

HCFI Dr KK Aggarwal Research Fund

Minutes of an International Weekly Meeting Held by HCFI Dr KK Aggarwal Research Fund on “Anxiety Disorder”

Speaker: Dr Rahul Khemani, Consultant Psychiatrist, Heart & Mind Clinic, Mumbai, India

March 18, 2023 (Saturday, 9.30-10.30 am)

- Anxiety disorder is a mental health disorder characterized by feelings of worry, anxiety or fear that are strong enough to interfere with day-to-day activities. Anxiety which does not interfere with daily activity is normal anxiety and will not lead to a disorder.
- Almost 3 out of 10 people in the world or almost 33% currently have anxiety disorder. In 2019, worldwide it was seen in 301 million people, while in India it was seen in 44.9 million people. It is more common in females due to the estrogen, which is connected to depression and anxiety more than testosterone.
- Anxiety disorder is the 9th most common cause of disability, which means that it stops you from going to work and earn your livelihood and connecting with family and friends. It also means that people are not attending schools or colleges.
- Some anxiety is normal. Anxiety is beneficial in the stress performance cycle. It helps us to notice dangerous situations and focuses our attention, so that we stay safe. Normal anxiety is good; it keeps us prepared.
- But an anxiety disorder goes beyond the regular nervousness and slight fear you may feel from time to time. An anxiety disorder happens when anxiety interferes with the ability to function, you often overreact when something triggers your emotions and you cannot control your responses to situations.
- People with certain traits are specifically at risk like shy, introvert, timid people, who have not interacted with other people, who have stayed indoors are going to face anxiety more commonly.
- Those who have family history of anxiety or other mental health conditions or those with conditions related to the heart (arrhythmias) or thyroid can experience anxiety as well.
- There are multiple types of anxiety disorders. Generalized anxiety disorder in which there is lot of restlessness. It must be present for at least 6 months before it is diagnosed as generalized anxiety disorder.
- Panic disorder is like a panic attack, which appears very similar to heart attack, but the ECG and heart are normal. Continuous panic attacks lead to panic disorder.
- Phobia is another type of anxiety disorder. The extent of fear determines whether it is a disorder of phobia or not. Social anxiety disorder where one is scared of going out. Separation anxiety is very common in children and in adults as well. Obsessive compulsive disorder (OCD) and post-traumatic stress disorder (PTSD) are very common.
- Children may feel some amount of anxiety, worry or fear at some points such as during a thunderstorm or in the presence of a barking dog. This is normal.
- But sometimes children approach these situations with overwhelming dread. They often get stuck on their worries and find it hard to go about their daily activities like going to school, playing and falling asleep.
- “Getting stuck” is the key. It separates the regular worries of childhood from an anxiety disorder that needs professional help. If the anxiety or worry interferes with the child’s ability to function, it may be time to seek help.
- It is important to understand the stress cycle because this is how you go into anxiety and how you can stop going into anxiety.
- It starts with too little, i.e., a kind of phase of bore out when you are not doing anything at all. Here you suggest some activity for these individuals, whether physical or mental. Aimlessly drifting can be fun for a while but eventually it is not good for your health. The optimum point is when your body stress response releases adrenaline and cortisone, which help to perform your best, the vision is sharper, the hearing is more acute. The fight and flight response helps deal with short-term stress and you are optimally adjusted to the environment.
- Sometimes when you take too much of pressure you become unnecessarily stressed out. Performance starts reducing. It exceeds the comfort zone and

fatigue and errors start coming in. Feelings of frustration, anxiety, poor concentration and shame about not being able to do it take over. When it becomes extremely high, it is the stage of burnout.

- Anxiety is related to a chemical imbalance between serotonin and dopamine, which controls mood. This can happen due to long-lasting stress. Environmental factors also play a role. Experiencing a trauma might trigger an anxiety disorder, especially in someone who has inherited a higher risk to start.
- Anxiety disorders tend to run in families. You may inherit them from one or both parents. The chances of developing anxiety through heredity are though very less.
- The physical symptoms of anxiety disorder include cold or sweaty hands, dry mouth, heart palpitations, nausea, numbness or tingling in hands or feet, muscle tension and shortness of breath.
- The most common symptoms are palpitations, breathlessness and feeling of impending doom. Then come sweating, tremors, numbness, cold hands and feet.
- The mental symptoms include feeling panic, fear and uneasiness, nightmares, repeated thoughts or flashbacks of traumatic experiences and uncontrollable obsessive thoughts.
- Behavioral symptoms include inability to be still and calm and ritualistic behaviors such as washing hands repeatedly, trouble sleeping.
- The Hamilton Anxiety Rating Scale (HAM-A) is used to assess severity. The questions are marked from 0 to 4 (between not present to very severe). This scale gives us an idea about the level of anxiety and whether the anxiety is present or not.
- There are two approaches to management. The first is psychotherapy. It is one of the most effective forms and cognitive behavioral therapy (CBT) is the most commonly used. It is a structured, goal oriented and didactic therapy. It focuses on helping individuals identify and modify maladaptive thinking patterns and beliefs that act as trigger in developing symptoms of anxiety. CBT focuses on building behavioral skills. Thus, the patients can behave and react more adaptively to anxiety producing situation.
- Medications are also an option. Benzodiazepines like alprazolam, chlordiazepoxide, clonazepam, lorazepam, nitrazepam. The second group of drugs is called selective serotonin reuptake inhibitors (SSRIs) such as escitalopram, fluoxetine and paroxetine.
- Anxiety cannot be prevented, but steps can be taken to control or reduce symptoms. Limit intake of caffeine, live a healthy lifestyle (regular exercise and healthy balanced diet), seek help if you have experienced a traumatic or disturbing event.
- Anxiety disorders can often go undiagnosed and untreated. But treatment can help.
- The right treatment can help improve quality of life, relationships and productivity. It can also support overall well-being.
- If you notice symptoms of anxiety disorder, talk to your health care provider. It is best to get diagnosed and treated as soon as possible. This will limit the problems that the anxiety disorder may cause.
- A combination of medications and counseling can help you feel your best.
- In young children, group counseling sessions can be tried. This will improve awareness for those children who are not visiting the counselor. The benefit of group counseling is that each child helps raise the other child as well and helps them to also realize that this is quite common problem and something that we should talk about freely. This also reduces the problem of individual counseling time. Children who require medication can seek help from a psychiatrist.
- Anxiety is more a feeling of nervousness and depression is more of low mood but both are related to the same chemical serotonin. They usually happen together and the treatment is also quite similar.
- In patients with mild to moderate symptoms, psychotherapy is the initial line of treatment. A combination of therapy and medication is suggested for moderate to severe anxiety.
- There is no age limit for having anxiety.
- Lot of people post-COVID have experienced a different form of anxiety. Some people call it brain fog as well. This does not get better with anti-anxiety medication. It takes longer to get better. Somewhere COVID has been affecting the brain in the recovery process. It makes you physically exhausted as well, which again adds on to the anxiety.
- Normal grief stays for few weeks to months but when it extends beyond 6 months to a year then it is pathological grief.
- These conditions are definitely treatable. But there remains a stigmatization for seeking psychiatric help globally, especially in the less developed societies.

Participants – Member, National Medical Associations:

Dr Wasiq Qazi, Pakistan, President-CMAAO; Dr Yeh Woei Chong, Singapore, Chair of Council-CMAAO; Dr Angelique Coetzee, South Africa; Dr Akhtar Hussain, South Africa; Dr Qaisar Sajjad, Pakistan

Invitees: Dr Russell D'Souza, Australia UNESCO Chair in Bioethics; Dr EC Ng; Dr Maria Enedina Scuarialupi, Brazil; Dr Swee Eng Goh; Dr PC Pah; Dr Archana Singh Yadav; Dr Shashi S Bala Sodhi; Dr Pushkar Gadkari; Dr Vineet Banga; Dr Neeraj Gupta; Dr Nishi Kumari; Dr Indu Sharma; Dr Poonam Chablani; Dr Poonam Gupta; Dr Sakshi Paul; Dr DR Rai; Dr Meena Bajaj; Dr Madhusoodan; Dr Mohammed Adil; Dr Sunita Gupta; Dr Swati Ephraim; Dr S Sharma, Editor-IJCP Group

Moderator: Mr Saurabh Aggarwal

Round Table Environment Expert Zoom Meeting on “EPR in Plastic Waste Management: E-Governance Issues”

April 16, 2023 (Sunday, 12 noon-1 pm)

- In 2016, the Government of India had notified different rules in waste management: solid waste management, plastic waste management, hazardous waste management, construction and demolition waste management.
- Various amendments have been made in the plastic waste management rules.
- In the 2022 amendment, the concept of EPR was introduced. Basically, EPR means extended producer responsibility, i.e., responsibility of the producer for environmentally sound management of the product until the end of life.
- The EPR guidelines were notified by the MOEF&CC on February 16, 2023 vide fourth Amendment to PWM Rules, 2016.
- The Central Pollution Control Board (CPCB) has developed a dedicated portal for this: eprplastic.cpcb.gov.in. All producers, importers and brand owners (PIBOs), plastic waste processors (PWPs), those engaged in recycling, waste to energy, waste to oil, industrial composting have to mandatorily register on this portal. Standard operating procedures (SOPs) have been uploaded.
- PIBOs, which are operational in 1 or 2 states have to register in State Pollution Control Board (SPCB). Others which are operational in more than 2 states have to register in the CPCB portal.
- EPR is a wonderful concept, which ensures that the organization which are using plastic to package their products, they are made responsible for ensuring its collections, channelizing for recycling as waste to energy and co-processing, which are different avenues for different categories of waste.
- Every plastic cannot be recycled. There are different types of plastic that are being used and therefore there are different end of pipe collections or waste to energy solutions.
- There needs to be a public-private partnership for waste management as we are a resource-constrained country. All PIBOs have to see how they can reduce their material. The more the plastic used in the packaging of their products, more is the responsibility under EPR.
- EPR is a penalizing policy tool that forces the organization to reduce their plastic consumption. It is defined as “an environmental policy approach in which a producer’s responsibility, physical and/or financial, for a product is extended to the post-consumer stage of a product’s lifecycle.”
- It marks the shifting of responsibility upstream towards the producer and away from the municipalities and provides incentives to producers to include environmental considerations such as reducing material consumption, using more secondary material and promoting product eco-design in their product design.
- Plastic waste management rules do not apply on biodegradable and compostable plastic. Hence, it is an incentive for organizations to move towards these kinds of packaging.
- There are various tools under the EPR strategy. These include administrative tools (such as collection and/or take back, recycling targets, emission limit), economic tools (such as material or product taxes, subsidies), informative tools (such as environmental reports) and agreements (such as social contracts). Tools are the structures that have been given to ensure the collection. While these tools are academically good, in our country, we have a very different value proposition when it comes to waste.
- There has been a steep jump in plastic consumption in 2020-21, which is primarily because of the after effects of pandemic. People have moved towards packaged foods, wherever they had a choice. And it is expected to increase.
- There was an intent by the government to have a very clear and transparent mechanism so that each ton of plastic could be traced. Hence, the need for bringing in e-governance in EPR implementation.

- India's plastic waste generation is the 5th highest in the world. India generates around 4 million tonnes of plastic waste every year; 43% of this is packaging waste. So, we need to focus on packaging waste, which is found littered on roads, choking drains, rivers, etc.
 - Successful implementation of EPR would address a big share of the plastic waste problem in the country.
 - The focus of government currently is on plastic packaging waste.
 - Some reports say that in India we already have 85% of PET (polyethylene terephthalate) bottle collection in the country. There is a very efficient informal system, which is working.
 - The ones with no or little value (Single use plastics and low-value non-recyclable plastics) are littered and then collected through municipal collection systems ending in dumpsites or incinerated for energy recovery.
 - Multilayered packaging (MLPs) is currently going mostly in cement kilns for co-processing. But in the coming years, it is expected that MLPs will also be recycled.
 - There is also an initiative related to cradle-to-cradle recycling of plastic.
 - To ensure circular economy, the government is mandating obligated use of recycled content in their packaging for PIBOs. But every sector cannot specifically comply with this such as the food sector.
 - Every PIBO has to comply with targets like EPR target, minimum level for recycling, end of life disposal and obligation for use of recycled content.
 - They must also adhere to a minimum level for reuse.
 - Different categories of plastic packaging have been defined under the rules. Category 1 is mostly the rigid plastic, e.g., plastic jars. Category 2 is mostly flexible, transparent plastic, which is used for packaging. Category 3 includes MLP and Category 4 is compostable plastic. Different targets have been given for Category 1, 2 and 3 and 4 plastics.
 - Targets for reuse for Category 1 (rigid plastic packaging) are applicable from 2025 to 2026. Time has been given to the industry to gear up for this kind of system, where reuse is implemented and captured by the regulator. But the overall mechanics are not yet clear.
 - The PIBOs have to declare the amount of packaging they are bringing into their system and how much they are giving to the next supply chain partners after processing.
 - If brand owners are reusing some quantity of packaging, that quantity would be deducted from their EPR targets.
 - There have been key policy changes over the last 5 years. The government is shifting gears for enhancing the circular economy in the country. The focus has moved from administrative regulatory compliance to facilitating growth of recycling infrastructure in the country. There is more emphasis on recycling than waste to energy or co-processing and efficient compliance monitoring as e-governance model with analytics assist regulator. There are fewer hassles on report filing and renewal application by PIBOs. A more transparent credit mechanism to ensure proper collection and recycling of plastics.
 - There are many challenges that have been brought to the notice of the Environment Ministry and CPCB.
 - The plastic credit movement is yet to be fully functional and though work has been done, payments have been made, the credit is not showing on the portal. Plastic waste processing facilities (PWWFs) are not verified by the concerned SPCB. The renewals of PIBOs is pending for a long time.
 - The upload of procurement data invoice-wise is a herculean task due to the business processes.
 - Data privacy is a serious issue. All details are available on a dashboard on the CPCB portal, which is vulnerable to theft and misuse.
 - On EPR portal, there is a tab of training, which has two sections. One is basic training and other is advanced training. Basic training, we find various modules. Advanced training explains many portal-related things are explained such as common mistakes.
 - In food sector, big brands like Pepsi, Cola make up only 40% of the FMCG (fast moving consumer goods). There is a need to bring in the remaining 60% of the FMCG into the system. E-governance may help to do this.
 - EPR can be implemented nicely if the municipal collection of waste is segregated.
- Participants:** Dr Anil Kumar, Mr Kamal Sharma, Dr SK Gupta, Mr Pradeep Khandelwal, Ms Ruchika Sethi Takkar, Dr S Sharma