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EDITORIAL

Socio-Economics - repercussions on Mental Health

Anil Kumar / SRP Shukla

Our nation, in the process of economic progression, is undergoing social regression culminating in balkanization of the middle class, the harbinger of our culture. Market economy, TV, internet and impact of technology have yielded ANOMIE (Durkheim), 1897) IDENTITY CRISIS (Erickson, 1970), or IDENTITY DIFFUSION Orru, 1983) and are causing psycho-social impact expressed as transition of social man into economic man with insatiable needs, resulting in imperialistic life style, hence chase for money. These socio-economic percussions are resulting in family rubric break-down, behavioural or internet-addiction, attention and concentration deficit, poly-drug addiction, alcoholism, violence, suicide and/or personality aberration.

As a consequence of economic evolution the economic man has replaced the social man with heightened rationality, self interested behavior, entitlement for luxury, skewed reasoning to defend silly irrationality by the defense of reasoning. Self indulgence consisting of tantalus cup filling up of narcisstic void with material objects and money. Self defeating, self destructive behavior, "I will do anything for money" because money is me; without money I am nothing. I can buy everything from money, which results in over confidence because their ego – the reality appraisal system – gets involved and they are fooled by hindsight bias. [Laibson (1994) quoted in Uchitelles (2001)].

Social regression entails crisis of values. The crucible of values is family and commune. Economic progression results in family balkanization due to uber affluence or neo-richness (Rosch 2001). The combination of uber-rich or the neo-rich leads to identity malformation resulting in rudderless life style, boorish behavior, thankless selfish, non-faithful, treacherous, confused. With such aberration due to narcissistic void, a negative identity becomes less threatening than no identity and is thus plugged by poly addiction. Pro-social values being corroded, there is smugness, alienation and lackadaisicalism, violence and reality distortion. (Singh, 2008). Unable to confront the reality, they escape into the different types of addiction, behavioural aberrations and/ or embalm themselves with the chemical mother – the mind influencing agents.

The middle class families are breaking down due to economic surge, resulting in imperialistic life style. Family is the crucible for forging personality and self culture and formation of identity. Due to prevailing socio-economic turmoil, the families are undergoing fragmentation, diasporisation, nuclearization or monoparentalisation resulting in manufacturing of asocial, anti-social or narcissistically fragile youth.

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THIS ISSUE

Shukla S.R.P., Kumar Anil

The canvass of coverage of this issue encompasses psychiatric disorders with organic and psycho-social substrate as aetiopathology. Psychological and Psycho-pharmacological intervention in functional disorders, ubiquitous in our country, with serious socio-economic implications have been dealt with.

REVIEW ARTICLES:

First review deals with short attention span and hyperactivity under the caption "Management of Attention deficit/hyperactivity disorder (ADHD) by Gurvinder Pal Singh who covers its organic basis. The second review is available for understanding abnormal behavior with psycho-social substrate as etiology under the caption "Motor Disorder-Psychological perceptive by Shivani et al. Herein we find the phenomenology of Conversion Reaction, Stereotypical Movement, Tourette Syndrome, Catatonia, Ganser's syndrome, Latah, Amok and Lycanthropy". We must read this article thoroughly because such cases abide in abundance in the village-India, seventy per cent catchment area.

ORIGINAL ARTICLES:

- The first one is Co-morbid personality Disorder among Alcohol Dependent patients by Ranjan Jay Kumar et al. This research's originality lies in highlighting the fact that Alcohol Dependence is a function of Personality Disorder and we all know that the foundation of personality occurs before thirteen years of age.

- The second is on substance dependence Captioned "Emotional Intelligence of cases with substance dependence by Alreja et al. This deals with cigarette dependence eitiopathology

- The third article by Rai Priyanka: Studies Marital Adjustment and Sexual Behaviour in Correlation with Quality of life in patients with schizophrenic disorder. This study is about marital maladjustment and has little to do with schizophrenia or bipolar disorder. This paper gives the readers an understanding of marital adjustment.

- Our next article is "Cognitive Dysfunction in Depressive patients" by Hemram Smita et al. They found that depression has an impact on Memory function and Attention resulting in comprehension failure.

- Then comes a Cognitive Remediation of working memory deficits in patients with schizophrenic Disorder by Ghosh Tulika et al. This paper primarily deals with executive function aberrations.

- We have Sayeed et al on "Phenomenology of obsessive compulsion disorder in Eastern India". They clearly delineate erstwhile obsessive compulsive neurosis from obsessive compulsive disorder.

- Article headache clinic by Sayeed et al discussed that there is increased acceptability of Psychiatry, as more and more patients are attending this clinic and their group teased out various types of cases seen in Central Institute of Psychiatry, Kanke.

- Socio-demographic and clinical characteristic of sexual problems**:** Report from a Community Mental Health Clinic of West Bengal by Brahma Arabinda and Chatterjee Mahuya deals with Psychosocial factors affecting sexual aberrations and their manifestation and correlate them with their etiolopathology.

CASE STUDY:

· "Acute dystonia with Paroxetine a case presentation, possible mechanism and clinical implication" by Chakraborty Kaustave. Talks about pharmacology of nigro-striatal path way, thereby warning us to be very careful in selecting psycho-tropic agents.

VIEW POINT

· The Quest for an ideal Mental Health Act by Choudhary Laxmi Narayan & Jaiswal Rajiv gives an overview of ongoing discussions on Mental Health Act latest draft with a psychiatric perspective.

FROM STUDENT DESK

· Specific learning disability: The changing scenario by Prasad Aishwarya provides conceptualization of specific learning disabilities.

Overall, all the articles are of very good quality and well researched.

Review Article :

Management of Attention Deficit/hyperactivity disorder (ADHD) with Methylphenidate-a brief review

Gurvinder Pal Singh

ABSTRACT:

Methylphenidate has maintained its place, as first-line choice for the pharmacotherapy of ADHD. Methylphenidate is the most commonly used psychostimulant and has proven its short and long-term efficacy in treatment of ADHD. More than 70% of the children improve with it. Excellent results particularly on cognitive manifestations of this disorder with Methylphenidate are found in most of the studies. Currently its mechanism of action and other significant aspects are being understood in a much better way. In our country its wider availability and more clinical research is suggested so that maximum number of children with ADHD can benefit from metylphenidate use.

Key words: Methylphenidate, ADHD, Psycho stimulants

INTRODUCTION:

Attention Deficit/ Hyperactivity Disorder (ADHD) hold's a special place among child and adolescent psychiatric disorders. George Still, a British Pediatrician in 1902, enumerated the description of Attention Deficit/Hyperactivity Disorder. This disorder is of great importance to the child Psychiatrist as it is one of the most commonly encountered disorders, making up to 50% of total patients in a Child Psychiatric Clinic.[1] Symptoms of ADHD may or may not come to clinical attention before school age, but parents can often report early onset of problems retrospectively. Psychostimulants have been used in the management of children and adolescents with ADHD since long. In 1937, Bradley reported the first use of Psychostimulant medication. Over the past several years, much progress has been made in understanding the actions of stimulants on children's learning and behavior.

Methylphenidate and dextroamphetamine are the most commonly used psychostimulants for ADHD, probably because of their low cost, tolerability over a broad dosage range, and safety. Methylphenidate is one of older and classical drugs for ADHD. There are several complexities and debatable issues involved in selection of a pharmacotherapy of ADHD. In an international study, an estimated 2.8% of subjects in age group of 5-18 years were receiving methylphenidate.[2] Psychostimulants continue to benefit patients with ADHD through adolescence, and adulthood, and concerns that stimulant medications prescriptions may lead to abuse seem unwarranted.[3,4] Most data have been obtained in literature from studies conducted on sample of school age children with ADHD. Role of methylphenidate across life span needs more documentation to understand its beneficial effects for patients. Still, despite considerable progress over the past two decades, much is to be learned regarding the present status of methylphenidate in treatment of Attention Deficit/ Hyperactivity Disorder. The use of methylphenidate has been fraught with controversies. The major issues were growth delay and the risk of substance abuse and affective blunting

PHARMACODYNAMICS AND MECHANISM OF ACTION

To optimize therapy for ADHD, psychiatrists should familiarize themselves with the pharmacological properties of individual drugs used to treat this disorder, adverse effects and their management, and non-responses to medications, and when to seek appropriate alternatives for these patients. For a large number of patients who are diagnosed with this ADHD, pharmacological treatment is often considered as integral part of treatment programme. Methylphenidate (MPH) remains a pharmacological treatment of first choice for children with ADHD.[5] Methylphenidate is a mild central nervous system stimulant. It is a piperidine derivative structurally related to amphetamine.[6] Methylphenidate is well absorbed from gastrointestinal tract and reaches peak plasma level in 1.5-2 hours. It has a short half-life of 2-3 hours and thus requires multiple daily dosing. With the standard preparation, the onset of behavioral effect is noted in 30-60 minutes and peak effect is noted in 1-3 hours and the effect lasts for 3-5 hours.[7] It is completely metabolized by the liver. Concentration of Methylphenidate in the brain exceeds blood concentration. Ritanilic acid is the major metabolite excreted in urine.[8] For both standard and slow release preparation the behavioral responses occur during the absorption phase and are not correlated with the plasma concentration.

Barkley reviewed fourteen studies using methylphenidate in patients with ADHD and observed a mean improvement of 75% with methylphenidate in such patients.[9] Large clinical trials directly comparing the methylphenidate from other classes of drugs are lacking. There are more than 350 double-blind placebo controlled studies (on over 3000 children) consistently demonstrating that methylphenidate lead to improved impulse control, attention, academic, social and family functioning.

More recently, with expanding field of neuro-pharmacology, a renewed interest has occurred in elucidating the mechanism of action of methylphenidate on the central nervous system. Although the precise mechanism of action of Methylphenidate in ADHD is not entirely clear, Methylphenidate is thought to affect catecholamines neurotransmitter system believed to be involved with ADHD. ADHD pathophysiology is thought to involve a pattern of decreased dopamine and increased norepinepherine neurotransmission Methylphenidate administration to animals has been shown to block norepinephrine and dopamine uptake in the striatum, hypothalamus and cortex while expediting the release of dopamine, but not norepinephrine from the striatum.11 Methylphenidate might act by correcting the catecholamine imbalance thought to be central to ADHD. The dopaminergic component of Methylphenidate action appears to be particularly crucial for its clinical effects. Methylphenidate administration alters the subcellular distribution of vesicular monoamine transporter-2 containing vesicles in rat striatum.[12] Blood flow to the Frontal and Caudate region was found to be increased when Methylphenidate was administrated to a sample of children with ADHD.[13] Oral Methylphenidate at doses within the therapeutic range significantly increase extra cellular dopamine in human brain. This coupled with findings of increased dopamine transporters in ADHD patients, provides a mechanistic framework for the therapeutic efficacy of Methylphenidate. 11-13 Methylphenidate works as a dopamine reuptake inhibitor. Methylphenidate chiefly affects the prefrontal cortex and striatum, the mechanism of action being modulation of catecholaminergic tone. Methylphenidate treatment produces an increase in dopamine signaling through multiple actions, including blockade of the dopamine reuptake transporter and amplification of dopamine response duration, disinhibition of dopamine D2 autoreceptors and amplification of dopamine tone, and activation of D1 receptors on the postsynaptic neuron. The actions of methylphenidate may also be mediated by stimulation of the noradrenergic alpha2 receptor and dopamine D1 receptor in the cortex.

CLINICAL EFFICACY:

The clinical efficacy of methylphenidate for short-term treatment of ADHD for 4-12 weeks has been well established.[3] Clinically, methylphenidate is commonly used for much longer durations, and some data exist on long-term efficacy.[4] Many studies support the efficacy of Methylphenidate in the treatment of ADHD.15-19 More than 70% of patients treated with Methylphenidate show a significant improvement in the core symptoms of ADHD.10,15 There is an immediate and often dramatic improvement in behavior.20 Attentiveness improves and interpersonal interaction including those with parents, are less confrontational. Academic performance improves but not as dramatically as behavior.21,22 Laboratory measures of attention; impulsivity, learning, information processing, short-term memory and vigilance all improve.23,24 There is significant improvement in social skills, as recorded by peer ratings, parent and teacher ratings of social function.25,26,27

Methylphenidate is indicated as integral part of total treatment program which typically includes other remedial measures (psychological, educational and social) for a stabilizing effect on children with ADHD. Many studies have been conducted using multimodal treatment approaches but the findings are conflicting one.28-35 Large number of studies have been reported from developed countries. Results of these studies revealed that combined approach is more effective than pharmacotherapy alone. A few characteristics like young age of child, clearly disturbed attention span, an average I.Q. and low level of associated anxiety, predict a better response.28 Low intelligence may predict a poor response.29 In a study of eighty four children with ADHD and conduct disorder who were treated with Methylphenidate or placebo for five weeks, both antisocial behavior and rating of ADHD improved more in the group assigned to Methylphenidate.30 Among patients who respond to drug therapy, the benefits persist over time and tolerance does not develop. However, the effects of the drug on behavior wear off quickly in two to six hours.[8] The majority of studies are short term, lasting for several months. Methylphenidate may be given safelytochildrenwithepilepsy.[31,32] In children with tic disorder and ADHD, Methylphenidate decreased disruptive behavior without necessarily worsening tics.[32,33,34] Among twenty one studies in children with ADHD, the authors reported that Methylphenidate was found to be more effective than placebo for improving overt and covert aggression related behaviours.[3]

DOSAGE:

The initial dose of standard methylphenidate is 5mgs once daily. The range of effective dose cannot be predicted by the patient's age, body mass, level of hyperactivity or measurements of plasma drug concentration.[36,37,38] Therefore the dose must be adjusted in each patient to obtain the maximum benefit. The dose may be increased every three to five days while adverse effects; behavior and academic functions are assessed through reports from parents and teachers. Academic performance may improve with lower dose, but higher doses may be required to improve motor restlessness and attention. 24 Maximum single dose of standard methylphenidate should be 20-30 mg and maximum daily dose is 60 mg. Higher doses of standard preparations have been given safely but have not been tested in clinical trials.[10] "Rebound effect" is noted with Methylphenidate i.e. worsening of behavior above baseline following the "wearing off" effect of medication. "Rebound effect" can be avoided by the use of longer acting drugs.

Extended / sustained release formulations

ADHD is a pervasive problem and its clinical features may be present in the evening, at weekend etc. Treatment needs to target at these different timings. Since 2000, there has been an increased prescription of sustained release formulation of methylphenidate for individuals with ADHD.[39] This provide consistent profile of delivery. Once-a-day sustained release (SR)formulations have been licensed in some developed and developing countries for some time.[40] In the last few years a second generation of more effective formulations (extended release formulations) has been licensed. These formulations use a range of different delivery technologies and offer smooth patterns of symptom control across the day.[41,42] These new formulations represent a major advance in the clinical management of ADHD and are popular with both patients and clinicians. As some studies show that at least 50% of patients are nonadherent with their drug therapy as prescribed over a 1-year period, long-acting formulations (administered once/day) may improve adherence.[42]

Common adverse effects

The side effects of the standard and sustained-release preparation are dose dependent. Decreased appetite is reported in approximately 80 % of children but it is mild in intensity. 10-15 % has substantial weight loss.[43,44] Insomnia is reported in 3-85% with sleep delay of about an hour is documented.[45] Abdominal pain, irritability, headache, dryness of mouth, dizziness and depression are less frequent. The weight loss may be an advantage in case of obeseoveractive children.[46] Severe adverse effects include toxic psychosis, alopecia, thrombocytopenia, Stevens-Johnson syndrome and various hypersensitivity reactions and cardiovascular complications. Methylphenidate can have significant drug interactions including inhibition of metabolism of anticonvulsants and tricyclic antidepressants. Use of Methylphenidate with clonidine and Tricyclic antidepressants leading to increased risk for significant cardiac arrhythmias has been reported.[47,48] Most common side effects can be managed by altering the time or dose of methylphenidate.

CONTROVERSIES:

a) Growth and Height of Children

Whether Methylphenidate alters growth in children has been debated.[49,50,51,52] In a controlled study, growth velocity slowed during continuous treatment with Methylphenidate.[49] In another study, the height of the boys treated with Methylphenidate was similar to that of normal boys.[50] Drug therefore may slow weight gain and growth slightly, but the long term effects are minimal. Moreover, some of the height deficit may be related to the disorder and independent of Methylphenidate intake.[10] Methylphenidate is safe and effective in children and adolescents with attention deficit/hyperactivity disorder. Research on the issue of growth suppression is lacking, mostly owing to insufficient follow-up on patient' final heights. In general, the rate of height loss seems relatively small and is reversible with withdrawal of treatment. [50,51,52]

b) Methylphenidate abuse

There is no evidence that treatment with Methylphenidate increases the risk of abuse.[53] But parents need to monitor the administration of medication carefully. Methylphenidate has similar pharmacological action like cocaine and due to this fact its activity in the brain has been studied in animals and humans. It has been postulated that the slower clearance of methylphenidate in the brain would limit drug reinforcing properties as well as its abuse potential. Psychostimulants continue to benefit patients with ADHD through adolescence and adulthood, and concerns that stimulant medication prescriptions may lead to abuse seem unwarranted.[7] There is little evidence that Methylphenidate abuse is currently a major problem. Although recent trends suggest that this could increase with the expanding production and use of methylphenidate.[54,55,56]

The appropriate assessment and management of ADHD are essential to minimize both the risk of diversion and of substance use associated with unrecognized or untreated ADHD.[54] Methylphenidate prescriptions should be monitored closely in individuals with histories of substance use. Recently twenty one studies representing 113,104 subjects have provided variable information on the pattern of the use of nonprescribed and prescribed Methylphenidate in adolescent population. The literature highlights the need to carefully monitor high-risk individuals for the use of nonprescribed stimulants and educate individuals with ADHD as to the pitfalls of the misuse and diversion of the medication.[55] Attentiondeficit/ hyperactivity disorder (ADHD) is a risk factor for subsequent substance use disorders. These studies also suggest that ADHD pharmacotherapy in childhood reduces the risk for substance use disorders. Misuse and diversion of prescribed stimulants occur among a minority of ADHD patients, especially those with conduct or substance use disorders. Extended release formulations of Methylphenidate may be less likely to be misused or diverted[56].

Newer versus older drugs

Atomoxetine was found to be effective in reducing both inattentive and hyperactive/ impulsive symptoms in a sample of children and adolescents.[57] In a small study, the efficacy of atomoxetine was found to be relatively comparable to methylphenidate.[58] Although other medications are sometimes prescribed for ADHD (e.g. tricyclic antidepressants, clonidine, buproprion, venlafaxine), these non stimulant medications has not yet been approved by FDA. Atomoxetine had received FDA approval as an ADHD treatment for children, adolescents, and adults. Unlike stimulants, which are believed to reduce ADHD symptoms through their impact on the availability of dopamine in the central nervous system, Atomoxetine exerts its effect on the neurotransmitter known as norephinphrine. Atomoxetine has no abuse potential

Non FDA approved treatment should be used after both class of FDA approved medications have been tried. These drugs are reserve drugs for those patients who do not respond or tolerate FDA approved treatments. The tricyclic antidepressants especially imipramine and desipramine were the most often prescribed non-stimulant medications for individuals with ADHD. Alpha-2 adrenergic agonists like clonidine and recently introduced guanafacine have been the focus of research in this clinical area. Bupropion and venlafaxine have been studied for their potential use in ADHD. 59,60 Bupropion is found to be less effective as Methylphenidate in ADHD.[59]

Recent treatment guidelines by the American Academy of Pediatrics recommend that two to three stimulants be tried across a full range of doses before switching to another class of medications. The stimulants have also been around for much longer, obviously, and several studies including the MTA study have documented their efficacy in symptom management over an extended period.[52] Studies on the longerterm effectiveness of Atomoxetine are needed to provide strong evidence. These will be very interesting and will likely have a significant impact on prescription pattern in ADHD.

CONCLUSION:

Methylphenidate has been widely used worldwide for the treatment of ADHD. Majority of evidence supports the efficacy and safety of methylphenidate for children and adolescents with ADHD. This produces significant improvement in attention, hyperactivity, impulse control, and aggressiveness leading to better organization of behavior, task completion and self regulation. However, like any drug, it has its limitations (e.g. 23-27% nonresponder, questionable long-term effects). Its side effects are mild and do not outweigh the benefits of drug therapy. Non FDA approved treatment should be used after both class of FDA approved medications (stimulant and non-stimulant) have been tried. New drugs approved by FDA as non-stimulants like atomoxetine are showing a breakthrough in the management of ADHD. Multimodal approach in management of ADHD is still the best choice for these patients. To date, no drug is more effective than Methylphenidate for treatment of ADHD. There is urgent need to have availability of sustained release formulation of Methylphenidate in our country for better results.

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Review Article :

Motor disorder: A psychological perspective

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ABSTRACT:

From the point of view of the 'psychic reflex arc' all psychiatric events merge into motor phenomena, which assist the final inner elaboration of stimuli into external world. We can therefore examine the many, often grotesque, movements of mental patients from two points of view. Either we try to acquaint ourselves with the disturbances of motor mechanism itself, which can show disturbances independent of any psychiatric anomaly and this is the approach adopted by neurology. Or we try to know the abnormal psychic life and the patient's volitional awareness, which these conspicuous movements exhibit. In so far as we know the meaningful connections, the movement becomes behavior we understand, for instance the delight in activity shown by the manic patients in their exuberance or the increased urge to move shown by the patients who are desperately anxious. Somewhat between neurological phenomena and the psychological phenomena lie the psychotic motor phenomena which we register without being able to comprehend them satisfactorily one way or the other. They can be explained psychologically. Some of the disorders various culturally. Motor disorder can be assessed and managed psychologically

Key words: motor disorder ,assessment, management

INTRODUCTION:

Motor behavior is normally finely coordinated, purposeful, and adaptive, and necessary activities are usually carried out efficiently. Abnormal movements have been recognized as aspects of behavioral illness for millennia, and all severe psychiatric conditions are associated with changes in motor functioning. In so far as we know the meaningful connections, the movement becomes behavior we understand, for instance the delight in activity shown by the manic patients in their exuberance or the increased urge to move shown by the patients who are desperately anxious. Somewhat between neurological phenomena and the psychological phenomena lie the psychotic motor phenomena which we register without being able to comprehend them satisfactorily one way or the other.

MOTOR DISORDER, IS IT NEUROGENIC OR PSYCHOGENIC?

Much of the terminology used to describe motor disorder is for several reasons unsatisfactory because of the ancient but still persistent mind brain dichotomy. With advances in neuroscience and neuropsychiatry it is become increasingly difficult to differentiate between what were an earlier, simpler time called abnormal movement due to organic brain disorder and those due to psychiatric or psychogenic disorder. Fahn et al (1998) define psychogenic movement disorders as abnormal movements that do not result from a known organic cause but are caused by psychological condition. While that may be true, it is not a particularly helpful definition. Because what is the known organic cause for essential tremors, spasmodic dystonia, torsion dystonia and so on? They are universally thought to be organic disorder but are still without any demonstrable neuroimaging, neuropathological, or neurochemical abnormalities. Stress makes most movement disorder temporarily worse and in sleep, almost all of them disappear. So where does psychology end and neurology begin? (Joseph & Young, 1999).

CLINICAL ASSESSMENT OF MOTOR DISORDER

In psychiatric disturbances, motor abnormalities can involve generalized over activity or under activity or manifest in a wide range of specific disorders of movement. General appearance and behavior is more informative than any available tool and thus any assessment of motor disorder should start as soon as the patient walks towards the examiner. Look for level of arousal and attention, hygiene, grooming and dress, activity level, spontaneity or imitation of act, symbolic movements like gestures, grimaces or any tics or mannerisms, swing of arms and dyskinetic movements if any. Any real or hallucinatory perceptions seem to modify behavior of patient. If inactive is he resisting movement or maintaining postures or can be re-postured abnormally. Is he obeying command, is he over-compliant or he does exact opposite of instruction. Is there any expressive movement over face or any signs of emotional responsiveness? Look for rigidity of limbs. Take note of

frequency, appropriateness and constancy of acts. Assessment and demonstration of specific disorders of movement will be dealt in paragraphs to follow. Screening and rating scales can be used variously.

PSYCHOLOGICAL EXPLANATIONS OF MOTOR DIORDERS

1. **Conversion disorder:** A conversion disorder is characterized by the loss of a bodily function, for example blindness, paralysis, or the inability to speak, the loss of physical function being involuntary. Whilst "hysterical" blindness, paralysis, anesthesia, dysphagia, and gait disturbance have been described for many years, the patient confronts an acute stressor that creates a psychic conflict, and the physical symptom(s) serve as the resolution for the conflict. The patient may repress the stressor or be unaware of its impact. The conversion symptoms bind the individual's anxiety by preventing activities that may lead to expression of repressed impulses by keeping conflict out of conscious awareness (primary gain). It can even be explained on grounds of legitimization of the sick role as a way in which the individual takes the opportunity to communicate the distress in socially acceptable device in form of physical symptoms (secondary gain) (Joesph & Young, 1999).

2. **Stereotypy:** Because the motions involved are self comforting, the stereotypic movements may be associated with neglectful situations in which other forms of comfort are not available. Available hypotheses imply that stereotyped movements are a way to release tension or express frustration, that they communicate a need for attention or reinforcement. It is a way of sensory stimulation, for autistic children, since they remain segregated from the environment. It is common to see children in crowded orphanages exhibiting such behaviors (*APA,2000*).

3. **Tourette's syndrome:** It may be one set of possible outcomes of narcissistic, repressed childhood sexuality. Individuals with this syndrome are of a mentally infantile character, narcissistically fixated, from which the healthy developed part of the personality can with difficulty free itself. Tics have been reported to increase in power during early puberty, pregnancy, and childhood, at the time of increased stimulation of the genital regions. (Joesph & Young, 1999)

4. **Non epileptic seizures:** Viewed as a result of intrinsic emotional problem or to internalized conflicts, such as family conflicts, or in individuals with inadequate personalities, adjustment reactions, or who have been victims of sexual or physical abuse. Such individuals may misinterpret or over interpret the occurrences in the environment. Such behaviors increase after they have been reinforced by family members. Individuals having difficulty managing anger or controlling their hostility toward others may result in such manifestation disturbances in patients (Lesser, 2003).

5. **Compulsive acts:** It arises when unacceptable wishes and impulses coming from the id are only partially repressed (driven out of consciousness), thus provoking anxiety and to reduce this, the individual would use the ego defense mechanisms like regression, isolation, undoing and reaction formation. It may also develop because of an individual's feeling of incompetence and inferiority. It may also be explained as an interplay of classical conditioning and operant conditioning where the previously neutral stimuli becomes temporally associated with a fearful stimuli such that the former acquires anxiety provoking properties, resulting in conditioned fear response. Due to the aversive characteristic of the stimuli, escape or avoidance responses are developed, negatively reinforced by the removal of anxiety (Cardwell & Flanagan, 2005).

6. **Catatonia:** Catatonia, long viewed as a motor disorder, may be better understood as a fear response, akin to the animal defense strategy tonic immobility. This proposal, consistent with K. L. Kahlbaum's original conception, is based on similarities between catatonia and tonic immobility ("death feint") as well as evidence that catatonia is associated with anxiety and agitated depression. It is argued that catatonia originally derived from ancestral encounters with carnivores whose predatory instincts were triggered by movement but is now inappropriately expressed in very different modern threat situations. Found in a wide range of psychiatric and serious medical conditions, catatonia may represent a common "end state" response to feelings of imminent doom and can serve as a template to understand other psychiatric disorders (Moskowitz, 2004).

CULTURAL VARIANTS OF MOTOR DISORDERS:

Culture influences the experience and expression of distress from its inception. While Western psychiatry has identified several universal patterns of distress, there are significant geographical variations in the prevalence, symptomatology, course and outcome of psychiatric illness. Several syndromes linked to specific cultures are better considered variations of motor disorders

Ganser syndrome: is a type of factitious disorder, a mental illness in which a person acts as if he or she has a physical or mental illness when in truth, he or she has caused the symptoms. It is characterized by the individual mimicking behavior they think are typical of a psychosis, by providing nonsensical or wrong answers to questions, and doing things incorrectly. The answers given, however, are usually so close to the question as to reveal that the patient has understood the question. Also called nonsense syndrome, balderdash syndrome, syndrome of approximate answers, pseudodementia or prison psychosis. Although this disorder was previously classified as a factitious disorder, the American Psychiatric Association has redefined Ganser's syndrome and placed it in the category called "Dissociative Disorder Not Otherwise Specified."

Latah: reported in Arcadian Maine but linked to Malaysia, is characterized by echolalia, echopraxia, coprolalia (repetitive use of profanity), and automatic obedience within a manic delirium (shouting, yelling, hitting, jumping, and running). Its association with an excessive startle response and its sporadic nature suggests an infectious etiology or manic-depressive illness.

Amok: is a culture-related syndrome associated with south-east Asia, although cases are reported from North America, Britain, and Europe. It is characterized by sudden, frenzied, violent, and often murderous attacks on strangers in public settings with multiple victims. The episode may last hours. Depressive illness or vertigo with visual hallucinations are common prodromes. "Amoks" that are not themselves killed are found in stupor and are amnestic for the attack. Systematic examinations of Amok perpetrators have not been done, but case literature suggests the presence of catatonic features similar to those seen in Latah. Seizure disorder and psychotic mood disorder are possible etiologies.

Lycanthropy: associated with eastern European lore of wolf-men, is the combination of motor disorders with the delusional belief of being changed into an animal due to the influence of the devil. Delusional memories of eating children, killing domestic animals, having coitus with the devil, and interacting with demons were related by sufferers. Associated manic excitement, or "dancing mania" or tarentism (A nervous affection producing melancholy, stupor, and an uncontrollable desire to dance. It was supposed to be produced by the bite of the tarantula, and considered to be incapable of cure except by protracted dancing to appropriate music) is described. Sufferers acted as if wild animals. Fink and Taylor (2003) describe a man who was found by the New York police scurrying around the streets on all fours, roaring, snapping, and biting at passers-by. In the hospital, the man became mute and immobile with generalized analgesia and automatic obedience. He said later that he thought he was a tiger (Taylor & Vaidya, 2009)

PSYCHOLOGICAL MANAGEMENT:

To carry out any psychological intervention, it is a must that there be a good rapport established with the individual concerned and the therapeutic alliance reimbursed, and step forth with the requisite therapy as need be

The strategies of psychoanalytic psychotherapy can also be useful which ranges from insight-oriented (uncovering, evocative or interpretive) techniques to supportive (relationship oriented, suggestive or repressive techniques). Psychoanalytic psychotherapy, in its narrowest sense, is the use of insight oriented methods only. It includes a blend of uncovering and supportive measures. Brief psychotherapy has been found useful in some cases. It is a time limit psychotherapy that is based on psychoanalysis and psychodynamic theory. Supportive therapy recognizes the emotional support and a stable caring atmosphere in the management of the patient. Insight oriented psychotherapy aims at increasing strong motivation to understand (Sadock & Sadock,2007). A non-psychoanalytic, noninterpretative, non confrontational approach that develops an alliance with the patients and shifts the focus from the physical symptoms to the psychological environment is preferable (Joseph & Young, 1999)

Behavioral assessment has three other goals: (1) to define the target behavioral problems; (2) to identify the cognitive habits that are maintaining those behavioral problems; and (3) to make it possible to objectively measure therapeutic progress. To best achieve the latter, behavior therapy focuses on the present manifestations of the target problems. But to ensure the most comprehensive therapeutic results, the therapist gets a detailed personal and medical history

Behavior interventions are directed at the symptoms and the environmental antecedents and consequences that are thought to sustain the symptoms. Typically the sustaining reinforcers are thought to be social attention or escape from a noxious activity and are similar to the concepts of primary and secondary gain. Behavior therapy seeks to systematically reduce the reinforcement

of the symptoms and to reinforce more adaptive social, emotional, and task oriented behavior (Joseph & Young, 1999). Behavior modification techniques may be used including habit reversal training (using a combination of procedures such as awareness training, self monitoring, competing response training and relaxation training), aversion therapy (punishment procedures like time out, response cost, loud noise, aversive tastes, mild electric shock), problem solving skills training , positive reinforcement, etc (Sadock & Sadock,2007)

A number of case reports suggest that hypnosis, relaxation, or drug –induced altered states of consciousness are beneficial for patients with acute conversion symptoms (Brooksbank,1984). Hypnosis is a powerful mean of directing innate capabilities of imagination imagery and attention (Sadock & Sadock,2007). By abreactive therapy we understand: how we forget, how forgetting conflicts cause symptoms, how abreaction in general facilitates recollection, thus replacing a symptom by a conflict, and how 'reverie' (what is usually called 'free association') in particular facilitates recollection (Joseph & Young,1999)

Family therapy focuses on altering the interaction between or among family members and seeks to improve their functioning as a unit. The locus of milieu is a living, learning or working environment (Sadock & Sadock,2007). Clinician can often trace the onset or maintenance of conversion symptoms to family or environmental dynamics. Consequently, family therapy or other environmental interventions are often tried and reported to be sometimes of value in treatment. Helping family to express previously blocked feelings and modifying family dynamics that reinforce the conversion symptoms are common in intervention (Joseph & Young, 1999)

CONCLUSION:

Even after numerous accounts and controversies regarding the issue of wide spectrum of various motor disorders, quite often overlapping, it remains a debate to concretize the etiology of motor disorders, as to being psychogenic or neurogenic. As a group, these disorders are a particularly rewarding challenge for the clinician. Both diagnosis and management can exercise the clinician's skills but the profuse researches, leading to a better understanding into the phenomenon, is a continuing source of enlightenment for the clinicians.

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Original Articles :

Co-morbid Personality Disorders among Alcohol Dependent Patients

Jay Kumar Ranjan[1], Om Prakash[2], Masroor Jahan[3], Amool R. Singh[4]

The aim of the present research investigation was to describe the co-morbid personality disorder among alcohol dependent patients and to compare it with those of the normal population. Based on purposive sampling technique, 50 alcohol dependent patients were selected from psychiatric inpatient of RINPAS and 50 normal participants were selected from the general population. Both the groups were matched for age,gender and socioeconomic level. All participants were assessed with Millon Clinical Multi-axial Inventory (MCMI)-III. The obtained responses were scored by using standard scoring procedure and subsequently statistically analyzed by using of $x2$ test and step wise discriminant analysis. Results revealed that alcohol dependent patients have more co-morbid pathological personality traits and disorders in comparison to normal control group. Of the alcohol-dependent patients, dependent personality disorder was most prevalent followed by antisocial, negativistic and compulsive personality disorders.

Key word: Co-morbid, Personality Disorder, Alcohol Dependents

INTRODUCTION:

Alcohol abuse and dependence are among the most prevalent mental disorders in the general population. In a study conducted in rural community in Bihar, prevalence of alcohol/drug use was 28.8%[1]. Meena et al. (2002) revealed a prevalence rate of alcohol use as 19.78% in an urban population in Rohtak district of Haryana[2]. In a meta-analysis of 13 psychiatric epidemiological studies, Reddy (1998) found the prevalence rate of alcohol/drug use as 6.9 per 1000[3]. Recently, in community survey in rural and slum area of Chandigarh[4], 6.88% individuals of total population surveyed fulfilled dependence criteria of ICD-10. This problem obviously is a significant public health challenge.

In spite of growing interest in alcohol related issues, it remains difficult to accurately define the relationship between personality disorders (PDs) and alcohol dependence. Available literature in the area of prevalence of personality disorder in alcoholics reports a prevalence rate ranging from as low as 22–44%[5, 6, 7] to as high as 58–78%[8, 9, 10].

Similarly, the number and types of PDs found in the literature are very heterogeneous. The most prevalent in the clinical trials have been dependent and histrionic[5, 8]; paranoid and obsessive compulsive[6, 7, 11]; antisocial[5, 9]; narcissistic[13]; and avoidant and borderline[12, 14].

Diagnostic disparity and the lack of consistency are found in the literature with respect to the prevalence, and the types of personality disorders associated with alcohol dependence. There is also dearth of Indian studies in this intent. So, main aim of the present study was to assess prevalence and types of co-morbid personality disorders among alcohol dependent patients, and its comparison to normal controls.

METHODOLOGY:

Participants and Procedure:

To calculate sample size, we used alpha=0.05, medium effect size= 0.3 and set the power at 0.80 of chi square for comparing across alcohol dependent patients and normal controls. Power analysis resulted in that at least a total of 100 sample size is required (Cohen, 1988)[15]. Based on purposive sampling technique, the participants were selected[16]. The sample for this study consisted of 50 patients of alcohol-dependence and 50 normal participants from the general population. All patients were taken from de-addiction ward of Ranchi Institute of Neuro-Psychiatry and Allied Sciences, Kanke, Ranchi. All the participants of normal control group were selected from Ranchi and nearby places. Alcohol dependence patients with fulfilling ICD-10 (1992) diagnostic criteria, age range of 18-55yrs, educated up to std. VIII and currently abstinent, in protected environment (7 days to 14 days) were included. Alcohol dependence patients having any other co-morbid psychiatric disorder, and organic, and neurological disorders were excluded. Co-operative normal participants, age range of 18-55yrs, educated up to std. 8 were included in the sample. Normal participants with a history of organic mental disorder, head injury and other neurological disorders

were excluded. Initially, an informed consent was taken from all the participants and they were also explained about the purpose of the study. The Millon Clinical Mutiaxial Inventory was administered and scored following standard procedure[17].

Measures:

The following tools have been used in the study:

Socio-demographic Data sheet: The Socio-demographic data sheet was custom made, which contained the sociodemographic information of the subjects.

The Millon Clinical Multiaxial Inventory-3rd Ed. (MCMI-III)[17]**:** MCMI-III is a 175 items true-false self-report questionnaire especially designed to measure personality traits and disorder. The scales are clustered into two groups: 14 PD scales and 10 clinical syndrome scales. It also has a Social Desirability scale (Scale Y), a Debasement scale (Scale Z) and a Validity scale (Scale V) which includes 3 bizarre or highly improbable items to see if responses are consistent throughout. Traditionally, Base Rate (BR) scores of 75 to 84 indicate the presence of clinically significant traits. BR scores of 85 or greater indicate the high probability of that clinical diagnosis[18, 19]. For clinical significance it would then be more appropriate to regard a BR score around 70 as significant in group comparisons. Reliability and validity of the MCMI-III has consistently been demonstrated[17-19].

Statistics Used:

The obtained responses of alcohol dependent patients and normal controls on MCMI-III were analyzed by using of x^2 test & Stepwise Discriminate Analysis with the help of Statistical Package for Social Sciences (SPSS) -17.

RESULTS:

Present research study assessed co-morbid personality disorder among alcohol dependent cases and normal controls.

Table 1 shows characteristics of MCMI-III profile of patients with alcohol dependence and normal controls.

Profile Type	ADS (%)	Normal (%)	df	x^2
Personality trait & disorder	34 (68%)	19 (38%)	1	
Normal Profile	6 (12%)	23 (56%)	1	23.29 (0.001)
Fake Good	2 (4%)	5 (10%)	1	2.57 (NS)
Fake Bad	8 (16%)	3 (6%)	1	4.54 (0.05)

Among total 50 patients of alcohol dependence, 12% had normal profile and 20% profiles were invalid. Among 50 normal controls, 56% profiles were normal and 16% profiles were invalid. A total of 68% alcohol dependent patients were having pathological personality traits or disorders and a total of 38% normal participants were having pathological personality traits or disorders.

Table 2 shows types of pathological personality traits and disorders among patients with alcohol dependence and normal controls.

Personality Type	ADS (%)	Normal (%)	df	x^2
Schizoid	4 (8%)	3 (6%)	1	0.28 (NS)
Avoidant	2 (4%)	4 (8%)	1	1.33 (NS)
Depressive	3 (6%)	0 (0%)	1	6.00 (0.01)
Dependent	6 (12%)	3 (6%)	1	3.84 (0.05)
Histrionic	4 (8%)	1 (2%)	1	4.84 (0.05)
Narcissistic	2 (4%)	3 (6%)	1	0.04 (NS)
Antisocial	4 (8%)	0 (0%)	1	8.00 (0.01)
Compulsive	5 (10%)	1 (2%)	1	5.33 (0.01)
Negativistic	4 (8%)	1 (2%)	1	7.17 (0.01)
Masochistic, Sadistic, Schizotypal, Borderline, Paranoid	0 (0%)	0 (0%)	-	-

The most prevalent pathological personality traits or disorders among the alcohol dependent patients was dependent (12%), followed by obsessive-compulsive (10%), antisocial, schizoid, negativistic and histrionic (8% each), depressive (6%) and finally narcissistic and avoidant (4% each). In the normal control group, the most prevalent pathological personality traits and disorders was avoidant (8%) followed by narcissistic, dependent, schizoid (6% each) and obsessive-compulsive, negativistic and histrionic (2% each).

With respect to comparison of personality disorders between both the groups, there were statistically significant

differences in different personality traits and disorders. Antisocial (x^2= 8.0, p< 0.01), depressive (x^2= 6.0, p< 0.01), dependent (x^2= 3.84 p< 0.05), histrionic (x^2= 4.84, p< 0.05), and negativistic (x^2= 7.17, p< 0.01) personality traits and disorders were more associated with alcohol-dependent patients than to normal control group.

A stepwise discriminant analysis was performed using types of personality disorders as predictors in alcohol dependent group and normal controls (Table 3).

Count

Table 3: Discriminative Classification based on the assessment of MCMI-III

	group	Predicted Group Membership		Total
		Ads (%)	Normal (%)	
Count	Ads (%)	31 (70.5)	13 (29.5)	44
	Normal (%)	21 (42.0)	29 (58.0)	50

Of the original 94 subjects, 6 were dropped from analysis because of missing data. Missing data appeared to be randomly scattered throughout groups and predictors. The value of discriminant function was statistically significant between patients with alcohol dependence and normal controls. Dependent personality type was only reliable predictor which potentially differentiated patients with alcohol dependent and normal controls (Lamda=.972, df=92, P>0.05). The analysis brings the percentage with a correct assignment to 63.82%, the sensitivity with respect to the alcohol dependent group was 70.5% and with respect to the normal control group was 58%. Correct assignment to the predicted alcohol dependent group was about 57.40 and to the normal controls was about 69.07%.

DISCUSSION:

The most salient finding is that 68% of the alcoholic dependent patients had co-morbid pathological personality disorders and traits (as per norms mentioned in MCMI-III) compared to 38% of the normal controls. Similar findings have been reported in an Indian study of Sattar et al.20, who also found that 55% of alcohol dependent patients had co-morbid pathological personality traits and disorders. Another Indian study21 has also reported that 33% of drug dependent patients had co-morbid personality disorder. Similarly, in a community based study of general population in develop countries, de Girelamo, et al.22 reported 10.3% to13.3% prevalence rate of PDs in general population.

Findings of present study are consistent with the findings of previous studies; who have also reported that PDs were very common in alcohol dependent patients than normal controls. With respect to the types of PDs, the most prevalent PD in all groups was dependent personality disorder. Obsessive-compulsive, antisocial, negativistic, schizoid, depressive, narcissistic, avoidant and histrionic PDs were more associated to alcohol-dependent patients than to normal control group[5,8,9,11,12,13,23].

The result of the present research study shows that dependent, obsessive-compulsive, antisocial, negativistic, histrionic personality traits and disorders were most commonly prevalent among alcohol dependent patients. Previous researches have also reported that the most common personality disorder were dependent and histrionic[5, 6, 8]; paranoid and obsessive compulsive[6, 7]; antisocial[5, 9]; narcissistic and avoidant[10, 13]; and borderline[10]. However, our findings are contradictory to some aspects of previous researches[10, 11, 12]; who have reported that paranoid and borderline personality are commonly prevalent among alcohol dependent group. Discrepancy in the findings with previous researches may be because they have taken samples from community and outpatient clinics.

With respect to the clusters of PDs, the presence of clusters B and C was higher among alcohol dependent patients than in the clinical and normative groups. These findings validate the approach in the previous studies carried out by Echebur´ua et al.[6,7].

This study has both theoretical and applied implications. The accurate understanding of personality disorder in alcohol dependent patients could help to guide further research regarding treatment decisions for psychological management according to the patient's personality pattern. Small sample size and not inclusion of female sample were limitations of the present study.

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Original Articles :

A Study of Emotional Intelligence of Cases with Substance Dependence.

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ABSTRACT:

Nobody's expressed intent is to become addicted. Their intent is pleasure, or to relieve suffering, to have fun, to fit in, to quell anger, or any number of other things. Intentionality is an emotional intelligence competency which permits the patient to accomplish what he sets out to, not something else. The present study examined the association between emotional intelligence and substance dependence in terms of intra-personal awareness (own emotions), interpersonal awareness (others emotions), intra-personal management (own emotions) and inter-personal management (others emotions) and aggregate emotional quotient. Sixty substance dependent patients diagnosed according to ICD-10 criteria and sixty normal participants matched in gender were taken for the study. Participants were individually assessed on Mangal Emotional Intelligence Inventory to examine the status of emotional intelligence. In comparison to normal participants substance dependent patients were significantly deficient in almost all the areas of emotional intelligence under study.

Key-words: Emotional Intelligence, Substance Dependence, Neo cortex, Intrapersonal management,

INTRODUCTION:

Between stimulus and response, there is a space. In that space lies our freedom and power to choose our response. In our response lies our growth and freedom. **–"victor Frankl, "Man's Search for Meaning"** Emotional intelligence may be broadly defined as ability to use emotional information in constructive or adaptive manner Emotional information consists of one's own subjective emotional responses as well as the information conveyed by the emotional responses of others. In the 1980's **Bar - On** first used the abbreviation of E .Q to refer to aspect of emotional range of abilities. In 1990 Peter Salovey and John Mayer published their landmark conceptualization, first time, as "Emotional Intelligence". The emotional intelligence is that people's behaviour is best understood in times of its adaptability and functionality[1]. Emotional Intelligence is used to refer to long list of attributes or abilities that appear drawn from a number of aspects of personality. Emotional intelligence is said to include five parts knowing emotions, managing emotions, motivating one self, recognizing emotion in others and handling relationships. Emotional Intelligence creates or extends that space between stimulus and response, which does not exist for the addict. Recently, the concept of Emotional Intelligence appears like a new theory that tries to explain the human behaviour in several situations[2]. Mayer and Salovey define emotional intelligence (EI) as the ability to accurately perceive, appraise and express emotion; to understand emotion and emotional knowledge to regulate emotions and access or generate feeling in facilitating thought[3,4]

The emotional intelligence (EI) defined by these authors is characterized by a series of skills that encompass the following processes: a) perception, appraisal and expression of emotion, which involves an identification of both one's own emotions and those of others, as well as the ability to express them; b) understanding and analysis of emotions, which allows one to label them and understand the relationships between them, as well as the situation that has given rise to them and c) control of emotions; an ability to regulate or control one's own emotions (positive and negative) and that of others.

In this sense, the current research on Emotional Intelligence (EI) tries to analyze the value and the utility of the Emotional Intelligence (EI) in diverse areas of the person. So for example, Emotional Intelligence (EI) appears to be an important predictor of success in life, such as in coping strategies, life satisfaction, quality of life, depression, leadership, academic achievement, and interpersonal relations[5,6,7,8,9,10]

Despite disparity in the research literature on the origins of the frequently found co-occurrence of anxiety and

substance use disorders, there are numerous studies that have linked periods of stress to increased consumption of alcohol in several populations including psychiatric patients. The vast majority of these studies have found that heavy drinkers report alcohol consumption for reasons of negative reinforcement (i.e., to remove unwanted psychological effects) whereas light or social drinkers tend to consume alcohol for reasons of positive reinforcement (i.e., to be more sociable and fun). Bergman and Harris reported that in young adult psychiatric patients the primary reason for consuming alcohol was to relieve the anxiety associated with interacting with others[11]. Similarly, Test, Wallisch, Allness, and Ripp found that schizophrenic patients frequently consume alcohol to relieve both boredom and anxiety symptoms[12]. The individuals who drank most heavily reported doing so to obtain relief from their psychological symptoms including nervousness and anxiety[13]. Minority of individuals reported using alcohol to reduce anxiety and tension, relieve restlessness or to abate the effects of psychological stress. However, among those individuals experiencing the highest levels of stress (e.g., those who witnessed the death of a colleague or atrocities committed against civilians), alcohol consumption increased substantially during the peace keeping missions and was sustained after extrication from the stressful situation [14].

In sum, past research has linked feelings of anxiety and a need to relieve such feelings to reasons for alcohol consumption. Theories such as the self-medication hypothesis and tension reduction theory have attempted to explain this relationship. However, support for such notions is not universal, and other lines of research have suggested that many individuals with psychological difficulties do not use substances to cope with life difficulties, and that frequent use of alcohol as a coping mechanism for psychological difficulties can actually exacerbate psychological symptoms rather than having the intended effect of reducing the problem.

The aim of the present study is to explore the association between Emotional Intelligence and substance dependence in terms of intra-personal awareness (own emotions), inter-personal awareness (others emotions), intra-personal management (own emotions) and inter-personal management (others emotions) and aggregate emotional quotient.

METHODOLOGY:

Aim and Objectives:

This is a cross sectional study aimed to examine the association between Emotional Intelligence and substance dependence. The present study investigates the level of emotional intelligence and its impact on the functioning and social behaviour of the substance dependence cases.

Hypothesis:

1- There will be no significant difference between emotional intelligence of substance dependents and normal controls.

2- There will be no significant difference in coping ability (interpersonal awareness / intrapersonal awareness / management in substance dependents and normal controls

3- There will be no significant difference in coping ability (interpersonal management/ intrapersonal management in substance dependents and normal controls.

Design:

The research design used was between groups: two groups. Substance Dependents were compared with normal controls on Mangal Emotional Intelligence Inventory.

Sample:

The present study was a cross sectional study for which sample consisting of sixty diagnosed patients with substance dependence and sixty normal individuals were selected by using purposive sampling technique. Mean age of patients was 30.07+5.74 years and of normal participants was 27.47+4.34 years. The sample consisted of only male subjects and all were married and Hindu. Subjects included in the study were belonging to joint families and were of middle socio-economic status. All participants were employed and from semi urban and rural areas of Jharkhand and Bihar. Substance dependents with any other neurological disorder/major physical illness were excluded from the sample. All participants were co-operative. Informed consent was taken for the study.

Tools:

Socio-demographic and Clinical Data Sheet:

It is semi-structured Performa. It contains information about socio-demographic variables like age, sex, religion, education, marital status, domicile and occupation and clinical details like age of onset and duration of illness.

Mangal Emotional Intelligence Inventory (MEII):-

It is designed by S. K. Mangal & Subhra Mangal[15]. This inventory has been designed basically for Hindi and English knowing 16+ year's age of school, college and university

students for the measurement of their emotional intelligence. It has 100 items, 25 each from the four areas to be answered as YES or NO. Four areas or aspects of emotional intelligence namely, intra-personal awareness (knowing about one's own emotions), inter-personal awareness (knowing about other's emotions), intra-personal management (managing one's own emotions), and inter-personal management (managing other's emotions) is assessed.

General Health Questionnaire-12:

The GHQ is a 60 items self administered screening test[16], which is sensitive to the presence of psychiatric disorders in individuals presenting in primary care settings and non-psychiatric clinical settings. The GHQ is not designed to detect symptoms that occur with specific psychiatric diagnosis, rather, provide a measure of overall psychological health or wellness**.** The GHQ-12 is a shorter version of the GHQ containing 12 items.

Table 1: Showing Socio-demographic Characteristics of the Sample

Variables		Patient group N=60 M+SD/N	Normal N=60 M+SD/N	Chi square/t (df)
Age		30.07+5.74	27.47+4.34	2.797** (118)
Marital status	Single Married	24 36	38 22	6.541 (1)
Education	Up to matric Intermediate Graduation Post graduation	30 21 6 3	1 14 21 24	53.196** (3)
Occupation	Unemployed Student Service Business	19 5 12 24	1 30 20 9	42.875** (3)
Economic status	Lower Middle Upper	5 55 0	0 60 0	5.217 (1)
Domicile	Rural Urban Semi urban	21 28 11	9 31 20	7.565 (2)
Religion	Hindu Christian Moslem	49 3 8	47 2 11	0.715 (2)
Diagnosis	Alcohol Dependent Cannabis Dependent Multiple substance Depet	29 18 13	0 0 0	120.0** (3)

****p < .01.**

Patients diagnosed as substance dependents, i.e. alcohol, cannabis or multi substances, according to the DCR criteria of ICD-101[7] were included in the patient's sample for this study.

PROCEDURE:

Socio demographic information was collected using the Socio Demographic Data Sheet. Patients diagnosed as substance dependents, i.e. alcohol, cannabis or multi substance, according to the DCR criteria of ICD-10 were selected from the Inpatient service of Ranchi Institute of Neuro Psychiatry and Allied Sciences, Kanke, Ranchi. Participants who fulfilled the inclusion/exclusion criteria were included in the patient's sample for this study. Normal participants were individuals working at the institute. They were screened on the General Health Questionnaire-12 to rule out probable psychiatric problems. Mangal Emotional Intelligence Inventory was administered to all the participants.

RESULTS:

The results of the study have been analyzed under a normative comparison for dimensions of emotional intelligence. To find out the significance of differences between the means of the two groups i.e., substance dependents and normal individuals, "t" test has been computed. Results are presented in the table no. 2.

Table 2: Showing Results of the Different Areas of Emotional Intelligence:

Areas of Emotional Intelligence	Control group N=60 M+SD/N	Patient group N=60 M+SD/N	t value (df)
Intrapersonal Awareness	19.5+3.07	11.88+4.07	11.566** (118)
Interpersonal Awareness	18.83+3.33	10.95+3.91	11.879** (118)
Intrapersonal Management	19.7+2.95	12.5+4.54	10.29** (118)
Interpersonal Management	19.65+2.69	13.3+3.98	10.24** (118)
Aggregate Emotional Quotient	77.68+8.39	48.68+12.63	14.82** (118)

****p < .01.**

Results Indicate that substance dependence group is showing lower scores on subscales of emotional intelligence such as intra-personal awareness (own emotions), inter-personal awareness (others emotions), intra-personal management (own emotions) and inter-personal management (others emotions) and aggregate

emotional quotient, compared to their normal counterparts, which are all statistically significant ($p < 0.01$).

DISCUSSION:

If addiction – alcoholism, for instance – has an underlying dynamic of suppressed rage at helplessness, as some believe, and is a compromise between doing nothing, and doing something constructive, as others believe, certainly increasing EQ skills such as Personal Power, Anger Management, Intentionality and Self-Regard would allow the patient to consider the latter alternative instead of the former, and to make it happen. And Optimism, an EQ facilitator which can be learned, is the opposite of "learned helplessness." One of the greatest health benefits of emotional intelligence is avoiding isolation, and isolation figures highly in addiction. Consider yet another theory of addiction, this time called "excessive appetite." A Psychological View of Addiction, that behavior such as excessive gambling, sex and eating are normally distributed because most people will conform to social pressure. According to Orford's model, "the more excessive the behavior becomes, the greater the societal forces are that push the behavior back to the center, to the norm." (Isolation, of course, removes the patient from the 'pressure of the norm'.").

The emotional intelligence determines potential for learning the practical skills that are based on its five elements: self awareness, motivation, self regulation, empathy adeptness in relationship .Emotional intelligence shows how much potential one as translated into on the job capabilities. For instance, being good at interpersonal is an emotional competence based on empathy whereas trustworthiness is a competence based on self regulation or handling impulses and emotions well. The results of our study show that substance dependent cases lack above competence significantly. This lack of emotional competence might be a causative factor for indulging in substance abuse .This poor emotional competence may also lead to multiple mental health problems as anxiety, depression, withdrawal, suicidal or homicidal etc. Poor emotional competence also results the poor ability to cope with the life challenges developments of professional and career skills and poor motivation to achieve the goals either in personal or professional exchange. The cases of substance abuse has poorly performed in different areas of emotional intelligence suggestively are significantly lower on how they manages themselves , awareness and knowledge about once mental status preferences, resource and institutions. They are also week on very significant areas of personality as knowing one's strength and limit, recognizing one's emotions and their effects and sense of self worth and capabilities when they were being compared to normal subjects. The interpretation of these findings is that the rostral anterior cingulate medial prefrontal activation may be responsible, where a representation of one's own emotional state is established this region is closely connected with amygdala, orbitofrontal, anterior cingulated cortex and other paralymbic structures such as the insula. The emotional information is transmitted to it. The rostral anterior cingulated medial prefrontal cortex is hypothesize to participate in the representation of emotional experience. This structure may be essential for knowing how one is feeling a function that is cortical in the context of emotional behaviour. The dynamic interaction between phenomenal experiences, establishing a representation of it, elaborating that representation and integrating it with other cognitive elaboration of emotions, addressed by the level of emotional awareness models.

The results of the study reveals that in the area of intrapersonal management substance abuse cases performance is significantly poor when compared to normal subjects. The results further evidenced that normal subject have better understanding and ability to exchange the emotions which suggests that the subject with substance abuse are having lower level of emotional awareness. The representation of this state associated with self and other is more fluid and permeable. The prefrontal cortex is known to process and integrate interoceptive and extraceptive emotional information is the sense of generating goal directed behaviour .In view of evidence suggesting that cocaine is associated with hypo activity in the frontal region[18, 19]. Our findings are consistence with hypothesis that substance user's lacks the appropriate behaviour and have the deficits in dealing the interpersonal responses. It is documented that the cannabis is related to dysfunction in cognitive flexibility and recreational cocaine users also show impairment in conflict control[20,21].

One of the most compelling arguments that an addiction is controllable (regardless of its cause - genetic or otherwise) and therefore would respond to emotional intelligence training is that researchers can pay addicts to quit. You can't pay a blueeyed person to change their genetically-determined eyes to brown. The addict can be motivated to quit with money for instance, and motivation is both a feelings word, and something that requires thinking, the neocortex. While the relationship between smoking and depression still poses interesting questions (e.g., which causes which; whether a third variable influences or causes

both) we know that learned optimism, flexibility that circumvents perfectionism, skills in emotional expression, empathy, and connectednesses can all impact depression.

Pessimists are more prone to depression, and also more prone to isolation. Studies have shown, however, that teenagers who smoke are more likely to be depressed. "Cigarette use [by teenagers] is a powerful determinant of developing high depressive symptoms," The subjects using the substance were found poor on striving to improve or meet standard of excellence, aligning with the goal of the group or organization and readiness to act on opportunities. The normal subjects were shown good persistence in perusing goals despite obstacles and setback to add.

CONCLUSION:

The results of the study suggests that the substance abuse subjects were finding themselves difficult on initiating and managing change, nurturing instrumental relationship with others in ability to negotiating and resolving disagreement and inspiring and guiding individuals and groups. The emotional intelligence plays a vital role on developing leadership quality.

Nobody's expressed intent is to become addicted. Their intent is pleasure, or to relieve suffering, to have fun, to fit in, to quell anger, or any number of other things. It's like a misfired arrow of intent, the addict saying at some point, "I didn't intend to get addicted; I intended to have a good time/fun/pleasure/peace/comfort..." Intentionality is an emotional intelligence competency which permits the patient to accomplish what he sets out to, not something else.

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Original Articles :

Study of Marital Adjustment and Sexual Behaviour In Correlation With Quality of Life in Patients With Schizophrenia and Bipolar Disorder

Priyanka Rai[1], Preeti Mishra[2], Shobit Garg[3], Jyoti Mishra[4], Sayeed Akhtar[5]

ABSTRACT:

Background: Marriage is a social process requiring certain social ability for it to be successful. Schizophrenia can lead to a reduction of social ability which has been associated with poor marital adjustment and sexual satisfaction among partners. The present study was designed to compare marital adjustment and sexual behaviour in correlation with quality of life in patients with schizophrenia and bipolar disorder. **Method:** Study group consisted of outpatients with schizophrenia (n=30) and bipolar disorder (n=30) diagnosed according to ICD 10-DCR. Garos Sexual Behaviour Inventory (GSBI), Marital Adjustment Scale (MAS) and WHO Quality of Life (WHO QoL)-BREF were applied in both the groups to assess sexual behaviour, marital adjustment and quality of life, respectively. **Results:** Both groups reported that they had problems in marital adjustment and sexual behaviour. Patients with schizophrenia had significantly greater problems in marital adjustment and sexual behaviour. Patients with schizophrenia had statistically significant lower scores in different areas of GBSI. Quality of life in bipolar patients was negatively correlated with confidence domain of GSBI. **Conclusion:** Patients with bipolar and schizophrenia had problems in marital and sexual life. It was also found that schizophrenic patients had greater problems in the adjustment with their spouses.

***Key words**: Schizophrenia, bipolar disorder, marital djustment, sexual behaviour*

INTRODUCTION:

Marital adjustment, defined as the "state in which there is an overall feeling in husband and wife of happiness and satisfaction with their marriage and with each other (Thomas, 1997). But living with a spouse who has been diagnosed with psychiatric illness or who develops psychiatric illness during the marriage places an enormous strain on all aspects of the relationship. Consequently spouse's marriage and sexual life are disturbed. In recent years, numbers of studies examining the presence of various mental illnesses and their effect on marital adjustment and sexual behaviour have been conducted. Not surprisingly, researchers are finding significant correlations between mental illness and distress in couple relationships in various domains of marital adjustment, sexual behaviour and quality of life (Hickey et al, 2005; Jackman-Cram et al, 2006).Thara (1997) found poor outcome of marriage in schizophrenia. With spouse having bipolar disorder experiencing mood swings and symptoms of mania or depression at any given time, it can present a tough challenge for both the husband and wife in their relationship. This may lead to an unhealthy and disorganized relationship. Studies examining how bipolar disorder influences outcome in marriage are limited. In the Stony Brook High-Risk Project, patients of major depression, bipolar disorder and schizophrenia with a normal control sample were included in a longitudinal study. Marital Adjustment Test (MAT; Locke & Wallace, 1959) scores were collected on patients at entry into the project (Phase I) and at three year follow-up (Phase II). Course of marriage was defined as negative if the couple's marital adjustment was rated as poor at Phase II or resulted in divorce or separation at Phase II. It was found that all three patient groups had significantly higher rates of divorce by Phase II (Weintraub & Neale, 1984; Beach, 1986).

Psychiatric patients rarely speak of their sexual life spontaneously. Although limited data is available on sexuality in persons with schizophrenia, a few studies have been published in the past decade. Generally, patients with schizophrenia are far less active sexually than the rest of the population and get less satisfaction. Just as he gives up in other areas he eventually abdicates his sexual role, withdrawing from temptations that seem to promise torment (Shulman, 1971). Research shows that men and women with schizophrenia are still interested in sexual relations but do not know how to bring their feelings into conscious (Jacobs & Bobek, 2009).

An effort made by Raja & Azzoni (2003) investigated sexual behaviour in a population of psychiatric patients affected by schizophrenia, schizoaffective disorder and bipolar disorder by means of an ad hoc questionnaire designed to explore three phases of sexual responses:

desire (or interest), arousal, and performance. Schizophrenia and female gender were associated with lower levels of sexual performance. Mazza et al (2010) studied sexuality and sexual behaviour in women with bipolar disorder. They found increase in sexual interest in Bipolar Disorder I as compared with Bipolar Disorder II female patients and normal controls.

It was very apparent question that if already lots of studies have been done on marital and sexual life of patients with schizophrenia and bipolar disorder so what is the need for conducting this present study. The present study was designed not only to see marital and sexual life of patients with bipolar and schizophrenia disorder but also to make an effort to see the effect on their quality of life.

MATERIALAND METHOD:

The participants were informed about the intent of the study and after obtained consent they were included in the study. None of the participants were paid for their participation. The total sample size consisted of 60 participants out of whom 30 were patients with diagnosis of schizophrenia (n=30) and another 30 were patients with a diagnosis of bipolar disorder (n=30) according to ICD-10-DCR with no history of head injury or any neurological disorder atleast eight years of formal education. Those patients were also excluded who had personality and substance use disorder or any other major psychiatric illness. The age range for both groups was 18 to 60 years. The sample was collected from the outpatient department of Central Institute of Psychiatry, Ranchi for a period of two months. The following rating scales were applied on the participants after obtaining information on a specially designed socio-demographic and clinical data sheet.

Garos Sexual Behaviour Inventory (GSBI; Garos et al, 2007) was used which is a self report format consisting of 70 items that describe a variety of sexual attitudes and behaviours. Response were given on a scale ranging from 1 (Strongly disagree) to 5 (Strongly Agree). Thirty five items comprise four main scales: Discordance (DISC), sexual obsession (SOBS), Permissiveness (PERM), and sexual stimulation (STIM). Twenty five items make up the three masking scales: Sexual control difficulties (CONDIF), sexual excitability (EXCIT), and sexual inventory (INSEC). The remaining 10 items served as masking items. Test-retest reliability estimate for GSBI scores range from .70 to .93 (median=.84).

Marital Adjustment Scale (MAS; Locke & Wallace, 1959) was used to measure marital adjustment. This consists of a 15 item questionnaire that assesses the respondent's level of happiness with marriage partner and relationship. Response were given on a scale ranging from 6 (Always agree) to 1 (Always Disagree). Possible scores on MAS were 0 to 158. The higher score was indicative of greater adjustment. The MAS distinguished between martially distressed and martially adjusted relationship with a score of 101 or lower found to identify distressed marital relationship (Cross & Sharpley, 1981; Locke & Wallace, 1959).

The World Health Organization, Quality of Life-BREF (WHOQOL–BREF, 1996) comprised of 26 items. This is a shorter version of the original instrument, WHO-QOL-100. All items were rated on a 5-point Likert scale. The raw scores were transformed into 0-100 scale and higher scores denote better quality of life. The internal consistency of the four domains of the WHOQOL-BREF ranged from 0.66 to 0.80.

RESULTS:

In socio-demographic variables (Table 1) no significant difference was found in any of the socio-demographic domains in both schizophrenia and bipolar disorder group.

Table 1: Comparison Of socio-demographic variables between patients of schizophrenia & Bipolar Disorder (N=60)

Variable		Bipolar Patients n=30(%)	Schizophrenia Patients n=30(%)	x^2	df	p
Sex	Female Male	7(23.3) 23(76.7)	5(16.7) 25(83.3)	.417	1	.748
Religion	Hindu Muslim Christian	24(80) 4(13.3) 2(6.7)	23(76.7) 5(16.7) 2(6.7)	.132	2	1.00
Occupation	Employed Unemployed	21(70) 9(30) 14(46.7)	16(53.3)	1.76	1	.288
Habitat	Rural Urban	11(36.7) 19(63.3)	19(63.3) 11(36.7)	4.267	1	.070
Education	Illiterate Literate	6(20) 24(80)	8(26.7) 22(73.3)	.373	1	.761
Socioeconomic status	LSES MSES HSES	8(26.7) 20(66.7) 2(6.6)	11(36.7) 15(63.3) 4(32.0)	.693	1	.580
Embarrassing Behaviour	Absent Present	21(70) 9(30)	17(56.7) 13(43.3)	1.148	1	.422

P=NS

Table 2 shows comparison of scores in different areas of GSBI, MAS and WHOQOL- BRIEF in two groups.

Table 2: Intergroup comparison on Garos Sexual Behavior Inventory, Marital Adjustment Scale and WHOQOL scores

Variable	Bipolar Patients (n=30) Mean±SD	Schizophrenia Patients (n=30) Mean±SD	t (df=58)	P
WHOQOL	39.86±8.335	35.40±10.572	1.796	.078
GSBIDISC	20.60±4.85	41.30±9.524	10.607	.001***
GSBIPERM	43.80±9.62	24.03±2.89	10.968	.001***
GSBISTIM	24.0±2.841	11.40±1.92	20.120	.001***
GSBISOBS	37.0±7.97	15.30±5.093	12.57	.001***
GSBICONDIF	35.10±6.34	33.87±6.296	.756	.453
GSBIEXCIT	41.50±5.75	22.33±4.95	13.83	.001***
GSBIINSEC	33.77±5.98	13.63±4.15	15.161	.001***
MAS	32.77±9.84	27.27±8.12	-2.63	.022**

****p is significant at <0.01**

*****p is significant at <0.001**

Mean age of the sample population was 39.18 (±5.88) years. There was significant difference between bipolar and schizophrenia patients with respect to scores of MAS and different areas of GSBI. It was found that scores of MAS (t =2.63 p<0.01) were significantly higher in patients with bipolar disorder (32.77±9.84) as compared to the schizophrenia (27.27±8.12). The scores of GSBI-DISC (schizophrenia 41.30±9.524; bipolar disorder 20.60±4.85) (p<0.001), GSBI-PERM (schizophrenia 24.03±2.89; bipolar patients 43.80±9.62) (p<0.001), GSBI-STIM (schizophrenia 11.40±1.92; bipolar disorder 24±2.841) (p<0.001), GSBI-SOBS (schizophrenia 15.30±5.093; bipolar disorder 37±7.97) (p<0.001), GSBI-EXCIT (schizophrenia 22.33±4.95; bipolar disorder 41.50±5.75) (p<0.001) and GSBI-INSEC (schizophrenia 13.63±4.15; bipolar disorder 33.77±5.98) (p<0.001) are also significantly lower in patients of schizophrenia as compared to patients of bipolar disorder. Table 3a shows correlation between scores of different areas of GSBI and MAS with scores of WHOQOL-BREF and embarrassing behaviour in schizophrenia patients (N=30).

Table 3a: Correlation (r) between Garos Sexual Behavior Inventory and Marital Adjustment Scale with Embarrassing behavior and WHOQOL in schizophrenia

Variable	GSBI DISC	GSBI PERM	GSBI STIM	GSBI SOBS	GSBI CONDIF	GSBI EXCIT	GSB INSEC	MAS
WHO-QOL BREF	-.288	-.179	-.051	.026	.129	.076	-.005	.161
Embarrass behaviour	-.020	.108	-.095	.018	-.095*	.038	.152	-.053

The domain of GSBI-CONDIF has statistically significant negative correlationwith embarrassing behaviour (r=-0.42). Table 3b indicates that education was negatively correlated with GSBISTIM(r=0.507). Negative correlation was also found in economic status with GSBI-STIM (r=-0.405). QOL was negatively correlated with GSBI-CONDIF (r=-0.2.40).

Table 3b: Correlation (r) between Garos Sexual Behaviour Inventory and Marital Adjustment Scale with WHOQOL, Education and Economic Status in Bipolar patients

Variable	GSBI DISC	GSBI PERM	GSBI STIM	GSBI SOBS	GSBI CONDIF	GSBI EXCIT	GSB INSEC	MAS
WHO-QOL-BREF	-.260	.076	-.257	.058	-.240*	.076	-.005	.076
Education	.115	.016	-.507**	-.043	.195	-052	.038	.160
Economic Status	-.098	.003	-.405*	.790	-.063	.038	.152	.056

Correlation is significant at*p<.05, **p<0.01 (2-tailed)

Garos Sexual Behaviour Inventory (GSBI), Discordance (DISC), Sexual obsession (SOBS), Permissiveness (PERM), Sexual stimulation (STIM), Sexual excitability (EXCIT), Sexual insecurity (INSEC), Marital Adjustment Scale (MAS), WHO Quality Of Life (WHO-QOL)

DISCUSSION:

The aim of the present study was to investigate sexual and marital adjustment in population of psychiatric patients affected by schizophrenia and bipolar disorder. It is believed that these groups are comparable when it comes to assessing quality of life and marital adjustment, both of which can have a significant impact on sexual life and behaviour. There are two important findings of this study. First is that the patients with schizophrenia had poor marital adjustment and sexual life in comparison to patients with bipolar disorder. Secondly, quality of life is poor and impaired in patients of both bipolar and schizophrenia disorder groups.

Patients with schizophrenia had inhibited sexual behaviour and lower level of sexual stimulation and performance as compared to the patients with bipolar disorder. Research shows that schizophrenic men and women are still interested in sexual relations but do not know how to bring their feelings and expressions into conscious (Jacobs & Bobek, 2009). The findings were supported by the findings of Raja & Azzoni (2003) and Buddeberg et al (1988). Both sexes indicated inhibition of sexual desire. The impaired ability for sexual reaction and experience was felt partly to be positive, partly negative. Another important finding of this study is that the patients with schizophrenia disorder

had poor level of marital adjustment. This is collaborated by the finding of Beach (1966) and Thara (1997) that patients with schizophrenia had poor marital adjustment. These findings may be generalized for formulation of better treatment strategies that involve the aspect of marital adjustment and sexual behaviour.

In summary, there is little information is available regarding impact of psychiatric illness on marital adjustment and sexual behavior in bipolar and schizophrenic patients but it is very obvious that they have sever marital and sexual problems. In present study it was found that schizophrenic patients had greater problems in the adjustment with their spouse which lead their low sexual excitement. However, there are certain limitations in the current study. Study design was cross-sectional, the number of investigated persons were relatively small. A self report scale of functioning was applied, which might be influenced by current mood, i.e. depressive mood can lead to a negative bias, and manic symptoms could lead to an overestimated functioning. The study will be good if the control group is included.

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Cognitive Dysfunctions in Depressive Patients

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ABSTRACT:

Cognition is the word often used to describe the fundamental capacity to think. Its disturbance in depression is probably what most bothers patients and their families and not the symptoms, they are usually used to measure and diagnose the condition. It has also become clear that depression has an enduring impact on memory function, attention and other domains of cognition with major implication for neurological explanation of depression. Cognitive functions have thus become an increasingly central target for emergent interest and relevance. These developments have also reignited interest in patient experience and the possibility that may be blunted in depression, but also as a consequence of its treatment. Past studies on depression have documented cognitive dysfunctions significantly. **Aim**- In this study an attempt was made to assess and compare the cognitive impairment in depressive patients and normal subjects. **Methodology-** The sample was selected from Ranchi Institute of Neuro-Psychiatry and Allied Sciences (RINPAS). Hindi adaptation of Cognitive Symptoms Checklist and Beck Depression Inventory were administered on 50 depressive patients and 50 normal controls. **Results** of the study suggest significant difference in cognitive functions between depressive patients and normal subjects. Depressive patients showed more deficits in Attention, Memory and Executive Functioning on Cognitive Symptoms Checklist (CSC) than normal controls.

Keywords: *Cognitive symptoms, Depression,. Cognitive Dysfunction*

INTRODUCTION:

Mental illness affects many people, but what most do not realize is that it does not just cause emotional problems - it causes cognitive problems too. The person with mental illness may find it difficult to think clearly, pay attention and remember. Cognition refers to the thinking skills, the intellectual skills that allow the person to perceive, acquire, understand and respond to information. These include the abilities to pay attention, remember, to solve problems, to organize and recognize information, to communicate and to act upon the information. There are different mental illnesses and they affect cognition differently. Furthermore, not every person is affected in the same way, some person with depression have more cognitive problems than others. Some people have problem in one aspect of cognitive functioning but not in another. It is important to understand that a mental illness affects each person differently.

Word limit & how we think, like depression entaib tiredness and pale expression of what they purport to describe. Depression is "a wimp of a word" according to William Styron, describing his own experience in Darkness Visible; "A Memoir of Madness". We may also be too familiar with the idea that depression is a constellation of symptoms rather than a profound disturbance of cognition. The word cognition (or cognitive) refers, to the action or faculty of knowing, a fundamental human activity. At its simplest it equals the thinking. The investigation of cognition divides into two broad approaches, depending upon how explicitly we include emotional valance as a key experimental variable. The best known approach to attention, memory and executive function has traditionally tested such functions independently of emotion. One may ask whether mood disorder is associated with abnormal orientation or allocation to stimuli and whether attention can be normally sustained.

Depression is one of the most common disabling disorder worldwide. The depressed person appears to lose capacity in somatic, cognitive, emotional and social spheres. Depression has been approached in the past as a state of mind, a clinical diagnosis or a syndrome. Its conceptualization as a state of mind offers such an array of problems that it is rendered useless for most research purposes. Considering depression as a diagnosis has led to elevation of a concept that offers some problems as modern nosological criteria such as DSM-IV[1] or ICD-10[2]. Currently this concept is defined as a particular constellation of symptoms. The selection of the symptoms that define depression has been determined by large field and epidemiological studies, rendering its operational definition reliable, but its validity is less clearly characterized.

Although generalized impairment in most cognitive domains can be seen in acute depression, selective attention appears to be prominently impaired, and may predict response to treatment, remission of symptoms and risk of relapse [3].

Depressed patients show deficits in automatic attentional processing, memory scanning and memory span, which altogether suggest a reduced speed of information processing in automatic subtasks[4]

The type of cognitive impairment varied according to the depression subtype, so that patients with major depression and mixed anxiety- depressive disorder exhibited significant memory dysfunction, whereas individuals with dysthymia showed pronounced difficulties in mental flexibility [5]. Minor depression did not affect cognitive performance. Verbal fluency and perceptual- motor speed were not affected by depression. This indicates that specific types of depression may carry specific types of neuropsychological dysfunction. However, the interpretation of experimental data is limited because of the paucity of normative data on the cognitive aspects of depression[6]. Major depressive group performance is poorer than control group in tests of attention and executive functions (TMT) and verbal short term memory (CVLT)[7]. Bipolar depressive group performed poorer than control group in verbal memory (CVLT) and attentive and executive functioning (BSAT, SCWIT, TMT). Bipolar depressive group performed poorer than major depressive group in tests of verbal memory and executive functioning. The performance of major depressive disorder group was poorer than control group in attentive tests (Cancellation Test, Digit Span, Digit Symbol, TMT: A). Psychotic major depressive disorder group performed poorer than control group in tests of executive functioning (COWAT, SCWIT, TMT: B, WCST) and motor skills (FTT, GPT). Psychotic major depressive disorder group performed poorer than non- psychotic major depressive disorder and control groups in a test of visual memory (Visual Reproduction). Major depressive disorder group and control group did not differ in verbal memory (CVLT)[8].

The aim of the study was to assess the cognitive symptoms of patients with depression. The main objectives were to determine the cognitive symptoms of patients with depression and to find out correlation between clinical variables and cognitive symptoms of patients with depression.

METHODOLOGY:

The present study is a cross- sectional hospital based study, was conducted in Ranchi Institute of Neuro-Psychiatry and Allied Sciences (RINPAS). Sampling was done by purposive sampling technique. Sample was comprised of 50 patients with depression and 50 normal subjects. Patients with depressive disorders who were treated at RINPAS, age range 18 to 45 years, both sexes having duration of illness minimum six months or at least two episodes of illness were selected for the study. Patients with history of any other psychiatric disorders, head injury and mental retardation and uncooperative patients were excluded from sample. In normal group, normal persons who scored one or zero in GHQ-5 and cooperative for tests were selected. Written consent was taken from both groups.

TOOLS USED:

Socio-demographic and clinical data sheet- A socio demographic and clinical data sheet was specially designed to record demographic and clinical variables of the subject, such as age of onset, duration of illness, family history etc.

General Health Questionnaire - 5 (Shamsunder et al.)[9] **-** The short version of original GHQ developed by Goldberg and William in 1988, was administered on normal controls to rule out any psychiatric morbidity. GHQ - 5 is a short version of the General Health Questionnaire, which consists of 5 items. The suitability of short version is because of it is less time consuming and better screening instrument.

Beck Depression Inventory [10](Beck et. al.) - The BDI is a 21-item, self administered inventory that asks patients to rate how intense their experience of attitudes and symptoms of depression has been over the past week. Each item in the inventory consists of for self- evaluative statements scored 0 to 3, with increasing scores, indicating greater severity of depression.

Cognitive Symptoms Checklist (Hindi Adaptation) **-** The original Cognitive Symptoms Checklist (CSC) is developed by Christiane O'Hara et al[11].It is used to identify the problems in daily living skills under the heading of attention/ concentration, executive functions, memory, visual process, and language. These cognitive domains further subdivided.

The domain of attention and concentration is further subdivided into the areas of internal distracters (physical/ emotional), external distracters (visual, auditory and environmental), sustained attention, divided attention and simultaneous attention.

Executive function was divided into following headings- processing speed/reaction time, initiation/follow through, self correction, mental flexibility, planning, sequencing, problem solving, organization and reasoning.

The domain of memory is further subdivided into activities of daily living, medicine, nutrition/food preparation, sequence, safety, routines, money management, spatial relationships, time and receptive language.

The domain of visual process is divided into vision, visual field/neglect scanning, discrimination, figure/ground, mental imagery, spatial relationship and organization.

Language was further subdivided into the following headings- hearing, speaking, receptive language (auditory), receptive language (written), executive language (speaking) and expressive language (writing).

Cognitive Symptoms Checklist (Hindi Adaptation) was developed and translated by RINPAS, and used for present study to assess the cognitive symptoms.

PROCEDURE:

After screening, according to the above mentioned inclusion and exclusion criteria, patients were selected for the study. Clinical history was taken and socio- demographic and clinical data sheet was filled. Beck's Depression Inventory (BDI)9 was applied to assess the severity of depression and Cognitive Symptoms Checklist was administered to assess the cognitive symptoms in the subjects. Mean and SD were calculated with the help of SPSS 10.0 version.

RESULTS:

The aim of the study was to assess the cognitive symptoms of patients with depression. ***Sample Characteristics***- In depression group, majority of the sample were male (78%), married (68%), educated up to intermediate (62%), and unemployed (50%). In normal group, majority of the sample were male (72%), married (54%), educated up to intermediate (70%) and unemployed. The mean age of depression group was 30.16 years and normal group was 29.44 years.

Table1: Showing Comparison between Depression and Normal Group Subjects in Attention Scale

Variables	Depression Group		Normals		t- value
	Mean	SD	Mean	SD	
Attention Span Thinking Task	46.500	23.867	48.300	17.485	.430
Attention Span Physical Task	60.000	23.66	87.12	21.71	6.452**
Internal Distractor Physical	2.200	.6061	.5400	.7060	12.616**
Internal Distractor Emotional	2.4800	1.3738	.5102	.5818	9.256**
External Distractor Visual	.8800	.8241	.4600	.6764	2.786**
External Distractor Auditory	1.2400	1.0606	.4800	.7887	4.066**
External Distractor Environmental	.5200	.7351	.5400	.7060	0.139
Sustained Attention	3.3800	1.4693	1.9600	1.3242	5.076**
Divided Attention	2.2200	.9957	.7200	.6213	8.333**
Simultaneous Attention	2.1000	.7354	.7000	.6776	9.899**
Attention And Concentration Scale	15.1600	4.6351	5.9000	2.7274	2.1750**

****Significant on level .01**

In Table 1, in the domain of attention and concentration subscale, significant difference was evident in attention span (physical task), internal distractor (physical), internal distractor (emotional), external distractor (visual), external distractor (auditory), sustained attention, Divided attention, simultaneous attention and full subscale. In these areas depression group showed significant deficits compared to normal group. However, the areas of attention span (Thinking task), the mean scores were found higher in depressive group and in the area of external distracter (environmental), mean scores were found higher in normal groups but no significant difference between the groups was found.

Table 2: Showing Comparison between Depression and Normal Group in Memory Scale

Variables	Depression		Normal		t-value
	Mean	SD	Mean	SD	
Medical	.4200	.6728	.0000	.0000	4.414**
Food	1.1000	.7671	.1000	.3030	9.191**
Safety	.2200	.4185	.1000	.1414	3.202**
Daily Routine	.3400	.5194	.1000	.4785	3.102**
Money Management	.9000	.9742	.1000	.1414	6.321**
Spatial Relationship	.6400	.7217	.1450	.3505	4.407**
Time	1.5600	1.0529	.3800	.4903	7.184**
Receptive Language	1.2600	1.0264	.2200	.4185	6.635**
Expressive Language	.5600	.7866	.2600	.4870	2.293*
Personal	.9600	.3476	.4600	.5035	5.779**
Memory Scale	7.1800	4.4341	1.6400	1.6132	8.302**

****Significant on level .01**

***Significant on level .05**

In the domain of memory subscale, patients with depression expressed significant deficit in areas of medical, food, safety, daily routine, money management, spatial relationship, time, receptive language and personal at level of 0.01 and on expressive language both the groups significantly differs at 0.05 level.

Table 3: Showing Comparison between Depression and Normal Group in Executive Functioning Scale

Variables	Depression		Normal		t-value
	Mean	SD	Mean	SD	
Processing Speed	3.1400	1.1954	.6200	.6667	13.019**
Initiation Follow	1.3200	.5869	.2600	.4431	10.192**
Self Correction	1.6600	.6581	.1200	.3283	14.807**
Mental Flexibility	1.1600	.6809	.2200	.4185	8.316**
Planning	1.8000	1.4983	.3000	.5803	6.601**
Sequencing	1.7200	.8816	.2000	.4518	10.850**
Problem Solving	2.2200	1.2337	.5800	.8104	7.856**
Organization	1.4800	.5799	.3400	.4785	10.721**
Reasoning	2.2400	1.2545	.1000	.3642	11.584**
Executive Functioning Scale	16.7400	5.9541	2.7200	2.0004	17.065**

****Significant on level .01**

In the domain of executive functioning subscale, depressive patients exhibited significant deficits in comparison of normal subjects. The significance level was found at 0.01 level in the areas of processing speed, initiation follow, self correction, mental flexibility, planning, sequencing, problem solving, organization, and reasoning. Overall scale scores also found significant different between both the groups. Depressive group showed more dysfunctions in all the areas of executive functioning when compared to normal subjects.

Table 4: Showing Comparison between Depression and Normal Group in Visual Processing Scale

Variables	Depression		Normal		t-value
	Mean	SD	Mean	SD	
Vision	.7200	1.0309	.1200	.3283	3.921**
Visual Field	1.9000	.1979	.0000	.0000	1.429
Scanning	.4400	.7866	.1000	.3030	2.852**
Discrimination	.1200	.3283	.0000	.0000	2.585*
Figure Ground	.3400	.4785	.0000	.0000	5.024**
Mental Imagery	.1800	.4375	.1100	.1414	2.460*
Spatial Relation	1.4600	1.1104	.0000	.0000	9.297**
Organization	.5000	.7354	.0000	.0000	4.808**
Visual Processing Scale	3.9200	2.5382	.2400	.6247	9.955**

**** Significant on level .01**

***Significant on level .05**

In visual processing domain, significant difference was found in areas of vision, scanning, figure ground, spatial relation and organization at level 0.01, and areas of discrimination and mental imagery were found significant at level 0.05. However the mean value of depressive groups was found higher in visual field area but difference was not significant.

Table 5: Showing Comparison between Depression and Normal Group in Language Scale

Variables	Depression		Normal		t-value
	Mean	SD	Mean	SD	
Hearing	.7400	.7775	.3200	.6528	2.925**
Speaking	.2400	.5175	.0000	.0000	3.110**
Receptive Language(Auditory)	.5200	.6141	.0000	.0000	5.987**
Receptive Language(Writing)	.1414	.1999	.0000	.0000	1.429*
Expressive Language (Speaking)	1.1600	.9765	.1410	.2828	7.790**
Expressive Language (Writing)	.9800	1.05593	.0000	.0000	6.542**
Language Scale	3.6800	2.3599	.3600	.6928	9.545**
Csc Total Scale	47.2800	13.4605	10.7400	4.5437	18.187**

**** Significant on level .01**

*** Significant on level .05**

In language subscale, depressive patients showed significant deficit than normal group in areas of hearing, speaking, receptive language (auditory), expressive language (speaking), and expressive language (writing) significant level at 0.01 level and only one area receptive language (writing) was significant at 0.05 level.

Table 6 - Showing Correlation between Cognitive Symptoms Checklist (CSC) Score and Beck Depression Inventory (BDI) Score with Clinical Variables

Variables	CSC score	BDI score	Age	Onset	Duration of illness
CSC Score	_	.710	.083	.115	.090
BDI Score	.710	_	.041	.091	.223
Age	.083	.041	_	.985**	.487**
Onset	.115	.091	.985**	_	.357*
Duration Of Illness	.090	.223	.487**	.357*	_

****Significant at the 0.01 level**

***=**

Significant at the 0.05 level

The table 6 shows that age is significantly correlated with onset at illness and duration of illness respectively (r = .985, r=.487).Onset at illness is significantly correlated with only duration of illness at the 0.05 level (p=.357).

DISCUSSION:

The families often ask what causes the cognitive problems. Rorschach has shows that it is the illness themselves that cause much of the cognitive dysfunction. For many years people thought that the cognitive problems were secondary to other symptoms, like psychoses, lack of motivation, or unstable mood- but now we know that is not the case. Cognitive dysfunction is a primary symptom of severe affective disorder and schizophrenia, that is why the cognitive problems are evident even when other symptoms are controlled even when people are not psychotic, or in an affective episode. Furthermore, the research has shown that those part of the brain that are used for specific cognitive skills, often do not function normally in people with schizophrenia and certain affective disorders. This indicates that mental illness affect the way of the brain functions and that is what causes the cognitive problems.

The aim of the study was to assess the cognitive dysfunctions/symptoms of patients with depression. There is a significant difference in cognitive symptoms between depressive patients and normal subjects. Depressive patients showed more deficit in Attention, Memory and Executive Functioning domains of Cognitive Symptoms Checklist (CSC) than normal controls.

Overall findings exhibited that depressive patients showed significant deficits in areas of attention, memory, executive functioning, visual processing and language. These findings are consistent with the earlier studies[7,8].

In the domain of attention and concentration significant differences between depressive and normal groups in different areas was found. Individuals with depressive disorder have shown difficulty on focusing the proper attention on some particular task and poor information processing which is well documented in various studies conducted in this area. These findings may consistently be interpreted in the light of difficulty of focusing and/or shifting the attention in individual suffering from the depressive or any other major mental health problems and these findings are supported by several recent studies. Depressive patients have shown deficits on a variety of attention related tasks [12, 13, 14], though the nature of the impairment is difficult to define as various studies investigate different aspects of this concept[15, 16]. Moreover, attention is closely related to other cognitive domains, especially psychomotor speed and executive functioning. It has been suggested that attention can be divided into processing speed, selective attention and automatic processing; selective attention being a part of executive functioning person face difficulty on planning and execution of multi tasking[17,18]. People who have affective disorder like bipolar disorder and recurrent depression often experience problem in the area of ability to pay attention, ability to remember or recall information, ability to think critically. All these problems in the domain of attention may be evident during the depressive episodes. But when the mood stabilizes most often the problem with attention gets better but some studies report contrary findings[19].

The depressive patients exhibited more deficits in memory area than normal controls. The deficits in the area of memory in depressive groups may be caused by poor attentive processes, poor ability to register the new information because of the person suffering with major depression remains interwoven with negative thought process and social withdrawal. The impairment in memory and problem solving are associated with greater problems if living independently. In fact it has been shown that for the people with MDD and schizophrenia, cognitive abilities are more linked to successful independent living and quality of life than clinical symptoms. It is easy to understand that the ability to solve problems and remember verbal information is critical for negotiating with routine life process and rehabilitation. The findings in present study are consistent with findings reported as regards an association between depression and memory impairments[20, 18, 13, 5, 21, 22]. In contrast there are studies reporting primarily no impairment in depressive patients on tasks assessing memory[23,24,4,25,26].

Critical thinking, planning, organization and problem solving are often referred to by neuropsychologist as the executive functions as because those are the skills that help the individuals to act upon information in an adaptive way. People with mental illness may seems less able to think of alternative strategies for dealing with problems that arise, or they may have difficulty coming up with plan, or find it difficult to listen critically to new information. The result of present study shows that depressive patients group performed poor in executive functioning domain. In some previous studies, executive functioning deficits have been shown by depressive patients on tests measuring problem solving and planning[27], mental flexibility[26,5] verbal fluency[28,29] decision making30 and working memory[31, 27, 29, 30, 32, 33]

or the ability to inhibit one source of information and at the same time facilitate processing of another source of information34. More specifically it has been suggested that the inability to shift mental set is the most prominent executive functioning impairment in major depressive disorder patients35. Opposed to these findings, others have reported depressive patients to show normal performances in multiple aspects of executive functioning[36,37].

The result of this study is consistent with previous findings suggesting residual impaired performance of executive functions of MDD cases. Recent functional neuroimaging studies have suggested that the Prefrontal Cortex (PFC) and the Anterior Cingulate Cortex (ACC) are particularly impaired in depressive patients. In addition, studies documented that dysfunction of PFC, ACC and Amygdala may remain even in a remitted state, suggesting pathological influence within fronto sub cortical network38. Within such functional abnormalities of PFC, ACC, and Amygdala projection one can consider that dysfunction of ACC is most crucial and in pathogenesis of MDD and reasonably persist in remitted range too. Recent fMRI studies using stroop task paradigm demonstrated in deficiency of ACC and dorsolateral PFC in Major Depressive Disorder[39]. Findings of present study together with those of Paclecke – Hagerman are in line with such fMRI experiment suggesting residual psychopathophysiological dysfunction of the Anterior Cingulate Cortex (ACC) which is most sensitively indexed by poor stroop task performance. Most of the studies investigating the association between depression and cognitive dysfunction, executive functions seem to be key factor of Major Depressive Disorder (MDD)[40]. Since most of the studies have found patients with depression to manifest deficits in several subcomponent of executive functioning. Major depressive disorder (MDD) seems to relate also with attentional deficits[18], short term and working memory impairment in both verbal and visual task dysfunction in psychomotor skills 8. Some studies have observed clear verbal memory impairment among depressed patients compared to healthy controls[7,19].

Table: 4 suggests that depressive patients group have more deficits in visual processing area than normal group. In the area of language, depressive patients performed more poorly in comparison to normal control. Neuropsychological and functional neuroimaging studies has documented that language is tightly linked with the left prefrontal cortex (PFC) including Broca's and adjacent areas together with premotor cortex and insula41 in addition PET and fMRI studies has suggested that not only the left but also the right frontal lobe, may play a crucial role in voluntary speech intension and / attentional resources. Interconnected areas such as those are implicated in organizing a functional language network subserving word output. In the present study the language scale scores were found to be poor can be correlated to the presence of white matter lesions. This suggests that the vascular lesions associated with depression may lead to impairment of the language related to frontal lobe functions.

There was no significant correlation between clinical variables and cognitive symptoms of patients with depressive disorders; however, age is significantly correlated with onset at illness and duration of illness respectively. Onset at illness is significantly correlated with only duration of illness at the 0.05 level.

CONCLUSION:

When people have difficulty in paying attention, remembering and thinking clearly it impacts on their ability to function in the community, at work and in relationship. Impairment in ability to pay attention, be focused and not get distracted is important for social functioning. In conclusion, patients with depressive disorders have significant deficits in cognitive functioning or symptoms, in areas of attention and concentration, memory, executive functioning, visual processing and language. Patients cognitive functioning and the impact this has on daily life functioning should be a focus in ongoing treatment. Impaired cognitive functioning affects family life, school performance, work performance and social life. Cognitive training and rehabilitation could prove importance in treating depression in the long-term course, and help prevent relapse. A simplest cognitive impairment may associate with depressive disorder with clear cut impact on social and occupational functioning. People with mental illness may seem less able to think of alternative strategies for dealing with problem that arise or they may have difficulty coming up with a plan or find it hard to listen critically to new information and know what is important and what is not. Moreover, enduring cognitive dysfunction has a strong clinical significance in these often progressive disorders, since it may reduce coping abilities, make the patient more prone to relapse and affect treatment outcome. Furthermore it remains unclear as to what extent cognitive deficits precede the depressive disorder and to what extent they develop subsequent to disorder onset. Why some patient have sever impairment in cognition, some mild while others remain in normal range, remain unclear too, and this can be solved only by the identifying disorder subset and characteristics that associate with cognitive impairments. Furthermore, it is unclear as to whether,

cognitive dysfunction in depression represent state or trait factors or both. It would be essential to determine whether cognitive deficits are the result of progressive affects over the course of the illness or whether these deficits preceded the onset of the illness. Accordingly, prospective studies starting from young adulthood or even earlier are needed to solve these clinically important questions and to expand the knowledge in to clinical practice.

LIMITATIONS AND SUGGESTIONS:

In this study, the numbers of female subjects were less in the samples, so findings were may not be generalized on female population. Thus, a large sample size can be used in the future study to obtain the results which can be generalized to the female patients with depressive disorders. It was mostly subjective reports by the patients which is liable to biasness.

Other neuropsychological tests or scales may be incorporated in the study for a more elaborated assessment of cognitive functioning and its impact on psychosocial functioning and psychotherapeutic outcomes.

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Cognitive Remediation of Working Memory Deficits in Patients with Schizophrenic Disorder

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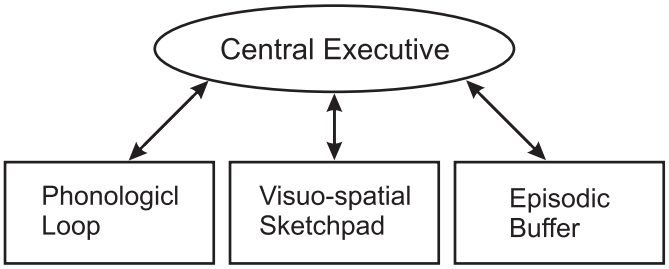
ABSTRACT:

Background: The present study focuses upon the effects of cognitive remediation programme upon the working memory deficits of the patients with schizophrenic disorder. Schizophrenia is a chronic, severe and debilitating psychiatric illness. It is often described in terms of positive and negative symptoms. The working memory deficits are considered a cardinal cognitive feature of schizophrenia. **Methods:** Five patients admitted in Ranchi Institute of Neuro- Psychiatry and Allied Sciences (RINPAS), Ranchi, India in the age range of 20 to 40 years of male sex, meeting the ICD-10 DCR criteria of schizophrenia with minimum education of 12 years were taken for the study, following purposive sampling technique. A self developed socio-demographic and clinical data sheet was used to assess the socio-demographic correlates, the Positive and Negative Symptom Scale developed was used for assessing the psychotic symptoms, The Wisconsin Card Sorting Test and the Stroop test was used for assessing the executive functions and the Letter-Number Sequencing and Spatial Span Subtests taken from the Wechsler Memory Scale-III were used for assessing the working memory of the subjects included in the study. Then a cognitive remediation programme was given to them for a period of three months after which the tests were readministered to see the effects of the intervention programme. **Results:** The patients suffering from schizophrenia show improved working memory ability after the cognitive remediation programme. **Conclusion:** Cognitive remediation programme has a positive effect upon the executive functioning,specially working memory of the patients suffering from schizophrenic disorder.

Keywords: Cognitive remediation, Schizophrenia, Working memory.

INTRODUCTION:

Schizophrenia is a severe, lifelong brain disorder. It is a psychiatric diagnosis that describes a mental disorder characterized by abnormalities in the perception or expression of reality. The word schizophrenia was coined by Eugene Bleuler in 1908 and was intended to describe the separation of function between personality, thinking, memory, and perception. Bleuler described the main symptoms as *4 A's:* Abnormal Affect, Autistic Thinking, Abnormal Association of ideas and Ambivalence. The term "working memory" was introduced by **Miller et al (1960)** in reference to a postulated quick access brain space where plans can be retained temporarily while they are being formed, manipulated and executed. The wide spread acceptance of the central role played by working memory in cognition has its roots in the highly successful model of working memory introduced originally by Baddeley and Hitch in 1974 and was revised by Baddeley in 1986. They proposed that working memory is a workspace, the capacity of which can be divided between processing and storage. Baddeley and Hitch referred to the storage component as the "Phonemic buffer or "Phonemic loop" and to the flexible general processing system as the "Central executive". The main component is termed the "Central executive". This component has flexible processing resources that are limited in capacity and can be used both to regulate and coordinate the flow of information within working memory and to perform processing and storage operation. The phonological loop retains verbal material in terms of the sketch based characteristics. The second slave system is the "Visuo-spatial sketch pad" which is specialized for processing material that can be represented in terms of either its visual or spatial characteristics. In a nod to the evidence supporting some involvement of long-term memory in the working memory system, Baddeley (2000) has amended his original three component model by adding an episodic buffer. This storage system communicates bi-directionally with the working memory subsystems and the long-term memory store.



Working memory dysfunction in schizophrenia is characterized by inefficient prefrontal function as most patients exhibit excessive activity when performing a moderately difficult working memory task (Callicott et al., 2003, 2000a; Monoach et al., 1999, 2000, 2003; Jansma et al., 2004; Perlstein et al., 2001). Review of studies show that working memory is a core cognitive deficit in schizophrenia. Spatial working memory deficits associated with dorsolateral prefrontal dysfunction have been found in caucasian samples of schizophrenia patients and their first-degree relatives. (Marina Myles-Worsley, Sohee Park, 2002).

METHOD:

Objectives of the study:

1. Quantitative assessment of working memory deficits in patients with schizophrenic disorder.
2. To rehabilitate the working memory of schizophrenic patients using cognitive rehabilitation techniques.
3. Studying the effects of cognitive rehabilitation upon working memory of the patients.

SAMPLE OF THE STUDY:

A sample of five patients suffering with chronic schizophrenic disorder was drawn from the inpatient department of RINPAS as per ICD-10 DCR criteria. The drawn sample was purposive. Initially, 12 patients were selected but final selection was made of 7 patients who were found suitable for cognitive remediation. During the study, two patients were discharged and thus the study was completed upon all total five patients.

INCLUSION CRITERIA

- Patients diagnosed as suffering from schizophrenic disorder according to the ICD-10 DCR criteria.
- Illness duration of two years or more (not more than three years).
- Age range 20-40years.
- Patients who have acquired significant working memory deficits.
- Patients who gave informed consent to participate in the study.
- Patients, who were cooperative, and who were able to comprehend the instructions properly.
- Patients who were educated up to secondary level.
- Residing in Ranchi and/or nearby places.

Exclusion criteria: Patients were excluded having:

- Significant co-morbid psychiatric or neurological conditions.
- Violent behaviour or having severe positive symptoms.
- History of mental retardation.
- History of alcohol/substance abuse.
- Psychopathology interfering in eliciting reliable information.
- History of severe physical illness in the near past.

TOOLS FOR ASSESSMENT:

Socio-demographic and clinical data sheet was used to gather information like name, age, sex, education, religion, marital status, age and mode of onset, course and duration of illness etc.

Positive and negative symptoms scale of schizophrenia (PANSS) developed by Kay et al (1980) was used to assess the presence of positive and negative symptoms among the subjects.

Wisconsin Card Sorting Test: The Wisconsin card sorting test was developed by Esta Berg in 1948 who described a procedure for investigating flexibility of thinking in human subjects. Clinically, the test is widely used by Neuropsychologists, Clinical Psychologists, Neurologists and Psychiatrists in patients with acquired brain injury, neurodegenerative disease, or mental illness such as schizophrenia. This test was used for the assessment of the executive functioning of the subjects.

***Stroop Neuro-Psychological Screening Test*:** The Stroop Neuro-Psychological Screening Test was developed by John Ridley Stroop in 1935 which was based on the earlier reports of Cattell (1886) and Brown (1935). It was also used for assessing the executive functioning of the subjects.

Letter-Number Sequencing Test and Spatial-Span Test of Wechsler Memory Scales-III: These tests have been taken from the Wechsler Memory Scales-III which is an individually administered battery of learning, memory, and working memory. The Letter-Number Sequencing subtest is a measure of working memory that uses auditory stimuli to evaluate working memory in individuals with schizophrenia. The Spatial-Span subtest taps an individual's

ability to hold a visual-spatial sequence of locations in working memory and then reproduce the sequence. In the first test, the individual is presented with a string of alternative letters and numbers (e.g. 8-y-2-w) and is asked to repeat the numbers and letters in alphabetically and numerically ascending order. The length of the letter-number strings are gradually increased from two to eight elements.

In the second test, at first, the examinee is asked to replicate an increasingly long series of visually presented spatial locations. The examiner points to a series of blocks at a rate of approximately one block per second and asks the examinee to point to the same blocks in the same order (spatial span forward). In the second part of the subtest, the examiner points to a series of blocks and asks the examinee to point to the same blocks in the reverse order (spatial span backward).

Working Memory Index: The Working Memory Index is formed by summing the scaled scores for Letter-Number Sequencing total score and Spatial-Span total score.

TOOLS FOR MEMORY REMEDIATION:

Card sorting games- In this technique, playing cards were given to the subjects. Initially, they were asked to sort the cards according to their particular groups to which they belonged and they were also said to arrange the cards in the descending order. Subjects were assigned to do this task one by one/individually. This was continued till the subjects were able to do the task without doing any errors. After that, they were said to do this task within a given time limit. Gradually the time limit was decreased and they were instructed to do the task.

When the subjects were able to complete this task successfully, they were assigned a new card sorting technique. In this technique, subjects were asked to sort the cards on their number or face basis, not by their category, as it was in the previous task in order to avoid the carry-over effect. Here, also gradually the time limit was decreased and they were asked to do within that given time limit. After that, the games of interference resistance, rehearsing multiple sets, spatial rehearsal, rehearsing changing sets, rehearsing sequence, and logical rehearsal were used for the rehearsal skill of the subjects. All of the games had three phases.

Interference refers to a situation in which a person is experiencing one event, but a second event occurs and interrupts the person's memory for the first. In this game the subjects were shown a card from the deck and they were said to say the number or face or suit of the card. Then the card was placed down on the table in front of the client. Then the second card was shown and again they were asked to say the names of the card aloud and again it was placed down on the table. Then the subjects were said to recall the number or face of the previous card shown. This process was continued till the card deck was exhausted. In the rehearsal phase, the game was repeated and the subjects were said to rehearse.

In rehearsing multiple sets requires a person to remember the number of occurrences in several different categories. Here, in the first phase of this game, three cards were shown to the subject, one at a time and they were asked to remember how many cards are there of each suit. Then they were said to read aloud the number of cards they recalled from each suit. In the rehearsal phase, the subjects were shown the cards and they were said to read aloud the face of the card. When they were shown the next card then they were said to say the face of the first card also along with the second one.

Spatial rehearsal refers to memory for people or things in a three dimensional space. The game began with 16 cards, 4 from each suit. The cards were shuffled and arranged into a square grid. The subjects turned over any four cards leaving them in the same position in the grid. If the four cards had the same suit, the cards were removed from the grid otherwise they were left in the same place. Again four cards were turned over and if they were same, then they were removed from the grid. This procedure was continued till all the cards were removed from the grid.

In rehearsing changing sets, the subjects saw three cards, one at a time and named each one aloud as they were placed face down the table. Then, they were showed other cards from the deck, one at a time, until they identified the face or number of the shown cards. When the match was made, then the matched card was replaced by another card from the deck. This process continued until the deck was exhausted.

In rehearsing sequence, the subjects were shown five cards one at a time and then they were placed down on the table in a random order until all the five cards are turned face down. Then the subjects were said to arrange the cards in numerical order from left to right and lowest to highest. The task required them to remember the cards so that they can arrange them in the proper order. In the rehearsal phase, the game was again started but here the subjects had to say the number or face of the cards which were facedown and rehearse the position of the cards before ranging them from lowest to highest.

In logical rehearsal, the subjects were given a deck of cards and a single card was selected from the other deck. They then asked questions about that particular card and whatever information was given, they had to remember them. Then they had to correctly identify that card and produce it from the deck of cards. Thus the game continued with this forced rehearsal procedure.

Solving jumbled sentences- After the subjects had learnt the card sorting games, the second technique of the therapy was started. In this technique, the subjects were given some jumbled sentences and they were asked to arrange it in the correct order. One sentence was given to each subject and this task was carried individually. Gradually when the subjects understood the task and were able to do it correctly, then the time limit was decreased and they were asked to do it within the given time-limit.

Mathematical sums- This was the third technique of the intervention process. Here the subjects were said to do some simple mathematical sums like addition, subtraction, division and multiplication. Initially, the stimulus problems were followed by demonstration and when they understood the task, they were taught to do the calculations orally. Initially, they were given only one sum at a time (like for example; an addition at a time) but gradually, they were given the sums one after the other in a sequence (a multiplication sum following an addition task). This task was also carried out individually by the subjects.

Tapping technique- Another technique which was used for the memory remediation of the subjects was the tapping technique. In this technique, they were instructed that some words will be read out loudly and whenever a particular word will be read out they had to tap on the table by their hand. The subjects were at first made aware about the stimulus word/problem word. This technique was also carried out individually.

PROCEDURE OF THE STUDY:

At first, the Socio-Demographic and Clinical Data Sheet was filled with the help of brief interview with the patients selected for the study and thereafter "The Positive and Negative Symptoms Scale" was administered to screen out the subjects. Subjects with major psychotic symptoms were excluded from the investigation. Informed consent was taken from the patients before starting the study. Then Wisconsin Card Sorting Test, Stroop Neuro- Psychological Screening Test, and the Wechsler Memory Scale-Letter-Number Sequencing and the Spatial-Span subtests were administered upon the subjects selected for the study for assessing the working memory and executive functioning of the subjects. After assessing the subjects on above mentioned tests, the intervention programme was started. After the intervention programme of three months, the same tests were re-administered upon the patients to see the effects of the intervention programme.

RESULTS AND DISCUSSION:

The obtained data was analyzed using Wilcoxon Sign Rank Test for calculating the significant level and the t+ value was calculated of all the variables

Table 1: **Showing socio-demographic variables of the sample**

S.No.		Variables	Patients group (total 5)	Percentage
1.	Age	20-30years	3	60%
		30-40 years	2	40%
2.	Sex	Male	5	100%
		Female	0	-
3.	Education	10-12 years	5	100%
		12 years and above	0	-
4.	Marital status	Married	4	80%
	Unmarried		1	20%
5.	Religion	Hindu	4	80%
		Muslim	1	20%
6.	Residence	Urban	0	-
		Semi-urban	0	-
		Rural	5	100%
7.	Family type	Joint	1	20%
		Nuclear	4	80%
8.	Economicalstatus	Low	2	40%
		Medium	3	60%
		High	0	-
9.	Occupation	Employed	2	40%
		Unemployed	3	60%

The above table shows that three (60%) of the patients belong to the age group of 20-30 years and two of them (40%) belong to the age group of 30-40 years. All the patients were male and maximum were educated up to 12th standard, 80% were married and 80% were Hindu except one (20%) who was a Muslim. All were belonging to rural background and 80% of them were residing in nuclear family, two (40%) of them belonged to low economic status and 60% belonged to middle economic status. Out of five, two of them (40%) were employed and three (60%) were unemployed.

Table 2: Showing the Clinical profile of the sample

S.No.		Variables	Patients group	Percentage
1.	Age of onset	14-24 years	4	80%
		24 years and above	1	20%
2.	Duration of illness	0-1 years	1	20%
		2-3 years	4	80%
3.	Mode of onset	Abrupt	0	-
		Acute	1	20%
		Insidious	4	80%
4.	Course of illness	Continuous	3	60%
		Episodic	2	40%
5.	Progress of illness	Static	1	20%
		Improving	4	80%
		Deteriorating	0 -	-
		Fluctuating	0	-

The above table shows that most of the patients (80%) are belonging to the age group of 14-24 years. The duration of illness was 2-3 yeas (80%) and mode of onset of the illness was insidious in most of the patients (80%). The course of illness in 60% cases was continuous and in 2 cases (40%) was episodic. The progress of illness in 80% cases was found to be improving and was static in 20% cases.

Table 3: **Analysis of WCST before and after the intervention**

Areas of assessment	Conditions	Patients					Wilcoxon sign rank test		
		P1	P2	P3	P4	P5	sign	Mean rank	Critical value of T+ score
Total number of correct responses	Pre-test	78	96	85	60	64	+	2.00	0.00(NS)
	Post-test	79	69	64	74	79	-	4.50	
Total number of errors	Pre-test	50	59	64	68	64	+	3.00	0.0313*
	Post-test	49	32	43	54	49	-	0.00	
Perseverative Responses	Pre-test	33	23	41	74	56	+	3.00	0.0313*
	Post-test	28	12	15	36	21	-	0.00	
Perseverative errors	Pre-test	27	15	25	44	38	+	3.00	0.0313*
	Post-test	20	5	15	29	13	-	0.00	
Non-perseverative errors	Pre-test	29	44	28	39	36	+	3.00	0.0313*
	Post-test	23	27	15	10	26	-	0.00	
Conceptual level responses	Pre-test	46	51	38	43	38	+	3.00	0.0313*
	Post-test	54	83	69	54	61	-	0.00	
Number of categories completed	Pre-test	1	7	3	2	2	+	1.00	0.00
	Post-test	2	2	0	2	3	-	4.00	
Trials to complete first category	Pre-test	58	3	0	27	3	+	3.50	0.4063
	Post-test	53	4	-	8	0	-	1.50	

*Significant at 0.05 level.

The above table shows the performance of the patients on the Wisconsin Card Sorting Test before and after the intervention. It also shows the different areas of assessment (total number of correct answers, total number of errors, perseverative responses, perseverative errors, non perseverative errors, conceptual level responses, total number of categories completed and the trials taken to complete the first category. There was no significant improvement noticed in the total number of correct responses and number of categories completed and in the trials taken to complete the first category. However, a major difference was found in total number of errors, perseverative responses, perseverative errors, non perseverative errors, conceptual level responses. Results show the significant reduction in the errors after remediation. The obtained data indicates that the subject's performance in the area of working memory in different domains was influenced by the rehabilitation procedure which is evident from the reduction in numbers of errors committed before the cognitive intervention in general and perseverative errors as well and significant improvement was found in the area of conceptual level responses also which suggests that the cognitive remediation methods are effectively proving their efficacy and the role of the cognitive behaviour therapy cannot be overlooked in the complete management of the cases suffering from schizophrenia. The difference between the total number of errors on the pre-test and post-test conditions was found to be significant. Similarly the difference in the perseverative responses, perseverative errors, non-perseverative errors, conceptual level responses were found to be significant. But the difference between the total number of correct responses, number of categories completed and trials taken to complete the first category were not significant.

Table 4: **Analysis of STROOP Neuro-psychological screening test before and after the intervention**

Areas of assessment	Conditions	Patients					Wilcoxon sign rank test		
		P1	P2	P3	P4	P5	Sign	Mean rank	Critical value of T+ score
Colour task	Pre-test	95	98	83	112	67	+	4.00	0.1563*
	Post-test	111	93	97	111	99	-	1.50	
Colour-word task	Pre-test	35	42	32	36	7	+	2.75	0.2188*
	Post-test	41	16	43	38	69	-	4.00	

* Not significant at 0.05 level.

In the above table, the performance of the subjects in the STROOP Neurological Screening Test has been shown. The obtained data indicates that the subjects showed much improvement from their earlier performance on the STROOP test. The scores of the colour task increased substantially in the post-test in comparison to the pre-test conditions. Similarly, the pre-test and post-test performance

also improved on the color-word task. But the difference between the scores was found to be not significant. Jesus De La Higuera Romero (2003) also found a similar result in his study. However, the results of the study are encouraging the improvement occurred in the cases of schizophrenia after cognitive remediation.

Table 5: Analysis of Letter-Number Sequencing Test and Spatial-Span Test of Wechsler Memory Scales-III before and after the intervention

Areas of assessment	Conditions	Patients					Wilcoxon sign rank test		
		P1	P2	P3	P4	P5	Sign	Mean rank	Critical value of T + score
Letter-number sequencing	Pre-test	6	6	1	3	0	+	2.50	0.3125
	Post-test	10	6	3	6	8	-	0.00	
Spatial-span total score	Pre-test	11	14	0	7	4	+	3.00	0.0313*
	Post-test	17	15	10	13	16	-	0.00	
Working memory index	Pre-test	17	20	1	10	4	+	3.00	0.0313*
	Post-test	27	21	13	19	24	-	0.00	

* Significant at 0.05 level

Above table shows the performance of the subjects on the Wechsler Memory Scale-III Letter-Number Sequencing and Spatial-Span subtests. The performance on the Letter-Number Sequencing test on pre and post assessment show that the cognitive remediation has been found effective which is evident from the number of scores obtained in the pre and post assessments which again confirm the efficacy of the cognitive remediation programme on the schizophrenia patients. However, the obtained difference was not significant. The obtained spatial-span score increased and it was found to be significant. Then, the working memory index was assessed and the difference was also significant. The study conducted by Tamasine C. Greig, Wayne Zito, Bruce E. Wexler, Joanna Fiszdon, and Morris D. Bell (2007) have supported the findings of the present study.

CONCLUSION:

Prior to cognitive remediation, the working memory function of the subjects was found to be impaired. However, after the remediation programme, significant differences were found in the area of working memory. Improvement was also remarkable in the area of total number of correct responses, number of categories completed, and trials taken to complete first category in the Wisconsin Card Sorting Test. Similarly, in the STROOP test, remarkable improvement was found in the areas of colour task and the colour word task. Improvement was also found to be remarkable in the letter-number sequencing test of the Wechsler Memory Scale-III. These results seem to be encouraging and it can be said that the cognitive remediation programme plays a very major role in treating the cognitive deficits especially the working memory deficits of the patients suffering from schizophrenic disorder.

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Original Articles :

Phenomenology of Obsessive Compulsive Disorder in Eastern India

Neha Sayeed[1], Jyoti Mishra[2], Sayeed Akhtar[3]

ABSTRACT :

Background : The present study focuses on the symptoms and signs of Obsessive Compulsive Disorder as per DSM IV (APA 1994) and ICD 10 (WHO, 1992)[2], were studied by administering Y-BOCS symptom checklist (Goodman, 1989), Kneeding out types of obsessions and compulsions and their sub-types. The presence of depression and suicidal ideas were assessed by administering HAM-D (Hamilton, 1960)[3], Results: The patients diagnosed as OCD are not a single nosological entity. Each patient must be differentially diagnosed.

Keyword: OCD

INTRODUCTION:

Obsessive compulsive disorder is a chronic and potentially disabling condition affecting from 1% to 3%of general population.(James et.al.,2001) The DSM IV (APA, 1994) and ICD-10(WHO, 1992), regard OCD as unitary nosological entity. It may be misleading. The symptoms that define OCD are heterogeneous and it includes various intrusive thoughts and preoccupation, ritual and compulsion. Inevitably, in the beginning, the clinician is struck by the diversity of the clinical presentations of OCD. This initial impression, however, is soon replaced by the realization that the number of types of obsessions and compulsions are remarkably limited and stereotypic. OCD patients rarely have only one or two symptoms- multiple obsessions and compulsions are the rule although an individual's symptoms present at a given time exhibit certain understandable patterns. There are three common clinical presentations: washers, checkers and pure obsessional. Washing and checking alone or in combination constitute more than half the OCD phenomenon cluster. The patients are mostly treated as outpatients'. In-patient treatment are sought when reluctantly by the family members and when the reasons are too compelling .We have tried in this study to delineate types of obsessions and compulsions in the patient attending OPD in a tertiary referral centre of the eastern India and tried to find out disease factors, particularly the psychotic features and severe depression in the OCD patients ,who need inpatient treatment.

MATERIAL & METHODS:

This study was carried in Central Institute of Psychiatry, Kanke ,Ranchi which is a 643 bedded tertiary referral centre and caters the need of larger part of eastern India. The patient registered in the OPD are subjected to detailed work-up and the findings are then discussed with the consultant and the final diagnosis is made as per International Classification of Disease (ICD-10) criteria For this study, the case records of all out patients who were diagnosed as OCD in previous 6 months (from July 2009 to December 2009) and patients admitted or readmitted with diagnosis of OCD in last two years was reviewed. The socio-demographic and clinical details, along with the diagnoses of OCD or other co-morbid psychiatric condition were recorded on a specially designed form. Of the 72 cases,9 cases with primary diagnosis of schizophrenia,3 cases of Bipolar affective disorder and 2 cases of co-morbid recurrent depressive episode were dropped from further evaluation. The diagnoses were independently reviewed by at least two researchers and, only when there was a consensus, a final diagnosis was assigned as per ICD-10.The symptoms of OCD were evaluated with the help of Y-BOCS symptom checklist(Goodman,1989): type of obsession, type of compulsion, subtype; i.e. washer, checker, pure obsessions or primary obsessional slowness. The presence or absence of depression and suicidal ideas were assessed by administering HAM-D (Hamilton,1960).[3]

RESULT: The total number of patients in the sample were 58 (29 male, 29 females), mean age was 30.02±8.73 (SD), and mean duration of symptoms at the time of consultation at the centre was 5 years±4.29 (SD).

Table:1: Phenomenology of obsessions

OBSESSIONS	Total	MALE	FEMALE
Contamination	44(75.9%)	22(37.9%)	22(37.9%)
Pathological doubt	28 (48.3%)	17(29.3%)	11 (19%)
Aggressive	06(10.3%)	03(05.3%)	03(05.3%)
Sexual	08 (13.8%)	05 (09.7%)	03 (5.1%)
Religious	07 (12.5%)	03 (5.1%)	04(06.4%)
Hoarding	01(1.7%)	01(1.7%)	0 (0%)
Need for symmetry	12(20.6%)	09(15.5%)	03(5.1%)
Other	3 (5.3%)	2(3.4%)	1(1.7%)

Table:2: Phenomenology of compulsions

COMPULSIONS	Total	MALE	FEMALE
Cleaning washing	41(70.6%)	18(30.9%)	23(29.6%)
Checking	18 (30.9%)	12(24.6%)	06 (10.3%)
Repeating rituals	03(5.1%)	02(3.4%)	01 (1.7%)
Hoarding collecting	01(1.7%)	01(1.7%)	01(1.7%)
Ordering/arranging	12(20.6%)	08(13.8%)	04(6.4%)

Table:3: Obsession and compulsions in different genders

PREDOMINANT SUBTYPES	Total (N)	Male	Female	Male G(%)VG	FEMALE %F female (%)
Washer	34	12	22	35.29 %	64.71%
Checkers	13	08	05	61.54%	38.46%
Pure Obsessions	13	10	03	76.92%	23.08%
Washer +Checkers	12	08	04	66.67%	33.33%

Table:4: Depression & suicidal ideas in patients with OCD

DEPRESSION	OPD(N=35)	INPATIENT(N=23)	SIGNIGICANCE AT .05%
MILD	2	1	
MODERATE	6	5	
SEVERE	4	7	
SUICIDAL	5	09	* significant

DISCUSSION:

ICD-10 does not actually state how to make the judgment that the obsession/compulsion are not result of, for example, mood disorders or schizophrenia.(Nolfe et.al.,2010) Apart from this ,obsessional symptoms are not uncommon in schizophrenia and a result of treatment with second generation antipsychotic, specially clozapine and olanzapine (Hann et.al.,2002).Obsessive symptoms may be predominant in cases of depressive disorders and depressive phase of Bipolar affective disorders. (Kelly et.al.,2010).We are of the opinion that although they constitute an entity of OCD spectrum disorder, they need to be studied separately.

This study delineates the following findings:

1. Obsessions were multiple .Common obsessions were contamination and dirt (75.9%) and pathological doubts (48.3%)

2. Common compulsions were washing and cleaning(70%),followed by checking(31%) and ordering and arrangement(20.6%)

3. The common subtypes were washer(70.6%), checker(20.6%) and primary obsessional (22.4%). Insel and Arkiskal suggested 4 common presentations of OCD-washers, checkers and pure obsessionals and primary obsessive slowness. We have not found any primary obsessive slowness. Amitabh Saha and Sumeet Gupta studied phenomenology of OCD with a cross-cultural perspective. 40 patients of OCD (as per ICD- 10) were studied using YBOC checklist. The common obsessions noticed were contamination (52%) and aggression (32.5%). Washing (57.5%) and checking (42.5%) rituals were the common compulsions . In our cases,with similar methodology, we have found contamination (75.9%) and pathological doubts (48.3%) were common obsession .Aggressive obsession was found in 10.6% only. Washing and cleaning was found in 70.6 %, followed by checking (31.1%) and orderliness and arrangement. This data is comparable to other studies carried in other parts of India (Girish Chandra et.al,2001 ;Jaisoorya et.al,2003). Depressive symptoms were common accompaniment, and the patients who are admitted were more depressed and had significantly more suicidal ideas.

LIMITATION:

This study suffers from all the deficit of retrospective chart study. Severity of OCD was not assessed which may have important role of inpatient treatment. Assessment for form

and content with Scale for Form and content (SAFC) would have delineated a better phenomenology, but, the chart data were not enough to apply this scale.

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Case Report :

Headache Clinic in a Psychiatric Hospital

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INTRODUCTION:

Headache as a symptom can be primary or secondary. As regards primary headache the psychological facors can serve as the sole basis of headache (e.g. conversion, hypochondriasis, somatization and somatoform pain disorders)[2].Merskey (1965)[3] and Large (1980)[4] have reported a high incidence of neurosis and depression with an incidence rate of more than 50% in some studies[5,6]. Many patients with purely psychiartic morbidity may find the headache clinic a more attractive and less stigmatizing option to roll themselves for Psychiatric treatment, Hence the study was planned. The aim of the study was to fine out the frequency of patients with primary headache syndromes, co-morbid psychiatric diagnoses or psychiatric morbidity in patients enrolling themselves in the headache clinic located in a psychiatric hospital. The implication of the study has been discussed.

Keyword: Primary Headache

MATERIAL AND METHODS:

The study was conducted at the Central Institute of Psychiatry, which is a 643-bed postgraduate teaching institute. The institute runs various special clinics such as the epilepsy clinic and the skin and venereal disease clinic. The headache clinic was established in August 1995 as an outpatient treatment facility. The clinic is held once a week. Patients who are registered at the headache clinic are examined by junior residents who record the history and physical findings in a case record file designed for the clinic. The findings are then discussed with the consultant andthe final diagnosis is made. In case of any suspicion of organic etiology of headache, the patients are subjected to EEG and CT scan available in the facility itself. Whenever there is a possible psychiatric disorder present, a thorough mental status examination and diagnostic psychometry is undertaken. The classification and diagnostic criteria for headache disorders, cranial neuralgias, and facial pain are used for the diagnoses of headache. For patients with a psychiatric disorder, the International Classification of Diseases (ICD)-10[7] criteria is used. For this study, the case records of all patients attending the headache clinic during a 12-month period (from January 2008 to December 2008) were reviewed. The socio-demographic and clinical details, along with the diagnoses, were recorded on a specially designed form. The diagnoses were independently reviewed by at least two researchers and, only when there was a consensus, a final diagnosis was assigned. For patients with evidence of psychiatric problems, either from the history, mental status examination, or diagnostic psychometry, it was ensured that they fulfilled the ICD-10 criteria for a definite psychiatric disorder before being assigned a psychiatric diagnosis.

RESULTS:

Two hundred and twenty patients were included in the study, of whom 97 (44%) were male and 123 (56%) were female. The mean age of the patients was 31.25 ±10.57 years. The mean age of the males and females did not differ significantly (30.79 ±10.80 years compared with 31.5±10.46 years). The diagnoses of the study population by gender are shown in

Table 1.

Sixty two (28%) had a primary diagnosis of a psychiatric disorder. Depression was the commonest psychiatric disorder and was seen in 39 patients with headache (22.20%). This was followed by generalized anxiety disorder (GAD) in 10 patients with headache (4.5%) and somatization disorder in five (2.2%). Three patients (1.36%) had obsessive compulsive disorder (OCD), and an equal number had hypochondriasis (1.36%) and two (1.36%) had schizophrenia.

Table 1. Diagnoses of the study population according to gender.

DIAGNOSIS	*MALE*	*FEMALE*	*TOTAL*
Migraine	22	42	*64*
Tension Headache	17	29	*46*
Mixed Headache	12	18	*30*
Depression	22	17	*39*
Anxiety	06	4	*10*
Somatization	01	4	*05*
Hypochondriasis	2	1	*03*
Conversion reaction	1	2	*3*
Schizophrenia	2	-	*2*
Trigeminal Neuralgia	2	- *2*	
Sinusitis	2	-	*1*
Refractive error	4	3	*7*
Others	04	3 *1*	*07*
Total	*97*	*123*	*220*

DISCUSSION:

In this study, there was a preponderance of female patients, which was contrary to expectation since earlier outpatient based studies done at this institute and at other centres in India have consistently found an over-representation of male patients.[8,9,10] The commonest disorder among the study population was migraine (29%), followed by tension headache (20.90%) and mixed headache syndrome (13.6%). These disorders are known to be more prevalent among females.[11,12,13] In our sample, 70% of the patients suffering from migraine, tension headache and mixed headache were female, which was consistent with the views of Adler and Adler[11] that women are nearly three-fold more likely to have this disorder than men. Hence, this could explain the over-representation of females in the study population. A large body of evidence indicates that women are more prone to unipolar depression, which is supported from two sources of data on the rates of depression in men and women — records of persons treated for depression and surveys of the general population.[14] However, in our study we found an over-representation of males. The preponderance of males in the study cannot be explained by increased frequency of depression. A possible explanation could be the difference in the active response style of men towards their depressed mood as compared with women. Chevron et al.[15] are of the opinion that men and women experience depressive symptoms equally frequently and to the same degree, but because depression is perceived to be 'feminine', men are less likely to admit to it. Hence, a seriously depressed man might be unwilling to admit to depression and seek help for depressive symptoms.[16] However, headache may be more consistent with the male sex-role stereotype and perhaps more acceptable.[13,17]

The number of patients with primary psychiatric diagnosis attending a headache clinic located in a psychiatric set-up is an interesting finding. Patients with depressive symptoms, generalized anxiety disorder, somatization disorders, hypochondriasis, conversion disorder and even patients with schizophrenia had enrolled themselves in the headache clinic. Moreover, the number of patients with tension headache having mixed headache may require detailed psychological evaluation and those who have mixed headache syndrome. All such cases had reported headache as a symptom but during history taking and mental status examination, the real diagnosis was delineated. It may be possible that patients of schizophrenia might have been coaxed into enrolling in the headache clinic to make them comfortable that they have been being consulted for headache and not for being "crazy". In our opinion, the headache clinic may be an attractive tool in a psychiatric OPD to bring about a change in the image of a mental hospital and it may make the services more attractive, acceptable and less stigmatizing for patients who have no overt psychotic symptoms and who don't consider themselves having any sign of "madness" as they call it.

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Case Report :

Socio-demographic and Clinical Characteristics of Sexual Problems: Report from a Community Mental Health Clinic of West Bengal

Arabinda Brahma & Mahuya Chatterjee

ABSTRACT:

Sexual problems are common in the general population. It affects people's social life, particularly marital or long term relationships. This study aims to investigate the association of sexual problems with various physical, social, and psychological problems. 33 patients (21 men and 12 women) came to a community mental health clinic with sexual problems were interviewed. There were strong physical and psycho-social associations found with sexual problems. Erectile problems and premature ejaculation were common sexual problems in men. Erectile problems were commonly found in association with hypertension and diabetes, whereas anxiety was predominantly associated with premature ejaculation. In women, the predominant association with arousal, orgasmic and enjoyment problems was marital difficulties. Anxiety and depression were more commonly associated with female sexual problems. Effective therapy (physical and psychological approaches) may have a wide range of social and psychological benefits in the adult population.

Key words: Community, Psychosocial disorders, Sexual problems.

INTRODUCTION:

Sexual problems are common in the general population[1]. Different literatures have highlighted its importance on individual's life, particularly on social functioning, psychological state and physical health[2, 3]. Marital difficulties and problem in long term relationships are two important areas of people's social life that are strongly associated with sexual problems[4].

Various studies have pointed out the relationship between sexual problems and specific physical conditions. The most common association is between diabetes mellitus and male sexual problems[5]. Hypertension is another common physical condition linked with different sexual problems. It is unclear, whether high blood pressure itself causes sexual problems or it is the effect of antihypertensive drugs like Thiazides and â blockers known to cause impotence and reduced libido in men[6].

A number of studies have reported the relation between anxiety and sexual problems[7]. Associations between sexual problems and depression have also been reported, though the effect of antidepressant drugs is not clear[8]. Amongst different substances of abuse, alcohol is usually considered as an offending agent that can cause sexual problems[9].

The present study was designed with the aim to study the socio-demographic and clinical characteristics associated with sexual problems in a community mental health clinic in West Bengal, India.

METHODS:

Study area: The study was carried out in a block in the Sundarban region of South 24 Parganas district in West Bengal, India. Sundarban region is a remote coastal area and it is the largest delta region of the river Hooghly at her confluence in the Bay of Bengal. The socio-economic level of this region is very poor. Poverty, illiteracy and cultural conception and superstition regarding illness have profound influence on the help seeking behavior of the local people[9]. They depend much on traditional health care providers (locally known as 'Quack doctors') for most of their health problems. The Sundarban region has 13 blocks (administrative units) under South 24 Parganas district. Six blocks are island blocks and the rests are with the mainland. The present work was conducted in Namkhana block, which is an Island block situated 140 km. away from Kolkata City.

Setting: A community mental health clinic was run at the Dwariknagar area of Namkhana block monthly. The total period of study is from February 2011 to March 2011. Local health staffs like ICDS workers; multipurpose health workers (MPHWs) and HCPs were trained following the *IRMC* (Identification, Referral, Monitoring and Counseling) model[10] and referred most of the mentally ill patients from the community to these clinics. A good number of patients were also referred by the primary care Medical Officers posted in the primary health centers situated in the block.

Sample: The data are drawn from a study of 33 patients (21 men and 12 women) with sexual problems, out of 106 consecutive new patients attending the community mental health clinic at Dwariknagar area, Namkhana in those two months. A register was maintained for each patient where the basic identification data (age, sex, marital status, religion) were recorded.

Assessment: Patients with sexual problems were undergone a detailed clinical interview. Patients were asked about the social problems (e.g. problem with housing, work, finance, marriage, children and relationship with others) and physical problems (e.g. Hypertension, Diabetes, Prostate trouble, Pre-menstrual tension, Hysterectomy, Dysfunctional Uterine Bleeding or any chronic illness). Two mental health professionals examined each case independently and the diagnosis was made by consensus of opinion following the clinical guidelines of DSM- IV[11].

RESULTS:

a. Socio-demographic profile:

Age: The study comprised of 33 patients. The patients under study were mostly males (n= 21, mean age 34.76 + 10.60 years; range 19-53 years). Females accounted for 36.4% of the patients (n=12, mean age 35.67 ± 6.74 years, range 26-46 years).

Table 1 Demographic Characteristic of Patients with Sexual Problems

	Male	% (n 21)	Female	% (n 12)	Total	% (n 33)
Religion:						
Hindu	15	71.4	9	75.0	24	72.7
Muslim	6	28.6	3	25.0	9	27.3
Marital Status:						
Married	15	71.4	12	100	27	81.8
Single	6	28.6	-	-	6	18.2

Table 1 shows the religion and marital status of the patients with sexual problems. Most of the patients were Hindus (72.7%), while remaining were Muslims (27.3%). A higher percentage of sexual problems were seen among married patients (81.8%). Proportion of females was higher among this group (100%) than males (71.4%).

b. Clinical profile:

Table 2 Clinical Characteristic of Patients with Sexual Problems

	Male (n 21)	%	Female (n 12)	% (n 33)	Total	%
Sexual Problem:						
Arousal Problem	-	0.0	3	25.0	3	9.1
Dyspareunea	-	0.0	1	8.3	1	3.0
Erectile Problem	6	28.6	-	-	6	18.2
Inhibited Enjoyment	2	9.5	2	16.7	4	12.1
Orgasmic Dysfunction	-	0.0	4	33.3	4	12.1
Problem Getting Erection	3	14.3	-	-	3	9.1
Problem Maintaining Erection	4	19.0	-	-	4	12.1
Premature Ejaculation	6	28.6	-	-	6	18.2
Vaginal Dryness	-	0.0	2	16.7	2	6.1
Diagnosis:						
Adjustment Dis.	3	14.3	5	41.7	8	24.2
Anxiety Dis.	5	23.7	1	8.3	6	18.2
Depressive Dis.	1	4.8	4	33.3	5	15.2
Diabetes	3	14.3	1	8.3	4	12.1
Hypertension	6	28.6	1	8.3	7	21.2
Alcohol Abuse	3	14.3	-	-	3	9.1

Table 2 shows the clinical characteristics associated with sexual problems in both sexes.

Male sexual problems: Erectile dysfunction (ED) was found to be a common sexual problem amongst men. ED was associated mainly with physical factors like hypertension and diabetes. The prevalence of ED increases with advancing age. Alcohol abuse, anxiety and adjustment disorders were found as casual factors in some cases who had problem in getting or maintaining erection.

Premature Ejaculation (PME) was the second most common (28.6%) male sexual problem. PME was predominantly associated with anxiety and commonly found in the younger age group. Alcohol abuse and Adjustment disorders as causal factors were found in few cases.

Inhibited enjoyment was found in 9.5% of male patients. The main association with inhibited enjoyment in men was depression and psycho-social problems, mainly marital difficulties. The prevalence of inhibited enjoyment increased somewhat with advancing age.

Female sexual problems: Orgasmic dysfunction was found to be the commonest sexual problem in women (33.3%). Problems with orgasm in women were strongly associated with psycho-social problems, mainly marital difficulties.

Depression and anxiety were also significantly related to orgasmic dysfunction.

Problems with arousal in women (25%) revealed a similar pattern of association as that of orgasmic dysfunction. The main link was with marital conflicts. Depression and anxiety were also strongly related to arousal problems.

Inhibited enjoyment, once again had a strong association with marital conflicts in women (16.7%). Depression also significantly associated with it.

Vaginal dryness (16.7%) was associated mainly with advancing age and physical factors like hypertension and diabetes.

Dyspareunia (8.3%) was found to be associated with advancing age and in presence of depression in women.

DISCUSSION:

The present study is a small clinic based study to look at the associations of sexual problems with varieties of physical, social and psychological factors.

The different associations revealed for male and female sexual problems were very interesting. Physical factors were found to be most consistent in association with male sexual problems and psychosocial factors with female problems.

Earlier studies showed that prostate cancer and benign prostatic hyperplasia were strongly associated with erectile problems in men[12, 13]. In some other studies, erectile problems have been associated with hypertension (mainly those on antihypertensive drugs)[3]. This study also shows that hypertension have a strong association with male erectile functioning.

Psychological problems in men have a specific role in premature ejaculation and inhibited enjoyment[14]. The present study also revealed that premature ejaculation was associated with anxiety and inhibited enjoyment with depression.

In previous studies[15, 16], sexual problems in women were strongly linked with marital difficulties, but not apparently related to male sexual problems. The present study highlighted a strong association between female sexual problems and psychosocial problems mainly marital difficulties. This study, however, found an association between marital difficulties and sexual problems in men and the finding corroborates with an earlier work[4].

The present study revealed that age was strongly linked with sexual problems in men mainly with erectile dysfunction. This may reflect its strong association with age-related physical symptoms like hypertension, diabetes etc. Some sexual problems in female (vaginal dryness, dyspareunia) were found to be associated with age, but the patterns were not as strong as those found in their counterparts.

Alcohol abuse was found to be linked with some male sexual problems in the present study. Further work may clarify the cause and effect relation of this factor with different sexual problems.

The evidence from this study seems to suggest that there are strong physical, social and psychological association exist with sexual problems. Male sexual problems are associated mainly with age and physical problems, whereas female sexual problems are mostly linked with psychosocial problems. These factors are important in planning effective treatment to people with sexual problems. Furthermore, the study raises the possibility that effective physical and psychological approaches may have a broad impact on health in the general population.

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Case Report :

Acute dystonia with paroxetine – case presentation, possible mechanism and clinical implications

Kaustav Chakraborty

ABSTRACT:

Paroxetine is a selective serotonin reuptake inhibitor (SSRI) that is used in the treatment of panic disorder. SSRIs as a group are known to causeextra-pyramidal syndrome (EPS) even at therapeutic doses. However, systematic data regarding this is lacking. We describe a case of acute cervical dystonia in a young adult with panic disorder temporally related to paroxetine. The dystonia was relieved by intravenous injection of promethazine, an antihistaminic with anticholinergic property. Inhibitory serotonergic input to dopaminergic system in the nigro-striatal pathway may be responsible for such idiosyncratic reaction. Clinicians should be aware of such side effect while prescribing SSRIs as this can have significant clinical implications

INTRODUCTION:

Paroxetine is a selective serotonin reuptake inhibitor (SSRI) that is used in the treatment of panic disorder with or without agoraphobia alongside many other psychiatric disorders1. Paroxetine potently and selectively inhibits neuronal serotonin reuptake through antagonism of the serotonin transporter2. Numerous case reports have described the occurrence of extra-pyramidal syndromes (EPS) (i.e. parkinsonism, dystonia, akathisia and dyskinesia) in patients using antidepressant drugs, particularly the SSRIs3,4. In a review of case reports and case series of movement disorders ascribed to the use of SSRIs, fluoxetine (mean dose: 40 mg/d) was the most common SSRI implicated in 74.6 percent cases of SSRI-induced EPS whereas paroxetine (mean dose: 20 mg/d) was implicated in 5.6 percent cases5. The most common side effect in the above study was akathisia (45.1%), followed by dystonia (28.2%), parkinsonism (14.1%), and tardive dyskinesia like states (11.3%)5. The cases reporting acute dystonia with SSRIs were in their forties (49.7±20.0 years), predominantly females (67.6%), and concurrently treated with other medications (57.7%). Similar demographic profile of patients was reported by a case control study from the Netherlands which found 9 cases of paroxetine induced dystonia after introduction of this drug in market in 19913. The same study found parkinsonism and dystonia to be the most frequently reported EPS (59.0% and 21.3%, respectively) ascribed to antidepressants. Acute dystonic reaction with paroxetine has also been reported by Arnone et al. in an elderly patient with mood disorder6. Although paroxetine is in use in India for more than a decade, no case of EPS has been reported from India. We report a case of paroxetine induced acute dystonia and discuss the possible mechanism and clinical implications.

CASE REPORT:

A 21 year old male presented with sudden onset of palpitations, chest pain, choking sensation, & dizziness during which the patient would experience a crescendo of fear of dying from a heart attack for the past 2 months. Those abovementioned episodes would last for minutes only, at times longer and occur at a frequency of 1-2 times per week. The onset was temporally related to the death of his beloved teacher to whom he was much attached emotionally. However, the subsequent episodes were spontaneous and with each episode he grew the persistent fear of having another attack. He visited the psychiatry out-patient department in 2nd week of February 2011 and was diagnosed to have Panic Disorder as per International Classification of Diseases-10 (ICD-10) Chapter V-Mental and Behavioural Disorders. On assessment of premorbid personality we found him to be introvert, shy, poor in communication skills, more religious than usual and having very few friends. His family history was noncontributory. His routine and special investigations including computed tomography scan (CT scan) of brain, echocardiography, pulmonary function tests, thyroid function test, complete hemogram, serum electrolytes, renal function tests, and liver function tests were within normal limit. After explaining the diagnosis to him and the family members he was put on tab paroxetine 10 mg/day and tab clonazepam 0.25 mg twice daily. He was taught few initial steps of Jacobson's progressive muscle relaxation (JPMR) exercise and was encouraged to do focused & deep breathing intermittently for 5 minutes. On next follow up after a week there was 25 percent symptom reduction on objective assessment and he was found to be irregular in practising the relaxation exercises. The dose of tab paroxetine was further increased to 20 mg/d, rest of the

steps of JPMR was taught, and mother was told to supervise whether he was doing the steps correctly. He came for follow up after 2 weeks and reported status quo. The dose of tab paroxetine was further increased to 30 mg/d and along with emphasis on JPMR plan for cognitive behavioural therapy (CBT) was kept. Next morning he was brought to the hospital emergency with acute, painful, persistent, involuntary spasm of neck muscles with torticollis to the right side. He was crying for help as he was in severe distress because of the painful muscle spasm His vitals were stable; pupils were equal, round and reactive to light. On examination, he showed increased tone of neck muscles with posturing to the right; his gait, reflexes and planter response were within normal limit.. Injection promethazine (50 mg) was given intravenously with which he had relief of symptoms over next 30 minutes and went off to sleep. There was no history of overdose of prescribed medications or ingestion of other medications to which the above symptoms could be attributed to. Next day patient was started on tab sertraline at a very low dose (25 mg) and was gradually increased to 150 mg/d over a period of three weeks with close monitoring. CBT sessions were also started on a weekly basis and patient started showing reduction in the intensity and frequency of panic attacks.

DISCUSSION:

SSRIs have been reported to alter receptor density and function that include the dopamine-1, alpha 1/beta-adrenergic and 5-HT1B/2[6]. With regards to the nigro-striatal pathway, the serotoninergic input to dopaminergic system appears inhibitory[7]. Overstimulation of the 5-HT2A receptors by SSRIs, especially in the basal ganglia, may potentially lead to akathisia, agitation and perhaps to an acute dystonic reaction[7]. It is also possible serotonergic innervations also influence GABA and cholinergic pathways and thereby contributes to the development of EPS[8,9].

Case reports and case series have identified certain predictors of SSRI induced EPS, such as advanced age, female gender, concomitant use of antipsychotic drugs, previous events of drug-induced EPS or presymptomatic Parkinson's disease[3,5]. Contrary to the above findings the index case was an young adult male, devoid of any comorbidity and receiving concurrent benzodiazepine. The development of acute dystonia in this case can be definitely attributed to paroxetine only.

Management strategies of SSRI induced dystonia include cessation of the offending agent, possible use of an alternative antidepressant, dose reduction and may also involve the short-term use of an anticholinergic drug[8]. Promethazine, an antihistaminic with anticholinergic properties is also beneficial for such purpose and was employed in this case.

Motor side-effects are the most visible and distressing side-effects of psychotropic drugs. There is a dearth of wellcontrolled systematic research focusing on SSRI induced movement disorders. Nevertheless, ICD-10 has a provision for enlisting adverse effects of SSRIs and other antidepressants in therapeutic use as a separate code - Y49.2 under chapter XX. Clinicians should be very vigilant regarding this 'not so common' side effect while prescribing antidepressants particularly SSRIs which can be life threatening for the patient and can result in treatment drop-out.

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View Point :

The Quest for an Ideal Mental Health Act

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ABSTRACT:

Legislation in the field of mental health is required to protect human rights of the patients, and to provide for legislative procedures for admission into mental health facilities. After a long and protracted course, the Mental Health Act (MHA) – 1987 was enacted by the Government of India (GOI). Though it contained many progressive features of advancement over the previous India Lunacy Act (ILA) – 1912, it failed to come up to expectation due to various inherent drawbacks and other factors. After ratification of the UNCRPD by India, it became imperative to amend the existing MHA – 1987. The drafting team, which has been assigned duty to prepare the new and amended proposal of the MHA by the Ministry of Health & FW, GOI, issued a draft of a new Act, the Mental Health Care Act on 06.12.10. This proposed draft gives special stress to human rights of persons with mental illness, and makes it obligatory for the government to establish a mental health care delivery system which can be accessed by all. It also proposes to establish Mental Health Review Commission (MHRC) to review admissions to mental health facilities and to ensure human rights of persons of mental illness and State Mental Health Authority (SMHA) to perform various functions like registration and supervision of mental health facilities and other functions related to mental health services. All stake holders are being consulted in the process. But the professionals have reservations on some of its provisions. Stands of the professionals in mental health and those of the human right activists are frequently at variance with each other. Activist groups are pressing for stiff control on psychiatric institutions and practically a ban on involuntary admissions to mental health facilities. Suggestions for improvement in the proposed draft are given.

Key words – Mental Health Act, Persons with Mental Illness, Mental Health Facilities, MHRC, SMHA,

INTRODUCTION:

At the time of independence, the Indian Lunacy Act (ILA) – 1912 was in force in India which was concerned mainly with custodial care aspect. After the Second World War, campaigns to recognize and uphold rights of all groups of persons gained momentum all over the World and the Universal Declaration of Human Rights was adopted by the UN General Assembly in 1948. Need was felt to make appropriate changes in the ILA – 1912 and the Indian Psychiatric Society was quick to take a lead and submitted a draft Mental Health Bill in 1950. But the government initiated the process for enactment only in 1978 and the Mental Health Bill was introduced in the Lok Sabha. It was then referred to a Joint Parliamentary Committee. After a long and protracted course Mental Health Act (MHA) was finally enacted in 1987 and thereafter after framing of the Mental Health Rules in 1990, it was finally notified to come into force in all the States and Union Territories only on April 1, 1993. But because of a large number of very complicated procedures, defects and absurdities in the Act and also in the Rules, it can never be implemented properly (Dutt, 2001). UN Convention on Right of People with Disability (UNCRPD) was adopted in December 2006. At its foundation are the inherent dignity and the equal and inalienable rights of all people. After India ratified the UNCRPD, revision of the MHA 1987 to bring it in consonance with the UNCRPD became obligatory for the government. Advent of large number of newer psychotropic drugs and rapid advancement of Psychiatry especially Private Psychiatry changed the whole scenario of Mental Health in India. All these factors have rendered the MHA-1987 archaic and ineffective in fulfilling the current needs. Therefore, it has become necessary to make necessary amendment in the MHA - 1987.

The Need of an MHA

The question arises, do we really need an MHA or can its need be dispensed with? It is pertinent to note here that not all countries in the World have an MHA, which is clear from the list below (WHO report, 2001)

Region	With MH legislation	Without MH legislation
Africa	59%	41%
The Americas	73%	27%
Eastern Mediterranean	59%	41%
Europe	96%	4%
South-East Asia	67%	33%
Western Pacific	72%	28%

In absence of MH law, actions taken in respect of mental health can still be judged by common and natural law principle, i.e. the 'good faith' and 'best interest' principle. Moreover, we have the section 89 of the Indian Penal Code, which says, "*Nothing which is done in good faith for the benefit of a person under twelve years of age, or of unsound mind, by or by consent, either express or implied, of the guardian or other person having lawful charge of that person, is an offence by reason of any harm which it may cause, or be intended by the doer to cause or be known by the doer to be likely to cause to that person".*

But the issues relating to mental health are so complex that it is difficult to address them by the simple principle of 'good faith' and 'best interest'. Issues involved in mental health for which the legislation is required are as follows –

- To regulate and to provide for legislative requirement in respect to admission to mental health facilities, as it may involve curtailment of personal liberty of persons with mental illness. Any procedure, which involves curtailment of personal liberty in any manner whatsoever, is subject to the Article 21 of Indian Constitution, which states that "*No person shall be deprived of his life or personal liberty except according to procedure established law".* In 1978, the Supreme Court ruled that "*The word 'law' in the expression 'procedure established by law' in Article 21 has been interpreted to mean that the law must be right, just and fair, and not arbitrary, fanciful and oppressive". .*

- To protect the rights of persons with mental illness when they receive health care for their mental illness.

- To protect human rights of persons with mental illness who are exposed to a wide range of human rights violations. Promotion, protection and equal enjoyment of all human rights and fundamental freedoms are required as per the UNCRPD.

- To provide for regulatory mechanism to maintain minimum standard in mental health facilities.

- To protect persons with mental illness from medically dangerous and unsanctioned treatment or institutionalization without sufficient reasons.

- To ensure availability of psychiatric health care delivery to everyone in the community.

- To ensure treatment of persons with mental illness in the community itself as far as possible. With the advancement in psychopharmacology and growth of private sector psychiatry the scenario of psychiatric practice has changed drastically. Now most of the illnesses can be managed in the community itself. Ï% To provide for management of estates of persons with mental illness. The existing laws presume a lack of capacity in persons with mental illness to manage their estates. But, the UNCRPD recognizes that persons with disabilities have the capacity to act, but acknowledges at the same time that they may require support to exercise this capacity.

UNITED NATIONS CONVENTIONS FOR RIGHTS OF PEOPLE WITH DISABILITIES (UNCRPD)

UNCRPD was adopted in December 2006 and India ratified it in September, 2007. The CRPD came into force so far as our country is concerned, in May 2008, after approval of the Parliament. In fulfillment of their obligations under the UNCRPD, State parties are required to bring their laws and policies in harmony with the Convention. The purpose of the UNCRPD is to promote, protect and ensure full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities and to promote respect for their inherent dignity. It covers a number of key areas such as accessibility, personal mobility, health, education, employment, habilitation and rehabilitation, participation in political life, equality and nondiscrimination. The convention marks a shift in thinking about disability from a social welfare concern to a human rights issue, which acknowledges that societal barriers and prejudices are themselves disabling. The part of the UNCRPD is Article 12, which is concerned with the legal capacity of persons with disabilities. The clauses 2, 3 & 4 of the article are reproduced below.

2. States Parties shall recognize that persons with disabilities enjoy legal capacity on an equal basis with others in all aspects of life.

3. States Parties shall take appropriate measures to provide access by persons with disabilities to the support they may require in exercising their legal capacity.

4. States Parties shall ensure that all measures that relate to the exercise of legal capacity provide for appropriate and effective safeguards to prevent abuse in accordance with international human rights law. Such safeguards shall ensure that measures relating to the exercise of legal capacity respect the rights, will and preferences of the person, are free of conflict of interest and undue influence, are proportional and tailored to the person's circumstances, apply for the shortest time possible and are subject to regular review by a competent, independent and impartial authority or judicial body. The safeguards shall be proportional to the degree to which such measures affect the person's rights and interests

Clause 2 recognizes that persons with disabilities shall enjoy legal capacity on an equal basis. But it is evident from clause 3 that there may be occasions when persons with disabilities may be in need of 'support' to exercise their legal capacity. Clause 4 provides safeguard to persons with disabilities to prevent abuse of the 'support' which the persons with disabilities may require. It also specifies that the measures relating to exercise of legal capacity shall apply shortest possible time and shall be subject regular review by a competent, independent and impartial authority or judicial body.

CRITICISM OF THE MHA - 1987

The MHA – 1987 has many positive features of advancement over the ILA - 1912, like definition of mental illness in a positive way, simplification of admission and discharge process, provision of OPD services in all psychiatric hospitals, efforts to safeguard human rights of mentally ill persons etc. But it has been subject to criticism right from its enactment in 1987. It is alleged to be concerned mainly with the legal procedure of licensing mental hospitals, regulating admission in these hospitals and guardianship matters of the persons with mental illness. Other issues like mental health care delivery system or human right aspects are not properly addressed by this Act. Cumbersome licensing process, inspection by visitors and other inspecting officers, control by judicial officers etc have discouraged the establishment of private psychiatric hospital services. Nonprofessionals had the access to the confidential records of the patients in the name of inspection. Licensing of mental hospitals is presumably for the purpose of ensuring quality of services in these hospitals. Licensing however is also a major dampener for the establishment of services. There is a great paucity of services for persons living with mental illness, be they services for care and treatment, leisure and recreation, habilitation and rehabilitation. The rigorous registration requirements further discourage people from setting up services. The question of abuse comes into play only if services are in existence. A legal procedure which discourages people from entering the mental health arena and thereby further disadvantages persons living with mental illness requires reconsideration (Dhanda, 2010). General Hospital Psychiatry Units (GHPU) in Private Sector are required to be registered under the Act, while those in government sector are exempted. As a result, private general hospitals are discouraged to establish psychiatry indoor units. Assigning the role to judiciary in determining presence or absence of mental illness has been criticized by the psychiatric community. Dutta (1995) feels that having some role for the judiciary in admission and discharge of psychiatric patients is giving these things a criminal flavor. Admission process in any mental hospitals requires certification by a gazetted medical officer, which puts any private mental hospital to a disadvantage. Nonprofessionals have got the power to review the treatment records of persons with mental illness in MHA-1987. A serious shortcoming of the Mental Health Act is the exclusion of Government Mental Hospitals from the scrutiny of Mental Health Authorities (Antony, 2000). Exclusion of mental retardation from the definition of mental illness has been criticized by many psychiatrists. By this exclusion criterion the MHA – 1987 has put an explicit bar on the treatment of all mentally retarded persons, including the profoundly retarded, in psychiatric hospitals. Persons who have profound mental retardation are after all, in a more pitiable condition than worst victims of most mental illnesses are. They need care in total care institutions where a psychiatrist's expertise is available, along with all other standard facilities of a psychiatric hospital (Antony, 2000).

The MHA – 1987 is the target of criticism by the human right activists also, as it involves curtailment ofpersonal liberty without the provision of proper review by any judicial body. It was stated that "the Mental HealthAct is a statute which provides a procedure by which persons living with mental illness can be denied their liberty".The Constitutional validity itself of the MHA-1987 has been questioned by human right activists. Some of thesegrounds could be the statute allows for a person living with mental illness to be institutionalized for a lifetime. They argue that though It is true that this unlimited institutionalization has to be ordered

by a judicial authority, it is technically possible to obtain entry without judicial intervention and then keep renewing the original order if the family or friends of the person living with mental illness are of the opinion that such institutionalization is in the best interest of the person living with mental illness (Dhanda, 2010).

After the UNCRPD came into force, it became imperative for the government to revise the MHA- 1987 to bring it into consonance with the CRPD. The CRPD recognizes the right to life, liberty and integrity of all persons with disabilities, whereas the MHA – 1987 does not properly addresses the issue of rights. Moreover, the CRPD recognizes that persons with disabilities shall enjoy capacity on equal basis, though at times they may need support to exercise this capacity. The support has to be for shortest possible time, with adequate mechanism of review. However, the fact that they need to access support to exercise this capacity cannot be a basis for declaring them incompetent and appointing someone else in substitution. So, the law has to be amended to provide the support and keep the person with disabilities in control of his or her life.

CURRENT PROCESS OF AMENDMENT INITIATED BY THE GOVERNMENT

Considering the pressing need for amendment of the MHA – 87, a National Consultation on the Mental Health Programme and on the Mental Health Act was held in January 2010 with the objective to review and identify gaps in the Mental Health Programme and actions to fill up these gaps. It was felt that the MHA 1987 needs amendments. It should move towards supporting, promoting and protecting the rights of persons with mental illness. Centre for Mental Health Law & Policy, ILS College, Pune was given the responsibility of preparing the draft of the proposed legislation and present it to the Ministry of Health and Family welfare after having nationwide consultation on it. The first draft was circulated on 28-02-10 and after seeking objections and suggestions on the draft, a revised draft was released on 23-05-10. Based on inputs from 5 regional consultations and those provided by professional bodies and other stakeholders, third draft of amendments was released. The third draft was draft of a new Act, Mental Health Care Act, as multiple repealed sections resulted in difficulty in reading the amended Act. After having extensive national consultation on the matter, the final modified draft has been forwarded to the Ministry of Health to be put before the cabinet. The draft which in consideration of the ministry is has not been put in the public domain. Main features of the proposed third draft are as follows.

MAIN FEATURES of the PROPOSED MENTAL HEALTH CARE ACT

1. **Nomenclature of the Act** – The proposed Act is now **Mental Health Care Act**, concerned purely with health care aspects of persons with mental illness. Management of property aspect has been omitted in this draft. Supposedly this aspect is now going to be covered by an amended National Trust Act. Provision of Special Personal Representatives made in 1st and 2nd draft has been omitted in this proposed Act.

2. **Persons with Mental Illness** - The nomenclature 'mentally ill persons' in MHA-87 has been changed to 'persons with mental illness'. It is stated that language has a role in stigma associated with any condition. Hence 'persons with mental illness' is the preferred term.

3. **Statement of objects and reasons** -The Act is stated to protect and promote the rights of persons with mental illness. It is also stated to ensure health care, treatment, and rehabilitation provided in least restrictive environment which does not intrude into their rights and dignity. It is aimed as well at improving their capacity to develop their full potential and facilitate their integration into community life. The object to 'protect society from the presence of mentally ill persons who have become or might become a danger or nuisance to others' of MHA -1987 has been dropped.

4. **Mental Health Facility** - Psychiatric hospitals and Psychiatric Nursing homes have been described as 'Mental Health Facility'. It is defined to include all facilities either wholly or partly meant for the care of the persons with mental illness, where persons with mental illness are admitted or reside at for care, treatment, convalescence and/or rehabilitation, either temporarily or otherwise and includes general hospital or general nursing home established or maintained by the Government or any other person, and excludes a family residential place if a person with mental illness resides with his or her own family. It is obvious that psychiatric OPD services are not covered by this definition.

5. **Mental Health Professionals** - A new category of 'Mental Health Professional' has been created which includes psychiatrist, clinical psychologist, psychiatric social worker and registered mental health nurse with degree in psychiatric nursing. This category is created to facilitate involuntary admissions under section 45 of

the Act. They can also become professional members in Mental Health Review Commission (MHRC) as well as in State Mental Health Authority.

6. **Mental Illness** - It has been defined as a disorder of mood, thought, perception, orientation or memory which causes significant distress to a person or impairs a person's behavior, judgment and ability to recognize reality or ability to meet the demands of normal life and includes mental conditions associated with the use or abuse of alcohol and drugs, but excludes mental retardation. It is also stated that mental illness shall be determined in accordance with nationally and internationally accepted medical standards.

7. **Competence** – The concept of 'competence' has been added in the Act, which is defined as ability to understand the information relevant to the decision and to retain, use or weigh the information as part of making decision and communicate his or her decision by any means. It is stated that all persons with mental illness are regarded as competent to make decisions except when they lack the ability as mentioned above.

8. **Advance Directives** – Every person has a right to make written statement specifying the way the person wishes to be or not to be cared for and treated for a mental illness and the individual or individuals he wants to be appointed as his nominated representative. The advance directive has to be signed by a medical practitioner certifying that the person is competent and aware of what he is doing. It may be revoked, amended or cancelled by the person who has made it. Medical professionals are duty bound to follow a valid advance directive. To over-rule a valid advance directive, an appeal can be made to the district panel of the MHRC. An advance directive which contains a refusal of all future medical treatment for mental illness has to be certified for validity by a district panel of the MHRC.

9. **Nominated Representative** – Any person with mental illness, who has attained the age of 18 years, has the right to appoint a nominated representative except when the person lacks the competence to make decisions. Such appointment shall be made in writing on plain paper and it will be countersigned by a medical practitioner certifying the competence of the person to do so. If no nominated representative has been appointed and no advance directive has been made, a relative described in section 2 (o) will be the nominated representative. If no family members are available, a care-giver (any person who normally resides with the person and/or predominantly responsible for providing care to that person) will be the nominated representative. If none of the above is available, nominated representative can be appointed by the district panel of the MHRC.

10. **Rights of Persons with Mental Illness** – There is a separate chapter dealing with these rights. which includes right to access mental health care, right to community living, right to protection from cruel, inhuman and degrading treatment, right to equality and non-discrimination, right to confidentiality, right to access medical records, right to personal contacts and communication, right to legal aid and right to make complaints about deficiencies in provisions of services. The Act makes it obligatory for the government to make sufficient provision for a range of services required by persons of mental illness. It includes integration of mental health services into general health care services at all levels. The government has to ensure that no persons shall have to travel long distances to access mental health services and it will have to be made available in each district. The government shall have to submit annual report to the Parliament (or to state legislature in case of state government) regarding progress achieved in respect of access to mental health care. Persons with mental illness have a right of a safe and hygienic living environment, with adequate provision of food, facilities for recreation, privacy etc. They shall not be subjected to physical or sexual abuse or forced to compulsory work. There will be **non-discrimination in respect of medical insurance** and in respect of emergency medical services or any other health services. Persons with mental illness or their nominated representative shall have right to information and right to confidentiality and shall in general be given access to their medical records. But the psychiatrist may withhold information in case of likelihood of harm to the person with mental illness or to other persons and the person with mental illness shall have right to appeal to the District Panel of the MHRC in this respect. Free and informed consent is required from them in case research works. If they are unable to give free consent, permission will have to be obtained from the SMHA.

11. **Duties of the Government** - The government has been assigned duties to plan, promote and implement programmes for promotion of mental health and prevention of mental illnesses. Duty has been assigned to the government to take measures to create awareness about mental health illness and to reduce stigma associated with mental illness. The government

is also obliged to take necessary measures to address the human resources requirement for mental health services as envisaged in the Act. 12. **Mental Health Review Commission** – In the previous draft a judicial body Mental Health Review Commission (MHRC) was proposed to be constituted by the State Government in each state. But in the third draft a three member MHRC is to be constituted by the Central Government. MHRC shall appoint and function through its District Panels which shall be based in the Districts. District panels shall receive guidance from the Commission on the interpretation of the Act and the procedures to be followed. MHRC and its district panels shall perform various functions prescribed in the Act. Appeal against the decision of the district panels shall lie to the High Court of the state.

13. **State Mental Health Authorities** – In the previous drafts as well as in MHA – 1987, Mental Health Authorities are to be established both at the Central and State levels. But in the third draft, only the State Mental Health Authority (SMHA) is proposed to be established by the state governments to perform various function under the act like registration & supervision of mental health facilities in the state, registration mental health professionals in the state, training of all relevant persons about the provisions and implementation of the Act, advising the State Government on all matters relating to mental health and to ubmit an Annual Report to the State Legislature on progress of implementation of the various provisions of the Act.

14. **Registration of Mental Health Facility** - Licensing has been replaced with registration. In order to get registered, every mental health facility shall fulfill the minimum standards of facilities, minimum qualifications for the personnel, provisions for maintenance of records and reporting and any other conditions as may be prescribed. The registration is to be done by the State Mental Health Authority.

15. **Inspecting officers and Visitors** - Provisions of inspection at anytime by the inspecting officers, provisions of visitors for every mental health facility have been dropped in the draft. But, the State Mental Health Authority shall have right to cause an inspection of or inquiry in respect of any mental health facility, the result of which shall be communicated to the mental health facility. The Authority can issue any directions as it may deem fit and the mental health facility shall have to take action to the satisfaction of the Authority.

16. **Admission Process** – There are four types of admission, described as follows:

a. **Independent admission –** Any person who is not a minor can request for admission and can be admitted by the medical officer in-charge, if he is satisfied. If the independent patient requests for discharge, he will have to be discharged. But a mental health professional may prevent discharge of an independent patient seeking discharge for 24 hours, if the necessary conditions are met, to allow assessment by two mental health professionals necessary for supported admission under the Act.

b. **Admission of a minor** – A minor shall be admitted only in **exceptional circumstances** on application in writing of the nominated representative of the minor, on following the prescribed procedure. It is also specified that no irreversible treatment can be provided for the mental illness of a minor. They shall be accommodated separately from the adults. All admissions under this section will be informed to the district panel of MHRC within 72 hours. If admission continues beyond 30 days, it will again be informed to the district panel of MHRC. The District panel will make mandatory review within 7 days of all such admissions.

c. **Supported admission up to 30 days** – A person with mental illness may be admitted in a mental health facility, if two professionals, one psychiatrist and the other being a mental health professional or a registered medical practitioner, examine the person independently and both conclude that the person has a mental illness has recently threatened or attempted or is threatening or attempting to cause bodily harm to himself/herself and/or to another person and/or recently behaved or is behaving violently towards another person and/or has recently shown or is showing lack of competence to care for himself/herself. The admission under this section shall be limited to 30 days. All such admissions shall have to be informed to the district panel of the MHRC within 7 days, and in case of women, within 3 days.

d. **Supported admission beyond 30 days** – If the person is already admitted under section 45 and the criteria of admission as described above are still valid, the person will remain admitted if examined independently by two psychiatrists in the preceding 7 days and both certify that admission in the mental

health facility is the least restrictive option possible. But all admissions under this section must be informed to the district panel of MHRC and will have to be approved by it within a period of 21 days from such admission. Admission under this section will be limited to 90 days. Further admission beyond 90 days can be renewed for 90 days at each instance upon application of the nominated representative and by following procedures as above.

17. **Emergency Treatment** - Under section 50, treatment can be initiated by any registered medical practitioner with the consent of nominated representative in certain specified emergency situations, at any health facility or in the community. But the treatment under this section will be limited to 72 hours and ECT and medical treatment not directly related to the emergency shall not be provided under this section.

18. **Prohibited Treatments** – ECT without use of muscle relaxants and anesthesia, ECT to minors and sterilization of persons with mental illness intended for treatment of mental illness is prohibited in the proposed draft. Psychosurgery may only be performed on approval of SMHA

19. **Restrains and Seclusions** – It is stated that person with mental illness cannot be chained in any manner whatsoever. Restrains and seclusions have to used when it is the only means available to prevent imminent and immediate harm to person concerned or to others and it has to be authorized by the psychiatrist in charge of the person's treatment at the mental health facility and may be used no longer than necessary

20. **Duties of police officers and order in case of person with mental illness cruelly treated** - Police officers have been assigned duties to take any wandering person with mental illness to the nearest public health facility within a period of 24 hours, where the medical officer in charge shall arrange for the assessment of the person at the nearest mental health facility and the needs of the person with mental illness will be addressed as the provisions of the Act. In case any person with mental illness is cruelly treated or not under proper care, a police officer or any private person may report the fact to a Magistrate, who may order for conveying the person to a mental health facility for assessment and treatment as per other provisions of the Act.

21. **Effect of Act on other laws** - The Act also provides that the provisions of this Act shall have effect notwithstanding anything inconsistent therewith contained in any other law for the time being in force and to the extent of such inconsistency that other law shall be deemed to have no effect (Sec 65).

STANDS OF VARIOUS STAKEHOLDERS IN MHAAMENDMENT PROCESS

Psychiatrists, allied mental health professionals, human rights activists groups and NGOs working in the field of mental health are the main stakeholder groups in the process of amendment to the MHA. The profession wants an Act which provides for least hassle in establishment of psychiatric hospitals or nursing home and exposed to minimum supervision by the government authorities. The profession also wants that the admission process should be smooth and their action of making admission of persons with mental illness should be exposed to as little scrutiny as possible. But the profession must concede a point that mentally ill persons are different than physically ill. Involuntary admission, which involves curtailment of personal liberty, does not take place in case of physically ill persons. Legal provisions are necessary for protecting basic human rights of persons with mental illness. Activists groups want stiff control on psychiatric institutions and practically a ban on involuntary admissions. But, they must realize that stringent provisions will be a great deterrent to establishment of services for persons with mental illness, which is already much scarce in our country. It must be realized that availability of services is necessary, otherwise persons with mental illness cannot attain highest attainable standard of health as per article 25 of the UNCRPD. Thus the stringent provision for establishment of psychiatric institutions will be self defeating in purpose.

Human right activists must realize that there are circumstances when the persons suffering from severe mental illness require to be treated for which they are not readily according their consent. There are circumstances when they have to be admitted, which prima facie appear to be involuntarily, as an indoor patient in a mental health facility for treatment. And all these are in their best interest. If the 'no force' principle is applied in absolute sense, they cannot be admitted, because they cannot be convinced for getting admitted for treatment. These patients suffer from 'delusions' which are beliefs not responsive to any amount of argument even though there is obvious evidence to the contrary. Persons with mental illness are basically different from persons with physical disability. Persons with pure physical disability have intact mental state and

also intact capacity to make judgment about their interest. The 'no force' principle in exercise of their discretion of access to the support system is appropriate for them. For person with mental illness, the need to access the support system for exercise their legal capacity is by reasons of vitiation of their mental state itself. Therefore, the 'no-force' cannot be applied in strict sense of term.

SUGGESTIONS FOR IMPROVEMENT IN THE PROPOSED DRAFT

The proposed draft of Mental Health Care Act has many positive features and it is modern in terminology and progressive in nature. The most salient feature of the proposed draft is it ensures institution of psychiatric health care delivery system and assigns obligation to the government for this purpose. Still, there are scopes for further improvement in it. Some suggestions in this respect are given as under.

- There should be some distinction between closed type of 'total care' mental health facility and the places where persons with mental illness stay with their families. The enforcement of stringent regulations in institutions where persons with mental illness stay with relatives is totally unnecessary. It would only be adding to the sorrow, pain and humiliation of the persons and their families, especially in the background of cruel stigma that already haunts all psychiatric illnesses (Antony, 2010). The proposed draft has an implicit provision in this respect by providing an exclusion criterion in the definition of mental health facility, which says, "….*excludes a family residential place if a person with mental illness resides with his or her own family".* But it is better to have an explicit differentiation with different set of rules for 'closed types of psychiatric institutions' and those with 'family ward' only.

- General Hospital Psychiatry Units (GHPU) is treated at par with other psychiatric institutions. This will prove to be a major dampener for establishment of psychiatry indoor units in general hospitals. In this way, psychiatry as a specialty will be cut off from the mainstream of medical profession. GHPU may contain only 'family wards' as suggested above, with a different set of rules and should be exempted from registration as mental health facility.

- State Mental Health Authority (SMHA) is overloaded with non-professional members. Psychiatrists should have better representation in it as psychiatrists are the persons with the best expertise so far as the matter of mental health is concerned. It is the psychiatrists world over who had historically led the movement to humanize mental health care and to reduce the stigma of the mental illness.

- Frequent reporting of supported admission will pose practical problems for mental health facilities and will increase paper and clerical works. This will pose practical problems for private mental health facilities and it may become a major dampener for establishment of private psychiatry units. In the long run, it will prove be detrimental to the interest of persons with mental illness themselves. Frequent reporting and review will also increase the workload of the district Panel of the MHRC, which is supposedly going to be overburdened with various works assigned to it.

- Prohibition of certain mode of treatment e.g. ECT without muscle relaxant and anaesthesia and ECT to minor is not proper. The choice of selection of treatment based upon scientific evidence should be the prerogative and discretion of the treating physician. There should not any legislative ban on any mode of treatment which is based on scientific evidence.

- There should be some provision for involuntary treatment in OPD services. Involuntary treatment may be required in the OPD and also in private consultation practice of psychiatry. For example, if a violent patient is required to be administered some injection in OPD practice, there is no provision in the existing Act to permit it. Therefore, for administering any involuntary treatment, the person with mental illness has to be admitted in mental health facility. With advancement of psychopharmacology, even severe psychotic cases can be managed at the patient's home itself with the help of their family members. Therefore, some legislative provision in this respect would definitely be appropriate.

CONCLUSION:

Mental Health Act is the Act meant for the persons with mental illness and not for the profession or the activist groups. This fact must be kept in mind by everyone in the process of drafting the Act. Therefore, it is imperative that it should be directed towards betterment of the conditions and protection of the rights of persons with mental illness. Protection of human rights of persons with mental illness is quite necessary, but it should not be so overstretched that their welfare and proper care itself is

endangered. It is in the interest of everyone if in the new Act, the emphasis is on ensuring easy availability of psychiatric treatment to all, finding ways to promote opening of more and more psychiatric inpatient facility, providing for better care of wandering persons with mental illness and protecting and promoting rights of persons with mental illness.

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From Student Desk :

Specific Learning Disabilities: The changing scenario

Prasad Aishwarya

'Specific Learning disabilities' hasn't always been a household term. We only began to discover the reasons for learning problems a little over a century ago, and in many countries people still have to understand the basic rights regarding equal opportunities and appropriate education. A learning disability, or learning disorder, is not a problem with intelligence. They are caused by a difference in the brain that affects how information is received, processed, or communicated. Children and adults with learning disabilities have trouble processing sensory information because they see, hear, and understand things differently.

It first came into light in 1877 when German neurologist Adolf Kussamaul coined the term "word blindness" to describe "complete text blindness, although the power of sight, the intellect and the powers of speech are intact."

Around 5% of the world population suffers from Learning Disabilities. According to the National Health Information Survey of 1997, 4.6 million children are believed to be suffering with learning disabilities in the world. **18,012,222** people are currently believed to be suffering with specific learning disabilities in India alone.

Learning disabilities can be overcome if detected at an appropriate time. The need today is early diagnosis and a proper understanding of the etiologic factors to tackle this problem. But how would we be able to deal with it when even today most people are ignorant about the high probability and incidence of specific learning disabilities.

According to one definition, a **specific learning disability** is a disorder in one or more of the central nervous system processes involved in perceiving, understanding and/or using concepts through verbal (spoken or written) language or nonverbal means.[1]

Researchers say that the presence of early risk factors does not conclusively cause a child to have learning disabilities, but it indicates a need to monitor for early intervention needs.

Few of the factors that may have an effect on the development of specific learning disabilities include: [2]

- Family history of learning disabilities;
- Injuries and long-term illnesses affecting neurological development;
- Parental substance abuse;
- Poor prenatal medical care and nutrition; Prenatal injury or delivery complications;
- Exposure to environmental toxins such as lead or toxic mold

Although many studies have not been undertaken, according to some, developmental delays in gross motor, fine motor, communication or cognitive skills may suggest a potential for specific learning disabilities. But we do need to keep in mind that mild differences in development among children are normal. [3]

Specific learning disabilities usually come into light when the child reaches standard three, although in certain cases, if the child has a high IQ, it may be delayed. A child not suffering with any specific learning disability will be able to connect letters and sounds, read grade-level text, understand what he reads, understand number concepts, and will have no difficulty following directions or communicating with peers and adults. She/he usually also has no difficulty with attention or behavior. On the other hand, a child having a specific leaning disability will have difficulty in most of the above mentioned activities. [4]

Common Types of Learning Disabilities

Dyslexia	Difficulty processing language	Problems reading, comprehension, speaking
Dyscalculia	Difficulty with math	Problems doing math problems, understanding time, using money
Dysgraphia	Difficulty with writing	Problems with handwriting, spelling, organizing ideas

Learning disabilities are often identified by school teachers, clinical psychologists and psychiatrists, and neuropsychologists through a combination of intelligence testing, academic achievement testing, classroom

performance, and social interaction and aptitude. The resulting information is used to determine whether a child's academic performance is commensurate with his or her cognitive ability. If a child's cognitive ability is much higher than his or her academic performance, the student is often diagnosed with a learning disability. This is known as the discrepancy model.

There are many treatment and intervention techniques presently in use to help people with specific learning disabilities. Poor academic achievement can be addressed with targeted interventions such as adjustments, equipment and assistants designed to help compensate for the disabilities or intended to make improvements in the weak areas. Practice is a particularly important.

Sternberg [5] has studied in his research paper that early remediation can greatly reduce the number of children meeting diagnostic criteria for learning disabilities. Certain studies [6] indicate that emphasis should be placed on the development of specific learning skills along with study and basic skills.

There exists amongst some researchers a criticism of the concept of learning disabilities. They believe that every child has a different learning style and pace and that each child is unique, not only capable of learning but also capable of succeeding. These critics assert that applying the medical model of problemsolving to individual children who are pupils in the school system, and labeling these children as disabled, systematically prevents the improvement of the current educational system. They believe that it's the current system followed at educational institutions which is at fault. Proponents of unschooling have also claimed that children raised in this method do not suffer from learning disabilities. [7][8]

In India, the Leaning Disability movement is only a decade or two old. We lag behind the western world in this regard by around 50 years. During the last decade, the movement has definitely picked up momentum and more and more children with Specific Learning Disability are being identified. There is still a paucity of epidemiological studies conducted in India to determine the exact prevalence of scholastic backwardness, in general, and Specific Learning Disability (SLD), in particular. [9]

Its high time, we understood the concept of specific learning disabilities and incorporate it as an essential component of our health system.

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The Eastern Journal of Psychiatry (EJP) – an official publication of the Indian Psychiatric Society (IPS) – is published on a half yearly basis. It strives to publish a wide range of articles of interest to psychiatrists, other mental health professionals, clinicians, students and individuals from allied fields. It also seeks to educate its readers and encourage research from various quarters.

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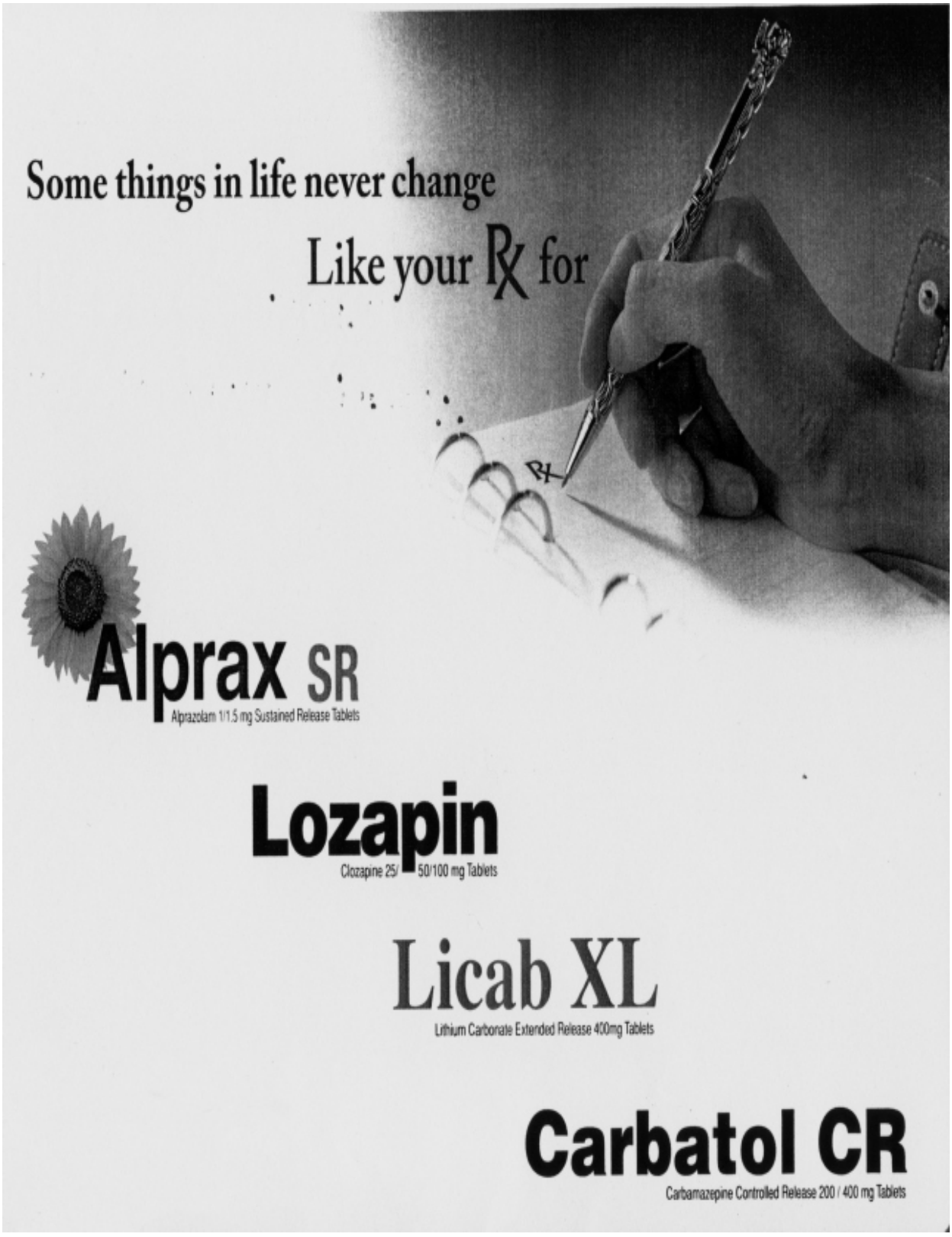
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Epsod - Inj.
Phenytoin Sodium-50 mg/ml

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