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EDITORIAL

Unfolding Mental Health Issues While Walking through the Crisis

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The world has witnessed severe humanitarian crises over the past decade, although the world was never free from this. The humanitarian crisis at the beginning of the past decade was more focal and confined to regions like Syria,[1,2] Afghanistan,[3,4] the Rohingya refugee crisis in India-Bangladesh,[5] the financial and political crisis in Venezuela[6] and Sri Lanka.[7] Along with this, major global crises like the COVID-19 pandemic[8] and the Ukraine-Russia war[9,10] are going on uninterruptedly, adversely affecting people's lives across multiple countries. Such events are mostly unanticipated and sudden.

During the initial phase of the COVID-19 pandemic, people were unaware of the threat due to COVID-19, sudden unanticipated declaration of emergency, global lockdown, lack of treatment, exhaustion of infrastructures, high contagious nature of the virus and reports of people dying in large mass in different corners of the world, evoked significant psychological distress in people.[11-14] People, irrespective of their socio-economic strata and vulnerabilities, experienced distress. The mental healthcare needs suddenly increased among the general population.[11] Lockdown resulted in disruption of transport, and closure of small healthcare facilities and routine healthcare services, as a result of which majority of people could not avail the essential mental health services, resulting in a big chaos. However, the governments managed well enough to deal with the emerging issues related to mental health and other healthcare services. A notable change during this pandemic is the increased utilization of online healthcare services.[15]

Though the COVID-19 pandemic is the biggest global challenge due to its extent and severity, several other significant local and regional issues affect mental health adversely. Afghanistan humanitarian crisis is one such example that had a significant mental health impact. The conflict between Taliban rulers and America resulted in a long war and bloodshed.[16,17] As per the World Health Organization report, about 22% of individuals who witnessed war and other conflicts during the past decade will develop one or other form of mental illness.[18] Furthermore, the ongoing war between Ukraine and Russia is expected to increase mental health issues in both the countries and countries.[9,19] Mass displacement, war trauma, loss of close ones, loss of job, abuse, human

trafficking, uncertainty about the future, abuse and violence during the ongoing war are expected to affect war victims' mental health adversely.

Similarly, several mental health issues were reported among the Rohingya refugees.[20] Refugee camps had outbreaks of several infectious diseases. Adverse life situations, survival challenges, uncertainty about the future, abuse and exploitation of human rights increase the vulnerability to mental illnesses. Such impact was also noticed in Iraq war veterans and the general population due to the long-run conflict with America.[17] The financial crisis in Venezuela and Sri Lanka[6,7] resulted in a rapid hike in the price of essential goods, safety & security concerns, poverty, and disruption of social cohesiveness and integrity, which are known to impair the community's mental health.

During a severe humanitarian crisis, almost all individuals affected during the crisis experience some amount of psychological distress.[18] However, the severity of psychological distress varies from individual to individual. Therefore, the amount of psychological distress may be minimized by enhancing psychosocial support, improvising the coping skills of the affected individuals, early detection of psychological distress and timely management.

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REVIEW ARTICLE

Mixed Affective Disorder: An Update

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Abstract

This review article has attempted to summarise the findings discussed in a book titled 'Mixed Affective States: Beyond Current Boundaries' published by the 'Psychiatric Clinics of North America' (PCNA) in its March 2020 edition. In the beginning, we will discuss the development of a comparatively new concept of 'mixed affective states' since the beginning of the last century. A discussion on the nosology of mixed affective disorder will be followed as per ICD-10, DSM-V and ICD-11 draft. Next, we will discuss the various clinical presentations of mixed affective disorders and the possible, probable and established aetiology of mixed affective states. Finally, we will discuss the available treatment options of mixed affective states, both, its pharmacological as well as non-pharmacological management.

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Introduction: Development of the Concept of Mixed Affective Disorder

Importance of the concept of 'mixed affective disorder' can be gauzed by the fact that the 'Psychiatric Clinics of North America' (PCNA) dedicated one entire issue on the subject, edited by Gabriele Saini and Alan C Swann recently[1]. Present review is an attempt to give a bird's eye-view of the various issues discussed in this book, in relation to mixed affective states.

Mixed affective state has been mentioned in the literature for more than a century. It is an established fact that opposite symptoms of mood do coexist, as mentioned in available literature. Mixed affective states challenged our known knowledge regarding bipolar disorder. Mixed states are usually associated with severe course of illness and there are new ideas put forth about an affective episode. We have seen the changes in the definitions of mixed affective states over the decades, based on the various available scientific, clinical, and social parameters.[1]

Thus, there is a need to develop a broader concept of bipolar disorder. This newer concept somewhat resembles the Kraepelinian concept of 'manic-depressive illness'. Kraepelin emphasized the need to understand the life-time course of the disorder and the clinical characteristics of individual manic or depressive episodes. Kraepelin in his 8th edition text-book has mentioned about 6 subtypes of affective disorder: (i) "depressive or anxious mania, (ii) excited

depression, (iii) mania with poverty of thought, (iv) manic stupor, (v) depression with flight of ideas, and (vi) inhibited mania".[2]

Salvatore *et al.* (2002) in a paper mentioned following percentages in various sub-types of mixed manic-depressive insanity, as it was observed and mentioned by Weygandt in the past: (i) pure type of recurrent mania and depression (7.3%), (ii) circular type of manic and depressive illness (23.3%), ((iii) circular illnesses with mixed states (33.3%), (iii) sustained periods of mixed episodes (14.7%), (v) agitated depression (8%), (vi) manic stupor (7.3%), and (vii) unproductive mania (6%).[3]

Nosology: What does ICD-10, DSM-V ICD-11 Draft says about Mixed Affective Disorder?

As per 'ICD-10 Classification of Mental and Behavioural Disorders and its Clinical Descriptions' of mixed affective states mentioned following diagnostic guidelines: Mixed mood (affective) episode has been described under the coding F38.00 and the bipolar affective disorder, with mixed current episode is coded as F31.6.[4]

It is described as "the patient has had at least one manic, hypomanic, or mixed affective episode in the past and currently exhibits either a mixture or a rapid alteration of manic, hypomanic, and depressive symptoms. A diagnosis of mixed bipolar affective disorder should be made only if the two sets of symptoms are both prominent for the greater part of the current episode of the illness, and if that episode has lasted for at least 2 weeks".[4]

In DSM-V mixed features are mentioned as a symptom specifier in Depressive disorders. It mentioned that "at least 3 among a set of 7 manic/hypomanic symptoms are present nearly every day during the majority of days of a major depressive episode. These mixed symptoms are observable by others and represent a change from the person's usual behaviour".[5] Same symptom specifier criteria are also applied for Bipolar-I disorder.[5]

In the ICD-11 draft bipolar disorder is coded as 6A6, which is further divided into 'type-I and type-II disorder'. "Further sub-divisions are further proposed as the Bipolar type-I disorder, current episode mixed, without psychotic symptoms (6A60.9) and the Bipolar type-I disorder, current episode mixed, with psychotic symptoms (6A60.A) and the Bipolar type-I disorder, currently in partial remission, most recent episode mixed (6A60.D)".[6]

Though we have seen the changes, that took place in the different editions of ICDs and DSMs, present-day diagnostic criteria in these two classificatory systems still does not have the adequate clinical usefulness. Premorbid characteristics like temperament, personality, and emotional reactivity, which are of potential clinical importance, are understudied till date in patients with mixed states and yet to be included in the current classificatory systems.[7]

Mixed Affective States: Clinical Presentations

Mixed affective states are not merely an admixture of symptoms of depression and mania. It reflects the presence of both depressive as well as manic symptoms. Irrespective of polarity of illness psychomotor activation is considered to be the core feature of mixed affective state. Most important clinical presentation that follows in a mixed state is the presence of dysphoria (irritability/hostility). Initial conceptual models of mixed state, that fit the clinically useful available empirical data were provided by Kraepelin and Koukopoulos.[8]

Barroilhet and Ghaemi (2000) in their review article on the "psychopathology of mixed states" discussed in detail about available multiple factor analytical studies on pure and mixed mania, pure and mixed depression. They also discussed about various clinical and conceptual models of mixed states, presented by various authors in the past.[8]

Even in most studies of 'pure mania' patients, there was reported underlying depressive symptoms. Similarly, symptoms of depressed mood, presence of guilt and suicidal behaviour may be seen in 13-30% of pure manic patients.[8] In a factor analytic study on 50 manic patients, Shah *et al.* (2017) revealed the presence of dysphoric mania in addition to other manic factors like pure mania, hostile mania and delirious mania.[9]

A consistent and independent factor that has been present across most studies is dysphoria (irritability/hostility). "Subtypes of pure and mixed

mania that has been reported in various cluster studies are euphoric, dysphoric, depressive, and psychotic manic states".[8] Similarly, contrary to the common belief, symptoms of mania are frequently seen in depressive illness, both in unipolar depression (38–47% patients) as well as in bipolar depression (68% patients). The main underlying manic factors were noted as psychomotor activation and dysphoria.[8]

"Agitated 'unipolar depression' is a clinical entity characterised by excitement together with depressed mood during the same episode".[10] Symptoms of agitated depression include presence of dysphoric mood, psychic and/or motor agitation, labile emotion, racing thoughts, and talkativeness, etc. Identifying mixed features in depressive episodes are important, as mixed states usually lead to state of worse course of illness and poor treatment outcome.[11]

There is increasing recognition of mixed features in depressive, manic as well as in hypomanic phases in bipolar affective disorders. Mixed clinical presentation is usually associated with increased suicide risk. "Mixed states of agitated depression and dysphoric mania are associated with much higher rates of suicidal behaviour than when such factors are not present".[12]

A special challenge for the clinicians is identifying a mixed state in early-onset bipolar affective disorder. Bipolar disorder patients in paediatric and adolescent age-group have severe symptoms, and a severer course of illness.[13]

Perinatal mixed affective state is another challenge for the psychiatrists and other mental health professional to handle and manage. Least studied and least understood affective disorder is the mixed affective state that is seen during the perinatal period. Perinatal period is the most vulnerable period in a woman for the emergence of mood episodes. Lifetime prevalence rate of mixed episodes is higher in women than men. In clinical practice agitated depression is more commonly seen in such women.[14]

Mixed affective states and various addictive disorders are frequently seen to be co-occurring together. Co-occurring substance abuse and/or dependence in mixed affective states modifies its various clinical presentations. Comorbid addictive disorders in mixed affective states are usually associated with poorer clinical outcome, treatment resistance, frequent recurrence of illness and hospitalizations. There is increase susceptibility to rapid-cycling of illness, high-cost of healthcare expenditure, and high suicide risk.[15] "Increased impulsivity and affective instability seem to be the common clinical symptoms of bipolar disorder and addictive disorders, being involved in the onset of both diseases and correlating with detrimental outcome".[15]

Aetiology of Mixed Affective States

While discussing about the neurobiology of mixed mania and mixed depression, we have to discuss the available knowledge and the role of multiple biological systems involved in the process; like circadian rhythms disturbances, and defect in the hypothalamic-pituitary-adrenal axis, monoamines, interleukins and other inflammatory mediators functioning. Mixed affective states show severe patho-physiologic processes when compared with their non-mixed states. "Biological alterations suggest that hyperactivation and hyperarousal are the core pathophysiologic mechanisms involved in both mixed mania and mixed depression".[16] Affective disorders and addictive disorders share same some of the above-mentioned neurobehavioral underpinnings, with some specific "impaired Response Inhibition and Salience Attribution (iRISA) networks".[15]

Various evidences are there that physical or psychological childhood trauma may lead to the development of mixed affective states in bipolar illnesses during adolescent years and early adulthood. Such traumas during childhood are likely related to emotional hyper-reactivity and, adolescents with bipolar disorder with mixed states reported to have higher levels of emotional hyper-reactivity.[17]

Is there a temporal correlation between the lifetime course of illness in a mixed affective state with that of sensitization due to childhood trauma? In clinical presentations of mixed state there is usually a range or dimension of symptoms ranging from a state of depression to mania. These symptoms may range from anxiety, impulsivity, hyperarousal to a

state of agitation. There may be frequent recurrence of illness with increase severity in expression of psychopathology, more stressful and traumatic life events and/or presence of co-morbid addictive disorder.[18]

Treatment of Mixed Affective States

Pharmacologic Treatment: Efficacy of second-generation of antipsychotic drugs (SGAs) and mood stabilising drugs has been established for the treatment of mixed affective illnesses. In acute phase of the illness, SGAs like olanzapine particularly showed encouraging results.[19] An effective treatment in the prevention of new episodes of mixed affective disorder is sodium valproate, especially in dysphoric mania. Lithium carbonate is still considered as the treatment of choice, to prevent the polarity of illness in a mixed affective episode.[19] We need a personalised management and treatment plan in cases of agitated unipolar depression. This includes use of mood stabilizers, atypical antipsychotics (SGAs) and benzodiazepines.[10]

When and how shall we use antidepressant drugs in case of treatment of mixed affective disorder? Antidepressants should only be used along with mood stabilizer drugs or along with a second-generation antipsychotic (SGAs) with associated mood stabilising properties.[19] Antidepressant drugs, if not combined with a mood stabilizer or a SGAs, can occasionally worsen agitation, worsen severity of mixed state, and/or potentially increase suicidal risk in such patients. Thus, using SGAs and mood-stabilizer in the treatment of mixed affective states reduces the associated suicidal risk, besides improving the mooed states in such patients.[12] Treatment of mixed affective states with comorbid addictive disorders are a challenging one, because we are yet to develop an ideal pharmaceutical drug with favourable response to deal with such complex clinical entity.[15]

Electroconvulsive therapy (ECT) is also considered as an important treatment option for patients of mixed affective disorder with severe psychopathology, especially, in drug-resistant patients.[20] Since the diagnostic criteria are still not adequately defined, patients with severe mixed affective disorder may get misdiagnosed and such patients may not get the necessary referral for the required ECT. As ECT is usually considered as the last resort treatment procedure, a delay in taking a decision to use ECT may lead to a state where the chances of recovery of our patients will decrease significantly.[20]

Whether psychotherapy has a role to play in the treatment and management of mixed affective disorder? We mainly have pharmacologic interventions as the available treatment guidelines for these patients. "In individuals with major depressive disorder, psychotherapy in conjunction with psychopharmacology has treatment effects almost twice as large as compared with single intervention".[21] While choosing a psychotherapy for the mixed affective state, we should incorporate modules which would aim to reduce the risk for suicide and would reduce the associated anxiety symptoms characteristics of mixed states. A psychotherapeutic treatment approach which includes a person-centered approach is the preferred approach over following a psychotherapy manual religiously.[21]

Conclusion

This review article attempted to summarise the findings discussed in a book titled "Mixed Affective States: Beyond Current Boundaries" published by the 'Psychiatric Clinics of North America' (PCNA) in its March 2020 edition.[1] In the beginning, we discussed the historical development of the concept of mixed affective states[2,3] and nosology of mixed affective disorder as per ICD-10, DSM-V and ICD-11.[4-7] Next we discussed the various clinical presentations of mixed affective disorders[8-15] and the possible, probable and established aetiology of mixed affective states.[16-18] Finally, we discussed the available treatment options of mixed affective state, both pharmacological as well as non-pharmacological management.[19-21]

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REVIEW ARTICLE

Status of Child and Adolescents Psychiatry in State of Uttar Pradesh

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Abstract

India has one of the largest numbers of young people in the world, with 35.3% of the total population falling between the ages of 0 and 14 years. Childhood is a time of mental and physical development and anything affecting the development of a child will have negative consequences as an adult. As reported from various surveys prevalence of mental morbidity vary from 1.8 to 15.2% in children and adolescents. Developing countries such as India have certain risk factors that contribute to additional children's issues, such as socioeconomic inequality leading to reduced access to education, child labour and these problems are even more severe in low socioeconomic states like Uttar Pradesh. To attend to the needs of such large population the manpower and infrastructure is not adequate. The paper will review the status of child and adolescent mental health services in our state.

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Introduction

India has one of the largest numbers of children and adolescents (hereafter referred to as children unless specified) in the world, with 35.3% of the total population falling between the ages of 0 and 14 years. Childhood is a time of mental and physical development and anything affecting the development of a child will have negative consequences as an adult. Therefore, it is important to focus on the mental wellbeing of children.

Uttar Pradesh is the country's most populous state, with 16.4 per cent of the population of the nation. There are 85.3 million children under 18 years of age in state of Uttar Pradesh, out of which Child population (0-6 years) is 29,728,235 constituting India's largest child population and among 0-14 age group Uttar Pradesh is second only to Bihar with 33.7 percentage of adolescents population compared to total population.[1]

As per NMHS 2015-16, prevalence of mental disorders across country in age group 13 to 17 years is 7.3%, common mental morbidity in this age group includes Depressive episode & Recurrent Depressive Disorder (2.6%), Agoraphobia (2.3%), Intellectual Disability (1.7%), Autism Spectrum Disorder (1.6%), Phobic Anxiety Disorder (1.3%) and Psychotic Disorder (1.3%).[2]

Over the last five decades, many epidemiological surveys have been done across state of Uttar Pradesh to find out the prevalence of mental morbidity

among child and adolescent population and findings suggests the prevalence of mental morbidity vary from 1.8 to 15.2%. Although these prevalence rates are much less than that reported from developed countries, due to the large population of children and adolescents in India, the magnitude of the problem is much more than the developed countries.[3]

Developing countries such as India have certain risk factors that contribute to additional issues among children and adolescents, such as socioeconomic inequality leading to reduced access to education, child labour and the problem is more severe in states like Uttar Pradesh that has the poorer socioeconomic condition. School dropouts also add up to this. Uttar Pradesh has one of the highest numbers of school dropouts.[4]

To attend to the needs of such large population the mental health related manpower and infrastructure is not adequate. The paper will review the availability of different types of child and adolescent mental health services in our state.

Prevention and Promotion

There have been various programs and strategies developed by Government of India which includes Integrated Child Development Services (ICDS), Rashtriya Kishor Swasthya Karyakram (RKSK) and Rastriya Bal Swasthya Karyakram (RBSK).

Integrated Child Development Services (ICDS) scheme was launched in year 1975 with the objective to improve health and nutritional status of child in the 0-6 years of age group and to lay the foundation for proper psychological, physical and social development of the child but in spite of increasing funding over the past three decades, the ICDS is still short of its stated objectives and faces a number of challenges. Also, despite having widespread coverage of population, operational gaps mean that service delivery is not consistent in quantity and quality across the country.[5]

Rashtriya Kishor Swasthya Karyakram (RKSK) was launched on 7th of January 2014 to have a coverage of 253 million adolescents - male and female, married and unmarried, rural and urban, in and out-of-school adolescents with a significant focus on undeserved and marginalized groups. This program expands the scope of adolescent health programming in our country- from being limited to reproductive and sexual health, it now includes in its ambit nutrition, violence and injuries (including gender based violence), mental health, substance misuse and non-communicable diseases.[6]

Rastriya Bal Swasthya Karyakram (RBSK) is an important initiative with a aim of early identification and intervention for children from birth to 18 years, to cover learning difficulties and behavioural disorders such as Autism are covered under it. Few early intervention centres are being established at the District Hospitals across the state as District Early Intervention Centers (DEIC). The main aim of DEIC is to give referral support to children suffering from health conditions during health screening, for children up to 6 years of age. Rastriya Bal Swasthya Karyakram (RBSK) also put emphasis on screening of children at Anganwadi centre and availability of mobile health team to ensure proper coverage, but still a lot needs to be done to make these services easily and readily available across the whole population.[7]

Some activities are being done under each program but full implementation has not been done.

Service Delivery

There is huge treatment gap for psychiatric services in India and state of Uttar Pradesh. Mental health gap in India ranges from 70% to 92% for different disorders according to NMHS 2015-2016.[8]

In Uttar Pradesh, there is a dearth of Child and Adolescent Psychiatric Services. Only a few centres in the state provide holistic services for the same, which mainly include the tertiary hospitals. The state currently has 23 tertiary centres, out of which only 3 have a specialist child and adolescent units.

In recent years, the state government has also put a lot of effort through the District Mental Health Program by appointing a Psychiatrist at every district hospital and provision of a social worker and nursing staff as well.[9]

The state government also provides for various special schools for children with an intellectual disability running under the names of Mamta (State School for Mentally Challenged boys and girls) in Lucknow and Allahabad. The total capacity in

this special school is of 50 children each. Similarly, shelter houses with a capacity of 50 have been set up in 3 districts; Meerut, Gorakhpur and Bareilly. 126 NGOs are registered under Govt of Uttar Pradesh out of which 44 are training centres for people with intellectual disability, and another 9 are training institutes for teachers for such children. No government or NGOs sponsored or special private schools for occupational training in children with Autism Spectrum Disorder (ASD) and Specific Learning Disorders (SLD) have been set up. Only a few private institutes are there to cater to the special needs of these children. Considering the huge population of children and adolescents in the State of Uttar Pradesh services available are very sparse and not readily available to all and there is urgent need of enhancing the training program to include dedicated training programs for Child and Adolescent population.

The major care provider for CAMH issues in the state of Uttar Pradesh are medical colleges, Private Psychiatrists, District hospitals and NGOs School-based care and community care services are limited to big cities only. There are few NGOs working for the health needs of children and adolescents in state of Uttar Pradesh such as Aam Welfare foundation, Aasra Foundation, Adarsh educational trust etc. but their main focus is on provision of food and cloth to vulnerable children, education and literacy, civic issues and providing shelter to orphans. There is serious lack of NGOs in State of Uttar Pradesh who are actively involved for the mental health needs of the youth.

Policy

Recently government of India has increased its focus on mental health issues, national policy on mental health was put forward in 2014, and it has put emphasis on care and management of vulnerable group of children such as children of persons with mental illness and promotion of training of Auxiliary nursing midwives for skill upgradation in mental health. This work force caters to children and mother's mental health issues of underprivileged areas of state, but still a lot of ground work is needed to be done for sufficient implantation of these policies.[10] Mental Health Care Act 2017 (MHCA) has also taken few good steps like provision of half way homes, sheltered accommodation, provision of child mental health services and prohibition of separation of children under 3 years of age from their mothers who are suffering from mental illness unless there is threat to safety of the child.[11] Research suggests that up to 70% of youth in conflict with law have some diagnosable mental health problems. Commoner ones includes Externalising disorder such as Conduct disorder (40.9–64.7%), Attention Deficit Hyperkinetic Disorder (ADHD, 4.1–19.2%) or substance use disorders (40.2–50.4%). Externalising disorders are associated with increased chances juvenile delinquency, violence, and recidivism. To take care of these children and adolescents Juvenile Justice Act (JJA) 2015 has mandated early identification of children in need of care and protection (CINCP), ensuring their psychological wellbeing, and to promote their social reintegration & rehabilitation.[12]

One of the most welcoming steps from government is implementation of new education policy which is supposed to bring pedagogical framework for early childhood care and education for children up to the age of 8 years which is supposed to reduce early school difficulties, increase interest in studies and might reduce school dropout rates. Substance use is also one the major concern especially in adolescents age group as this not only imposes serious health issues but also leads for poor academic performance, family conflicts, monetary challenges, and act as a gateway for exposure to other substances and possibility of legal issues as well. So, to take care of substance use among children and adolescents, adequate rehabilitation services, training of teachers and parents for early identification of substance use and appropriate laws should be made for substances which are frequently used at this age such as Volatile substances and Inhalants.

Human Resource and Training

Training of medical officers are being done at various centres to increase their knowledge and understanding of common mental illness including common mental disorders in children and adolescents such as Learning disabilities.

District Mental Health Program (DMHP) is also helping in not only providing treatment of mental

illness but also reducing the stigma and increasing awareness towards mental illness. DMHP is also providing training of Medical Officers for early identification and management of common mental illness at primary health facilities. Report on evaluation of District Mental Health Program by Indian Council for Market Research (ICMR) has also suggested that DMHP has been a positive step towards management of mental illness and there is a significant difference in awareness about mental illness in districts where DMHP is functional as compared to Non DMHP districts, But still utilization of budget is not up-to the mark at all the districts in state of Uttar Pradesh which further needs more focused attention from the government.[13]

Number of post graduate seats for both M.D. in Psychiatry and M.Phil. Psychology were very minimal but due to constant efforts from government in last few years currently number of seats of M.D. in Psychiatry are increased to 65 and 54 for M. Phil clinical psychology, but still there is vast dearth of manpower considering huge population of the state. During tenure of M.D. in Psychiatry only 3 months of training is advised as per National Medical Commission (NMC) which seems to be insufficient considering the vast nature of Child and Adolescent Psychiatry and time and expertise needed to practice the same. Another major issue is that most of the medical colleges don't have expert child and adolescent psychiatrist available to train post graduate trainees which further defeats the purpose of training in child and adolescents psychiatry during M.D. in Psychiatry.

Recently two seats of one year fellowship program in child and adolescents psychiatry is been started by department of Psychiatry, King George's Medical University. Indian Association of Child and Adolescent Mental Health (IACAM) has also started one year certificate course in Child and Adolescent Psychiatry for General Psychiatrist.

Discussion

Schools

The mental health of children and adolescents should be the foremost priority as they are said to be the future of the nation. Making healthcare accessible and affordable is another way to improve the mental health situation in the state. Schools can be a good starting points as large number of children spend good part of time at school. Awareness can be increased in school teachers and other staff about mental health problems of children and simple ways to help children at school. Similarly, many programs which help in better mental development of children like good behaviour games, incredible years may be implemented. Other programs like "Youth Aware of Mental Health Program" for anxiety and depression or "sources of strength" for suicide prevention may be implemented in adolescents.[14]

Life Skill Training (LST) program is being practiced in various forms in different parts of country. LSE focuses on various skills domains such as decision making, coping and communication, interpersonal skills, critical thinking skills and self-management skills. Purpose of these skills is to improve coping, dealing with failures/breakups and to make them less vulnerable for substance abuse and prevention of adolescent suicide. One of the similar approach has been adopted by Delhi government in form of Happiness Program in schools, it aims to improve mindfulness, self-awareness, critical thinking, development of effective communication skills, empathy and coping skills. In recognition of importance of "Life Skills" and with a view to making it accessible to all children and adolescents, similar approach can be used in state of Uttar Pradesh through training of school teachers.[15] Gate keeper training of School Health Professionals, School Counsellors, Teachers and Students is a very nice approach for early identification of high risk adolescents for suicide, this has been done at many states with very good outcome, there is need of incorporation of this training program to every school in state of Uttar Pradesh.[16] Further we can develop a manual for common mental illness of child and adolescents and can use of this at district level with help of District Mental Health Program to increase the coverage of population.[17]

Community

Considering huge population of the state of Uttar Pradesh it is almost impossible to have enough

Psychiatrist and trained physicians to deal with emerging mental health issues of child and adolescents. So, to overcome these shortcoming various community-based approaches can be used after raising community awareness. Many of these were used in study groups conducted in various parts of world and found to be effective.

Another approach that can be used is Population and Community-Wide Mental Health Awareness Programs which was used in China, Burundi, Indonesia, Nepal, Sri Lanka, and South Sudan. In this program children with war conflict settings were included. Various community level interventions to raise awareness and decrease stigma were done. Strategies including emotional and social support, education and awareness-raising targeting women's groups and caregivers, other strategies including microfinance, parent training, recreational activities, as well as games, meditation and yoga were also promoted to enhance the resilience of children and adolescents. In addition, adolescent-focused activities including peer dialogues, community drama, adolescent mobilization for social action, traditional-cultural ceremonies, support for reintegration and family reunification of ex-child soldiers, self-help groups, utilization of community and cultural resources, formal and non-formal education and child protection services were used to enhance the mental health of the children and adolescent's population.[18] There is need to develop similar prevention programs in our state that can target child mental health outcomes with special focus on primary prevention.

In another study conducted in Malaysia, psychoeducation about child mental health was delivered to teachers and parents in open sessions with key stakeholders assisting in increasing engagement with interventions. For settings with children affected by armed conflict, community sensitization and public awareness programs were conducted and it was found to be quiet effective in raising awareness regarding mental health issues of children and adolescents.[19] Similar models can be used in our state as well to raise awareness among teachers and parents regarding mental health issues of the vulnerable group as they are the one who can help in early and effective screening among children and adolescents as well as can help in reducing stigma towards common mental disorders.

Community-based rehabilitation, such as building children's skills in daily living activities and assisting parents find income-generating activities, life skills programmes, apprenticeships, vocational skills training, and livelihood programmes, should also be included for childhood development disorders.[20] Many studies around the world have found that these interventions are effective in reducing social exclusion and helping rehabilitation services. There is a need to strengthen rehabilitation services in our state.

There is also need of increasing awareness about mental illness of children and adolescents by the ways of electronic and paper media, involvement of imminent personalities of the state so that stigma and myths related to mental illness of young can be reduced and participation of members of community can be increased.

The gap between the burden of mental disorders and available evidence-based services is widening in low-and middle-income countries, so there is a need to strengthen community-based mental health care for children and adolescents, including school-based primary screening and non-school-based screening of children on various community platforms such as homes, non-governmental organisations, prisons, and community centres.

Clinical Services

Considering huge population of children and adolescents in state of Uttar Pradesh there is need to increase number of child psychiatrist, which can be achieved by increasing focus of training of psychiatrist in child psychiatry and starting of speciality courses such as D.M. courses in child psychiatry which is currently not available in our state. To improve delivery of the community components of interventions, government is currently focusing on training in psychiatry of medical officers posted in far-flung areas with limited access to mental health services. To enhance population coverage, our primary care physicians working at PHCs/CHCs and District hospitals should get sensitization regarding common mental illness of child and adolescents population, currently training of

primary care physician is being done at KGMU but involvement of other pioneer institutes of the state would be required so that most of our physician gets basic knowledge about common mental issues of this vulnerable population. There is need of better networking and much greater coordination between Paediatricians and Child Psychiatrists and between Child Psychiatrists and general adult Psychiatrists to ensure a smooth referral system for child and adolescents suffering from mental illness. Other health workers such as nurses, ANMs and ASHA must also be aware about mental health problems of children, so that referral can be done at an appropriate time and early intervention can be done to achieve better outcomes.

Other than these we need to improve the utilization of grass route workers such as community health worker who have more robust reach in community, they are responsible for outreach, education, promoting adherence, and documentation and monitoring outside of the health facility. Formal providers, who have not received professional training in mental health, including teachers, law enforcement officers, and social workers should also be brought to the picture to ensure coverage of population which are left out by medical health workers. Similarly, non-formal providers who are lay persons who do not have a formal role in the health or other service provision programs should also be involved. Non-governmental organizations often recruit and train lay persons in the community to take on psychosocial programs. For children and adolescents with common mental disorders who are in remote areas of the state where no formal health services are available these service providers can be of great help.

There is an urgent need for a mental health policy for young to provide a developmental framework for the enhancement of mental health resources and guide adequate development of services and with a mere 1.15% of the gross domestic product of India being spent on healthcare, the budget for mental health is less than 1%. Out of this, the budget utilized specially for the mental health of children is minuscule.[21] We can take help of WHO child and adolescent mental health policies and service guidance package to build policy for comprehensive mental health needs of children and adolescents. Recognizing the needs of this population and putting in place appropriate actions is the need of the hour.

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REVIEW ARTICLE

Violence in Psychiatry - An Over-emphasised Subject

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Abstract

Psychiatry as popularly said is a subject in its infancy and various aspects of it remain unexplored of which one is violence. Violence in psychiatry has intrigued researchers for decades and yet remains understudied. Various neurotransmitters and brain pathways have been found to be associated with aggression and vivid mechanisms have been hypothesised in violent patients. Schizophrenia, mania, depression, some particular personality disorders etc. are predominant mental illnesses associated with some incidences of violence but not exceeding that done in general. News and media notoriously present the scenarios of violence and add to the already existing stigma in general public about violence done by patients with mental illnesses. This leads to an opinion in public of chronic mentally ill patients being better in institutions. Though in recent years with development of forensic psychiatry and newer mental health care acts emphasis has been given to rights of mentally ill patients.

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Introduction

World Health Organization (WHO) has defined the "Violence" as "intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal development or deprivation" (WHO, 1996).[1]

It has always been an association widely studied and discussed yet remains partially explored and controversial till this decade. Violence in society may have huge impacts on public health that requires an open-minded approach to understand and diminish. In the sector of mental health care, several hurdles must be crossed with regards to notions about preventing violence and to reduce the number of people with mental health and substance use disorders stuck into the justice system. In practice, other areas of mental health are given precedence over such issues as clinicians' focus on patients rather than the caregivers who actually suffer more than the patient in cases of violence, so this write-up is an effort to highlight this underlying lacuna.

In general, the prominent determinants of violence are young age, male gender and lower socioeconomic status.[2] Meanwhile research suggests higher occurrence of aggression in persons with mental illnesses on top of which

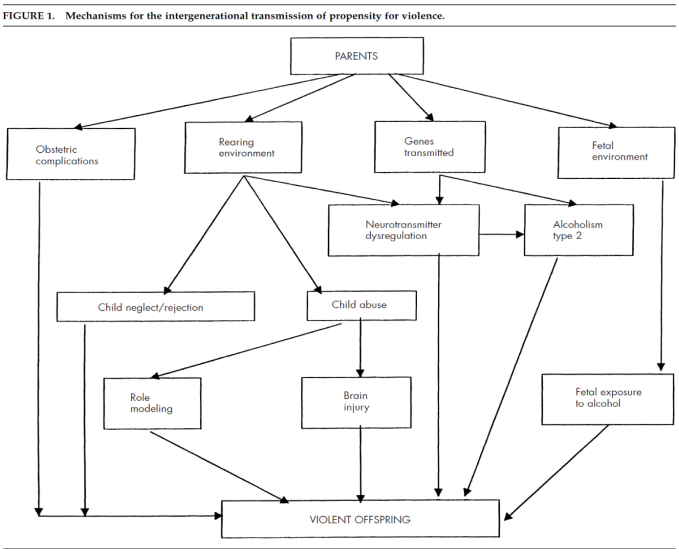

Figure 1: Intergenerational transmission of violence-mechanism.[4]

concurrent use of substance by a person with mental illness increases the chances of violence by two-fold.[3]

As for the neurotransmitters under studies for violence hyper-dopamine in striatum has been found to weaken inhibitory pathways which regulate impulsivity. Lower serotonin levels especially in pre-frontal cortex are found to be associated with aggressive behaviour. Association has also been found between arginine-vasopressin, cortisol and testosterone as they also promote aggression in a person.

Previous literature on neurobiology of violence various mechanisms for violent behaviour have been suggested as summarised in Figure 1.

Studies have classified violence into mainly three categories:

- Impulsive - as assault committed without forethought in response to a provocation,
- Planned/Predatory - an intentional assault committed for specific goal/purpose,
- Psychotic - as assault committed because of delusions, hallucinations, and/or disordered thinking.

The evidences have emerged that a diagnosis of schizophrenia has an association with rise in criminal offending. This has implications for caregivers, mental health professionals, administrators, law enforcement personnel, court system and policy makers, although majority of these individuals with schizophrenia do not show violent behavior.[5] It has been recorded that the criminal behaviors by these patients, could not be entirely owed to active symptoms or comorbid substance use or characteristics of systems of care, but also attributable to brain abnormalities, demographic factors and other psychiatric co-morbidities.

As also suggested by studies, depression is the primary diagnosis in murder-suicides i.e., individuals with depression may act out violently against others in anguish and after such act may attempt suicide.[5] Violence Risk Assessment Study, with a diagnosis of depression, recorded two key findings related to depression with future violence risk:

- First was that future risk of violence in depressed individuals may be better predicted by past (last 10 weeks) history of violence compared to individuals with psychosis.
- Second was that the risk of future aggression is increased with alcohol use by individual with depression,

It has been advised that assessment of the risk of violence (both towards self and outside) should be considered routinely for individuals with clinical depression.

Patients with a diagnosis of mania mostly act out violently only when they are being restrained or limits are set on their actions; they exhibit aggressive or threatening behavior but serious violence is usually rare.[6]

It has been observed that individuals who are usually short tempered and lack empathy for others, also those with personality disorders especially borderline and antisocial are at increased risk for violent behavior.

It is advisable to assess for suicide risk in individuals threatening for homicide. The incidences of future violence may be predicted if patient attempts violent suicide act, so such individuals should be carefully evaluated.

There is a high possibility that the persons with mental illness might be the victims of violence while it has been observed frequently that general public usually magnify the relationship between major mental illnesses and violence. Violence by individuals with mental illness especially as

exaggerated in entertainment and news media leads to an increase in stigma against individuals with mental illness. This contributes to avoiding treatment, as well as less access to good jobs and housing, causing frustration and ultimately leading to greater risk of violence by such deprived people.

Deinstitutionalization which began in 1955 was a sound idea but it failed to ensure that the individuals leaving the hospital engage in society and continue to receive the necessary treatment to safeguard from again developing illness or relapsing has been a disaster. This has led to a misconception in public that patients with mental illnesses can not be treated and they pose a threat to society and are better in institutions or asylums.[7]

Some of the most effective forms of treatment compliance for individuals who have serious mental illness are-

- Assisted outpatient treatment (AOT),
- Conditional release and
- Mental health courts etc.

In fact, the new mission of forensic mental health systems is- managing violence as medical disorder in an environment that maintains balance between treatment and safety. It emphasises on patients staying in the society while regularly maintaining treatment and periodic assessment for risk factors and managing risks if any.

Behavioural, psychological, pharmacological, and environmental interventions may help in reducing the occurrence of patient violence in acute inpatient units. When a therapist ascertains, or should ascertain, that his patient may present a serious risk of violence to another person, he has an obligation to use reasonable amount of care to protect the person/persons that the patient intends to harm" (Tarasoff II).

The psychiatrist, to prevent any unfortunate future catastrophe, can consider various options like hospitalization, warning the intended victim, warning the police or if possible letting the patient himself warn the intended victim and at the same time considering to increase the OPD follow-ups and appointments along with advising the caregivers to stay cautious and report timely if danger persists or if the patient becomes unmanageable.

A structured program in which along with managing the active symptoms of the patient's illness, his criminogenic personality (if assessment suggests), and other behavioural factors and comorbidities like substance misuse (if found) and social dislocation are managed then it could help in preventing the progress to violence.

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ORIGINAL ARTICLE

Predictors of Perceived Stress Among Healthcare Workers During COVID-19: A Cross-sectional Study from North India

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Abstract

Background: During current pandemic, health care workers (HCWs), found to be a vulnerable group for experiencing psychological and psychiatric difficulties owing to direct or indirect involvement with COVID-19 patients. This study was organized to measure perceived stress and coping styles among HCWs of a tertiary care hospital in Lucknow, Uttar Pradesh.

Methods: A cross-sectional, online self-reported questionnaire-based study was conducted among HCWs. Cohen's perceived stress scale, and Brief COPE were used. Data were analyzed using descriptive statistics and multiple regression analysis.

Results: A total of 298 HCWs responded; most of them perceived a Moderate Stress (63.8%) followed by Low Stress (24.2%) and high stress (12.1%). In terms of severity of perceived stress and coping styles there were significant differences based on gender, marital status, family type, occupation and work status regarding COVID duties. Age and gender predicted perceived stress. Perceived stress also predicted suicidal thoughts but not mania and psychotic symptoms.

Conclusion: A substantial proportion of HCWs perceive moderate to elevated levels of stress during the pandemic which varies based on their gender, family type, marital status, occupation, and work status. Hence, there is a need for routine screening and interventions for HCWs at an early stage before they perform duties as frontline workers.

Introduction

Global attention is focused upon the current outbreak of COVID-19 infection. The World Health Organization has designated it as a pandemic state on March 11, 2020.[1] To this day, this epidemiological crisis remains one of the most pressing health issues worldwide.[2-4] This rapid upsurge in corona cases

has put an extreme burden on the overall health care system and affected health care workers by increasing workload, risk of getting infected and carrying the infection to their family members and friends.[5] Ongoing uncertainties are emerging about the nature of this virus, its treatment protocols, and preventive measures, which keep the Health Care Worker's (HCW) in a continuous pressure of getting updated, trained, and adopt new knowledge and practice measures. Apart from this, they faced hurdles like societal stigma, lack of resources, increasing social and political expectations and demands.[6,7] These have been reported worldwide in general and in India detailing the number of HCWs getting infected and even succumbed to severe illness and death.[8-10] Studies have shown that increasing perceived stress may increase the risk of adverse mental health outcomes like depression, post-traumatic stress disorder, sleep problems, anxiety and other psychopathologies.[10-12] A nationwide survey conducted in India revealed that high level perceived stress is present in 3.7% of the healthcare workers and the prevalence of depressive symptoms in 11.4%, and anxiety symptoms in 17.7% of the healthcare workers that require treatment.[7] Additionally, to find the emotional and cognitive responses of the health care workers to the COVID-19 pandemic and the psychopathology caused by it, it has become imperative to observe and detect individual responses and coping strategies which came up during such stressful time. Till now, the researchers have observed and recorded various stress-related responses among the HCWs which are protective and maladaptive.[13-16] These responses can impact psychological well-being, contributing to unfavorable mental-health outcomes.[17] Also, understanding coping strategies and their relationship with mental health outcomes help develop newer and more adaptive measures to be considered for health care workers.

Henceforth, this study was planned to measure perceived stress and different coping styles, among HCWs of tertiary care university hospital at Lucknow, Uttar Pradesh (India), which was among the largest COVID care facilities in the state. The hospital caters to the COVID-19 patients from Lucknow and adjoining districts and receives referrals from other cities of Uttar Pradesh for severe and complicated cases. This study would help in organizing the appropriate and necessary interventions at the initial stage to prevent the detrimental outcome for the HCWs working in COVID care facilities.

Methods

Study Participants

A total of 304 responses were received during the study period (i.e., 1st June to 31st July 2020). All the doctors (faculty, residents, interns), nurses, ward staff involved in triage, screening at fever clinic and sampling booths, diagnosing, and treating COVID-19 patients in COVID wards and ICUs. Those who were exempted for above duties due to lactation, pregnancy, medical co morbidities and incomplete responses were excluded. Hence, finally, a sample of 298 responses was analyzed in the study. This study was approved by the institutional ethics committee vide reference number IInd ECM COVID-19 IB/P7 dated 18-05-2020.

Study Tools

The questionnaire had five sections, namely, description and informed consent, baseline socio-demographic characteristics (Table 1), Perceived Stress Scale (PSS) and Brief COPE inventory. Data were collected anonymously, with only one response permitted per person. To ensure pandemic-specific answers, the pandemic was explicitly described in informed consent in each section of the questionnaires, and the term "during current COVID-19 pandemic scenario" was applied to each question,where it was required. Further to limit inadvertent participation and to assure relevance about the pandemic situation, two specific questions were asked at the end of the questionnaire;first, whether their responses (stress or coping) were experienced during the said pandemic in the study; second whether or not they experience similar symptoms before the epidemic started. At the end of the questionnaire, a helpline number of the department of psychiatry was provided.

The Perceived Stress Scale (PSS)[18] was used to assess stress levels. It is a metric for determining

Table 1: Sociodemographic details (N=298)

Variable		*Frequency (%)*
Age (years)	<25	112 (37.6)
	25–50	168 (56.4)
	>50	18 (6)
Gender	Male	161 (54)
	Female	137 (46)
Occupation	Doctors	205 (68.8)
	Nurses	22 (7.4)
	Others	71 (23.8)
Work	Duty (completed/doing)	79 (26.5)
	Expected duty in future	219 (73.5)
Marital Status	Single	186 (62.4)
	Married	112 (37.6)
Family Type	Nuclear	192 (64.4)
	Joint	106 (35.6)

The mean age of the sample was 31.13 ± 9.06 years.

how stressful those circumstances are in one's life. The questions were created to gauge how volatile, uncontrollable, and overburdened respondents' lives are. A variety of straightforward questions about current stress levels are also included on the scale. As an example, the PSS asks about feelings and emotions "over the last month," but in this report," within the current COVID pandemic" was used instead. PSS scores ≥ 10 have a sensitivity of 88% and a specificity of 88% for major Depression and require treatment.

The Brief COPE[19] is made up of 28 items divided into 14 subscales. Problem-focused coping and emotion-focused coping is split into two primary subscales from the 14 subscales. On a four-point Likert scale, each question was to be answered. Specific scores for each subscale and two primary subscales were calculated by adding the scores on both the items of the subscale separately. High scores on the scale mean that a specific coping mechanism is used more often.

Study Design and Procedure

This was a cross-sectional, online self-reported questionnaire-based study utilizing standardized tools conducted among health care workers of our tertiary care hospital. The Ethics committee approved the research at the university. At the start of the questionnaire, all potential participants provided an online written informed consent form. The link to the online questionnaire was distributed on Google forms via emails and WhatsApp groups, to the target population. A printed Quick Response code linked with the study was put on the institution's notice board so that HCWs could scan the code and download the desired form to their mobile phones. Each month, a maximum of three reminders were sent to all faculty and authorities in all departments via WhatsApp groups and emails. Participants were required to provide informed consent and information regarding their professional qualification, designation, current job in a specified COVID setup. They were also asked whether they had undergone training for performing duties in a COVID facility, whether they were qualified and expected to do duties in the future, whether they were currently performing duties, whether they had completed duty, or they were in post-duty quarantine. People infected with the coronavirus, and conflicting responses were removed from the study.

Statistical Analysis

Data were exported from Google Forms to Microsoft Excel (Microsoft Corporation, Redmond, Washington, USA, 2016) spreadsheet and coded. Descriptive statistics such as frequency and percentages helped in summarizing the demographic characteristics in case of categorical data and mean and standard deviation (SD) in continuous data. Different categories of perceived stress (mild, moderate, & severe), and Symptoms of DSM-5 (mild/Greater) were compared between genders, workgroups, occupation groups, family types, and marital status by using chi-square analysis.

Test of normality was performed for Sociodemographic data, perceived stress, coping styles and psychopathology by Kolmogorov test which suggested that all the data were not normal and hence on various groups comparisons of mean scores of perceived stress and coping styles were performed using non-parametric tests i.e. comparison of mean scores of each sub domain of brief COPE was performed between doctors,

nurses and other ward staffs using Kruskal-Wallis test (between group) and post-hoc analysis (within group). Multiple Regression Analysis (MRA) was performed to determine the predictors (age, gender, marital status, family type, occupation, work status and coping styles) of perceived stress and symptoms of DSM-5. The study was approved by the institutional ethic committee.

Table 2: Comparison of coping styles between males and females and between doctors, nurses and other wards staffs (Asymptotic significance 2-sided value)

	Gender wise (p values)#	*Occupation wise ##*	*Marital status#*
PSS Scores	0.020	0.101	0.0001
Instrumental Support	0.241	0.338	0.065
Active coping	0.378	0.129	0.510
Acceptance	0.743	0.441	0.749
Self-distraction	0.556	0.285	0.081
Denial	0.549	0.331	0.093
Planning	0.018	0.012*	0.643
Humor	0.133	0.000***	0.011*
Self-blaming	0.676	0.208	0.001*
Emotional support	0.034*	0.295	0.190
Behavioural disengagement	0.117	0.745	0.030*
Venting	0.220	0.001*	<.001**
Positive reframing	0.200	0.020*	0.682
Substance use	0.009*	0.0111	0.62
Religion	0.458	0.233	0.523

p values significant at *0.05, **< 0.001 Kruskal Wallis p value, #P values significant at *0.05, **p < 0.001on Mann-Whitney U test.

Study data were analyzed using International Business Machine Statistical Package for Social Science software (SPSS) version 21.0 for Windows (IBM Corp., Armonk, New York, USA). The differences between the groups were considered significant if p-values were less than 0.05

Results

Percieved Stress

Sociodemographic details are given in Table 1.Most of the HCWs (56.4%) in the study were 25-50 years of age, followed by younger age (37.6%) and least (6%) with people of age more than 50 years.

Based on PSS scores, most of the HCWs perceived a Moderate Stress (63.8%), followed by those who perceived Low Stress (24.2%), and least number of HCWs perceived high stress level(12.1%).

'Females' perceived higher stress as compared to 'males' (z = -2.35, mean rank M:F =141.62:165.08, p < 0.05)

Those who were 'single' perceived significantly higher stress as compared to those who were 'married'. (Z = -3.67, mean rank of S:M = 163.73:125.88, p < 0.001)

Coping Styles

In gender wise comparisons, 'Males' were more using denial (M:F = 161.78:141.77; p < 0.05) and substance use (M:F = 161.72:141.84;p < 0.05) while 'females' were more 'seeking emotional support'(M:F = 142.96:163.53; p < 0.05).

There were significant differences in the scores of Planning (p < 0.05), Humor (p < 0.001), Venting (p < 0.001) and Positive reframing (p < 0.05) between the different "occupation" groups (Table 2). On post-

Table 3: Showing comparisons of coping styles (post hoc analysis) between doctors, nurses and ward staffs

		Mann-Whitney U test (p value)								
		Doctors vs. Nurses (Mean rank)			*Doctors vs. Ward Staffs (Mean rank)*			*Nurses vs. Ward staffs (Mean rank)*		
Coping styles	*Kruskal-Wallis Test (p value)*	*Doctors*	*nurses*	*p value*	*Doctors*	*Wards staff*	*p-value*	*Nurses*	*Wards staff*	*p-value*
Planning	0.012*	109.86	152,61	0.002*	138.21	139.34	0.91	58.95	43.30	0.014*
Humor	0.0001**	118.22	74.68	0.001*	145.71	117.68	0.005*	41.41	48.73	0.121
Venting	0.001*	118.15	75.36	0.002*	145.55	118.15	0.008*	41.41	48.73	0.202
Positive reframing	0.020*	117.17	84.50	0.021*	143.83	123.11	0.051*	42.23	48.48	0.322

The table shows post hoc analysis of only those coping styles where there were significant differences on. Kruskal-Wallis Test. N (doctors) =205, N (nurses) =22, N (ward staffs) =71, * Significant at < 0.05 **Significant at < 0.001

hoc analysis, 'doctors' were using more 'Humor, Venting and positive reframing' as compared to the nurses and ward staffs both, while 'nurses' were using 'planning' more than the doctors and ward staffs (Table 3).

There was no significant difference found in coping styles between work status of those who were expecting duty in near future as compared to those who were doing or completed duty.

On multiple regression analysis (MRA) all the factors significantly predicted the perceived stress. (Good fit $p < 0.001$)

Age was found to be the strongest predictor of perceived stress followed by gender. Marital status, family type, type of occupation and work status did not affect it significantly.

After addition of "problem-focused" coping styles; instrumental support had a significant effect on the perceived stress. Self-blaming, emotional support, and denial in "Emotion-focused" coping styles, had a significant effect on the overall variance (Table 4).

Discussion

In our study, a high stress level was reported only in 12.1% and moderate level of stress is reported by the majority (63.8%) of the participants, which is consistent with the previous study conducted in Karnataka which revealed that 47.6% of the healthcare workers involved in COVID-care experience a moderate level of perceived stress.[21] A nationwide survey conducted in India found that

Table 4: Multiple regression analysis, coefficients of each factor for perceived stress

Model	*B*	*LL*	*UL*	®	*SE B*	*Sig.*	R^2	⊗ R^2	*F*
(Constant)	20.444	14.491	26.397		3.024	0.000	0.279	0.227	5.363
Age (in years)	-0.170	-0.283	-0.058	-0.225	0.057	0.003			
Gender	1.963	0.471	3.456	0.143	0.758	0.010			
Occupation	-0.308	-1.253	0.637	-0.038	0.480	0.521			
Work status	-0.225	-1.835	1.385	-0.015	0.818	0.783			
Family type	-0.018	-1.582	1.546	-0.001	0.795	0.982			
Marital status	0.914	-1.227	3.055	0.065	1.088	0.401			
Active coping	-0.803	-1.814	0.208	-0.115	0.513	0.119			
Instrumental support	1.171	0.315	2.028	0.171	0.435	0.008			
Positive reframing	-0.326	-1.216	0.563	-0.050	0.452	0.471			
Planning	-0.372	-1.346	0.601	-0.052	0.494	0.452			
Acceptance	-0.812	-1.746	0.122	-0.118	0.474	0.088			
Self-distraction	0.865	-0.024	1.755	0.131	0.452	0.057			
Behavioural disengagement	0.178	-0.688	1.043	0.026	0.440	0.686			
Denial	1.319	0.242	2.396	0.169	0.547	0.017			
Emotional support	-1.273	-2.180	-0.366	-0.182	0.461	0.006			
Venting	0.897	-0.070	1.865	0.121	0.492	0.069			
Religion	-0.321	-1.074	0.432	-0.052	0.382	0.402			
Substance use	0.248	-0.939	1.434	0.027	0.603	0.681			
Self-blaming	1.325	0.181	2.469	0.152	0.581	0.023			
Humor	-0.744	-1.612	0.124	-0.106	0.441	0.093			

Model = "enter method in SPSS statistics." B= Unstandardized regression coefficients, CL=Confidence interval, LL=lower limit, UL= Upper limit, ®= Standardized Coefficient, SEB=Standard error of coefficient, R^2= Coefficient of determination, ⊗ R^2= Adjusted R^2,
*p value Significant at < 0.05, ***p < 0.0001

high level perceived stress was present in 3.7% of the healthcare workers.[7] This finding of the present study can be attributed to "younger workforce" of residents and the "genders differences" in the study populations, discussed further. Apart from reasons discussed above, other possible factors or perceived stress and mental health symptoms may be geographical variations in the number of COVID-19 cases in India, availability of health infrastructure, facilities provided by the government, and the number of workforces available at the time of the study (i.e., June-August 2020). In our study the perceived stress was comparable between doctors, nurses and other ward staff, and between those who were expecting duty in near future as compared to those who were doing or completed duty and between groups with different family types.

Our study found significant differences ($p < 0.05$) in the stress levels between the genders. This finding is consistent with previous studies reporting higher perceived stress among female HCWs (Table 2). Similarly another Indian study found significant differences in the level of stress between male and female HCWs involved in COVID-care.[22] However, other Indian studies revealed no such difference between males and females.[23,24] High scores of anxiety symptoms in females, smoking in males reported in line with previous research.

Most of the HCWs engaged in COVID care in a tertiary teaching hospital are residents under the supervision of the medical faculties; hence, in our study, most participants were young individuals. In this study, age is found to be the strongest predictor of perceived stress irrespective of their gender, occupation, family type, marital status, work status and coping styles (Table 4, $p < 0.05$), though the gender has significant variance in the overall effect in the study model. This finding is in line with recent studies on HCWs during the pandemic. The predictors of higher perception of anxiety are "younger age", "female gender", "unmarried", and medical co morbidities.[7,25] However, there are some studies which indicate opposite findings as well.[22,26] It has been found that emotional exhaustion is low among HCWs with ages less than 23 years.[24] In another Indian study, it was found that stress among the residents posted in COVID management was low in comparison to the professors posted in the duty.[22] However, in our study stress levels were comparable across all the doctors (resident and faculty).

We found a significantly higher level of stress ($p < 0.001$) among the HCWs who were "single" as compared to married people (Table 2). This data agrees with previous studies during COVID-19 which highlighted that being single was predictive of higher psychological distress and higher anxiety[25] and depressive symptoms[27-29] among hospital staff. On regression analysis marital status did not contribute to the variance of perceived stress and we also could not see differences in coping styles between the genders.[30] It is well known that "Marital status" is an important social factor in Depression among the adult population and this effect is not pronounced with increasing age.[31,32] Newer research also indicates that marital status is associated with major depression prevalence; however, the strength of association may be modified by age and gender.[33] Specifically in context of COVID-19, a link between marital status and depressive symptoms could also occur due to fear of contracting infection to one's spouse.

During COVID pandemic a study on 300 international students[34] from all over the world revealed that not only rumination and worry had significant negative relationships with mental health but also were the significant predictors for mental health. Furthermore, findings revealed that females had more worries with ruminative thoughts during the COVID-19 pandemic Outbreak. Additionally, we observed that those who were 'single' have reported "greater" scores on sleep problems, suicidal thoughts, and symptoms of compulsion and dissociation which might be secondary to their level of perceived stress with varied use of self-distraction, planning, using substance, seeking emotional support and self-blaming. However, we have also observed the effect of occupation on these mental health symptoms showing different workloads, roles and responsibility sharing during COVID-care.

In the present study, nearly one-third of the participants reported "Greater" anxiety and depressive symptoms. Common factors seen for these symptoms are higher perception of stress, and combinations of using active coping, self-blaming, self-distraction, substance use and

seeking emotional support. Studies suggest that people use emotion-focused coping and problem-focused coping styles in varied and dynamic ways to manage their negative affect.[35] In a systematic review, it was reported that coping strategies varied amongst the contrasting sociocultural settings and appeared to differ amongst doctors, nurses and other HCWs. Most of the studies assess coping strategies, such as acceptance, resilience, active coping and positive framing being used to cope with pandemic related stress. Doctors were significantly more likely than nurses and healthcare assistants (HCAs) to use planning as a coping strategy, while nurses were more likely than doctors to use behavioral disengagement, and HCAs were more likely than doctors to use self-distraction.[36] However, in our study there is contrasting significant differences in the coping styles of doctors, nurses, and other healthcare workers. Doctors were using more 'humor, venting and positive reframing' as compared to the nurses and ward staffs both, while 'nurses' were using 'planning' more than the doctors and ward staffs (Tables 2 and 3).

One systematic review and meta-analysis done recently, has observed high prevalence of depressed mood (22.8%), anxiety (23.2%), and insomnia (34.3%) among HCWs during the COVID-19 pandemic. Also, being female and frontline deliveries of their responsibilities seem to be the main factors associated with an enhanced risk of developing these mental disorders.[37] The likelihood of HCWs developing psychotic symptoms as a result of the psychological distress owing to pandemic has been found in few studies.[38] However, its severe nature and high risk pathology requires researcher's attention. The low effect of perceived stress of COVID pandemic indicates higher chances of pre-existing (biological) vulnerabilities than the contextual factors in causation of severe mental illness.[39]

The present study's findings indicated that HCWs with higher perceived stress reported more use of instrumental support, denial, self-blaming, behavioral disengagement, venting, and substance use more significantly, whereas significantly lesser use of coping strategies like positive reframing and acceptance. The study also found that self-distraction, self-blaming, emotional support, and denial had significantly predicted high stress among HCWs (Table 5). Evidence supports that Depression and anxiety are seen among people who were unsure about coping and had difficulty coping.[40] Healthcare Workers use many ways to combat the stress they encounter during COVID-care. A study among US healthcare workers revealed that exercise and physical activity are the most common coping behavior.[37] Similarly, an increased sense of meaning and finding a purpose(positive reframing) in life has been reported in many healthcare workers, which help them cope during the COVID-19 pandemic.[37] Exercise was observed to be the most generally used coping strategy (59%) in 657 American HCWs, and access to the individual therapist with online self-guided counseling (33%) generated the most interest.[37] Support from supervisors and colleagues was found to be a significant negative predictor for psychiatric symptoms and PTSD.[41] There was not much difference in the coping styles between male and female HCWs in our study and between the HCWs with different work status.

In a factor analysis of the psychological impact of COVID-19 among HCWs, it was found that doctors experience the highest level of anxiety among the healthcare professionals.[25] A meta analysis found that nurses involved in COVID-care commonly experience mental health issues like sleep disturbances, anxiety, depression, stress, and post-traumatic stress disorder.[42] Factors like female gender, poor resilience, low social support, and those having symptoms of COVID-19 were found to be predictive of such findings.[42] In our study, people who belonged to "nuclear families" reported greater somatic symptoms and substance use than those who belong to joint families. These findings suggest the role of family and being married as a "support system" causing "better coping" and resilience and lesser manifestation of mental health symptoms.[42]

Strengths and Limitations

Although, during the pandemic limitations, anonymous self-reported data collection gives more reliable results, we collected the data using standard and structured questionnaires. The study has a good sample and provides a reflection about the level of

stress, coping styles and psychological symptoms of HCWs. Still, our study has a few limitations.

- The study is limited to the HCWs of a single institute. The resources, infrastructures and workload of institutes involved in COVID-care vary across the country, which may contribute to differential perception of psychological disturbances. Hence, the study findings cannot be generalized to another setting/region/ or whole of India.
- By the very nature of the study and other practical limitations, randomization in the sample collection could not be done. The findings of this study should be considered in this light that it was a self-report survey not a clinical evaluation.

Summary

Given the high reports of severe to moderate levels of perceived stress, in combination with maladaptive coping style may put HCWs at higher risk of developing various psychopathologies like depression, anxiety, somatic symptoms, sleep problems commonly and even the risk of psychotic symptoms. Hence the HCWs or supposed to be work as frontline workers, should be screened for psychopathologies and timely psychological interventions should be planned, which may be provided via telemedicine.[43] Also, there should be adequate training in techniques for reducing stress, using healthy coping styles to prevent serious psychopathologies. Furthermore, multicentric studies and longitudinal studies are needed to look for development of serious psychopathologies in high-risk population of health care workers.

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ORIGINAL ARTICLE

Study of Anxiety and Depression in Post Graduate Residents during Active Phase of COVID-19 Duty in a Tertiary Care Hospital: A Pilot Study

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Abstract

Objective: Study of Depression and Anxiety in Post Graduate Residents during active COVID-19 duties.

Materials and Methods: The participants were selected from various specialties, from different Residency years 1st, 2nd, 3rd posted in ASCOMS and Hospital's COVID-19 Wards and a comparative analysis was done based on number of duties and number of working hours. The scales used for the assessment were GAD -7(general anxiety disorder) and PHQ-9 (patient health questionnaire).

Results: Out of 28 participants 57.14% were males, 42.86% were females. According to these scales taken, the total number of PG residents facing Mild Depression were 50% (n=14), which was of significant concern followed by Minimum Depression in 18% (n=5) and Moderate Depression 18% (n=5) followed by Moderately Severe Depression in 7% (n=2) and Severe Depression in 7% (n=2).

Similarly in Anxiety using GAD-7 scale, 32% (n=9) were facing and dealing with Moderate Anxiety, followed by Mild Anxiety in 28% (n=8), Moderately Severe Anxiety in 25% (n=7) and Severe Anxiety in 14% (n=4).

Conclusion: This survey was conducted during the active duties of COVID-19. The survey was done on post graduate residents of various specialties. Anxiety and depression were found to be significant in number of Residents involved in active COVID-19 duties. This data was collected in 3–4 months of subsequent duties during the peak of COVID -9 wave. This further helps us in assessing the psychiatric morbidity among the frontline workers like doctors, nurses, and paramedical staff, which played a pivotal role in COVID-19 pandemic.

Introduction

This unprecedented COVID-19 Pandemic has caused disease in 11.36 million people and deaths of 158725 people till March 15th, 2021 as per Ministry of Health and Family Welfare (MoHFW).[1] It has caused a marked distress among the general population.

According to the study done by Jiaqi Xio Ng *et al.*,[2] there were high rates of psychological distress (34.43% to 38%) and stress (8.1 to 81.9%) in China, Spain,

Italy, Iran, US, Turkey and Nepal. A meta-analysis was also done by Nader Salari *et al.* to analyze the currently available research outcomes with respect to the prevalence of stress, anxiety, and depression during the COVID-19 pandemic and it was found that, it has caused immense physical health concerns and resulted in a number of psychological disorders.[3]

This distress is even caused to the health care workers (HCWs) especially the junior doctors (PG Residents) who are working as frontline warriors in these COVID-19 wards.

JZ Huang *et al.* found that the anxiety incidences in medical staff in a tertiary infectious disease hospital for COVID-19 was 23.04% and anxiety faced by female HCW's was higher than male HCW's.[4]

Depressive and anxiety signs and symptoms were studied and were found to be prevalent in junior doctors giving COVID-19 duties in these wards. HCW's who have contracted the disease while working in the hospital have developed a deep psychological impact in the form of anxiety, depression, and stress of transferring infection to the family members.

The family members of these HCWs also faced anxiety and Depression. The main risk factor was 'time (hours)' spent thinking about COVID-19, by family members. "Parents and kins of HCWs were at risk for developing depressive symptoms" [5] as studied by Ying *et al.*

According to Aggarwal *et al.*,[6] the most common problems associated with using cumbersome PPE kits was excessive sweating (100%), fogging of goggles, spectacles, or face shields (88%), suffocation (83%), breathlessness (61%), fatigue (75%), headache because of prolonged use (28%), and pressure marks on the skin at one or more areas due to repeated use (19%).

Study by Kang *et al.* in 2020 found out that doctors had 36.9% sub threshold mental health disturbances, 34.4% had mild disturbances, 22.4% had moderate disturbances, and 6.2% had severe disturbance as per PHQ-9, GAD, and Insomnia Severity Index.[7] These similar scales PHQ-9 and GAD-7 were used in our study to assess the outcome.

Medical staff also experienced emotional stress during the COVID-19 pandemic[8] including Doctors, nurses, and other hospital staff.

There are many studies done for measuring the impact of COVID-19 on general mass, but none has been done on the post graduate residents, this study is done to fill that gap.

Method

Participants

Post graduate residents from 1st, 2nd, 3rd, year from various specialties like medicine, anesthesia, surgery, obstetrics/gynecology, ENT, ophthalmology, psychiatry were included who were working in Tertiary Care Hospital (ASCOMS and HOSPITAL, Jammu). These doctors based on their Residency years had different working hours during their COVD-19 ward duties from April 2021 to June 2021.

The selection criteria for age included 25–45 years excluding any significant Medical and Psychiatric morbidities.

Working Hours

42 hours/week i.e., 6 duties per week, that included 5 day duties (5 X 6=30 hours) and one night duty (1 X 12=12 hours), hence total 42 hours. Third year Medicine Residents gave 72 hours duty per week. Anesthesia residents were giving 72 hours duty per week.

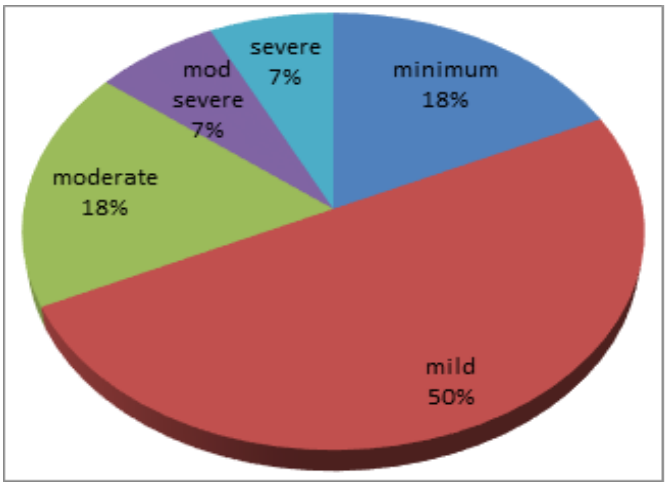

Figure 1: DEPRESSION : PHQ -9

Scales used were PHQ-9 (patient health questionnaire) and GAD-7 (generalized anxiety disorder). The residents were asked to fill up the questionnaire given to them. This questionnaire was subjective and thoroughly explained to the residents before filling (Figures 1 and 2).

Consent for the participation in the study was taken by the residents and confidentiality regarding it was maintained.

Statistical Analysis

The data was exported and analysed with IBM statistical package for the social sciences (SPSS). The parametric analysis was done using ANNOVA (analysis of variance) technique. All results with $p < 0.05$ were considered statistically significant, these responses were not known earlier before the analysis was performed.

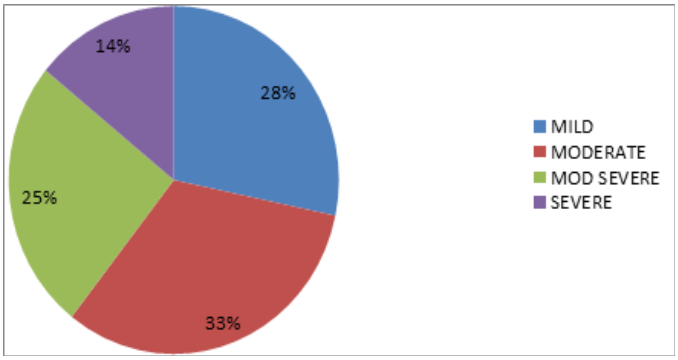

Figure 2: ANXIETY: GAD-7

Table 1: Sociodemographic data

Data	*Number (n)*	*Percentage (%)*
Gender		
Males	16	57.14
Females	12	42.86
Marital status		
Married	5	17.86
Unmarried	23	82.14
Specialities		
Gynaecology	3	10.71
ENT	2	7.14
Ophthalmology	3	10.71
Medicine	7	25
Psychiatry	4	14.29
Anaesthesia	6	21.43
Surgery	3	10.71

Results

The total of 28 post graduate students, out of which male n = 16 (57.14%), female n = 12 (42.86%). people who were married n = 5 (17.86%), un-married n = 23 (82.14%); belonging to various specialties obstetrics and gynaecology n = 3 (10.71%), ENT n = 2 (7.14%), ophthalmology n = 3 (10.71%), medicine n = 7 (25%), psychiatry n = 4 (14.29%), anaesthesia n = 6 (21.43), surgery n = 3 (10.75), as given in Table 1, with the mean working hours of 49 ± 13.22 and duty hours were 4.03 ± 0.69.

The total mean depression came out to be 8.85 ± 6.06 and mean anxiety came out to be 9.03 ± 5.67.

Amongst these residents n = 5 (17.86%) were also tested positive during the course of duties and n = 1 (3.57%) medicine resident developed lung patches who was unable to resume duty for a month.

The mean working hours in 1st year residents (42 ± 0), 2nd year (64.5 ± 15) and 3rd year (66 ± 13.14), and a p-value for them was <0.001.

On comparing the mean duty hours of 1st year, 2nd year and 3rd year residents, the P value is significant i.e $p < 0.05$. Addressing to the duty hours there were significant results which showed the higher amounts of depression and anxiety states in 1st year residents as compared to 2nd and 3rd year residents amounting to the more number of duty hours for them in the same period of time. Statistically depression in 1st year residents (9.57 ± 6.25), 2nd year (8.75 ± 8.85) and 3rd year (3.8 ± 1.69), with a significant p value of <0.05 (mild depression).

Similarly for anxiety, 1st year residents (9.57 ± 6.25), 2nd year (8.75 ± 7.5) and 3rd year (6.2 ± 2.16), with a significant p value of <0.05 (mild to moderate anxiety).

Married junior doctors, who were 17.86%(n=5) of our study, were facing distress of managing their personal lives along with this professional crisis surge.

According to these scales taken, the total number of PG residents facing mild depression were 50%

(n=14), which was of significant concern followed by minimum depression in 18% (n = 5) and moderate depression 18% (n = 5) followed by Moderately severe depression in 7% (n = 2) and severe depression in 7% (n = 2).

Similarly in anxiety using GAD7 scale, 32% (n = 9) were facing and dealing with moderate anxiety, followed by mild anxiety in 28% (n = 8), moderately severe anxiety in 25% (n = 7) and severe anxiety in 14% (n = 4).

Discussion

The post graduate residents taken up for the study endorsed mild depressive symptoms and mild to moderate anxiety after the responses to PHQ-9 and GAD-7, respectively. This unaddressed symptomatology occurring in the residents negatively impacts the functioning of the PG's even without any previous co-morbid psychiatric or medical conditions. According to a similar study done by Lai *et al.* in 2020 using the similar scale PHQ9, GAD and insomnia severity index it was found that 50.4% reported symptoms of depression and we have found similar results in our study for mild depression which was evaluated to be 50% and was consistent with our study.[9]

According to study conducted by Young *et al.*[10] on Health care worker's, mental health and quality of life during COVID-19 found approximately 40% of health care workers who responded to report serious psychiatric symptoms.

Study done by Deying *et al.*[11] on the frontline nurses, found out that they reported moderate level of burnout. The workload was associated with 23% increase in the likelihood of burnout. 40-50% of the frontline nurses experienced anxiety or depression. A similar study done in INDIA by Chatterji *et al.* '' Impact of COVID-19 on doctors'',[12] also has concluded that (34.9%) doctors were depressed and (39.5%) were found to have any type of Anxiety and (7.2%), (17.8%), (6.6%), and (7.2%) participants were having mild, moderate, severe, and extremely severe anxiety, respectively measured by the depression, anxiety, and Stress Scale-21. Levels of social support were significantly associated with self-efficacy and sleep quality and negatively associated with the degree of anxiety and stress[13] as found by a cross sectional study by Xiao *et al.* on medical staff (doctors and nurses).

There was a lot of vicarious traumatisation as studied by Li *et al.*[14] in the form of decreased appetite, sleep disturbances, irritability, fear among general population and frontline nurses. "The presence of probable PTSD reported in doctors was found to be more than nurses and other local health care workers".[15]

Disease itself multiplied hence forced quarantine were started to combat COVID-19. Nationwide lockdowns may produce acute panic, anxiety, obsessive behaviors, hoarding, paranoia, depression, and post-traumatic stress disorder (PTSD) in the long run.[16]

Limitations

This was a small study comprising of 28 post graduate residents, that is a small sample size. The data found out significant anxiety and depression rates in them. This study was done in one tertiary care hospital in the UT of Jammu and Kashmir, this could be extended to the other various medical institutes in the state, who were assigned Covid wards and junior doctors were the frontline warriors in them.

Conclusion

This survey was conducted during the active duties of COVID-19. This data was collected in 3–4 months of subsequent duties during the peak time. Such meaningful surveys help us to take care of the frontline workers especially the Doctors. We must understand the risks and challenges of the work and such deepened and unavoidable mental health care concerns and the burden of COVID-19 on them. Insufficient knowledge and treatment for this pandemic also added to the challenges.

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CASE REPORT

Post-stroke Bipolar Affective Disorder: A Case Report

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Abstract

Post-stroke patients are at substantial risk of developing a spectrum of neuropsychiatric syndromes due to permanent damage to brain parenchyma. Existing literature suggest that depression, dementia, and anxiety are amongst the common organic mental disorders in post-stroke patients. However, little literature exists that report cases of bipolar affective disorder after stroke. Here we have mentioned the case of a 58-year-old person, suffered a cerebral hematoma, then developed depressive symptoms, and subsequently developed manic symptoms.

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Introduction

Stroke is defined as "a sudden loss of blood supply to the brain leading to permanent tissue damage caused by thrombotic, embolic, or hemorrhagic events."[1] Brain stroke is the second leading cause of death globally with an annual mortality rate of about 5.5 million.[2] Moreover, patients who survive after stroke are at substantial risk of developing a spectrum of neuropsychiatric syndromes due to permanent damage to brain parenchyma. The occurrence of neuropsychiatric disorders such as depression, anxiety disorder, apathy, mania, pathological laughing, and crying as sequelae of vascular injury to the brain has long been known.[1] These disorders are essential to be understood, diagnosed and managed as they directly affect the response to rehabilitation, recovery, and quality of life of post-stroke patients and are a major burden to mental health caregivers.

Post-stroke depression (PSD) has been found to be the most common out of the spectrum of disorders reported to occur in post-stroke patients, with a cross-sectional prevalence of 18–33% according to various meta-analyses.[3] Despite the known strong association, the pathogenesis of PSD is partially understood however, the majority of the literature suggests that both neurobiological and psycho-social factors play a role.[4] Symptoms of PSD are similar to other forms of depression. However, PSD patients experience greater degrees of sleep disturbances, vegetative symptoms, and social withdrawal.[5]

The diagnosis of PSD according to the DSM 5 relies on five criteria:

- presence of depressed mood or anhedonia,
- symptoms are pathophysiologically related to the stroke,
- symptoms are not better explained by other psychiatric disorders,
- disturbance does not occur exclusively in the presence of delirium,
- symptoms cause significant distress or impairment.[3]

Mania, though a rarely reported sequela of stroke with a prevalence of less than 1%, has an evident impact on the patient's social functioning.[6] The pathogenesis of post-stroke mania has been related to genetic factors, pre-existing subcortical brain atrophy, and damage to the right corticolimbic pathway.[7]

Bipolar affective disorder (evidence of both depressive and manic episodes) following stroke is a rare sequel further. Very few reported cases of post-stroke bipolar disorder exist in literature which makes its diagnosis and management challenging in the clinical practice.[8-10] We here report a case of post-stroke depression, followed by mania, in a hypertensive, diabetic male patient who suffered a stroke one year two months back.

Case Presentation

A 58 years old elderly male with a history of diabetes mellitus, hypertension, and hypothyroidism had an episode of stroke one year and two months back. After recovering from a stroke, the family members reported that the patient was remaining withdrawn to himself. He also reported low mood, decreased interest in work and interaction. He mostly confined himself to his house and had disturbed sleep. He believed that nothing would be alright and was feeling hopeless. The consulting neurologist prescribed him escitalopram 10 mg/day and clonazepam 0.5 mg/day as an add-on to the treatment going on for diabetes mellitus, hypertension, and hypothyroidism. The patient's depressive symptoms improved with this treatment, and he became symptom-free in approximately four months; however, he continued to take the antidepressant medications regularly.

However, after six months, without any apparent stressor, it was noticed that the patient was talking more than usual and becoming irritable on trivial issues. He was sleeping less than usual and roaming here and there throughout the day. The patient developed increased goal-directed activity in the form of planning to set up a new business and buying a new house despite a lack of financial and logistic resources. He would claim that he had a good fortune for his business plans. Initially, he would even meet strangers and share his plans with them. Gradually, his symptoms worsened over a few weeks to the extent that the patient started picking up things from garbage, buying old items from shops, and hoarding them at home. Irritability has been replaced by anger outbursts on trivial issues, and he argued a lot with strangers stating that they are envious of his plans. Arguments were sometimes followed by physical quarrel with others.

On the day of admission, the Mental State Examination (MSE) of the patient revealed increased psychomotor activity, tone, rate of speech, and pressured speech. His mood was cheerful with irritable affect, grandiose delusion of power and possession resulting in persecutory delusions were present. Referential ideas were also present. However, perceptual abnormality was absent. Judgment and insight were poor. At the time of admission, the Young Mania Rating Scale (YMRS) score was 34. His past and family histories were not contributory. The patient had a history of tobacco use in dependence pattern for the past 15 years.

Detailed physical examination did not reveal any abnormality. Blood investigations were within normal limits. MRI of the brain at the time of stroke revealed acute hematoma in the left frontal lobe extending medially up to the left lateral ventricle leading to moderate surrounding edema and midline shift to the right side (Figure 1). A diagnosis of bipolar and related disorder due to another medical condition (organic bipolar affective disorder) with tobacco use disorder with Type 2 Diabetes Mellitus with Hypertension and Hypothyroidism was made. Considering multiple co-morbidities, the patient was prescribed Sodium Valproate 1000 mg/day, Aripiprazole 10 mg/day, and Lorazepam 3 mg/day, oral hypoglycemic agents, antihypertensives and thyroxine supplements were continued.

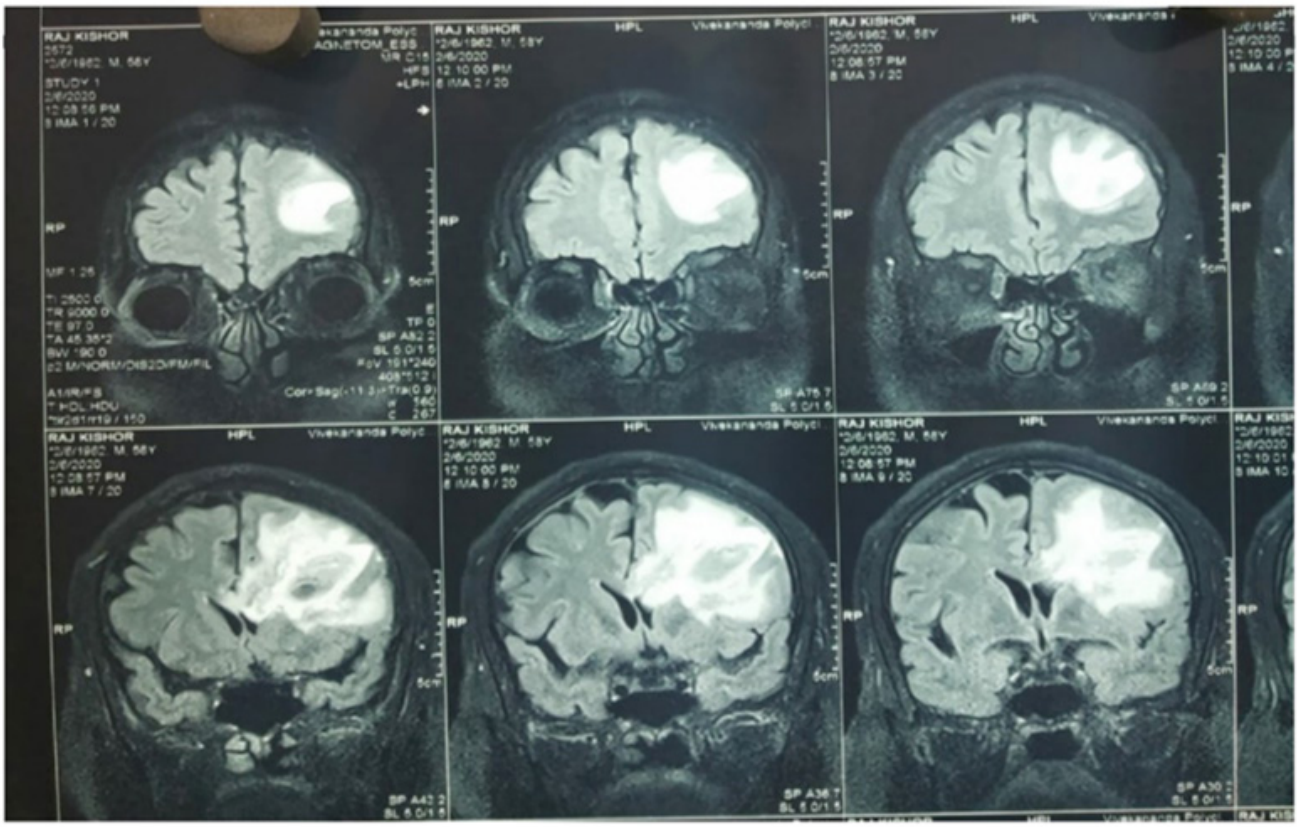

Figure 1: MRI of the brain showing acute hematoma in the left frontal lobe extending medially up to the left lateral ventricle leading to moderate surrounding edema and midline shift to the right side.

Considering non-response to the above medications, the dose of valproate was escalated to 1500mg/day, and later quetiapine was added up to 100mg/day due to persistent insomnia. With this treatment, the patient had improved significantly over six weeks. In the follow up the dose of benzodiazepine was tapered off. The patient reached the premorbid level of functioning over four months. Subsequently, the dose of quetiapine and valproate was also reduced due to an increased report of sedation.

Discussion

The "typical" patient of post-stroke mania is described as a male with no personal or family history of mood disorders, with at least one vascular risk factor developing a manic or hypomanic episode less than 2 years after a right hemisphere stroke.[7] In the reported case, the patient developed depression following recovery from a left frontal lobe stroke, followed by mania after 6 months.

A similar pattern was reported by Liu *et al.*[8] and Starkstein *et al.*[11] However, Melo *et al.* reported a reverse pattern, in which mania occurred first, 6 months following a stroke, followed by depressive symptoms developing after 1 year.[12]

Our case of a 58 years old diabetic and hypertensive male fits into the criteria largely but not completely. The patient developed mania 6 months after a left frontal lobe lesion not associated with any significant personal or familial history of mood disorders. Thus, the causal relationship between the patient's bipolar disorder and stroke is based on clinical evidence, especially in the absence of a family, personal history, or any other precipitating factor. Multiple studies have reported the occurrence of manic and bipolar episodes following vascular lesions in the absence of significant family or personal history.[13] However, Starksein *et al.* in their case series of 12 post-stroke mania cases, reported a case of recurrent episodes of depression and mania 1 month following a left frontal lobe stroke in a 25 years old male with a family history of psychiatric disorders.[11]

Several studies indicate that manic symptoms occur after a 'right' frontal, temporal, thalamic, or basal ganglia lesion. The detail about the higher prevalence of poststroke mania after right hemispheric lesions is based on the cerebral lateralization of emotion hypothesis. It says that the left prefrontal cortex is associated with positive emotions such as happiness and excitement, and the right prefrontal cortex is associated with negative emotions.[14] Consistent with this hypothesis, right-brain damage can manifest as a lack of negative emotions, with a predominance of positive emotions, and in extreme cases may encourage the development of manic episodes.[15] Also, Straksein *et al*. documented that patients with right cortical lesions developed unipolar mania and those with right subcortical lesions developed bipolar disorder.[11]

However, this does not match our case in which the left hemisphere is involved, and there is no subcortical lesion. Similar to our case, there are very few cases of post-stroke mania in people with left hemisphere involvement in literature. Notably, Liu *et al*.[8] reported a case of post-stroke bipolar disorder occurring after a left posterior temporal lobe lesion, and Turecki G. *et al*. reported a case of bipolar disorder following a left basal ganglia stroke.[16] An explanation for the occurrence of manic episodes after left-sided lesions was given by Sturm *et al*.[17] According to them, left-hemispheric lesions involving specific disruption of emotional regulation systems can cause disability of the left hemisphere to suppress the positive emotions leading to manic episodes. Additionally, in a case series of 9 patients with bipolar disorder following stroke, Berthier ML. *et al*. found that the average duration of manic swing was 8.6 ± 7 months (range 2–24) following the onset of stroke.[13] The average is slightly more than that reported in our patient who developed manic switch 6 months following the stroke.

Moreover, manic episode in patients with diagnosed bipolar disorder is reported to occur due to multiple stressors such as circadian rhythm disturbances, noncompliance to drugs, expressed emotion of caregivers, and personal achievement.[18] However, in our patient, no such factors were identified before the appearance of mania.

Conclusion

Post-stroke bipolar disorder, although a rare sequel of stroke, significantly affects health-related quality of life and is usually associated with poor outcomes in form of mortality or permanent disability in stroke survivors. Existing evidence reveals our limited knowledge of the diagnosis and management of post-stroke psychotic disorders. However, detailed history and mental status examination are crucial in diagnosing such patients. Further research is needed to better understand the correlation between bipolar disorder and vascular brain lesions and identify preventable progression and treatment measures.

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PERSPECTIVE

Women Mental Health in Context to the Social and Geopolitical Perspective

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Abstract

Since time, immemorial women have been nurturing children, taking care of the families, and paving the way for men, shaping a better future without proper accreditation. Women's contributions, social status, and mental health have been neglected. Theorists have often stressed upon women's health which is not merely related to biology and child bearing, but also due to the effects of overwork, food, stress and strain, strife and displacements. Comparative analysis of such experimental research of psychiatric ailments revealed a uniformity across varied social classes and social contexts: presentations of anxiety and depression, unspecified mental disorder and psychological distress are among the most prevalent of mental ailments among women, whereas among men substance abuse is more prevalent. Correlations between financial constraints, infant mortality, relationship loss, and psychiatric illnesses in women have also been shown in multiple anthropological studies as the social origin of distress. Mainstreaming gender perspective in mental health policies and formulating "healthy" policies, by upliftment of the status of women and their health, is to build on local movements and improve grass-root strengths. National gender policies, that increase political, legal and cultural status of women by legalizing good public investment and by offering protection to women and men alike will be helpful. To further the mainstreaming of gender perspectives, programs and policies related to health which incorporate mental wellbeing into general well being while addressing a females physical, economical, socio psychological needs from pediatric to geriatric age groups needs to be developed.

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Introduction

When the health of women is considered by the universal health policy and general public health, the most prominent tendency is to link the well-being of women with the well-being of their offspring's and the health of the family and to the societal wellbeing at large.[1] Under the health policy domain, the female's health is defined as the obstetric health and is often identified with their babies health.[1] These methods to advance the well being of the children through policies that affect the maternal well being are admirable. The queries about the female's health trends have begun to rise, more so in the past ten years as the females have started focusing more over their health and the associated health policies. Several question marks regarding the women's health program have

risen regarding; "Where is the "M" in MCH (maternal and child health) programs?" "What about programs designed to address women's needs as women as well as mothers?".[2] As feminist theorists have often emphasized upon female's health argued that their well-being is not merely determined by biology and child rearing, but also due to the effects of over work, food, tensions, warfare and displacements.[1] To mainstream a sexual narrative into the health there is a need of a broader explanation of health for females and males that addresses holistic heath across the life span which incorporates the health of body and mind equally. For incorporating a gender narrative in health there is a need to address mental health issues as well, since females are maximally affected by psychological disorders and are frequently subjected to social causes leading to mental afflictions and distress.[3]

To understand the role of cultural and financial factors related to the social status of women, the key is to understand the sources of diseases in a female. To achieve the goal of betterment of a women's health from infancy, we need to target at bettering the health policies to emphasize on the holistic women's health and to devise "healthy" policies intended at the upliftment of females in the society at large.[1]

An Overview of Psychiatric Morbidity and Psychological Stress

Psychiatric Disorders

A Comparative analysis of experimental research of psychiatric illnesses revealed uniformity across varied social classes and contexts: presentations of anxiety and depression, unspecified mental disorder and psychological distress are among the most prevalent of mental ailments among women, whereas among men substance abuse is more prevalent.[3] The disability-adjusted life years data freshly ascertained by the world bank (WB) highlights these points. Among the disabilities from neuropsychiatric disorders, depressive disorder accounts for 30% in women and 12.6% in males. On the contrary, substance use disorders (SUD) accounts for 31% of neuropsychiatric distress in males, but for only 7% percent of the disorders in females.[3] In the land mark study by Brown and Harris, depressive disorders were seen to be higher in prevalence in the working class females than their middle class counterparts living London.[4] Increasing evidence is pointing towards the multiple jeopardy which poor females face like severe life events more than the general public, having to deal with chronic sources of societal distress such as poor households, violent neighborhoods, they are vulnerable to falling prey to universal violence;[5] and so they are all the more subjected to facing hardships related to child birth and child rearing. Gender difference contends that usually males tend to externalize their feelings and sufferings by means of substance abuse and aggressive behavior, as a result psychological problems are under reported. Females on the contrary suffer stress commonly in the form of a depressive disorder, anxiety, "nerves," and similar afflictions.[5,6]

Social Origins of Distress

The groups of disorder like depressive disorders, dissociative disorders, post-traumatic stress disorder, conduct problems, and other similar ailments are highly linked with anarchy and social fabric collapse. Problems like household violence, locality related violence, civil conflict, family breakdown, substance abuse and community disintegration are known to have implications on health.[5] Multiple research show that these socio- psychological clusters have links to monetary hardships, infant deaths, psychological loneliness, and emotional stresses in females.[6,7] Higher prevalence of such problems is commonly found in females. Such disorders are consistently found to be prevalent among females. Cautious consideration to cultural and social meanings related with symptoms of nerves are often indicative of oppression, power struggles and molestation in families and communities.[6] Illiteracy, poor educational standards, financial dependency, poverty, domestic isolation and feudalistic oppressions were all found to be related to high prevalence of psychiatric morbidity among females.[2] A substantial amount of research evidence suggests the 'social origins' of psychiatric problems in females. The deductions from these reviews are undeniably disheartening. Nutritional deficiencies

are commonest in females than males and the sex bias is evident worldwide. The traditions of female infanticide and preferred choices of fetuses, through selective abortion is rampantly practiced across the globe.[2,3]

On the work front and capitalism, it is evident that employment inspires confidence, self-worth and financial freedom; however low pay, unequal pay or forced labor can lead to abuse of human rights and subjugation.[8] Women literally and figuratively work a "double day" , managing household, rearing off- springs, providing financial assistance through activities in the agricultural sector, domestic sector and house hold-based industries amounts to "double" work and single or poor pay. This leads to being over worked resulting in physical exhaustion and poor health. In the last ten years the cases of IPV (intimate partner violence) have been widely reported across the globe. United Nations program called "Decade for Women" had to be initiated to make the world aware of a female's role in the production as well as the society.[5,8] Programs that address to female voices, their desires, and triumphs have a direct positive effect on females' mental health.[7] Similarly strengthening programs that contribute to female independence in terms of finances, political/social ways have a positive effect for the present and future of the females and their families.

Gender and Health Related Policies: Streamlining Gender Narratives in Mental Health

Gender Narrative

It is important to understand the causes of social origins of women's ill health and it is more significant to realize the actions which need to be undertaken to improve women's status and health. While developing policies and programs that are associated with comprehensive definition of health, it should be kept in mind that listening to women for whom such policies are designed becomes very important.[3,8,9] Special attention should be paid to their concerns at all the phases of planning, management, and implementation. A lot of the work in the areas of listening is needed. Listening like going into their midst, talking to them, asking about how they live and what are their needs for bodily health and mental well being is still not complete.[3] Another step towards upliftment of the status of women and their health, is to build on local movements and improving grass-root strengths.[9] Multiple local startups abound, from adult literacy programs in India to that at the primary level, there is a movement across the world to involve grass root communities of females in order to provide resistance against abuse and also to consolidate and utilize community health programs. Connection between the works performed at both primary level and at global level is important for these efforts to become effective to provide upliftment of the health and status of women in the society.[9] Out of the multiple ways that this can be initiated, one most important method is "listening". Second is to learn from and use of local policies to provide models for inspiration to implement and design novel and indigenous ideas.

Health Policies for Mental Health

At the level of the states and nations the regulations can be differentiated from "healthy" policy to a useless one.[8] Here "healthy" policy is that government program, which may not be targeted at alleviating ailments and distress but will still provide an impact on the health and overall wellbeing. State gender policies, that increase overall i.e., political, legal and cultural position of females by legalizing unbiased public involvement and protective status of both sexes, support the healthy programs for women.[6] The countries where equitable gender ideologies were followed were found to have education of women at the same rate as men, be able to provide legal protection, provide equal economic opportunities and political rights to women than the countries where the equity was not advocated. While advocating gender equity ideologies it has been noticed that there is a considerable effect on female health and indirectly on the societal health. There has to be a considerable political readiness, proactive stance and vision to promote and mobilize a females voice and narrative into the national programs so as to further their cause.[6,8]

To further the mainstreaming of gender perspectives, health related programs that

accommodate psychological health into overall health while addressing a female's voice and worries from pediatric to geriatric age needs to be formulated.[7,8] Ethical contemplations and capabilities of professionals are vitally needed for designing, promoting and implementing of cohesive health policies targeted towards remedying the traumatic experiences domestic violence, shame and guilt of sexual violence and rape, gender oppression, anxiety of scarcity, depression and isolation.[9] The major disturbing aspect of mental health outcome in various communities is the high IMR (infant mortality rate) and the steep increase in the HIV infection rate, this aspect has an impact on many families throughout generations. Expert professionals and holistic programs are required to solve the distressing experiences females have to undergo wherein they have to choose from choices of mobilizing meager familial money in order to take care of children when they have been orphaned as a result of parental HIV.[2,9]

Both international and nationally funded health programs are confronted with the tough task of devising ethical but "culturally sensitive" solution for hazardous rituals that affect psychological and bodily health of girls and grown up ladies (such as female infanticide, female circumcision, and feeding rituals which are discriminatory towards female child).[10] These quandaries can be y reduced to some extent by giving help to the regional non-government organizations, local health initiatives and primary level movements.[2]

Evidence suggests that educating the female is imperative in augmenting the health of children as well as men. Parallel analysis and its association between legal discriminations like gender differences at the familial set up as well as physical and domestic violence leading to negative health related problems is high in the societies. Health policies and "healthy" policies are required to foster and promote methods to facilitate equal state gender ideas that may result in incorporating a gender perspective into physical and mental health sectors. Many targeted programs have been undertaken so that mental health is given primacy in community research at the national, local, and international level.[5,8]

Ideas for Initiating and Optimizing Mental Health Programs

- Upliftment and rejuvenating the psychiatric health services and improvement of its delivery. Psychiatric health and its delivery to the masses has an important role in relieving the misery associated with mental problems, psychological disorders, mental stress, and psycho pathology. Troubled children, molested females, those who have attempted suicide, those traumatized by political violence or addicted to narcotics or alcohol and those who suffer from psychiatric illnesses can be aided markedly by competent psychiatric care. With the major advancement in psychiatric treatments and targeted psychotherapeutic treatments, the scale and impact of improvement is massive. Services for mental health in most communities are insufficient.[2,3] There is shortage of trained specialists, psychological and social help is missing or scarce, medications where available are of inferior grades and equitable distribution of these resources is lacking. The humane aspect of treatment of psychiatric patients are most often ignored. Mental health interventions are usually associated with a punitive and degrading social control. Initiating a gender narrative in the psychological health delivery system, creating awareness and empowering females in all strata of community regarding the relevance of psychiatric treatments has the potential for improving the acceptability of services and programs. This gender inclusion is essential for the success of mental health programs and the female upliftment.[6,8]
- Boosting and streamlining the work to efficiently uplift the scale and quality of psychological health expertise of the workforces at every level, from community health workers, nurses, medical students and graduate physicians. for delivering mental health programs is a niche group of expert professionals like psychiatrists, psychologists, social workers and psychiatric nurses.[7,8] This group should be the flag bearer to spearhead the campaign regarding mental health services, its delivery and training. More heed should be paid towards the training of

the health workers, nurses, and primary care physicians in the diagnosis, suitable reference and treatment of psychiatric problems. There is a need to improve the curriculum of medical education and there is a dire need to include more about mental health. Targeted training, exposure of trainees at undergraduate level and postgraduate level is of primary importance to optimize the delivery and accessibility of mental health services at the primary health level.[1] Sincere efforts to improve the state gender policies to eradicate violence against women, and to empower them financially can be achieved by making women central to policy planning and implementation. Research should be designed to understand the psychological results of these programs for children, females and males.[3] World mental health (1995) places value in education of women, as an important pre-requisite for the psychological health of children, males and females. Educating women also makes them less likely to endure violence and molestation. Education gives them confidence to express their opinion, it gives their thoughts a voice, all of which leads to a better mental health of the society in general.[8] Education is more likely to make women aware to engage on an equal footing in public health policies; as females around the globe form the major chunk of caretakers for disabled home bound family members which includes incapacitated elderly, mentally challenged child and others ailing suffering from psychological or physical illnesses. It is in the interest of societies to contribute to the shouldering of the burden through an efficient health care and delivery system. Females and allied groups should be allowed to evaluate the governmental and local policies in terms of its efficiency in how they help in female mental health, and the quality of services they offer to females and children.[5]

- Across the world collective and individual violence is the number one problem today. For any peaceful rehabilitation and security the mental health perspectives have to be addressed in totality.[9] Psychological well being stemming out of the ethno racial identity and its consequent hatred leading to widespread violence for revengeful activities ought to be addressed in the new policies by focusing on education in schools and empowering inclusivity in the communities.[10] To decrease and eliminate community and individual violence, which often is the result of a societal decay, a renewal and strengthening of the gender outlook in formulating health care policies and also empowering the legal system becomes imperative. Even if mental health care for psychological wounds and medical care for physical ailments alleviate the long-term anguish, still discouraging and ultimately preventing domestic violence requires strong laws which make an act of violence against female and children punishable by strictest of punishments.[8,9]
- Concrete actions have to be undertaken to treat and prevent various psychiatric, behavioral, psychosocial and neurological disorders. The success of the prevention programs depends upon a good intermix of both psychosocial and biological factors and also solid scientific steps need to address the preventive strategy.[8,9] Interventional programs should be comprehensively designed so that stress, co-morbidity, and groups of many disorders must be targeted for a holistic management and rehabilitation services. Local protective customs and traditions should also be encouraged, like activities of caretakers of ill and dependent individuals. The preventive programs of individuals in a community must be very well understood and prevention programs should be formulated accordingly after listening to women, professionals and representatives of the communities as it will help in broadening the scope of these programs.[10,11]

Conclusion

Much has been done in relation to women's health; however, considering the enormity of the work still to be done, there is still a huge gap in the desired services.

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VIEWPOINT

Positing Nuts and Bolts for an Impactful Poster

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Abstract

A poster presentation is often the first step to learning the art of presenting research findings at academic conferences. A lack of training and emphasis on good poster presentations has created a vicious cycle leading to a systematic downgrading of poster presentations. This invariably affects young researchers who are seeking to build confidence through these presentations. This article presents the authors' learnings at a workshop along with relevant literature.

Key take away: An effective poster presentation begins by taking a step back and finding the key message to be conveyed and not with a review of literature or a unique title. It requires simple consideration of layout and size of the poster, color, font size, representation of data, ease of navigation for the reader and positioning of the sub-headings to be impactful. It is prudent to cautiously explore and experiment with the guidelines and learnings listed here to suit the Early Career Psychiatrist (ECP) style. We believe that these gleanings can benefit other medical professionals with relevant modifications.

Background

A poster is a useful and attractive method to visual display a research study.[1] Poster presentation is often included as a mandatory assignment for students with a curriculum involving research. Early Career Psychiatrists (ECPs) should understand that one of the easier ways to distinguish one's career track is to collect awards. Almost all conferences announce awards both poster and oral presentations. ECPs can aim for these awards while making their research presentations. Poster presentation is of great benefit especially to young investigators who are attending academic conferences for the first time and are not keen on making an oral presentation.[2] It is also an effective method to disseminate research findings and allows to seek active feedback from the audience through one-on-one interactions, additionally allowing to build network for collaborations.[3]

However, to the best of our knowledge, effective methods of poster presentation are not taught as part of academic curricula in most universities across Asia. This could have led to poor poster presentations, leading to poor interest in the audience and thereby lesser interest of the organizers who therefore have gradually accepted a lower standard of posters being submitted. These set low standards have resulted in a vicious cycle, showed in Figure 1.

Therefore, this article aims to break the above cycle by presenting students with the recommendations for effective posters learnt during a professional skills workshop. Considering the ongoing pandemic, conducting such workshops face several restrictions and hence this article may take a special place in the dissemination of this knowledge.

Nuts and Bolts

All authors had presented a poster during their career. An exhaustive literature search on any of the databases with search terms of "poster" or "presentation" or with "psychiatry" or "training", or "career development" also reveal details on the qualities of an impactful poster. Therefore, many of us were skeptical about any additional learnings a session on poster presentation could offer.

All attendees were required to present a poster at the workshop. There were no specifications given for the topic, theme, or layout. All participants evaluated each other's posters prior to the poster walk based on content and presentation. A final assessment was done during the poster walk along with Prof. Sartorius which taught us the nuts and bolts of an impactful poster presentation. We learnt that

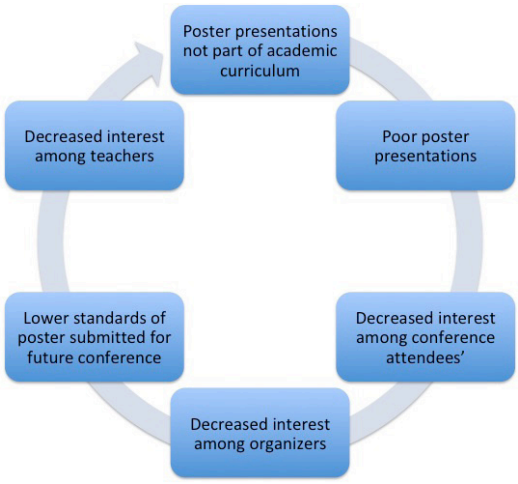

Figure 1: Why a poster presentation are found less?

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an impactful poster was alluring from afar, arouses interest from nearer and apprehends the message when nearest.

We as psychiatrists, emphasize on understanding the experiences of our clients. We learnt that the same could be applied to making effective presentations as well. While making a presentation, we often get too engrossed with the content of the presentation while ignoring the more essential aspect - the form. A good form is quintessential to delivering a good presentation with any content.

Before proceeding, it may also be wise to consider whether an oral or poster presentation is more suitable, the differences are shown in Table 1. Suitability can be examined regarding the type of research or the presenter. Research in the form of case reports, case series, chart reviews and audits that can be summed into 1-2 key messages lend themselves better to a poster presentation. Presenters must examine their comfort in appearing in front of a larger audience versus discussing research with inquisitive conference attendees. Prof Sartorius told us about many a discussion that began over a poster lead to seminal insights and collaborations.

The qualities of an impactful poster are readability, organization and succinctness.[4] We wish to caution the reader that none of these measures can address deficiencies in content. The steps to making this possible are represented in Figure 2.

Find the Key Message and Title Accordingly

The first step forward is to take a step backward. The presenter needs to assess the key message, preferably one or not more than three, that the poster aims to present to the audience.[5] This is elementary to a successful poster and often demands a bit of intuition and creativity to grasp the attention of the audience. Though it superficially appears as a herculean task, in reality, this is what we usually communicate to our colleagues, while in an elevator with them or while passing by in the coffee shop. When such conversations are rewinded, one can quickly isolate the message and key words of the study as well. The titling is done accordingly. For example, you wanted to report a case of psychosis in Duchenne muscular dystrophy (DMD), the most obvious title would be - 'Duchenne muscular dystrophy presenting with psychosis: A case report'. If one intends to convey the message that - we know the genetic etiology of DMD (DNA variants in the DMD genes) but we are still in the dark with regard to psychosis, and that this case report could offer more clarity. Then would not the more appropriate and catchy title be - 'DMD gene: new insights into psychosis' or 'Duchenne muscular dystrophy: a new gateway to understanding schizophrenia'. This title appears on the top as heading in legible font and color. The title should preferably be simple, short, less than 10–12 words, and could invoke curiosity without giving away the complete message. It may also be wise to consider that it is acceptable to have a title that would be sensational but preferably not too controversial.

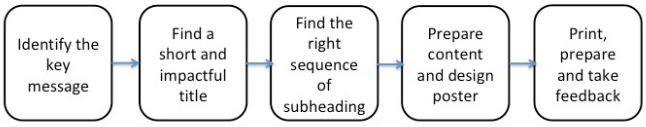

Figure 2: Steps to conceptualizing and making an effective poster

Table 1: Key differences between oral and poster presentation

Presentation type	*Oral*	*Poster*
Presentation aid	Power point presentation/video/ or none	Poster
Time	Usually ≤ 10–15 minutes	Seconds to several minutes
Contact with audience	Once only	Several times in groups or as individuals
Interaction with audience	During QnA session immediately after talk	Several interactions over days
Nature of interaction	Lecture method (excluding the QnA session	Interactive method
Importance on CV	Sometimes more than poster	Considered
Expenses	No particular costs	Costs of printing, carrying poster etc.

Format and Sequence

Usually, the format and sequence of sub-headings of a study are used for posters as well. After the title, the authors and their affiliations follow in relatively smaller font size below. In this area, clear and legible logos can appear on the sides. Following this, the content of the research appears in the serial format of subsections, i.e., introduction (significance of the study), objectives (purpose), methods (explain the approach), results (findings), discussion (inferences and comparison), conclusion (end remarks and implications), and references (validating the work). A well abstracted poster might not require another dedicated space for mentioning the abstract of the study. For further want of space, introduction and goals (aims and objectives) could be under a single heading. Similarly, discussion and conclusion can also be clubbed together.

This is also the traditional way research articles are usually written. However, the style of presentation for poster or oral presentation or can be different. This is a very interesting perspective that we learnt. So, in some cases, a short and impactful title can be followed by the conclusion, before or right after the introduction. For example, in the above-mentioned example of a case report, conclusion could be mentioned as 'The genetic etiology of Duchenne muscular dystrophy is well understood. Through this case report, we propose that *so-and-so* DNA variant of DMD could be associated with psychosis. This could be a possible gateway to understanding psychosis through the established genetic pathways of DMD.' This is not mandatory but can be considered for an impactful presentation, especially because most only spend a few seconds to minutes while visiting poster presentations.[6] So, any sequence of headings that can bring a logical stream to the presentation should be encouraged.

The number of lines recommended for each of the subsections are objectives - 2 lines, methods - 6 lines in bullet points, results - 12 lines, discussion - 5 lines, conclusions - 3 lines and references - 4 lines, acknowledgement and other disclosures can appear in a corner. A few pictures along the text can be encouraged but need to be judiciously used with margins.

Poster Layout

The standard poster size accepted usually is length 4 ft / 120 cm and width of 3 ft / 90 cm. The conferences also give their recommendations which need to be adhered to prevent encroachment of neighboring space as well as for the best utilization of the space provided. This may not be a major issue when the poster presentation is digitalized, but the size of the electronic board and the number of slides permitted needs to be enquired before the finalization of the presentation. A one-inch white margin could also be recommended, which enhances visibility and additionally allows space for pins or tape for display.

Many students might find it comfortable to design their poster on Microsoft PowerPoint itself. The size can be adjusted by clicking on page setup or slide size and entering the required measurements before beginning to create the poster itself. Through a google search, once can find websites of various universities which offer downloadable templates with pre-determined sizes for readymade use. Figure 2 in this article provides a sample template of the poster.

Font Size

It may sound trivial, but it is an important factor that determines the readability of the poster. The title must be readable from a distance of at least 15 feet (recommended font size > 80 points) and the text must be readable from a distance of at least 3 feet (font size > 60 for headings, and > 30 points for text). At the same time, spacing of the lines which is 1.5–3mm is encouraged.

Color

It is another powerful tool to attract attention, emphasis and aesthetic appeal. It is recommended that the background is of lighter or sober colors such as light sky blue, pale pink, beige and pastel mint green. To showcase a point, some boxes could have electric pink or lime green on occasion. The letters need to be in dark colors. However, this color combination should be complementary. Some presenters even match their dress to complement their posters!

Representation of Statistical Data

Often, to make the study self-explanatory and complete, all the statistical tables are included. This overloads the poster and overburdens the audience. Selected data with appropriate diagrammatic representation to effectively communicate the chosen message is often sufficient.

Printing the Poster

A poster may require multiple edits (such as spacing, color contrast, margins, poster size) before its final printing. One can see how a poster looks through a sample print on a B3 size paper. It is prudent to send the poster for printing at least a week before your travel date. This would allow you time to finalize the draft before printing and take a look at the printed poster as well. It also recommended to print your poster on an eco-friendly paper rather than vinyl banners (flex sheets). The finish of the poster may also enhance the aesthetics of the poster such as gloss finish.

Preparing the Talk

Preparing the poster does not end the game. Poster presentations are different from oral presentations. Figure 3 compares both. Unlike oral presentations, poster presenters get more chances and more time to present their findings. This allows greater flexibility in conversations. However, this flexibility can work against one's favor when the audience may judge the poster as interesting or move away with only a glance.

Like an oral presentation, poster presentations also benefit with rehearsal. One can request a friend to listen to the rehearsal for comments and feedback on timing and understanding. If the conference is a general one, feedback from a friend from a different technical background can go a long way.

Other Recommendations

It is often prudent to put up posters early (as per allotted slots in the conference or visibility on first-come basis), carry tools (scissors and tape) to put up the poster. For a portable read and further correspondence, one can also carry a few copies of poster in A4 format in a two-minute summary with the authors' affiliation, phone and email contact.

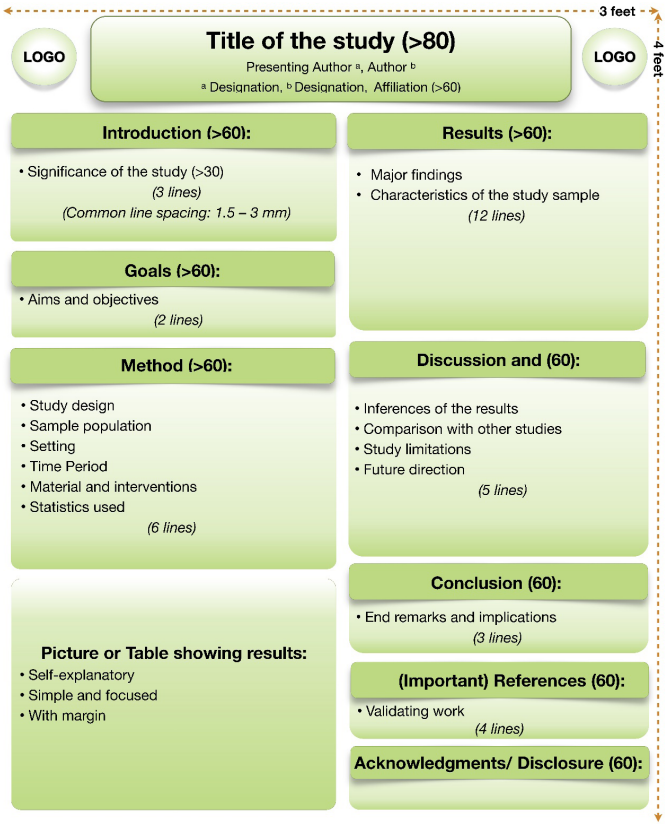

Figure 3: Layout of the poster (font size mentioned in brackets)

Postgraduate trainees and early career psychiatrists might find it encouraging that several awards are available for poster presentations at various conferences. As case reports are mostly presented as posters, presenting an original study for a poster might increase the chances of winning an award. The judges usually evaluate posters on the parameters of relevance of topic, content and presentation. It is good to distance yourself as a presenter and step into the shoes of the evaluators/ audience. While many resources on the internet consider oral presentations superior to posters on a curriculum vitae (CV), this need not always be so. Most definitely, an award-winning poster is better than a oral presentation on the CV. Finally, a foldable chair is an option that can be considered, especially when you have health problems that may worsen with prolonged standing or wearing high heels!

Conclusions

Poster presentations are first steps to building confidence for postgraduate trainees and early

career psychiatrists among their circles. However, poster presentations have not been given their due recognition and an overall fall in their standards have been reported. During the ongoing COVID-19 pandemic, several conferences are being conducted online and posters in the form of e-posters are being encouraged. The article provides essential considerations for the making of a effective poster which can be utilized for making of an e-poster as well. It is prudent to cautiously explore and experiment with the guidelines and learnings listed here to suit the Early Career Psychiatrist style. With relevant modifications, these gleanings can be utilized to benefit other medical professionals as well.

Acknowledgement

This professional skill was imparted during our 'poster walk' with our mentors lead by Professor Norman Sartorius. We gratefully acknowledge the Dr. Ramachandra N Moorthy Foundation and the Association to Improve Mental health Programs for graciously funding and conducting the 8th Annual Leadership and Professional Skills for Early Career Psychiatrists workshop from SAARC nations. It was held in Bangalore at the National Institute of Mental Health And Neuro Sciences (NIMHANS) from January 30 to February 1, 2020. We were mentored and taught at the workshop by Prof Norman Sartorius, Prof Mohan K Isaac, Prof Santosh K Chaturvedi and Prof Pratima Murthy, who were assisted by Dr Arun Kandasamy and Dr Krishna Prasad M. We thank Dr Shalini Naik and Dr Chithra K who coordinated the logistics. We also express our heartfelt thanks to the host institution - NIMHANS and its administration for all the comforts and facilities extended. We are deeply grateful to the Dr Ramachandra N Moorty foundation for extending travel and accommodation support during the workshop.

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PG Abstract State Conference

Bibliometric analysis of worldwide behavioral addiction publications

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Background: Certain behaviors can produce short-term rewards or "highs." When this leads to diminished control over the behavior despite adverse consequences, the behavior itself can become the source of addiction rather than a psychoactive substance. Other behaviors that can produce similar short-term rewards include compulsive buying, sexual addiction, and excessive Internet use. Behavioral addictions resemble substance use disorders in terms of phenomenology, natural history, and neurobiology. The typical onset of behavioral addiction occurs in adolescence and young adulthood and follows a chronic course with remissions and exacerbations. There is increment in research on behavioral additions.

Aim: This study aimed to do a bibliometric analysis of all research articles available on PubMed on behavioral addiction from inception till 08-09-2021, irrespective of language.

Methods: This study aimed to do a bibliometric analysis of all published research on behavioral addiction available on the PubMed database. All articles from the time of inception till date (8th September 2021) were included in the study. The search terms used in the study were (behavioural addiction [tiab] OR technology addiction [tiab] OR gaming addiction [tiab] OR shopping addiction [tiab] OR pornography addiction [tiab] OR internet addiction [tiab] OR non-substance addiction [tiab]). All the PubMed IDs of the articles were entered into the free online software for bibliometric analysis (Harvard Catalyst) [28]. As all the articles are available in the public domain and free-to-use software is used for analysis, no ethical permission is sought for the study. Three investigators did the data extraction through the PubMed database. Another investigator verified extracted data.

Results: A total of 2387 published articles were identified in PubMed Database starting from 1994 to the latest published article in 2021. Five articles were excluded due to incorrect PMID. Thus total no. of 2387 articles were included. The average number of authors per article came out to be 4.869. The expected number of authors, matched on journal and year were 4.811, while the ratio of the average number of authors to the expected number was 1.012. The average number of times an article has been cited, including self-citations, was 10.482, and the average number of times an article has been cited, not including self-citations, was 9.232. The expected number of times an article has been cited, not including self-citations, matched on journal and year was 4.331. The ratio of the average number of citations (no self-citations) to the expected number, matched on journal and year, was 2.132. The expected number of citations (no self-citations) matched on the journal, year, and publication type came out to be 4.906, while the ratio of the average number of citations (no self-citations) to the expected number, matched on the journal, year, and publication type was 1.882. The Hirsch index (using total citations, including self-citations) of the published articles was 63, and the Hirsch index divided by the number of years since the first publication was 3.500.

Conclusion: It was concluded that most of the articles on behavioral addiction were published in 2020 (n=325), and the year 2021 also shows an increasing trend. The highest publication types were in journal articles with major research in the psychiatry discipline.

Study of Quality of Life of Opioid Dependent Patients on Buprenorphine Maintenance Therapy

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Background: Although number of studies have been conducted in western world, there is lack of data establishing effect of OST in Indian setting, with our own assets (e.g., relatively strong family support, lower potency of both illicit and prescription opioids than in the Western countries, and more social stability) as well as vulnerabilities (e.g., lax monitoring system, poor accountability, and physician incentives).

Aim: This study aimed to assess the effect of buprenorphine maintenance treatment on the quality of life (QOL) of opioid dependent subjects at 1month and 3months follow up.

Method: QOL of 34 opioid dependent subjects (32 males and 2 females) was assessed over a period of 3months starting from initiation of oral substitution therapy (Buprenorphine) using WHO QOL (BREF). Sociodemographic data was collected and patients were monitored for their drug use status and any side effects.

Result: Subjects on OST show significant improvement in Psychological, Social Relationships and Environment domain of QOL. Improvement in Physical domain was not significant, probably due to short duration of the study. Poor QOL was seen in subjects who started using at younger age and it worsened with increasing duration of drug use, especially physical QOL. This highlights the importance of early intervention. No significant side effects with Buprenorphine were noted. Mean number of days per month of drug use decreased from 28.87±1.49 days to 5.43±1.83 days.

Conclusion: The study reinforces that Buprenorphine substitution is an effective intervention in opioid dependent subjects as it improves most of the domains of QOL. It is shown to decrease number of days per month of drug use. Also, it is safe and has no significant side effects. Reach of OST seems centred in urban areas, this needs to be expanded to cover rural areas as well. Regular outreach programmes and awareness drives could help in increasing the enrolment at OST centres.

Sexual Dysfunction in Drug Naive Females with the First Episode of Major Depression: A Cross-Sectional Study

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Background: The sexual dysfunctions (SD) among depressive female patients is highly prevalent; it remains neglected and untreated for various reasons. Hence, there is a need to estimate SD among females with major depression to improve their quality of life.

Aims: This study was undertaken to assess the prevalence of SD in females with the first episode of major depression patients before starting treatment.

Methods: Eighty consecutive drug-naive females with the first episode of major depression as DSM-5 criteria, presenting to psychiatry OPD of a tertiary teaching hospital, were evaluated. The severity of depression and the presence or absence of SD among study subjects were assessed by HAM-D_{17} and the FSFI scale, respectively.

Results: Approx. 1,693 patients screened for depression, of these 202 drug-naïve women suspected of depression**.** Based on inclusion and exclusion criteria, 80 patients comprised the final sample. The prevalence of SD in drug naïve females was 73.8%. The HAM-D_{17} scores correlated significantly with the total score and each domain of the FSFI scale. There was no significant relationship between SD and sociodemographic factors.

Conclusion: The study highlights the high prevalence of SD in depressed females, affecting all

phases of the sexual response, with a predominance of desire disorders. Also, there was a significant correlation between the severity of depression with SD. It emphasizes the importance of screening this population to identify the condition, impairing marital function and quality of life.

Role of ECT (electroconvulsive therapy) in a patient with Body Dysmorphic Disorder (BDD) with suicidal ideation

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Introduction: 19 years old girl reported to psychiatric OPD with depressive symptoms and suicidal ideation currently on Tab Fluvoxamine 100mg, Tab fluoxetine 60mg and olanzapine 10mg with a working diagnosis of severe depression with psychotic symptoms with poor response to current medications at adequate therapeutic dose. Full case workup revealed excessive concerns with physical appearance and delusional level of beliefs of flaws in her facial appearance fulfilling the DSM-V /ICD 11 criteria for Body Dysmorphic Disorder (BDD). Also, Suicide Intent Scale (SIS) and HAM-D scales applied to support the diagnosis. In view of patient's severe suicidal ideation, mECT was planned along with CBT and SSRIs.

Aims & Objectives: To study the phenomenology of BDD with severe depression and to study the role of ECT in BDD patient with suicidal ideation

Method: Detailed history was taken to confirm diagnosis as per ICD 11 and scales SIS and HAM- D were applied to determine suicidal ideation and depression.

Results: ECT was found beneficial in reducing suicidal ideation but symptoms of BDD were not found to be benefitted from ECT.

Conclusion: Body Dysmorphic disorder often goes undiagnosed given the presence of concurrent mood symptoms resulting in delay in targeted interventions for BDD. With second line treatment using mECT, suicidal ideation showed significant improvement while underlying cognitive distortions remain unchanged. Screening for BDD in patients presenting with mood symptoms especially in adolescent age group can lead to early diagnosis and more rational treatment, improving overall patient care and treatment outcomes.

COVID-19 Pandemic Lockdown, Online Teaching and Attitude of the school and college going students towards online classes

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Background: During COVID-19 pandemic, several countries ordered the closure of educational institutes in order to protect the students from viral exposure. Since the closure of educational institutes, there was an immediate need for a system that imparts education to the students individually with minimal social contact. The word 'online learning' surfaced, which refers to a wide range of pedagogical resources and methods that are constantly evolving to meet the needs of students and teachers.

Aim: The aim of the study was to assess the attitude of the school and college going students towards online classes.

Method: An online cross-sectional study was conducted on 228 school and college-going students fulfilling inclusion and exclusion criteria selected through purposive sampling methods. A semi-structured online questionnaire consisting of a socio-demographic questionnaire and Attitude towards online classes (ATOC) questionnaire was prepared by the researcher using Google form. The data was analysed using the IBM SPSS version 20 software.

Results: More than half of the respondents (51.32%) were found with a positive attitude towards online classes. There was a significant association found between attitude towards online classes and socio-demographic variables such as age ($p<0.05$), academic level ($p<0.05$), and family income ($p<0.01$).

Conclusion: Although, online classes are more beneficial for the students and teachers in their

academic activities during the lockdown period due to the COVID-19 pandemic but it can't take place of traditional face-to-face classes.

Quetiapine Induced Acneiform Eruptions in Patient with Bipolar Depression

Seshan Kumar[1]

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Background: Quetiapine is a second-generation antipsychotic that is prescribed for a broad spectrum of psychiatric conditions including schizophrenia, mania, bipolar depression, and depression. Adverse skin reactions have been reported with both typical and atypical antipsychotics, the prevalence of which has been estimated to be around 5% and range from mild reactions to major life-threatening events. Reports of quetiapine-induced skin reactions are sparse. We report a case of skin rash that developed after starting quetiapine in a bipolar depression patient and which remitted after the drug was stopped.

Aim and Objective: To determine whether acneiform eruptions occur due to quetiapine.

Method: A 37-year-old married female diagnosed with a case of bipolar affective disorder current episode mild to moderate depression without somatic syndrome was prescribed quetiapine after which she had lesions on the face which were diagnosed as acneiform eruptions by a dermatologist. After which quetiapine was withdrawn and lurasidone was started. And topical clindamycin (1%) and azelaic acid (10%) were started by a dermatologist.

Results: Several drugs are known to be associated with drug-induced acneiform eruptions. It was a challenge to diagnose drug-associated diseases. In this instance, worsening rash with an increase in dose and resolution on discontinuation of quetiapine suggested quetiapine as the culprit.

Conclusion: This case highlights the diagnostic challenges and therapeutic implications of a rare adverse reaction to a drug prescribed off-label for the pharmacological treatment of bipolar depression.

A challenging case of Paranoid Schizophrenia with refusal to accept orally: A case report

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Background: Schizophrenia is a chronic mental disorder which requires long term treatment to prevent relapses**.** Achieving treatment adherence in Schizophrenia is a great challenge. There might be patient related factors (such as persecutory delusions and lack of insight) and medication related factors (such as side effects) for non-adherence. Many patients of Schizophrenia also refuse to eat owing to paranoid delusions or persecutory delusions about food.

Aims and Objectives: This case demonstrates the challenges and complexities in treating a young female suffering from Schizophrenia, who refused to accept food and medications orally despite prior hospitalizations and modified ECT sessions.

Method: A young female with no past or family history of any psychiatric illness presented with complaints of increased irritability, suspiciousness, withdrawn behaviour, disturbed sleep and refusal to accept food and medications orally. History was reviewed and serial mental status examinations were done. Previous treatment records were reviewed.

Result: Physical examination and blood investigations were within normal limit. She was diagnosed to be a case of Paranoid Schizophrenia. She was hospitalized in other setups 2 times in the last 6 months and had received 9 ECT sessions and long acting antipsychotic.injections. Following admission, she was given ECTs owing to prior response, long acting antipsychotic injections, oral medications were accepted for a brief period followed by refusal to accept food or medications orally. She was maintained on daily and monthly long acting injectables

Conclusion: Treating a case of Schizophrenia can be challenging when the options for choice and route

of administration are limited. Refusal to eat and drink which deteriorated the physical condition with refusal to accept oral medication made it a difficult case to manage.

"Catatonic Stupor" as an Initial Presentation of Mania: A Case Report

Richa Pandey[1], Amil Hayat Khan[2]

[1]Junior resident, [2]Associate Professor, Department of psychiatry, BRD Medical College, Gorakhpur, UP

A 20 year old young male from Kushinagar referred to our psychiatry OPD from the emergency department of the Nehru hospital, BRD Medical College on 12th February 2021 with the presenting complains of increased body tone, gesturing, remaining mute and disturbed sleep for 3-4 days. On examination the patient was found to be conscious but uncooperative, eye contact could be established. There was rigidity, posturing, and practically remained mute, with somewhat expression less face but lively eyes during the entire period of Mental Status Examination. We decided to admit and transfer the patient to our side.

Treatment was started with lorazepam injection (dosing 2mg BID) for 3 days but no clinical improvement was seen. We decided to add injection haloperidol (dosing 10mg BID) with injection Promethazine (dosing 25 mg BID) in the treatment regimen. After 2 days our patient started talking more and talking big, showing increased motor activity, overfamiliar behaviour, greeting everyone in the ward, and he was looking very cheerful. Patient started taking meals and so injectables were changed into oral medications. We prescribed Tab lithium 450mg BID, and tab olanzapine 10mg BID. He had shown significant improvement within next 15 days. A final diagnosis of Mania with psychotic symptoms (F30.2).

Though catatonic stupor as a presenting symptoms of mania has been known, what prompted us to present this case is that stupor is comparatively rarer initial presentation in mania.

Echolalia as a Presenting Symptiom of Bipolar Affective Disoredr Current Episode Mania: A Case Report

Gaurav Singh Yadav[1], Amil Hayat khan[2]

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A 26-year-old young boy from Bihar presented to our Psychiatric OPD on 20 JULY 2021 with following history and complaints. He had Echolalia for last 2 days. He had three similar past episodes which was started in 2016 and had been diagnosed and treated as Bipolar Affective Disorder.

During the first presentation also our patient was having Echolalia (he was repeating whatever said or asked to him). When nobody was talking to him, he used to remain very cheerful with occasional irritability but whenever any family member tries to interact he would only repeat the same.

During 2nd and 3rd episodes, his symptoms started with similar echolalia and then other symptoms of mania came into picture. His mother was able to recognise 3rd episode very early with this symptom of echolalia.

This being a rare presenting symptoms of mania in Bipolar Affective Disorder which prompted us to report this case.

Diagnostic Dilemma - A Case of Proencephalic Cyst Having Symptoms of Dissociative Convulsions

Hina Bano[1]

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Background: Dissociative seizures are manifestations having similar signs to that of seizures in the absence of paroxysmal neuronal discharge and closely resembles to epileptic seizures. We present a case of porencephalic cyst who had a presentation similar to dissociative seizures.

Aim: To differentiate between dissociative seizure and paroxysmal non epileptic seizures.

Method: A 6 year old male presented with abnormal body movements which were generalised lasting for about less than a minutes, it was not associated with frothing from mouth, up rolling of eyes, loss of consciousness, trauma or post ictal confusion. Precipitating factor was parents shifted in different city for work leaving patient alone and the child has a role model as his neighbour who was a diagnosed case of seizure disorder.

Results: In the described case, patient had seizure disorder however during the initial phase of treatment it was confused with paroxysmal non epileptic seizures. There was dilemma in our diagnosis as the presentation of seizure was very much similar to dissociative convulsions.

Conclusion: This case highlights the diagnostic challenges that caused delay in initiating the much needed treatment and may contribute to poor outcome.

Add on tDCS for obsessive compulsive disorder with comorbid seizure disorder: A case report

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Background: Obsessive-compulsive disorder (OCD) is a common psychiatric disorder with a chronic course. If remain untreated, this can impair an individual's functioning and affect the quality of life. Chronic course of OC symptoms can also cause structural abnormalities in brain making an individual prone to seizure episodes and also vice-versa. Concomitant seizure disorder can also have an effect on functioning and quality of life. Appropriate treatment modalities can help in improving the outcomes.

Aims and Objectives: We here present a case of young male, presented with complaints of recurrent thoughts, repetitive acts and seizure disorder who responded rapidly with a combination of anti-obsessional drugs, somatic treatment (transcranial direct current stimulation) along with behavioural therapy

Method: A young male presented with complaints of recurrent intrusive thoughts related to contamination, symmetry, doubt and sex, along with repetitive acts of cleaning, arranging, checking for 11 years and episodes of generalized tonic-clonic seizure for two years. History was reviewed and a detailed mental status examination was done. He was also evaluated for presence of any other medical co-morbidities.

Result: Physical examination and investigations (haematological, neuroimaging) did not reveal any abnormality. He was diagnosed with obsessive compulsive disorder with Seizure Disorder. Prior to admission he was on anti-obsessional drugs and anti-epileptics. Following admission, transcranial direct current stimulation (tDCS) was started twice daily for ten days and exposure and response prevention therapy was planned. This resulted in significant reduction in YBOCS score from baseline to post tDCS sessions.

Conclusion: Management using anti-obsessional medications with added somatic treatment (transcranial direct current stimulation) can help in achieving early response.

A Rare Side Effect of COVID-19 Vaccination: A Case Report

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Background: Reported side effects of Covid-19 vaccines have mostly been mild to moderate and short lasting. They include fever, fatigue, muscle pain, headache, chills, pain in the injection site etc. More serious or long-lasting side-effects of vaccines are possible but extremely rare.

Aim and objectives- To report a side effect of covid vaccine marketed by J&J company, USA

Method: A 22-year-old young lady from Nepal reported to our psychiatry OPD on 18th of August 2021. She was infected with Covid-19 virus in the month of April 2021. About 15 days prior to present consultation, our patient took the single dose Covid vaccine marketed by J & J Company, USA. Following vaccination, she developed some symptoms/

complications. As she was anxious about her symptoms, she consulted us.

Result: She developed symptoms of upper respiratory tract infection with running nose and mild to moderate fever for 3-4 days. She developed complete loss of taste, which earlier was partial following covid-19 infection in the month of April. She also complained of a peculiar foul smell, (as if) some fluid was running inside her ears and heaviness over head. She was counselled and prescribed tab etizolam 0.25 mg twice a day. A telephonic interview was done after two weeks, when she mentioned improvement in most symptoms except some hearing impairment.

Conclusion: Some of the above symptoms, especially the complete loss of taste, foul smell and impairment in hearing, which appeared after vaccination, were rare side effects of J & J vaccine, prompted us to report this case.

Severe Depression with Psychotic Symptoms: A Case Report

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Background: Major depressive disorder (MDD) with psychotic symptoms is a distinct type of depressive illness in which mood disturbance is accompanied by either delusions, hallucinations, or both.

Aim & Objective: To present a case report of severe depression with psychotic symptoms.

Method: A 25 years old male presented with the complain of sadness of mood, decreased sleep, tiredness and suicidal thoughts for last 1 month. Onset was gradual and the course was continuous. He was talking very less and mostly remained confined to himself. He did not enjoy watching television or listening to songs. He did not able to concentrate in his studies. He thought that no one could help him and he thought of committing suicide, many times, during these days. He said that all of these were happening because of his own fault and that he might have committed something wrong in the past. So, he do not wish to live anymore. His sleep and appetite were decreased during these days.

Result: He was diagnosed as a case of Severe Depression with psychotic symptoms. Our patient was prescribed tab escitalopram 10 mg OD, tab clonazepam 0.5 mg HS and tab olanzapine 10 mg HS for the next two weeks. Subsequently, tab clonazepam was tapered off and currently he is maintaining well with the rest medications.

Conclusion: Major depressive disorder (MDD) with psychotic symptoms, is a serious condition that requires early intervention and close monitoring by a competent mental health professional. Psychotic symptoms occur in nearly 18.5% of patients who are diagnosed with MDD.

UG Abstract State Conference

The psychological impact of COVID-19 pandemic on general population of India

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Background: The global COVID-19 pandemic outbreak took origin from the city of Wuhan in China in December, 2019. It caused havoc among the people by the transmission of corona virus from an infected person to a healthy person via the respiratory route. This outbreak, reported in India in the early months of the year 2020, caused the Indian government to enforce strict measurements, policies and precautions to control its spread throughout the country. The Government of India imposed a nationwide lockdown from March 24, 2020, which caused negative effects on the mental status of the people and made them disturbed and afraid of contacting the disease.

Aims and objectives: This study, based on the Hamilton Anxiety Rating (HAM-A) scale, aimed to understand their levels of psychological impact involving anxiety, depression, physiological problems and insomnia during the lockdown.

Methods: A structured questionnaire was circulated via online platforms such as WhatsApp, Facebook and Instagram through the snowball sampling method so as to collect maximum responses. Informed consent was obtained from the respondents.

Results: The results revealed that a majority of people were dealing with anxiety (76.7%), tension (59.6%), fear (69.4%), depression (64.7%) and intellectual problems (59.3%), all ranging from mild to very severe. On the physiological front, majority was towards the negative, with a smaller number of people dealing with cardiovascular problems (13.3%), respiratory problems (12.6%), gastrointestinal problems (23.7%), autonomic problems (27.4%) and somatosensory problems (23.7%) due to the lockdown, again ranging from mild to very severe. Almost half (44.9%) suffered from a certain level of insomnia due to the lockdown.

Conclusion: Due to this high level of impact, there is an urgent requirement to attend to the mental issues of the people during the COVID-19 outbreak.

Post-Stroke Bipolar Affective Disorder: A rare complication from stroke

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Background: Post-stroke patients are at substantial risk of developing a spectrum of neuropsychiatric syndromes due to permanent damage to brain parenchyma. Existing literature suggests post-stroke depression, dementia and anxiety amongst the common organic mental disorders in post-stroke patients. However, only a few literatures exist that report cases of bipolar affective disorder after stroke.

Aims and Objectives: We here discuss a case of post-stroke bipolar disorder who experienced depressive and manic episodes, after 1 and 12 months, respectively, of the haemorrhagic stroke.

Method: A 58-year-old man presented with chief complaints of increased irritability increased talkativeness, big talk, increased sociability, suspiciousness and decreased sleep for one month. The patient was evaluated clinically. History was reviewed. A detailed mental status examination was done. He was investigated to rule out any possible medical conditions.

Result: The patient had a history of haemorrhagic stroke one year back following which he had a depressive episode for one month for which he was treated with Tab. Escitalopram upto 10 mg/day and lorazepam 0.25mg/day. The patient is a known case of type-2 diabetes mellitus with hypothyroidism.

Physical examination revealed positive frontal release signs, routine blood investigations suggested Iron Deficiency Anaemia and CT scan-head revealed mild diffuse cerebral atrophy and left frontal encephalomalacia. A diagnosis of Organic Bipolar Affective disorder was made and he was started with a mood stabilizer (sodium valproate upto 1500mg/day) and antipsychotics (aripiprazole upto 15mg/day) in which he showed improvement.

Conclusion: Post-stroke neuropsychiatric impairment significantly affects health-related quality of life and are usually associated with poor outcomes. This demonstrates the need for more attention towards etiopathogenesis, screening, diagnosis and management of post-stroke neuropsychiatric syndromes.

Panic Disorder: A Case Report

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A 32 year old female patient presented with multiple episodes of palpitations, sweating, chest pain, dizziness with loss of consciousness lasting for 10-15 minutes and no history of any frothing, incontinence, any convulsive movement of body, no history of any substance or drug intoxication. Physical examination reveals no neurological deficits and mental status examination reveals conscious cooperative patient with anxious, appropriate, communicable affect with fear of dying during attack, anticipating anxiety of having another attack with intact judgement with grade 4 insight.

Gaming Disorder Presented with Psychosis: A Rare Presentation: A Case Report

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Background: Gaming Disorder is a problematic, compulsive use of games results in significant impairment of individual's ability to function in various life domains. This can lead to depression, mood disorders, anxiety disorders, somatization, social withdrawal and problem gambling. Psychotic symptoms are still not reported in it.

Aims and Objectives: To report a case of gaming disorder presented with psychosis.

Method: A 32 year old, LIC agent belonging to middle socio-economic status presented to our Psychiatric OPD, with symptoms of suspicion of someone was following him, trying to harm him, hearing voices talking about him and passing harsh comments on him, fearfulness, disturbed sleep, restlessness, stopped his job, not going outside of home out of fear, not taking care of himself and his family members, for 20 days. On further enquiry it was found that he started playing a game making team in Dream 11 app during the season of Indian Premier League one year back. First he gain a little amount in starting then he started losing money in it. With time he lost a huge amount of money around twenty five lacs (Rs/-25,00,000). He borrowed money in between for it and used his client's money also to overcome this burden. But every time he was not able to control himself to stop playing game in spite of negative consequences. He started living alone, irritability, decreased sleep. On MSE he was fearful, has delusion of persecution.

Result: A diagnosis of "Gaming Disorder presented with Psychosis" was made. Patient was prescribed tab olanzapine 10 mg HS, with clonazepam 0.5 mg HS. and patient responded well. Future plan is cognitive behavior therapy to change his Gaming Behavior.

Conclusion: Gaming disorder is rarely present as a psychotic symptoms. It mainly present as an anxiety disorder or depressive symptoms. Prevalence is 0.7 to 25.5% world-wide. It is still not included in diagnosis in either ICD 10 or DSM 5. We think it should be included as separate entity as problems related to this are increasing now a days in this digitalized world.

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