitate in sensitizing families of children with hearing loss understand the local policies relating to the education of such children.


He/she would facilitate to educate teachers about the special needs of students with hearing loss, including deaf students. He/she would try and explore educational opportunities for children and students with hearing loss at preprimary, primary, secondary and higher levels of education and availability of non-formal and vocational training opportunities for people with hearing loss. He/she would take initiative for developing and encouraging training for speech and language development for persons with hearing loss. He/she would try and engage the local deaf



community in the implementation of these activities.

A teleotology model conducted in certain parts of the country has demonstrated that trained community health workers who are equipped with an ear screening handheld device can be deployed in low income urban communities and rural areas. The customized application enables the health workers to gather patient's details, complaints and other details including an image of the tympanic membrane which could be transferred to an ENT surgeon. Patients with positive conditions are counseled for further treatment. The skilled primary ear care workers could also be trained to implement the teleotology model.

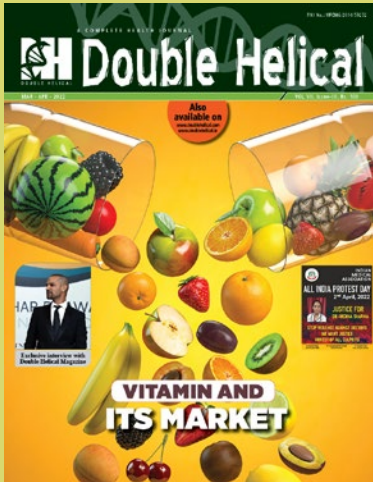
Additionally, his administrative roles and responsibilities would include scheduling appointments, maintaining medical records, recording vital signs and medical histories and preparing patients for further examination and surgeries.

To conclude, creation of a cadre of skilled primary ear care workers would go a long way in not only reducing the burden on the existing scarce ENT manpower but also address the problem of avoidable hearing loss in the country. 

**(The authors are Former Dean/
HOD, Department of Community
Medicine, Maulana Azad Medical
College, New Delhi)**



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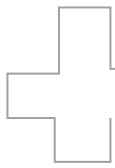
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How unsafe your ear while

Using Headphone

HEARING LOSS HAS POTENTIALLY DEVASTATING CONSEQUENCES FOR PHYSICAL AND MENTAL HEALTH, EDUCATION AND EMPLOYMENT.....

BY: ABHIGYAN/ABHINAV

According to WHO (World health Organization) Over 1.1 billion teenagers and young adults are at risk of hearing loss due to the unsafe use of personal audio devices, including smartphones, and exposure to damaging levels of sound at noisy entertainment venues such as nightclubs, bars and sporting events, according to

The WHO recommends that young people limit the use of personal audio player to one hour a day in an effort to limit exposure to noise. A report recommends a safe headphone listening volume of 85dB. Although headphones are not sold with SPL meters, they can be purchased separately. One could note of the volume control setting that pumps out 85dB, any music recorded at a higher level would still play back at dangerous levels. The headphones would have to be recalibrated whenever the music changed. While in-the-ear earphones





volumes, due to the close coupling of the transducers to the ears. There are many symptoms of hearing damage like ringing or buzzing in the ears, difficulty in understanding speech, slight muffling of sounds and difficulty understanding speech in noisy places or places with poor acoustics. The distance from the source of the sound and period of time are also important factors in protecting your hearing. Unsafe levels of sounds can be, for example, exposure to in excess of 85 decibels (dB) for eight hours or 100 dB for 15 minutes.'

Rohit Visnoi, ENT Surgeon, Sri Balaji Action Medical Institute, New Delhi, said, "Today teenagers and young people can better protect their hearing by keeping the volume down on personal audio devices, wearing earplugs when visiting noisy venues, and using carefully fitted, and, if possible, noise-cancelling earphones/headphones. They can also limit the time spent engaged in noisy activities by taking short listening breaks and restricting the daily use of personal audio devices to less than one hour. With the help of smartphone

"A REPORT RECOMMENDS A SAFE HEADPHONE LISTENING VOLUME OF 85DB. ALTHOUGH HEADPHONES ARE NOT SOLD WITH SPL METERS, THEY CAN BE PURCHASED SEPARATELY. ONE COULD NOTE OF THE VOLUME CONTROL SETTING THAT PUMPS OUT 85DB, ANY MUSIC RECORDED AT A HIGHER LEVEL WOULD STILL PLAY BACK AT DANGEROUS LEVELS."

can produce higher sound levels than over-the-ear earphones, they are not necessarily used at higher levels.

According to **Dr A K Agarwal, Renowned ENT Surgeon and Professor of Excellence, Medical Advisor, Clinical Research, Apollo Hospital, New Delhi**, the harmful effects of the listening any type of headphone including mobile phone will depend upon two factors first total duration and second intensity of sound. Anything which is more than three hours a day for long duration has been found to bring auditory and non auditory harmful impact on body.

Dr A K Agarwal, said, 'Hearing damage from headphones is probably more common than from loudspeakers, even at comparable

apps, they can monitor safe listening levels. Sound pressure is measured in decibels and exposures to 75dB (even after long exposure) are usually safe. However, long or repeated to sounds at above 85dB can cause hearing loss. The louder the sound, the shorter the amount of time it takes for noise-induced hearing loss (NIHL). to happen."

"Mobile phone is an excellent communication device. Mobile radiation defects occur only if it is used for prolonged time. try to consider mobile phone as a communication device not an entertainment device. The human ear has a peak sensitivity of 3000 hz which causes a sense of unease. A sound of this frequency is very penetrating a phantom pain in the ear without any specific reasons like infection.



background noise levels²⁰⁰⁶. When we experience sound in our environment (TV, radio, traffic), normally these sounds are at safe levels, however long period of exposure to high sound pressure levels at high volume can be damaging to sensitive structures in the inner ear and cause noise-induced hearing loss (NIHL),” **Dr Rohit Vishnoi**, added.


Adds, Dr A K Agarwal, Very loud noise can cause permanent hearing

by developing and enforcing strict legislation on recreational noise, and by raising awareness of the risks of hearing loss through public information campaigns. Parents, teachers and physicians can educate young people about safe listening, while managers of entertainment venues can respect the safe noise levels set by their respective venues, use sound limiters, and offer earplugs and “chill out” rooms to patrons. Manufacturers can design personal audio devices with safety features and display information about safe listening on products and packaging.



MAKE LISTENING SAFE INITIATIVE

To mark International Ear Care Day, celebrated each year on March 3rd, WHO is launching the “Make Listening Safe” initiative to draw attention to the dangers of unsafe listening and promote safer practices. In collaboration with partners worldwide, WHO will alert young people and their families about the risks of noise-induced hearing loss and advocate towards governments for greater attention to this issue as part of their broader efforts to prevent hearing loss generally.

Worldwide, 360 million people today have moderate to profound hearing loss due to various causes, such as noise, genetic conditions, complications at birth, certain infectious diseases, chronic ear infections, the use of particular drugs, and ageing. It is estimated that half of all cases of hearing loss are avoidable. To address this issue, WHO collates data and information on hearing loss to demonstrate its prevalence, causes and impact as well as opportunities for prevention and management; assists countries to develop and implement programmes for hearing care that are integrated into the primary health-care system; and provides technical resources for training health workers. 

This may be due to increased stress on the delicate structures of the internal ear or ear drum by the radiation. Using headphones at a sufficiently high volume level may cause many hearing problems including cochlear structure in the inner ear which gives rise to temporary or permanent hearing impairment or deafness”. Rohit Visnoi, added.

“The risk is higher especially in loud places as volume often needs to compete with the background noise. For example, the average sound level on a busy street is about 80dB. In the Airo study, when the outdoor noise was a mere 65dB, listeners raised headphone volume levels to over 80dB¹⁹⁹⁷. This figure shows the average chosen listening levels for our subjects across the different

loss. This is called noise-induced hearing loss. Listening to loud noise for long periods of time can damage the hair cells in the inner ear. Noise-induced hearing loss usually develops gradually and painlessly. A single exposure to an extremely loud sound such as an explosion can cause a sudden loss of hearing. This is called acoustic trauma.

Safe listening depends on the intensity or loudness of sound, and the duration and frequency of listening. Exposure to loud sounds can result in temporary hearing loss or tinnitus which is a ringing sensation in the ear. When the exposure is particularly loud, regular or prolonged, it can lead to permanent damage of the ear’s sensory cells, resulting in irreversible hearing loss.

Governments also have a role to play



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