International Advanced Research Journal in Science, Engineering and Technology

5th National Conference on Science, Technology and Communication Skills – NCSTCS 2K22

Narula Institute of Technology, Agarpara, Kolkata, India

Vol. 9, Special Issue 2, September 2022

Mental Health: A Journey, Not A Destination

Sayan Saha¹, Rishi Raj Ganguly², Sharmistha Basu³ and Aparajita Paul⁴

Student, Electronics and Communication Engineering, Narula Institute of Technology, Kolkata, India 12

Asst. Professor, Basic Science and Humanities, Narula Institute of Technology, Kolkata, India ^{3,4}

Abstract: From a long time ago, there have been various misconceptions about mental health, the reasons or the causes of mental health and what effects did it have on the people and finally how can some of them be cured or given proper treatment? Various studies and various real life situations connected directly or indirectly with people and made the people aware, about such a serious problem and how it could be prevented. In this paper we further delve into what biological, psychological and environmental factors responsible for the mental health condition. As studies increased we got to know that how that mental health or mental illness can affect people of various ages such as how it affects children v/s how it affects adults.

Keywords: Mental health, mental illness, anxiety

I. INTRODUCTION

Both physical and mental health are the result of a complex interplay between many individual and environmental factors, including:

- Family history of illness and diseases/genetics.
- Lifestyle and health behaviours (e,g. smoking ,substance use)
- Levels of personal and workspace stress
- Exposure to toxins
- Exposure to trauma
- Personal life circumstances and history
- Access to supports
- Coping skills

How common are mental illnesses?

Mental illnesses are among the most common health conditions in the United States.

- More than 50% will be diagnosed with a mental illness or disorder at some point in their lifetime.³
- 1 in 5 Americans will experience a mental illness in a given year.⁴
- 1 in 5 children, either currently or at some point during their life, have had a seriously debilitating mental illness.⁵
- 1 in 25 Americans lives with a serious mental illness, such as schizophrenia, bipolar disorder, or major depression.

Misunderstanding of Mental Health

Mental health and mental illness have always been taboo topics in the past. People were and always have been uncomfortable talking about mental health and mental illness. Although there has been a progress in certain parts of the world, there are still several misconceptions about mental disorders that many people still believed to be true or it may even be false spreading.

Although the common misconceptions about mental illness can seem innocuous, they can be damaged in several ways these mental myths continue to perpetuate toxic stereotypes that may keep someone from getting the help they need. Some may fear how others behave and will view them if they come forward and ask for help.

All people with mental illnesses are crazy: Terms like crazy and insane are all hurtful words that feel into transitional stereotypes of mental illness. They think that mental illness is wild, uncontrollable, and always severe when in reality, mental illness and mental health disorders fall on a big spectrum.





International Advanced Research Journal in Science, Engineering and Technology

5th National Conference on Science, Technology and Communication Skills – NCSTCS 2K22

Narula Institute of Technology, Agarpara, Kolkata, India

Vol. 9, Special Issue 2, September 2022

Mental illness and health disorders are extremely rare

- 970 million people worldwide have a mental health or substance abuse disorder (Our World in Data, 2018)
- Anxiety is the most common mental illness problem in the world, affecting 284 million people. (Our World in Data,2018)
- Globally, mental illness affects more females(11.9%) than males(9.3%)(Our World in Data,2018)

• The mortality rate of those with mental health disorders is significantly higher than the general population, with a median life expectancy loss of 10.1 years. (JAMA psychiatry, 2015)

• It is estimated mental disorders are attributable to 14.3% of deaths worldwide, or approximately 8 million deaths each year. (JAMA psychiatry, 2015) 3.

Mental illnesses make people violent: One of the most common misconceptions about mental illness is that it makes people violent and dangerous. Schizophrenia and other psychotic disorders especially have a reputation of violence. People with major mental health disorders are thought to be responsible for only 4.3% of the violence in a given community, and people with schizophrenia are 14 times more likely to be the victim of a violent crime than the perpetrator.

People with mental illness cannot function in society: One of the most popular myths about people facing mental health problems is that they cannot function properly in a normal society. Quite opposing to the stereotype, not all people having mental health problems are homeless or locked away, many people facing these problems hold jobs, have families and make it through the day much easily.

You cannot get better if you have a mental illness: While some mental illnesses continue for a long time, treatment can help the people learn how to manage their symptoms and get more control on their illnesses, in some cases, proper treatment helps people to overcome their disorder almost completely. Other mental health disorders can be short by nature and go away with time.

Treatment is scary: Because of images portrayed by the media as well as the past techniques, there are dozens of misconceptions about mental illness, treatment that can make people scared of getting scared to get help. Shock therapy, strait jackets, padded rooms and a mess of pills have been a thing of past now. Treatment nowadays, usually consist of mental health therapy methods like psychotherapy as well as medication if necessary which can be adjusted to avoid adverse reactions.

Causes of mental health problems

Although the exact causes of most mental illnesses are not known, it is becoming clearly through research that many of these conditions are cause by combination of biological, psychological and environmental factors.

Biological factors involved in mental illnesses

Some mental illnesses have been linked to abnormal functioning of nerve cell circuits or pathways that connect particular brain regions. Nerve cells within these brain circuits communicate through chemicals called neurotransmitters. "Tweaking" these chemicals -- through medicines, psychotherapy or other medical procedures -- can help brain circuits run more efficiently. In addition, defects in or injury to certain areas of the brain have also been linked to some mental conditions.

Other biological factors that may be involved in the development of mental illness include:

Genetics (Heredity): Mental illnesses sometimes run in families. Susceptibility is passed on in families through genes. Experts believe that there are many genes rather than one or few which accounts to the mental illnesses and that how these genes interact with environment is unique for every other person, mental illness itself occurs from the interaction of multiple genes and other factors such as - stress, abuse or a traumatic event - which can influence or trigger, an illness in a person who has inherited a susceptibility to it.

Infections: Certain infections had been linked to brain damage and the development of mental illness or the worsening of its symptoms.

Brain defects or injury: Defects in or certain areas of the brain have also been linked to some of the mental issues. Prenatal damage: Some evidence suggests that a disruption of early fatal brain development or trauma that occurs at the time of birth – for example, loss of oxygen to the brain- may be a factor in the development of certain conditions, such as autism spectrum disorder.

Substance abuse: Long term substance abuse in particular, has been linked to anxiety depression and paranoia. Other factors: Poor nutrition and exposure to toxins, such as lead, may play a role in the development of mental illness.





International Advanced Research Journal in Science, Engineering and Technology

5th National Conference on Science, Technology and Communication Skills – NCSTCS 2K22

Narula Institute of Technology, Agarpara, Kolkata, India

Vol. 9, Special Issue 2, September 2022

Psychological factors contribution to mental illness

Psychological factors that may contribute to mental illness include:

- Severe psychological trauma suffered as a child, such as emotional, physical, or sexual abuse
- An important early loss, such as the loss of a parent
- Neglect
- Poor ability to relate to others

What Environmental Factors Contribute to Mental Illness?

Certain stressors can trigger an illness in a person who is susceptible to mental illness. These stressors include:

- Death or divorce
- A dysfunctional family life
- Feelings of inadequacy, low self-esteem, anxiety, anger, or loneliness
- Changing jobs or schools
- Social or cultural expectations (For example, a society that associates beauty with thinness can be a factor in the development of eating disorders.)
- Substance abuse by the person or the person's parents

Mental Illness in Children and Adolescents

Nowadays mental illness is common among children and majorly in adolescents. Approximately 12 million children under the age of 18 have mental disorders. The National Mental Health Association has compiled some statistics about mental illness in children and adolescents:

- One in every five people under the age of 18 r affected by mental disorders.
- Two third of the cases are not diagnosed or taken care of if diagnosed. They don't even receive basic mental health services
 As many as 1 in every 33 children may be depressed. Depression in adolescents may be as high as 12%.
- The main cause of mental illness in children and adolescents include increased stress, fear, parental pressure, negative family environment, bullying, or abuse by friends or society.

• This severe problem makes them prone to suicide making suicide the second leading cause of death of teenagers between the age of 15 to 18 years and the third leading cause of death of children of age between 5 to 15 years.

• Increased number of crimes by children is also a major effect of mental illness. Estimates say that about 118,700 to 118,600 children are in the juvenile justice system.

• Of the 100,000 teenagers in juvenile detention, an estimated 60 percent have behavioural, cognitive, or emotional problems.

Mental Illness in Adults

Scientists estimate that one of every four people is affected by mental illness either directly or indirectly. Even if we have not witnessed mental illness directly or closely, all of us have come to hear about someone who is suffering. Recent studies say that at least one in four people is affected by mental illness either directly or indirectly. Some statistics will give an idea of how this is widely spread and harming us day by day.

• According to recent estimates, approximately 20 percent of adults, or about one in five people over the age of 18, suffer from a diagnosable mental disorder in a given year. Eight million people have depression each year.

• Five of the most common mental illness in adults are anxiety disorder, mood disorder, psychotic disorders, dementia, and eating disorders.

- A large percentage of the population have more than one mental illness at a time.
- About five percent of the population is affected so severely that it affects their social presence and values.

• These severe and persistent mental illnesses include schizophrenia, bipolar disorder, other severe forms of depression, panic disorder, and obsessive-compulsive disorder.

• Approximately 20 percent of cases are related to anxiety disorders such as panic attacks.

II. DIAGNOSIS

The diagnosis of mental illness has sometimes been controversial due to concerns about the reliability and validity of the diagnosis. Current methods focus on the categorical assessment of presented symptoms, however, the assessment of the factors leading up to and correlated with mental illness could be a more helpful tool for identifying mental illness itself, but unlike physical health issues, psychological problems are not discrete, presenting instead along a continuum, and often not able to be verified through quantifiable evidence. This is a major reason most of the time mental illness remains undiagnosed making it conclusively more difficult to know its causes, triggers, and mainly its cure. There is even some concern that mental illness might not actually be a disease and instead is a sociologically constructed label of psychological conditions.



International Advanced Research Journal in Science, Engineering and Technology 5th National Conference on Science, Technology and Communication Skills – NCSTCS 2K22 Narula Institute of Technology, Agarpara, Kolkata, India



Vol. 9, Special Issue 2, September 2022

Models of Mental Illness

The three different models -- medical, psychological, and social -- are discussed below about the diagnosis and treatment of mental illness and their respective limitations.

The Medical Model

The most prevalent model of mental illness is the medical model. In 1965 an article was published by Schildkraut that hypothesized that certain forms of depression could be caused by a chemical imbalance in the brain. He hypothesized that some, or potentially all, forms of depression could be related to a decrease in catecholamine, particularly norepinephrine. This article would become known as the 'Catecholamine Hypothesis' and the basis for the updated bio-chemical medical model of mental illness that is most prevalent today. The medical model has several limitations, the greatest of them is that it is unable to show the causes based on chemical imbalance. The chemical imbalances talked about may be the symptoms and not the cause of mental illness. Even Schildkraut concluded in his article, "It is not possible, therefore, to confirm definitively or to reject the catecholamine hypothesis based on data currently available."

The medical model continues to treat the symptoms and does not understand the MOA of the medicines used. Whereas a large number of scientists believe that understanding the pathophysiology of the diseases is necessary to rely on the drug's effect, and labels the medicine used as "the mechanisms of action are not fully understood", thus underscoring the lack of evidence and support of the bio-medical model of the mental illness. Some scientists continue to argue that mental illness can never fit with the medical model. Mental disorders are also sometimes said to be an as mere response to environmental and circumstantial stimuli. They add that the mental health of people is transitional and based on daily experiences of everyday life. By labeling transitory behaviors and emotions, people are pronounced as being sick for reactions that are normal and part of the human condition. He continues to say that it is a logical error to equate mental health with physical health and that most mental health conditions are real issues with emotions and behaviours.

The Psychological Model

The second most prevalent model of mental illness focuses on the psychological state of individuals. The debate of whether our psychological state is shaped by experiences or by biological influences has been a deeply debated topic in psychology for decades. Its main argument is it says we r just our experiences and nothing more. While another set of scientists, mainly evolutionary figures argue that we r more influenced by our genes than our experiences. They viewed mental health as an inseparable part of nature and that one cannot attribute causality to either one.

Though in today's world the psychological model of mental illness takes the perspective that mental health is largely shaped more by environmental and experiential influences rather than biological ones. Like the medical model, the psychological model also has limitations. It also focuses on treatment, reduction, or elimination of symptoms. However, the psychological model looks to explain an underlying reason for the thoughts, behaviours, and emotions through environmental or experiential causes rather than biological ones. One of the most popular treatments in mental health is of CognitiveBehavioural Therapy (CBT). CBT takes the theory that mental illness is caused by underlying cognitive distortions and maladaptive behaviour. In more easy words it has many other reasons for its downfall, this field is more about experience and proficiency. So sometimes, a diagnosis might be diverse from each other even if the symptoms are overlapping.

Different diagnoses from different psychologists can confuse the patient. A stigma is attached to mental health diagnoses that turn a person into an abnormal human being.

Management

Your treatment depends on the type of mental illness you have, its severity, and what works best for you. In many cases, a combination of treatments works best. Treatment and support for mental disorders are provided in psychiatric hospitals, clinics, or a range of community mental health services.

The major process of treatment includes:

Lifestyle

This is an easy and strategic process for treatment. This may include changing diets, exercising, and quitting any kind of addiction. Sometimes psychiatrists also recommend keeping pets and spending time with them and themselves.

Therapy

Psychotherapy, also called talk therapy, involves talking about your condition and related issues with a mental health professional. During psychotherapy, you learn about your condition and your moods, feelings, thoughts, and behaviour. With the insights and knowledge, you gain, you can learn coping and stress management skills. There is also a wide range of psychotherapists (including

International Advanced Research Journal in Science, Engineering and Technology

5th National Conference on Science, Technology and Communication Skills – NCSTCS 2K22

Narula Institute of Technology, Agarpara, Kolkata, India

Vol. 9, Special Issue 2, September 2022

family therapists), counsellors, and public health professionals. In addition, there are peer support roles where personal experience of similar issues is the primary source of expertise. When choosing therapists one should feel comfortable and confident to share what they feel and he or she must be capable of hearing at a stretch what one has to say.

Medication

A major option for many mental disorders psychiatric medication and there are several main groups.

- Antidepressants. Antidepressants are used to treat depression, anxiety, and sometimes other conditions. They can help improve symptoms such as sadness, hopelessness, lack of energy, difficulty concentrating, and lack of interest in activities. Antidepressants are not addictive and do not cause dependency.
- Anti-anxiety medications. These drugs are used to treat anxiety disorders, such as generalized anxiety disorder or panic disorder. They may also help reduce agitation and insomnia. Long-term anti-anxiety drugs typically are antidepressants that also work for anxiety. Although Fast-acting anti-anxiety drugs give a short-term relief their addictive effects make them more
- **Mood-stabilizing medications.** Mood stabilizers are most commonly used to treat bipolar disorders, which involve alternating episodes of mania and depression. Sometimes mood stabilizers are used with antidepressants to treat depression.
- Antipsychotic medications. Antipsychotic drugs are typically used to treat psychotic disorders, such as schizophrenia. Antipsychotic medications may also be used to treat bipolar disorders or used with antidepressants to treat depression.

Prevention

Prevention is the most effective way to cure mental disorders. Prevention is not a step only taken by the person vulnerable to this disorder but this is the responsibility of everyone living in society to treat others and themselves rightly. Parenting may affect the child's mental health, and evidence suggests that helping parents to be more effective with their children can address mental health needs. Governments of countries are also taking universal prevention measures aimed at populations highly vulnerable to mental weakness, and making society aware of this highly neglected topic. Informing the symptoms, causes, and effects and also about their treatments gives them hope to live again.

III. CONCLUSION

Mental health is one of the major factors that affect society security, development rate, and stability. Ensuring mental stability of citizens is one of the important aspects of the health system of any country. It affects how we think, feel, and act as we cope with life. It also helps determine how we handle stress, relate to others, and make choices. Mental health is important at every stage of life, from childhood and adolescence through adulthood and aging.

REFERENCES

- [1] Belch, H.A., Understanding the experiences of students with psychiatric disabilities: A foundation for creating conditions of support and success, New direction for student services (2011).
- [2] Tang VWK, Leung SK, Lam LC-W. Clinical correlates of the caregiving experience for Chinese caregivers of patients with schizophrenia. Psychiatry Psychiatr Epidemiol (2008).
- [3] McGuffin P, Farmer A, Harvey I. A polydiagnostic application of operational criteria in studies of psychotic illness: development and reliability of the OPCRIT system. Arch Gen Psychiatry (1991).
- [4] Cranford, J.A., Eisenberg, D., &Serras, A.M : Substance use behaviour, mental health problems and use of mental health services in a probability sample of college students , Additive behaviour (2009).
- [5] Novotney A. Students under pressure. Monitor on psychology (2014).



