



VIJAYA INSTITUTE OF PHARMACEUTICAL SCIENCES FOR WOMEN

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A Newsletter on Pharmacy Practice

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Dear reader friends,

Good News. Amidst the war strife surrounding the planet, here is something encouraging. The ozone layer is recovering. There is progress seen in the global efforts to restore the protective layer high in the stratosphere which protects planet earth and people from the dangerous ultraviolet radiation. The harmful radiation is found to

cause skin cancer and is harmful to plants and animals too. The ozone layer is now back to 1980s level, much to the relief of mankind. It is also evidence of the collective action of humanity against the global threat to our environment. Henceforth, there is a solution to the climate crisis, and it should be a consistent and sustained effort in gifting something precious to the next generations.

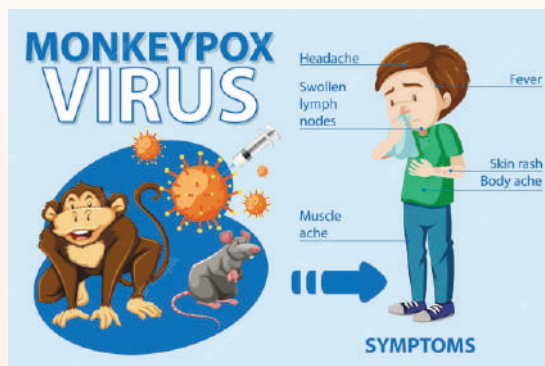
MONKEY POX –WORLD'S LATEST HEALTH THREAT

A zoonotic viral disease, Monkeypox gets its name from the fact that it can be transmitted from animals—including monkeys, squirrels, and rodents to humans through direct contact with blood, body fluids, and the lesions of a diseased animal. Monkeypox has taken the globe by a storm since its outbreak in May this year. The first case of the human monkeypox virus was confirmed by the United Kingdom Health Security Agency (UKHSA) in an individual traveling back from Nigeria on 7th May 2022. As the cases rise globally, so does the worry of people. More than 35,000 cases of monkeypox have been documented in 92 countries and territories, by World Health Organization (WHO). In the present situation, testing is limited (accessibility of tests as well as willingness to get tested), vaccines exist but are unlikely to be available promptly, and medicines such as antivirals are yet to be approved and are not widely available. MPXV is a double-stranded DNA virus that belongs to the orthopox virus genus and Poxviridae family. It is a 200 to 250 nm large, enveloped, cytoplasmic virus that can enter the host cell through binding to glycosaminoglycans.

TRANSMISSION

Human-to-human monkeypox spread can occur through contact with respiratory droplets, skin lesions, dry scabs, fomites, and sexual contact. Transmission from an infected mother to her foetus can also take place. It tends to be less severe than smallpox, with an incubation period of 6 to 13 days (but up to as many as 21 days) and symptoms that can last for 2 to 4 weeks. It typically causes fever with a rash but its distinguishing feature from smallpox, measles, and chickenpox is the

presence of lymph node swelling and its distinctive rash. The current case fatality ratio ranges from 3 to 6 percent but it may go up to 11 percent, and it can be higher among



children. Monkeypox diagnosis is conducted through polymerase chain reaction (PCR) tests from skin samples. Monkeypox is usually a self-limited disease with symptoms lasting from two weeks to four weeks. Most people with monkeypox get better on their own without treatment.

PREVENTION

A smallpox vaccine provides protection against monkeypox, but its use is currently limited to clinical trials. The best way to help prevent the spread of monkeypox virus is to:

- Avoid contact with infected animals (especially sick or dead animals).
- Avoid contact with bedding and other materials contaminated with the virus.
- Thoroughly cook all foods that contain animal meat or parts. Wash your hands frequently with soap and water.
- Wear a mask that covers your mouth and nose when around others.



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SOCIAL MEDIA AND MENTAL HEALTH

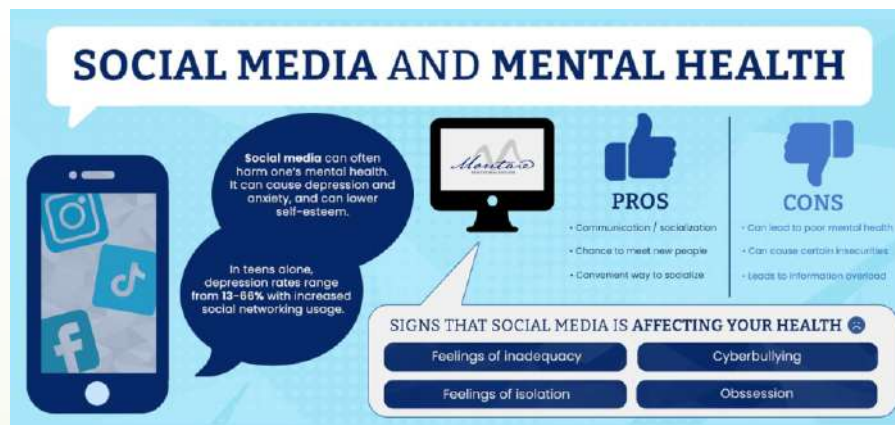
The use of social media exacerbates issues with mental health, because humans are social creatures, they need the company of others to advance in life. As a result, interacting socially with others can help people cope with their stress, worry, and melancholy, while lack of social interaction can seriously harm one's mental health. People now use social media on a regular basis, many of them spend hours on messenger, instagram, facebook, and other well-known platforms. As a result, a large number of academicians and researchers have been investigating how social media and related apps affect various facets of people's life.

Additionally, there will be 4.70 billion social media users globally in 2022, or 59.0 percent of the world's population. This represents an average rate of more than 7 new users every single second, or annualized growth of 5.1 percent. Facebook continues to be the most popular platform in the world. It is followed by Youtube (2.476 billion), WhatsApp (2 billion), Instagram (1.440 billion), Telegram, Snapchat, Twitter, and Pinterest.

Although social media has many pleasurable and good aspects, it can also have a negative impact on mental health. Age was not found to be a factor in previous studies, but women were found to be far more likely to experience mental health sickness than men.

Mental health is characterized as a condition of wellbeing in which individuals are aware of their capacities, successfully navigate through daily challenges, perform well at work, and significantly improve the quality of life in their communities. Social media's link to mental health may be explained by the Displaced Behavior Theory. The idea contends that persons who engage in sedentary activities like social media use more frequently spend less time engaging in face-to-face social interaction, both of which have been shown to be protective against mental illnesses. Social theories, on the other hand, discovered that using social media negatively impacts mental health by altering how users perceive, manage, and engage with their social network.

Numerous studies on social media's effects have been undertaken, and it has been found that frequent usage of sites like Facebook may contribute to the unpleasant signs and symptoms of melancholy, anxiety, and stress. Teenagers who are anxious about losing something on social media may strive to respond to and check all their friends' messages on a regular basis. The association between depression and passive social media use, such as reading postings, is stronger than the association between depression and active use, such as posting.



It is difficult to determine whether a mental health issue appeared more pronounced in those who used social media more frequently compared to those who used it less frequently or not at all because only three longitudinal studies examined the causal relationship between social media and mental health. Social media envy can have an impact on people's levels of anxiety and sadness. There are many additional possible causes of anxiety and sadness that need to be investigated.

By using reframing strategies, practitioners can provide clients effective therapeutic interventions and modalities like Cognitive Behavioral Therapy (CBT) to address symptoms of depression, low self-esteem, and anxiety. Offering psychoeducation on the potential effects of social media on mental health, both positive and negative is another good solution. Education about the negative effects of social media on mental health may give family systems new approaches to dealing with social media addiction.

CONCLUSION :

According to the studies reviewed, it can be concluded that social media is one of the eye factors to produce a mental health problem in patients especially teenagers, and office workers. Most common issues include anxiety, stress, depression, melancholy, low self-esteem etc.

People are using social media more frequently as their primary means of communication with friends and family as a result of the technological breakthroughs of the twenty-first century. The negative effects are frequently associated with low self-esteem, greater rates of sadness, and anxiety. On the other hand, social media use has been shown to promote social support and connection, according to practitioners.

Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7364393/>

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ECOPHARMACOVIGILANCE

Ecopharmacovigilance (EPV) can be defined as the science and activities concerning detection, assessment, understanding and prevention of adverse effects or other problems due to the presence of a pharmaceutical product or by product in the environment. Studies have found that hormones, antibiotics, analgesics, tranquilizers, antihypertensives, antiepileptics, antidepressants, lipid regulators and anticancer drugs that were given therapeutically to humans and animals were detected in alarming levels in surface water and ground water.

Examples of environmental exposure due to pharmaceuticals :

- Population of 3 species of vultures declined until they were considered critically endangered due to exposure to diclofenac causing kidney failure when they consume carcasses of animals that were treated with diclofenac.
- Levonorgestrel can cause sterility in female frogs. Female tadpoles exhibited immature ovarian egg cells and lacked oviducts, entailing sterility.
- Ethinyl-estradiol causes feminization of male fish by inducing synthesis of vitellogenin, an estrogen receptor-mediated response, occurring naturally in female fish.
- Fluoxetine and norfluoxetine bioaccumulate in fish and adversely affect reproduction, growth and behavior. In shrimps it causes them to put themselves in mortal danger.
- Antibiotic resistance developed in bacteria found naturally in the environment which in turn passes on to the bacteria that cause infections in humans.

METHODS USED IN ECO PHARMACOVIGILANCE

- Clinical trial is the main method employed to gather information on a drug in the premarketing phase but is insufficient to evaluate drug risks.
- Spontaneous reporting aims to serve as an early detection of signals of new, rare and serious ADRs.

- Intensive monitoring, database studies comprising case-control and cohort studies.
- Environmental Risk Assessment (ERA) of drugs is submitted by the manufacturer to FDA if the risk assessment shows concentrations less than one ppb, the drug is assumed to pose acceptable risks.
- Resource Conservation and Recovery Act (RCRA) regulates and tracks the disposal of solid waste, and provides rules for industries that generate, transport, store and dispose hazardous waste. Approximately 5% of all pharmaceutical agents are considered "RCRA hazardous."
- Risk mitigation measures (RMMs) can be applied to improve the prevention of exposure and the protection of the environment and risk indication within the ERA (i.e., $RQ = 1$), to reduce the risk quotient with a follow-up step of the RQ calculation.
- The methodologies of EPV also include green drug design, green chemistry, development of biodegradable goods, minimization of manufacturing emissions, supervision of unused or expired drugs, increased efficiency of sewage treatment, development of better drug disposal systems and a dynamic update mechanism.

CONCLUSION :

- The general awareness about EPV and disposal of drugs is very low in Indian population. Necessity of EPV is absolute in India after considering the immense pharmaceutical activity and environmental contamination. Appropriate curriculum change attending to training on drug disposal is very essential to the healthcare professionals. EPV is equally important as PV and needs regular monitoring to ensure safety of environment, resources and human health.

NOVEL DRUG APPROVALS FOR 2022

DRUG NAME	ACTIVE INGREDIENT	APPROVAL DATE	USES
Voquezna	Vonoprazan, Amoxicillin, and Clarithromycin	03.05.22	To treat Helicobacter pylori infection
Mounjaro	Tirzepatide	13.05.22	To improve blood sugar control in diabetes, in addition to diet and exercise
Vtama	Tapinarof	23.05.22	To treat plaque psoriasis
Amvuttra	Vutrisiran	13.06.22	To treat polyneuropathy of hereditary transthyretin-mediated amyloidosis
Xenpozyme	Olipudase alfa	31.08.22	To treat Acid Sphingomyelinase Deficiency





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CAMPUS NEWS

- On 8th May 2022, an awareness session on 'Women's Health Issues' was organized for young mothers during Mothers' Day Celebrations at GGH, Vijayawada, followed by distribution of fruits and clothes to them. Hospital staff and collector also were honored.
- On May 20th & 21st, 2022, Indo-Swiss Virtual International Conference on "Current Scenario And Challenges in Pharmacy Practice & Pharmaceutical Sciences" was organized.
- On July 23rd 2022, a talk on Career Guidance was delivered by Mr. Gupta, Superwhizz, Vijayawada
- On Aug 4th 2022, PharmD students participated in awareness program in various schools. The purpose of the program was to sensitize the students about the importance of healthy diet and hygienic measures to prevent infections and promote better health.
- On Aug 10th –11th, 2022, 7th Indo-Caribbean International Conference on Global Advances and Issues in Pharmaceutical Education and Research organized on the campus led to new deliberations in Pharmacy education.
- Independence Day Celebration (Azadi Ka Amrit Mahotsav) - The 75th Independence Day celebrations were observed in the college by conducting various programmes like patriotic song competition, rally, singing of national anthem and uploading the videos on government portals.
- On 29th Aug 2022, Srilakshmi from Vth PharmD, received gold medal in yoga competitions conducted on the occasion of National Sports Day celebrations at Amaravati.

To,

We are pleased to receive your feedback and suggestions :
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