

# BENGAL JOURNAL OF PRIVATE PSYCHIATRY

Vol. 1 Issue : 1

Official Publication of Bengal Journal of Private Psychiatry

September 2009

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## EDITORIAL OFFICE

**Dr. Arabinda Brahma**

Mental Health Unit

Uma Nalini Mary Clinic & Research Institute

KB-16, Sector-III, Salt Lake, Kolkata - 700 098, India

Telephone : 033-2335-3136/0072

E-mail : drarabindabrahma04@yahoo.com

## PUBLISHED BY

**Indian Association of Private Psychiatry**

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100, Park Road, Kolkata - 700 014

Phone : 033-2284 5300

## BENGAL JOURNAL OF PRIVATE PSYCHIATRY

### HONORARY EDITOR

**Dr. Arabinda Brahma**

Consultant Psychiatrist

Uma Nalini Mary Clinic & Research Institute

KB-16, Sector - III, Salt Lake

Kolkata - 700 098, India

Telephone : 033-2335-3136/0072

E-mail: drarabindabrahma04@yahoo.com

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E-mail: dineshe@hotmail. com  
rdineshe@gmail. com

## **Joint Treasurer:**

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Sai Vishnu Appts., 1-2-26.  
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35 Defence Enclave,  
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## **Message from Governor**



सत्यमेव जयते

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September 7, 2009

It is a matter of joy that the Indian Association of Private Psychiatry, West Bengal State Branch is bringing out its maiden issue of "Bengal Journal of Psychiatry" in September, 2009.

I wish the publication every success.

*(Signature)*  
Opalkrishna Gandhi



## Indian Association of Private Psychiatry (IAPP)

Regd. Office & Secretariat: A-2, Rajouri Garden, New Delhi-110027

Secretary General: **Dr. Rajesh Nagpal**

Phone: 09810037469 Telefax: (011) 25172059/25934802 E-mail: [drraeshnaepal23@gmail.com](mailto:drraeshnaepal23@gmail.com)

Website: [www.iapp.CO.in](http://www.iapp.CO.in)

### President

**Dr. V.K. RAZDAN**

Razdan House, Hathi Chowk,  
Jalap Mohalla, Jodhpur-342001  
(Rajasthan)

09983312233, 09309044433

[vkrazdan@gmail.com](mailto:vkrazdan@gmail.com)

### Vice President

**Dr. Avdesh Sharma**

[avdeshsharma@rahat.org](mailto:avdeshsharma@rahat.org)

09811078599

### Message

Bengal has the distinction of having produced outstanding men, creative ideas, world famous books and renowned institutions that have made international fame in the fields of literary, scientific and artistic pursuits.

In the field of study of the mind, the very first Psychology laboratory in our country was established in Calcutta. The foundations of Indian Psychiatric Society were laid by interaction between three psychiatrists in Calcutta & Ranchi. One of the first and leading Private Practitioners in Psychiatry (Late) Maj R B Davis practiced with his consulting chamber in Calcutta and a Private Hospital with Indoor facility at Ranchi as early as in the 1950's. There are many more names and events to count in the long list of significant contributions of Bengal to Psychiatry and Psychology.

Rapid strides in scientific research with newer diagnostic & therapeutic techniques lead to rapid changes in scientific concepts and treatment strategies. The Chairman of American Psychiatric Association's Task Force on a book Treatments of Psychiatric Disorders, Dr. T. Byram Karasu (1985) said "science provides only *interim* knowledge." Even today, the frontiers of scientific knowledge are expanding at such fast pace that concepts keep changing, amending, improving and refining all the time.

Keeping pace with the ultra-fast proliferation of knowledge in the biological, social and psychological approaches to the understanding of human mind and its malfunction is truly difficult for the busy private consultant in psychiatry. In this context it is apt and pertinent that IAPP Bengal State is coming out with a Journal of its own - Bengal Journal of Private Psychiatry. I am sure, with your dedicated Editorial team you will bring about a publication of towering standard and high practical utility. I wish you all an astounding success.

**Vimal K Razdan**  
President, IAPP (2008-10)

### MESSAGE

It is heartening to learn that the Indian Association of Private Psychiatry- West Bengal branch is planning to publish the first issue of the journal, Bengal Journal of Private Psychiatry.

Let me pray for the regularity of the journal with quality scientific information.

I wish the team of IAPP - WB success in all endeavors.

**Dr. E. Mohandas**  
President  
Indian Psychiatric Society





Indian Association of Private Psychiatry

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## MESSAGE

I am happy to know that the Indian Association of Private Psychiatry, West Bengal State Branch, is going to publish its first Journal 'Bengal Journal of Private Psychiatry' in September 2009.

I wish the journal all success.

Dr. Jyotirindra Nag  
President  
IAPP, West Bengal State Branch

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**Dream Comes True ...**

Arabinda Brahma

I am happy to present the first issue of the *Bengal Journal of Private Psychiatry* to the esteemed members of Indian Association of Private Psychiatry, West Bengal State Branch on the eve of Durgapuja, the biggest religious festival of Bengal. It was a long-awaited demand of the members, which become feasible after a tremendous effort shared by the office bearers, EC members and the publisher that I should acknowledge.

In the 19<sup>th</sup> century, psychology and psychiatry were evolved from philosophical explanations and theology. Up to the early 20<sup>th</sup> century, psychiatry and neurology were overlapped in many aspects. But, psychiatry, as a specialized branch of medicine, has not received its proper recognition like neurology. However, the scenario is changing at a rapid pace with the progress of modern scientific research. It has now been recognized that mental illness is no different from physical illness. In the last few decades, the psychiatrists and neurologists have realized the importance of biological basis of most of the disorders related to human brain and mind. Therefore, the biological psychiatrists and the behavioral neurologists initiated a movement again to work together.

It is not possible for any one specialty to look after social, cultural and environmental factors, co-morbid psychiatric/neurological problems or psychological needs of the patient. So, the concept of 'working together' may be of help for the medical fraternity and for the satisfaction of the patients and their relatives.

It is always a difficult task to encompass all the corners of psychiatry in a single issue. Like other mental health journals, I, too, have an aim to intermingle articles of other relevant branches (psychology, sociology, anthropology, neurology etc.) from the next issue onwards.

I am very grateful to my esteemed colleagues for their very positive response all through. The budget is definitely a major constraint in the dispatch of the current issue. I hope the state branch will seriously think over this issue and make provision for adequate budgetary support in the near future.

In this issue, I got tremendous response from the senior and junior colleagues in the form of submitting varieties of articles for this journal. Dr. A.N. Chowdhury wrote a scholarly article on history of psychiatry. Dr. Uday Chaudhury highlighted the role of psychiatry in day to day medical practice. Dr. R.K. Brahma and Dr. Amarnath Mallick addressed two very important clinical aspects - women's mental health and drug abuse, respectively. Psychotherapeutic aspect was nicely taken care of by our very senior member Dr. Debasish Bhattacharya in his article. Dr. Kangan Pathak focused on the changing concept of fibromyalgia. Besides these, I am extremely thankful to the junior colleagues for showing their academic willingness by submitting articles for this journal.

Lastly, I once again wish to thank all my colleagues for their active help to make this dream true. I wish you all a very happy and prosperous Durgapuja and Diwali ahead!

Jai Hind.  
Vande Mataram.

**COMMUNITY BASED MENTAL HEALTH SERVICES :  
A MAJOR CHALLENGE**

— Arabinda Brahma

**BACKGROUND :**

The importance of mental health service at the primary care level and in the urban areas is widely acknowledged in the recent years. Most of the epidemiological studies conducted in India revealed that mental morbidity was nearly the same in rural and urban areas. The prevalence rates of mental disorders in different epidemiological studies in India ranged between 9.5/1000 to 370/1000.<sup>1</sup> Two recent major epidemiological studies in India revealed a prevalence rate of 12.95/1000 among rural and 99.4/1000 among urban populations.<sup>1</sup> Contrary to popular belief, mental disorders are very common in the community and cause a huge social burden.<sup>2</sup> The World Health Report revealed that about 20% people seeking treatment at the primary health care facility have mental disorders and thus WHO has recommended the development of community-based mental health program on a priority basis. The effective program should be gender-appropriate and culture-sensitive and should reach out to all segments of the population.

**PSYCHIATRIC HEALTH CARE SERVICES :**

The principles of mental health in the community in India, even in the 21<sup>st</sup> century, depend upon religious factors and the community by and large holds on to supernatural or magical beliefs of mental illness. In the remote rural areas, people still try to hide mental illness of their family members or may seek help from traditional faith healers and quack doctors. Some important aspects of available mental health care in India are:

- Limited institutional facilities for the care of mentally ill (e.g. only 1 psychiatric bed per 30,000 population in contrast to 2-5 beds per 1000 in Europe)
- Limited number of psychiatrists and other mental health staffs
- Inadequate implementation of 'deinstitutionalization' because of lack of available resources
- Low priority for care programs for mentally ill people
- Inadequate national level uniformly organized and standardized training programs for psychiatrists and mental health professionals and Para-professionals

Consultant Psychiatrist, UNMC & RI, Salt Lake & Hon. Lecturer, Indian Psycho-Analytical Society, Kolkata. Correspondence : drarabindabrahma04@yahoo.com



- Because of lack of mental health training and awareness among General Physicians and Primary Care Physicians, they tend to continue treating mentally ill patients far to long before referring them to psychiatrists, when these patients become quite acute and unmanageable. Often such patients, having been exposed to panoply of psychotropic drugs at inadequate doses and courses, make them loose faith on efficacy of psychiatric pharmacotherapy, which happens to be the strongest in the armamentarium of the psychiatric treatment.
- Large segments of the population continue to hold and perpetuate superstitions and false beliefs about mental illnesses - they prefer to go to sorcerers and faith healers in stead of availing appropriate medical services
- Psychiatric patients and their family members fail to act as pressure groups, mainly because of social stigma and lack of knowledge about their rights
- Reputable and well- known NGOs are often not found in this field, probably because of the long-term commitment needed to take care of the mentally ill patients
- Newer effective treatments are not available because of cost except for the well to do part of the population.

#### NATIONAL MENTAL HEALTH PROGRAM (1982):

Integration of psychiatric care within primary health care led to the formulation of the National Mental Health Program (NMHP) in India in 1982.<sup>3</sup> The fundamental concept was to build up a decentralized care program involving non-psychiatrist, medical and paramedical personnel, using effective but less expensive techniques. This program stimulated initiatives for mental health care among professionals, NGOs and individuals, but the financial constraints restricted it to a modest program.

#### PROPOSED SOLUTIONS :

- *Community based mental health care* approach is about empowerment of people with mental and behavior disorders and refers to the stage in which the main target is to develop a wide range of services within local settings<sup>4</sup>.
- Community psychiatric services through primary health care including general hospital care for acute cases and comprehensive mental health care facilities in the community.
- Treatment and care facilities including rehabilitation facilities as Halfway Home, Day care, Crisis Intervention Centers, recreational centers should be tailored according to the necessity of each individual
- Services to be co-ordinate between mental health professionals and community agencies

- Mobile rather than static mental health services including home treatment arrangement
- To include the carers in the formulation and delivery of treatment
- Significant mental health service for well informed and effective revision of legislation basing on baring mentally ill
- As the world is going through the tremendous economic reforms and social changes leading to unemployment, family breakdown, individual insecurity, strategies should be developed against various *socio-economic factors* that affect mental health:
- Investment in education
- To attend to the economic needs of the poorest section of the society and particularly so in rural areas where they go unseen leading to unfortunate things like suicide. In many Indian states including West Bengal, suicides among farmers are not uncommon because of burden of debts. Policy makers should take this issue on an urgent basis to reduce this preventable cause of death.
- Mental health promotion through effective public health campaigns
- Developing congenial & mutually helpful relationship with employers and employees
- *As stigma and human rights violations* are intimately related with mental illnesses, developing strategies to combat stigma and discrimination because of mental illness should be made a priority in West Bengal.
- *Gender disparities* may have detrimental effect on mental health of women in the society
- *Proper utilization of human resources*, e.g., in view of acute shortage of professional support, local health resources can be utilized at the primary care level.

While doing community mental health research in the remote rural areas of sundarban region for about 5 years, the author found in most of the areas, there is no mental health network. The author and his colleagues developed IRMC model, where brief mental health training is given to the local health staffs (e.g. MultiPurpose Health Workers, ICDS workers, Community Health Guide, School Teachers, Panchayat Members, Health Care Providers or 'quack' doctors) so that they can at least identify (I) and refer (R) mentally ill patients from the community and monitor (M) the treatment and do counseling (C) of suitable cases.<sup>5</sup> As the result was quite impressive, this model may be replicated in areas where there is no mental health network. It is known that the uncredentialed health practitioners serve the community substantially with their limitations. Therefore, they can be involved under supervision, for delivering mental health care network in the grass root level of the community.

## CONCLUSION:

To empower mental health and illness in West Bengal, psychiatry has to be made & declared as an integral part of any public health program. It includes training of the doctors & all kinds of health workers at all level. In India, in the core of primary care remain primary health centers, sometimes supported by health staffs and faith healers.<sup>5</sup> Integration of mental health care in primary health care, decentralization, multi sectional approaches and improvement of mental health services and legal provisions - are the main areas to strengthen mental health services. Last but not the least, this community based program should be 'Available', 'Acceptable' and 'Accessible' to everyone, 'Affordability' of psychotropic medications should be 'Assessed'.

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## 200 YEARS OF THE TERM AND DISCIPLINE 'PSYCHIATRY'

— Arabinda N. Chowdhury

The word 'psychiatry' was first coined by the German physician, anatomist and physiologist Dr. Johann Christian Reil (Feb 20, 1759-Nov 22, 1813) in 1808 (Fig.1).



Fig.1. Johann Christian Reil (1759-1813)

Available at: [www.sammlungen.hu-berlin.de/documente/10784](http://www.sammlungen.hu-berlin.de/documente/10784)

The term 'psychiatry' was used first time in history by Reil in the journal 'Contributions to the Advancement of a Treatment Method by Psychic Ways', in his 118-page paper "On the term of medicine and its branches, especially with regard to the rectification of the topic in psychiatry" (Reil and Hoffbauer 1808). He was a man with an advanced vision and perceived the necessity to form a separate discipline for mental diseases in medicine, particularly to focus sole clinical attention to the mental health science and to save psychiatry from the theological and philosophical elaborations. He was a man with strong conviction of organic basis of illnesses, both somatic and psychic, and was an outstanding researcher on brain anatomy. It is astonishing to see that how deep was his dedication to develop psychiatry as a medical subject by two facts: the ending of psych with '-iatry' (from The Greek *iatros* meaning physician) reflects his conviction of psychiatry as a core medical discipline and secondly he also suggested that the medical schools should award medical degree as 'Doctor of Psychiatry'.

Consultant Psychiatrist, Northamptonshire Healthcare NHS Trust, Stuart Road Clinic, Corby, UK.  
Correspondence : [arabinda.chowdhury@btinternet.com](mailto:arabinda.chowdhury@btinternet.com)



Marneros (2008) has nicely summarized Reil's concept of psychiatry as a medical discipline as follows:

1. Psychiatry is a pure medical specialty. Philosophers and psychologists shall not be allowed to press for 'incorporation'.
2. Only the best physicians shall become psychiatrist.
3. A medical psychology specific to the need of the physician shall be fundamental to medical training.
4. Psychiatry, psychosomatics and medical psychology are closely allied.

His relentless preaching about the scientific causation and humane treatment for mental illness was thoroughly written in his 1803 book *Rhapsodies on the Application of Psychic Treatment Methods to Mental Disturbances*. He was a strong advocate for the rights of mental patients, humane treatment in mental hospitals, eradication of stigma and role of psychotherapy. In his book, *Fieberhaste Nervenkrankheiten* (Feverish nervous illness, 1802), he presented analytical argument about various forms of psychological disturbances. He thought of mental illness as the disruption of the normal functioning of the powers of the soul, viz. consciousness, understanding, reason, imagination, and sensibility. Amazing to note that he visioned that the powers of the soul or psychic is related with the forces of the nervous system. In fact he stated that the soul stood in an exact relationship to the functioning of the nervous system.

His 1803 landmark publication *Rhapsodies on the Application of Psychological Methods of Cure to the Mentally Disturbed* (Reil 1803), is probably the most influential work in German psychiatry before Sigmund Freud (Richard 2002). Reil believed that insanity is the manifestation of the fragmentation of the self because of an incomplete or misformed personality or due to the inability of the self to construct a coherent world because of the malfunctioning of self-consciousness. He also proposed a medical and quasi-physiological interpretation of mind, where the mental powers function closely with underlying forces of the brain and nervous system. If this relationship is disturbed, he thought, abnormal mental function like dissociations, volatile character, abnormal ideas and associations, fixed trains of ideas, and corresponding drives and actions arise. He described three chief forces of the soul, whose disruption could produce pathology: *self-consciousness*, *prudential awareness*, and *attention*. He stressed the importance of self-consciousness in the development of psychopathologies: "The essence of self-consciousness seems chiefly to consist in joining the manifold into unity and assimilating the representations as one's own." When self-conscious action fails and pathology strikes, then personality fragments and the world becomes incoherent. Some individual may not be able to distinguish real objects from phantoms of their imaginations. When the prudential awareness, which keeps mental focus fixed on an object or project, becomes weak, the attention becomes distorted and the patients live in another world (Richard 2002). Detailed analysis of his construct of psychic power of soul, vital force and mental symptoms, are pointing towards the fact that

he was also aware of the great concepts in psychiatry like 'unconsciousness' or 'schizophrenic symptomatology' and 'psychotherapy' (Roelcke 1996, Hansen 1998, White 1916, Harms 1961).

### Short Biography :

He was born in small East Friesland town of Rhaude. After graduated from the University of Halle in 1782, he spent some years of practicing in his native city of Rhaude. In 1887 he returned to Halle and became professor extraordinary in the university. In 1788, Reil was appointed clinical professor and director of the clinical institute. In October 1788, he married Johanna Wilemina Leveaux and together they had two sons and four daughters.

In 1789 he became Halle's municipal physician. In 1808 Reil became the dean of the medical school at Halle. In 1810 he was invited to join the newly formed University of Berlin and was placed in charge of the university's medical clinic. In 1813, Reil volunteered for a military duty and worked very hard with the wounded. While serving the wounded soldiers in the Battle of the Nations at Leipzig during the Napoleonic wars, he contracted typhus and at the age of 54 died.

### Other achievements:

Reil is regarded as one of the most outstanding German medical scientists of the late eighteenth century and was also considered the founder of German psychiatry (the "German Pinel") (Binder et al, 2007; Harms 1960). He divided medicine into three fields—physiology, anatomy, and psychiatry, and made important contributions to each of these with his work on a non-vitalistic physiology, his anatomical studies of the nervous system, and his pioneering work in psychiatry and the reform of mental asylums. He can be considered as the founder of neurology also for his fundamental brain studies. The medical conditions and anatomical features named after him are: Island of Reil (Insular cortex of the brain), sulcus circularis Reili, vallecule Reili, Reil's finger, Beau-Reil cross furrows on the fingernails.

In 1795 Reil founded the first journal of physiology 'Archiv für die Physiologie' and published a total of 12 volumes from 1796 to 1815. Reil also began two other journals, though short-lived: the *Magazin für die psychische Heilkunde* (1805), co-edited with the philosopher A. B. Kayszler, and the *Beyträge zur Beförderung einer Kurmethode auf psychischem Wege*, 2 vols. (1808-12), co-edited with the philosopher J. C. Hoffbauer. In 1793 he was made a member of Germany's oldest scientific society, the *German Academy of Natural Scientists Leopoldina*.

His interests in hydrotherapy led to the opening of a facility for balneotherapy at Halle, one of the first in Germany, to promote baths as a matter of public hygiene as well as for therapeutic uses. He also discussed euthanasia, for the relief of bodily and emotional distress, but not for the hastening of death. His detailed planning for medical education,

with a special focus on psychiatry, stressed the teaching on classical science education rather than the 'apostles utility' shaped the development of academic system at the medical faculty of the university of Berlin, founded in 1810 (Kuehn and Klemme 2008). He developed a detailed training scheme for medical auxiliaries for primary medical care of rural population (Heller 1975). During the years 1802–1805, the famous poet Johann Wolfgang von Goethe visited him for scientific discussions and Reil was his personal physician who treated Goethe in 1805 and saves his life from a serious urosepsis (Gross and Hummel 1999).

Professor Johann Christian Reil was a pioneer in the realm of neuroanatomy and psychiatry, and was a pragmatic physician with practical vision about contemporary problems of social medicine and hygiene. Many of his ideas and arguments are still valuable to our current thinking about psychiatry. Thus Sir Aubrey Lewis (1961) very aptly commented, "Reil deserves more recognition as physician, reformer and theorist than he has had".

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## PSYCHOTHERAPEUTIC ROLE OF 'MYTH'

— Debasis Bhattacharya

Everyday we have been evolving new psychotherapeutic approach with newer logical structure and evidences to combat mental conflict, frustration, despair and agony. Everyday we find the limitations of rational analysis of such problems. When we fail to solve the mental problems fortunately sometimes those problems dissolve in the unscientific and unstructured process of indigenous religious rites. People get inspired by the mythological stories, folk songs and parables. Though human beings have highly sophisticated ability to think rationally and logically, yet it is equally true that we also possess the ability to imagine. We form ideas from everyday experiences that cannot be always explained rationally.<sup>1,2,3</sup>

Our power of imagination enables us to think what is not immediately present. Our mind form symbols and allegories. We conceive ideas and experiences which have no objective existence. Proliferation of this imagination is recorded in the folklores, art works, parables and mythology. Irrespective of cultural differences and geographical distance human beings have always been myth makers. Archeologists have unearthed the evidences that pre-historic human beings also created some sort of counter-narratives that enabled them to deal with the conscious anxiety of mortality and uncertainty of life. Man always search and try to find some meaning of life and death by creating and believing myths.<sup>3,4</sup>

Since the sixteenth century unabated process of meaning-seeking and myth-making was thwarted by the great Western transformation. First time in the history the 'Myth' was labeled as something that was simply not true. 'Myth' was replaced by 'History' based on factual information. Myth and related stories kept aside as incomprehensible and remote.<sup>3</sup>

With the emergence of Western world view intuitive and mythical modes of thought was neglected in favour of logical spirit of scientific rationality. Scientific 'logos' and traditional 'mythos' were thought to be incompatible. Henceforth Western achievements relied on the triumph of pragmatic scientific spirit. In the process of advancement different branches of human knowledge have been systematized. Psychology was also been made 'scientific'. Psychology as a new faculty of advanced science flourished exclusively on meticulous analysis and experimentations. The spectacular contribution was made by Sigmund Freud (1856-1939), the father of Psychoanalysis. He added new insight to analyze the meanings of human behaviour. On the other hand Ivan P. Pavlov (1849-1936) introduced experimentation of conditioned reflex with initiation of Learning theory. Historically both the geniuses were destined to obey Newtonian world-view and so both the psychoanalytic and the bearing theories were strictly deterministic and reductionist.<sup>5,6</sup> Those scientific

Ex-Asso. Prof., IPGME & R, Kolkata, Correspondence : drdebasis@yahoo.com



geniuses of 'Logos' overthrew old intuitive, mythical modes of thought. Hence rational westernized community of the world lost all sense of what mythological inspiration was. Total immersion in logos made impossible for Newton to appreciate the more intuitive forms of perception. For him mythology and mysticism were primitive modes of thought. He felt that he had a mission to purge those thoughts with the help of laws of logic.<sup>3</sup> The great proponents of modern psychology also did their best to establish exclusively rational foundation of science of psychology.

Science denied individual perception and beliefs. People could no longer trust their own perceptions! .....because the earth that seemed static was actually in rapid motion!.... "They were increasingly encouraged to have their own ideas, but they were more in thrall to modern 'experts' who alone could decipher the nature of things."<sup>3</sup>.....In the historical period of 'Enlightenment' the deterministic natural science successfully explored the laws of psychical world and excluded irrational mental phenomena as if they were non-entity. Subsequently the emergence of New-Physics with relativity theory and quantum theory did shift the scientific paradigm to picture the universe as a dynamic whole and probed in to the riddle of complex mental function. However new scientific approaches also led us to reductionism. Physical explanations of biological and psychological phenomena encourages the idea of a unitary set of physical premises from which the regularities of entire reality can be derived. The most controversial point of the reductionist ideology concerns the realm of organic life and specially that of mind. It concerns, in the other word, the reducibility of biology to physics and chemistry. It also tends to reduce psychology to neurophysiology and ultimately to basic physics. The residue perhaps appear in, the phenomena of '**Perception**' and '**Consciousness**'.<sup>5,6</sup>

In the year 1967 Nobel Laureate Erwin Schrodinger declared that **sensation and perception** can not be accounted for by the physicist's objective picture. He

remarked about our experience of language and music - '.....any description (of physicist) is bound to end with sentence like: those nerve impulses are conducted to a certain portion of the brain, where they are registered as a sequence of sounds. We can follow the pressure changes in the air as they produce vibrations of the ear-drum, we can see how its motion is transferred by a chain of tiny bones to another membrane and eventually to parts of the membrane inside the cochlea, composed of fibres of varying length.....We may reach an understanding of how such a vibrating fibre sets up an electrical and chemical process of conduction in the nervous fibre with which it is in touch. We may follow this conduction to the cerebral cortex and we may even obtain some objective knowledge of some of the things that happened there. But nowhere shall we hit on this 'registration of sound', which simply is not contained in our scientific picture, but is only in the mind of the person.....'<sup>7</sup>

Schrodinger then sought a tentative answer about the nature of 'Consciousness'. He put the question: "Is my world really the same as yours? is there one real world to be distinguished from its pictures introjected by way of perception into every one of us?"

If we possess different mind-sets, different world-views, different perceptions then we have many 'consciousnesses'! This lead to the "arithmetical paradox; the many conscious egos from whose mental experiences the one world is concocted." ..... "There are two ways out of the number paradox, both appearing rather **lunatic** from the point of view of present scientific thought (based on ancient Greek thought and thus thoroughly 'Western')". One way out is the multiplication of world and consciousness. The other alternative leads to the concept of unification of minds or consciousness. "This is the doctrine of Upanishads. And not only Upanishads. The mystically experienced union with God regularly entails this attitude unless it is opposed by strong existing prejudices; and this means it is less accepted in the West than in the East." After elaborate discussion he concluded that consciousness is "unprovable". He summarized: "consciousness is associated with the learning of the living substance; its knowing how is unconscious" ..... He concluded, '..... our science - Greek science-is based on objectivation, whereby it has cut itself off from an adequate understanding of the Subject Cognizance, of the mind..... I do believe that it is precisely the point where our present way of thinking does need to be amended; perhaps by a bit of blood transfusion from Eastern thought.'<sup>7</sup> When physicists look back, we also like to reconsider the issue.

As early as 1963, Jung, the great disciple of Freud, differed from Freud's analytical and reductive process and declared that "I add synthesis which emphasizes the purposiveness of unconscious tendencies with respect to personality development."<sup>8</sup> The true genius nearly always intrudes and disturbs. Jung also spoke out 'wrong' things in 'right time'. He observed that European science paid not attention to the hopes and expectations and beliefs of human mind. He believed that 'one can easily imagine a state of mind in which one simply knows and in addition believes a thing.....both are necessary, for knowledge alone, like faith alone, is always insufficient'.<sup>8</sup> He emphasized that mythmaking substratum of mind common to all men: a 'collective unconscious' which was responsible for the spontaneous production of myths, visions, religious ideas and certain types of dreams.<sup>9</sup>

He also added "The European has a science of nature and knows astonishingly little of his won nature, nature within him".<sup>8</sup> In his time Jung was discarded largely as unscientific. Only in the end of twentieth century physicalist objectivism was thought to be complemented by transcendental subjectivism.

Six decades after the revelation of Jung, Baumeister proposed division of reality into two broad categories corresponding roughly to nature and culture in other words 'Logos' and 'mythos'. The first category involves the physical things which are made of 'atoms' and 'molecules'. The second category includes meaning and intention, 'Meaning is real because people act on the basis of meanings and these actions produce social consequences'.<sup>10</sup>

In Western society the myth-making has been denounced and destructed to establish a total scientific rationalism. Paradoxically this age of reason witnessed series of irruption of irrationality. We learned that rational education did not redeem humanity from barbarism, and that a concentration camp could exist the same vicinity as a great university. Our 'demythologized' world is spreading anxiety and despair.



The Madman in Nietzsche's parable believed that God's death had torn from its roots. 'Is there still an above or below?' he asked 'Do we not stray as though through an infinite nothingness?'<sup>11</sup> Mythical thinking and practice had helped people to face the prospect of extinction and nothingness. Rationality can not eliminate the myth-making process of human mind. Hence traditional old myths have been silently replaced by destructive modern myths which are narrowly racial, ethnic and egoistic. We need adherence to myths which help us to realize the importance of compassion and create a spiritual attitude to see beyond immediate requirements and selfishness.

Because of the ever ending underlying demand of human mind, contemporary society also attempts to make myths. Novelists and the artists are operating at the same level of consciousness as mythmakers. People still seek heroes. Film stars, contemporary religious 'Guru's and political leaders become mythical beings. We not only worship heroism, we tend to imitate or participate with contemplation. We cannot counter these myths with reason alone. Undiluted 'Logos' can not deal with our deep-rooted unexorcised fears, desires and neuroses.<sup>3</sup>

In recent times some psychotherapists have been developing the skill of using traditional stories on a trans- cultural approach. Nossrat Peseschkian, specialist in psychiatry and neurology, Iranian by birth has been practicing such mode of psychotherapy in West Germany. He offers trans-cultural perspectives in the form of myths and fables in which the patient may recognize himself in allegorical terms and thus be able to establish a new form of self confidence and security. This may be viewed as a form of self-help.

Often clients complaint of 'heavy burdens' Peseschkian feels a story form Persian mysticism is enough for counseling.<sup>12</sup>

*A wanderer trudged along on a seemingly endless road. He was laded down with all sorts of burdens. A heavy sack of sand hung on his back, a thick water-hose was draped around his body. In his right hand, he carried an oddly shaped stone, in the left hand a boulder. Around his neck an old millstone dangled on a frayed rope. Rusty chains, with which he dragged heavy weights through the dusty sand, wound around his ankles. On his head, the man was balancing a half-rotten pumpkin. With every step he took, the chains rattled. Moaning and groaning, he moved forward step by step, complaining of his hard fate, and the weariness that tormented him. A passerby asked him: "Oh tired wanderer, why do you load yourself down with this boulder?" "How awfully dumb," replied the wanderer, "but I hadn't noticed it before. " He threw away the rock and felt much lighter. Again, after going a long way down the road, a farmer asked him: "Tell me, tired wanderer, why do you trouble yourself with the half-rotten pumpkin on your head, and why do you drag those heavy iron weights behind you?" The wanderer answered: "I'm very glad you pointed it out to me. I didn't realize what I was doing to myself." He took off the chains and smashed the pumpkin into a ditch. Again, he felt lighter. But the farther he went, the more he began to suffer again.*

*Another farmer coming back from his field watched him in amazement and said: "Oh, good man, you are carrying sand in the sack, but what you see in the distance is more sand than you could ever carry. And your big water-hose is as if you planned to cross the Kawir Desert. Didn't you notice that clear stream flowing alongside the road?" Upon hearing this, the wanderer tore open the water-hose and emptied its brackish water onto the path. Then he filled a hole with the sand from his knapsack. He stood there pensively and looked at the setting sun. In the dimming light he looked at himself, saw the heavy millstone and suddenly realized it was the stone that was still causing him to walk with a stoop. He loosened it and threw it as far as he could into the stream. Freed from his burdens, he wandered on through the cool of the evening to find lodging.*

Such story often clicks without elaborate analysis and discussion Peseschkian emphasized, -"with their playful character and their closeness to fantasy, intuition and irrationality, stories stand in obvious contrast to the rational and technological models of modern industrial society."<sup>13</sup> India also has a rich treasure of such stories. These stories are ethically and spiritually informed. Moreover these stories have capacity to communicate the common people with good wit. The scientifically trained contemporary therapy may use these tools with more intuitive wisdom.

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## PSYCHIATRY IN MEDICAL PRACTICE:

### Clinical Approach and Overview

— Uday Chaudhuri

The recognition and management of psychiatric problems in the general medical setting, is an essential component of many doctors' work. Depression, anxiety and somatization disorders occur in 50% of cases presenting to primary care physicians/non-psychiatric specialists. In the general medical setting, as many as 30% of patients have a psychiatric disorder. Delirium is detected in 10% of all medical inpatients and is detected in over 30% in some high risk groups in multidisciplinary hospital, and the commonest condition referred in Liaison psychiatry set up."

Two-third of patients who are high users of medical care has a psychiatric disturbance; 23% have depression, 22% have anxiety and 20% have somatization disorder. Clearly psychiatric co-morbidity has an impact on health care economics and overall quality of life and patient care. The presence of a psychiatric disturbance has repeatedly been shown to be a robust predictor of increased hospital length of stay. Nearly 90% of 26 studies have demonstrated either an increased length of stay or an increased medical re-admission rate in patients with psychiatric co-morbidity. Only a small subset of the population at risk is currently being adequately identified. The possible reasons are lack of proper importance in undergraduate medical course and training in formative stage of doctor's skill development curriculum.

Intervention studies have suggested that elderly patients with hip fractures benefit from psychiatric consultation; they have shorter length of hospital stays and are more often discharged home, rather than to an inpatient care of a hospital or nursing home.

A Liaison approach with increase case identification and earlier psychiatric intervention and treatment resulted in a marked decrease in the need for transfer to inpatient psychiatric facilities.

The principal methods of case identification and psychiatric service delivery to the medically/ surgically ill patient embrace the principles of Liaison psychiatry. The Liaison model is based on an early detection strategy to identify potential psychiatric disorders. Education of non-psychiatric physicians and allied health professionals about medical and psychiatric issues related to patient's illness is a core component of patient care

Prof., Psychiatry Unit, Medicine department, Vivekananda Institute of Medical Sciences, Kolkata

service model. Liaison services lead to heightened sensitivity by medical staff, which results in earlier detection and more cost-effective management of patients with psychiatric problems.

Incorporation of topic like- 'Psychiatry in medical practice: an overview and clinical approach' I believe a wonderful step forward for discipline of psychiatry as well entire medical fraternity.

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## WOMEN AND PSYCHIATRY

— R. K. Brahma

Some Special Factors directly or indirectly shape Women's persona which may be enumerated as follows —

### I. Social Attitude :

- a. Weaker sex
  - i) Brought up to be submissive
  - ii) Even in Education suppressed
- b. Seen as drain on the of the family finances
- c. Dominated and oppressed by the in-laws.
- d. Female feticide & infanticide
- e. Discrimination at work place
  - i) Pay
  - ii) Allocation of duties
  - ii) Potential pregnancy
- f. Sexual harassment at work
- g. Sexual assault & rape
- h. Unwanted pregnancy-Women are blamed
- i. Sterility-again women are blamed

### II. Hormonal factors

- a. Girls mature physically faster than boys
  - i) Treated differently from boys of same age- you are no longer a baby now !
  - ii) Emotionally they are comparable to boys of their own age so they are confused by this deferential treatment like "boys will be boys but girls should be ladies !"
- b. Cyclical hormonal changes every month
  - From puberty till menopause
  - associated physical changes → more aware of their bodies
  - social attitude to the time of menstrual flow i.e. dirty, excluded from sacred function, etc.
  - effect on mood
  - i) Premenstrual syndrome
  - ii) Premenstrual dysphoric disorder
- A. Pre Menstrual Syndrome (P.M.S.) :
  - constellation of physical and psychiatric symptoms, during the end of luteal phase which, disappear shortly after the onset of menstruation occurring in 3 to 10% menstruating women.

Formerly H.O.D. Psychiatry Whipps Cross Univ. Hospital, London & Hon. Snr. lecturer Univ. College Hospital, London. Hon. Medical Director, UNMC & RI, salt Lake, Kolkata-700098

Actiological factors which have been implicated are only anecdotal evidence, linking—

- i. pelvic surgery
- ii. starting/stopping of oral contraceptives
- iii. child birth

### Symptoms and signs or features of this syndromes

- |                            |                                       |
|----------------------------|---------------------------------------|
| • Insomnia                 | • Lack of motivation or interest      |
| • Weight Gain              | • Headaches                           |
| • Fatigue                  | • Backache                            |
| • Stomach ache             | • Crying spells                       |
| • Affective instability    | • Hot flushes                         |
| • Cold sweats              | • Numbness or tingling in extremities |
| • Hyper - somnia           | • Breast swelling and soreness        |
| • Fluid retention          | • Restlessness                        |
| • Diminished concentration | • Clumsiness                          |
| • Hyper phagia             | • Irritability                        |
| • Aggressive behavior      | • Distractibility                     |
| • Carbohydrate craving     | • Anxiety, nervousness                |
| • Muscle pain              | • Muscle tension                      |
| • Palpitation              | • Chest pain                          |
| • Dizziness                | • Agitation                           |

### CHARACTERISTICS OF PRE MENSTRUAL DYSPHORIC DISORDER (PMDD) ARE

- a) Mood disorder is more severe.
- b) Very specifically defined in DSM (IV) with strict criteria given in the Table I
- c) Prevalence is significantly lower than that of PMS-4%
- d) Etiology of PMS & PMDD-not actually known, but following are some of the implicated hypotheses -
  - believed to be the result of interaction of gonadal steroids with Neurotransmitters
  - Neuromodulators — Neurotransmitters with slower onset — many nutrients interact and relay - involving even day in expression.
  - Neuronal gene expression
  - Circadian systems — biological clock regulatory mechanism affecting mood, behavior & cognition.



**DSM-IV RESEARCH CRITERIA FOR PREMENSTRUAL DYSPHORIC DISORDER ARE**

- A. In most menstrual cycles during the past year, five (or more) of the following symptoms were present most of the time during the last week of the luteal phase, begins to remit within a few days after the onset of the follicular phase, and were absent in the week post menses with atleast one of the symptoms began either (1), (2), (3), (4)

**Table I**

|                                                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Markedly depressed mood, feelings of hopelessness, or self deprecating thoughts                                                          |
| 2. Marked anxiety, tension, feelings of being-keyed up-or on edge                                                                           |
| 3. Marked affective lability<br>(e.g., feeling suddenly sad or tearful, or increased sensitivity to rejection)                              |
| 4. Persistent and marked anger or irritability, or increased interpersonal conflicts                                                        |
| 5. Decreased interest in usual activities (e.g., work, school, friends, hobbies)                                                            |
| 6. Subjective sense of difficulty in concentrating                                                                                          |
| 7. Lethargy, easy fatigability, or marked lack of energy                                                                                    |
| 8. Marked change in appetite, over eating, or specific food cravings                                                                        |
| 9. Hyper somnia or insomnia                                                                                                                 |
| 10. Subjective sense of being overwhelmed or out of control                                                                                 |
| 11. Other physical symptoms, such as breast tenderness or swelling, headaches, joint or muscle pain, a sensation of "bloating", weight gain |

- B. The disturbance markedly interferes with work or school or with usual social activities and relationship with others (e. g., avoidance of social activities, decreased productivity and efficiency at work or school).
- C. The disturbance is not merely an exacerbation of the symptoms of another disorder, such as major depressive disorder, panic disorder, dysthymic disorder, or a personality disorder (although it may be superimposed on any of these disorders).
- D. Criteria A, B, and C must be confirmed by prospective daily rating during at least two consecutive symptomatic cycles. (The diagnosis may be made provisionally before these confirmation.)

**C. Psychiatric Differential Diagnosis.**

- a. All mood and anxiety disorders over time fluctuates in severity.  
To distinguish between mere premenstrual worsening as opposed to true menstrual syndrome, consider possible comorbidity.

- b. Premenstrual exacerbation of —  
Somatoform Disorder, Bulimia nervosa, Substance — use disorder & Personality Disorder

- c. General medical conditions may mimic PMDD e.g. seizure disorders, Thyroid & other endocrine disorders, Cancer & endometriosis.

**D. Treatment Strategies for managing premenstrual disorders are-****a. Nutritional Supplements**

- Vitamin B6 with doses from 50mg a day
- Specially formulated carbohydrate rich beverages e.g. PMSEscape — increase the serum ratio of Tryptophan to other large neutral amino acids — significantly more effective than an isocaloric placebo in reducing symptoms of PMS.
- Vitamin E, magnesium, calcium supplements have also been used but with no well validated positive results.
- L-tryptophan in PMDD, 2000mg tid.
- Chaste tree, Chasteberry in PMS 40mg a day  
(definite contraindication = pregnancy)

**b. Psychotherapy & physical exercise**

- Relaxation techniques & cognitive behavior therapy.
- Vigorous open air (aerobic) exercises as opposed to isomorphic (non-aerobic) ones

**c. Hormones —**

- Oral contraceptives commonly used but lacks consistent evidence for efficacy
- Progesterone & synthetic progestins-lack evidence of efficacy
- Gonadotrophin releasing hormone with conjugated oestrogen & progesterone can be useful.
- Danazol a synthetic androgenic derivative of ethisterone with antigonadotropic activity in doses upto 400mg/day — efficacious in PMS though significant side effect e.g. nausea, breast pain & mild hirsutism have to be kept in mind.

**d. Anti depressants :**

Fluoxetine  $\left\{ \begin{array}{l} \text{Through out the cycle-proven efficacy} \\ \text{During luteal phase-claimed efficacy by some} \end{array} \right\} 20 \text{ to } 60\text{mg/day}$

- i) Setraline - 50 to 150mg/day throughout cycle-effective in PMDD

- ii) Paroxetine 20 to 60mg/day - effective

- iii) cloimipramine - 25 to 75mg / day  $\left\{ \begin{array}{l} \text{Full cycle} \\ \text{Half cycle} \end{array} \right.$

- iv) Other anti depressants like  
Nephazodone and TCAs like desipramine, I mipramine, Nortriptyline & MAOI  
Phenelzine have all been used.
- e) Anti anxiety drugs :
  - i) Alprazolam 0.25mg q.i.d from day 18 of the cycle through to day 2 of the next cycle-proven efficacy.
  - ii) Buspirone-a 5HT-1A-Serotonin receptor partial agonist-25mg/day-efficacious
- f. Other Drugs
  - i) Lithium, Fenfluramine, Naltrexone, Bromocriptine, Atenolol, Mefenamic acid & Doxycycline have all been suggested to be helpful.
  - ii) NSAID for pain and headaches & diuretics & spirinolactone for oedema & water retention.

#### **Pregnancy- is a very major event in a women's life needing —**

- a) Psychological adaptation :
  - Ambivalence
  - how ones life will be altered, concerns focused on to bodily adjustment.
  - morning sickness, breast tenderness, physic, sexuality, diet & exercise.
  - finances, employment issues & capacity for parenthood.
  - issues of identification & differentiation.
  - profound metabolic & hormonal changes leading to emotional. liability, introspection, anxiety, desire for increased contact with parents.
  - concern about adequacy during gestation, delivery & as a caretaker
  - primitive jealousies & working women may feel that they are penalized in subtle ways for neglecting their jobs & other external responsibilities.
- b) New psychological tasks :
  - multiple gestation
  - will the baby survive ?
  - how can we parent so many at once ?
  - decision to use reproductive technologies-enhanced sense of responsibility, predisposition to unrealistic fantasy about the child.
  - Many take on such proportion so as to require prophylactic psychological intervention or at least specially sensitive obstetrician or pediatrician.
- c) Delivery :
  - fears regarding pain and bodily harm → continuous emotional support during labor ?
  - reduced rate of c/s and forceps deliveries also use of anaesthesia and Oxytocine

— new mother needs to be encouraged to accept positively that fathers do not parent the baby as mothers do.

- d) Use of psychotropics :

**Table II**

FDA Rating of Drug Safety in Pregnancy

| Category | Definition                                                                                                                             | Drug Examples                        |
|----------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| A        | No. fetal risks in controlled human studies                                                                                            | Folic acid, iron                     |
| B        | No fetal risk in animal studies but no controlled human studies or fetal risk in animals but no risk in well- controlled human studies | Caffeine, nicotine, Acetaminophen.   |
| C        | Adverse fetal effects in animals and no human data available.                                                                          | Aspirin, haloperidol, chlorpromazine |
| D        | Human fetal risk seen (may be used in life-threatening situation)                                                                      | Lithium, tetracycline, ethanol       |
| X        | Proven fetal risk in humans (no indication for use, even in life-threatening situations)                                               | Valproic acid, thalidomide           |

#### **ii) Antipsychotics — some points of special note for Psychiatrists**

— Their uses are best avoided during 1<sup>st</sup> trimester except when the mother is a danger to herself, others or her unborn child or hospitalization does not adequately control the psychosis.

— to be aware of the possibility of behavioral disturbance in the neonate when these are used in the 2<sup>nd</sup>/3<sup>rd</sup> trimester of the pregnancy.

— high potency typical ones appear to be preferable as a first line of management. Data in human for a typicals are scanty.

— breastfeeding is not contraindicated in mothers taking phenothiazines.

- e) Pseudocyesis : — a neurotic disorder in a woman characterised by —

— amenorrhoea, nausea, breast enlargement, pigmentation, abdominal distention and labor pain in a non pregnant woman — good example of how.

“psyche” dominates the “soma”, probably through a central input at the level of hypothalamus-wish for & fear of pregnancy : ambivalence or conflict regarding gender, sexuality child bearing-a grief reaction to lost potential after-tubal ligation or hysterectomy-a somatic delusion.

**Post partum Mood Disorders :**

1. Definition : mood disorder appearing within 12 months after labor

2. Classification

**A) Post partum Blues :**

- time limited, mood lability, occurs in 50-70%.
- may predict the risk for postpartum depression.
- develops within 2-3 days of delivery, may last upto 2 weeks.
- change of mood include lability, unexplained sadness, cheerfulness, irritability and anxiety

**B) Post partum Depression :**

- major depression that develops within 4 weeks of delivery
- occurs in 5-10% of post partum women
- these incidents are the same as found in non pureperal depression, raising a query-is it a unique entity or an episode of MDD that coincides with post partum period
- dignostic criteria are the same as MDD i.e., has to be at least for 2 weeks either depressed mood or anhedonia and four other neuro vegetative symptoms .

**C) Pureperal Psychosis :**

- comparatively rare condition occurring in 1 or 2 of every 1000 postpartum women
- acute in onset, within first 2 to 3 days after delivery — blues
- as with post partum depression
- Is it a discrete diagnostic entity by itself ?
- majority turns out to be bipolar disorder or MDD with psychotic features

**3) Predictors :**

- i) Depression during pregnancy
  - ii) (Psychiatric history-MDD, Bypolar Disorder-30-50% risk).
  - iii) (H/O post partum psychosis → 70-90% risk for recurrence)
  - iv) Family H/O Mood Disorders.
  - v) Psychosocial Disorders-marital conflict, and or dissatisfaction, stress of child care, low level of social and spousal support, increased number of stress or life events in pregnancy-other hormone related mood changes and reaction to contraceptive pills
- Post partum thyroiditis.

**4) Etiology :**

- a) hormonal shifts —
  - i) oestrogen
  - ii) progesterone
- b) Psychosocial factors —
  - H/O mood disorders
  - Sleep deprivation
  - Change in life style
  - Social isolation.

**Psychotropic Drug use in Pregnancy — a not infrequent dilemma faced by Psychiatrists and general practitioners in managing****A. Psychosis :**

1. Consider maintenance of low-dose antipsychotic therapy for chronically ill patients, which may offset the risk of relapse and the need for higher doses
2. Remember to create a medical differential diagnosis for and work up new-onset psychotic states
3. Consider that high potency neuroleptics (e.g., haloperidol, thiothixine) may be safer : data are lacking on the use of atypical antipsychotics (e.g., risperidone, clozapine, olanzapine)

**B. Mania :**

1. Remember to create a medical differential diagnosis for and work up new-onset manic symptoms.
2. Be aware valproic acid and carbamazepine are associated with significant increases in the rate of congenital malformations (5% and 1% respectively) lithium Epstein anomaly — 0.05% i.e. 10 fold risk.
3. Remember to evaluate the need for prophylaxis.

**C. Tremester 1**

1. Avoid lithium carbonate if possible, depending on the severity of the illness
2. If the patient has been exposed to lithium before week 12, consider cardiac ultrasound at week 20.
3. If there is a clear need for antimanic prophylaxis, discontinue lithium after documentation of pregnancy or consider the use of prophylactic lithium in a brittle bipolar women, given the small absolute risk for Epstein's anomaly (0.05%)



**D. Trimesters II & III**

1. After week 12 & with the need for treatment, lithium, carbonate may be reintroduced
2. Decrease the lithium dose by 30% before delivery because of puerperal-associated volume shifts
3. Administer lithium in divided doses when lithium is indicated

**— Mania & Pregnancy**

1. Hospitalization of a manic, pregnant women often is required
2. Consider the use of neuroleptics, adjunctive clonazepam, and electroconvulsive therapy

**E. Depression**

1. Remember to create a medical differential diagnosis for depression
2. Withhold antidepressant medication in trimester I if possible
3. Be aware that an inability to care for oneself or to provide prenatal care generally indicates the need for somatic therapy
4. Secondary amines (nortriptyline, desipramine) are preferable to tertiary amine tricyclics, now SSRIs.

**F. Anxiety**

1. Remember to create a medical differential diagnosis of disorders
2. Sartrane, Paroxetine and fluoxetine (a selective serotonin reuptake inhibitor) are the treatments of choice
3. Benzodiazepines are not contraindicated during pregnancy and during labor and delivery.

**6. Infertility** :— itself causes personal distress which is implied by special attitudes

- A. It is defined by, failure to conceive after one year of regular S. I. or inability to carry to life birth.
- B. Emotional Distress-Consequence of treatment :
  - initial visit, each failed attempt and termination phase
  - women report higher level of distress
  - men, only when discover to be responsible
  - sexual dysfunction in up to 50% of women
  - and 30% of men experience transient erectile dysfunction
  - marital discord relatively common
  - feeling of depression and anxiety-frequent reason for discontinuing infertility treatment.

**C. Psychiatric Illness**

- though most couple report feelings of depression and anxiety only 10% women present with MDD
- patients with a history of depression/anxiety disorder are at a high risk of relapse

**D. Impact of fertility medication-many of the medicines used to treat infertility affect mood.**

1. Clomiphene citrate can cause emotional liability, irritability, and insomnia
2. Progesterone -depression and anxiety
3. Estrogens likewise can cause depression and fatigue
4. Gonadotropin-releasing hormone agonists tends to cause anxiety and depression
5. Bromocriptine-on rare occasions precipitate psychotic symptoms.

**E. Conclusion**

- Recognition of the problem I.e. emotionally stressful state is important.
- Like close monitoring for emotional distress / psychiatric illness
- Be mindful of Marital discord, which is quite common
- even who do conceive experience heightened emotional distress / anxiety
- Whilst most patients benefit from reassurance and support a small proportion of patients require more intensive treatment for depression and/or anxiety.

**5. Treatment Strategies :****A. Pharmacologic**

- HRT for Vasomotor symptoms, Vaginal dryness and cognitive dys-functioning, also the risk of heart diseases and osteoporosis
- Estrogen alone for mild mood and anxiety disturbances, hot flush, cold sweats, interrupted sleep, decreased libido and dyspareunia.
- switch from sequential HRT to continuous, if no response in the patients mental status after 2 to 4 weeks, reevaluate for a primary psychiatric condition
- Progestin-reduces risk of endometrial cancer but worsen the mood, a higher estrogen : progestine preparation improves mood
- androgen replacement can enhance libido and sexual functioning
- all antidepressants are equally effective-but use the proven ones, used before.

**B. Psychotherapy :**

- Cognitive behavioral therapy
- supportive psychotherapy

**C. Patient Education :**

- Negate the negative myths
- MENOPAUSE IS NOT A DISEASE but a natural stage of women's development.

**II.d. Menopausal:** stage in women's life which often brings further challenge for the individual.

1) Definitions :

i) Menopause is cessation of menstruation for 12 consecutive months. Generally around the age of 50 years. Range 41-59 yrs, may be induced artificially by removing ovaries surgically or chemically.

ii) Perimenopause is transition from regular menstrual functioning to complete cessation of menstrual functioning. Generally last from 5-10yrs

iii) Post-menopausal phase is the period of life following menopause.

2) Menopause and mood disorders — which women may encounter are

i) Wide mood swings, anxiety and depressive illness.

ii) Generally vulnerable to various psychiatric disorders may be related to changes in reproductive endocrine functioning during this period.

iii) Subjects with previous history of mood disorders prove more vulnerable during this period.

iv) The percentage of Perimenopausal women who report feeling Blue and depressed are 23% and 38 % respectively.

v) Other factors e.g. Poor physical health, changes in social circumstances and interpersonal stress are closely correlated with depression than with menopausal status

vi) Mood disturbances may be secondary to feelings that she has lost her femininity or reproductive potential. She may also come face to face with her mortality.

vii) Other stressors include changing family roles, ageing, changing social network, interpersonal losses, onset of physical illness and retirement etc. causing mood disturbances.

**Table III**

(Physical and Psychological Symptoms Associated with Menopause)

Vasomotor symptoms : hot flashes, night sweats, palpitations

Affective symptoms : depressed mood, anxiety, mood swings

Cognitive symptoms : poor memory, lack of concentration, forgetfulness

Somatic complaints : dizziness, fatigue, headache, insomnia, joint pain, paresthesias

Physical signs : urogenital atrophy, dyspareunia, osteoporosis, cardiovascular disease

v) Post Menopausal Period —

— Changed role-feels redundant and a burden

— Osteoporosis

— Physically not so strong.

— immunity reduced leading to infections

— dietary deficiencies in those who are living alone doesn't cook any more

— degenerative disorders.

— tendency to falls and accidents leading to ortho geriatric problems and then on to psychogeriatric ones. Special sense impairment like hearing and visual ones can also lead to psychological complication.

III. Genetic / constitutional —

a) Sexlinked disorders - acute recurrent porphyria, FragileX can cause early menopause and low IQ

b) Increased incidence of —

i) Neurosis-phobias

ii) Anorexia Nervosa

iii) Bulaemia Nervosa

iv) Kleptomania

v) Trans-sexuality

vi) Turner's syndrome - secondary amenorrhoea

vii) Hirsutism.

viii) Hermaphroditism

**Conclusion**

In the face of these plethora of problems and challenges some posed by society and others by nature, women still steer the family sitting at the helm. Hence I suppose quite befittingly "Shakti" is venerated in the form of Mother goddess in Indian tradition since the dawn of civilization and intuitive knowledge.

## CANNABIS USE DISORDER IN OUR PRACTICE

— Amarnath Mallik

The field of addictions is lively and exciting one in which controversy always exist. This is a healthy and natural thing because it indicates that we are constantly thinking, growing and learning more about the processes involved in addictions. The specialists concerned are trying to manage the problem at a biological, psychological and social level.

Cannabis is the most widely used illicit substance in the world. Its use is more common among people with severe mental illness than in the general population (1, 2). The prevalence of cannabis use has increased in many countries over recent years. At present 40% - 60% of young people aged 18 - 25 years in the UK, the USA, Australia and more European Countries have some experience of cannabis use. Cannabis is obtained from the plant cannabis sativa (hemp) and its varieties, cannabis indica and cannabis americana. Cannabis sativa is cultivated for centuries in many parts of the world for its psychoactive properties. The chief psychoactive substance is known as delta - 9 - tetrahydrocannabinol, commonly known as THC. THC is responsible for different effects of cannabis and its concentration varies in different forms of cannabis such as Ganja, Marijuana, Hashish, Charas, Bhang and Hashish Oil.

Cannabis is generally used in the following forms -

**Ganja/Marijuana** - Ganja is prepared from the dried leaves and flowering tops of the plant. Ganja and Marijuana are sold in the drug illicit market in the name, 'grass', 'pot' or 'stuff'. There is a wide variety of regional name of cannabis such as 'Dagga' (Africa) and 'Kif' (Morocco).

Ganja is usually smoked in the form of a handrolled cigarettes or in a specially designed pipes. Sometime Ganja is mixed up with tobacco and smoked. Ganja is mostly used in our country.

**Hashish/Charas** - The female cannabis plant secretes a sticky resin with high THC concentration (5 - 15%). This resinous secretion is collected, and dried is known as hashish or Charas. The colour of the Hashish varies from light brown to almost black. It can be smoked or sometime baked with food and eaten.

**Bhang and Siddhi** - There are obtained from dried leaves and stem and are less potent of all cannabis preparations. It is also widely used in India.

Psychiatrist, Kothari Medical Centre, Kolkata

**Hashish Oil** - It has high concentration of THC (20% - 60%) and produced by a process of repeated extraction of cannabis plant materials. Improved cultivation techniques and selective breeding have led to an increase in the THC content of some cannabis preparations. Furthermore, the potency of street cannabis has increased over recent decades, it is thought to contain about three times more THC than it did in the 1960s. According to a recent study, even the THC content of 'Shunk' has doubled over past 10 years. (3)

Population based studies have consistently revealed that cannabis is the most widely used illicit substance in communities around the world particularly among young adult. (4, 5, 6) The most probable chronic harms from regular (daily or near daily) and sustained use (over several years) produce not only dependency but also cognitive impairment, attention deficit, memory impairment. As cannabis is almost always smoked adverse respiratory effects, such as chronic bronchitis may result.

The ability of cannabis to produce a pleasurable 'high' is probably the most important single factor sustaining its widespread and chronic use. There is much evidence that this rewarding or reinforcing effect is due to stimulation of limbic system. The limbic system reward pathways mediated by Dopamine and endogenous opioids resulting in increased release of dopamine from the nucleus accumbens. (7)

Repeated or chronic use of cannabis induces considerable tolerance to the behavioral and pharmacological effects, largely due to down-regulation of cannabinoid receptors. Such tolerance encourages escalation of dosage. (8)

A cannabis withdrawal syndrome has been clearly demonstrated in both animals and man after chronic cannabis administration or use. In animals this reaction is accompanied by brain changes similar to those of opiate, cocaine and alcohol withdrawal including increased release of corticotropin releasing factor and increased stress response (9, 10). Abstinence symptoms from cannabis in human placebo controlled studies include restlessness, anxiety, dysphoria, irritability, aggression, insomnia, tremor, increased reflexes and several autonomic effects.

Community surveys show that a good number of people have difficulty in stopping cannabis use. The prevalence of withdrawal symptoms in chronic cannabis users has been estimated as 16% - 29% (11)

The DSM IV criteria of drug dependence include tolerance, withdrawal syndrome, difficulty in controlling consumption and a pattern of drug use which reduce other important activities. Cannabis dependence has been demonstrated in many studies by these criteria. Dependence prolongs the use of cannabis, increasing the risk of adverse physical and mental effects.



There are number of studies showing significant association between cannabis use and alcohol consumption, tobacco smoking and use of other illicit drugs like cocaine, heroin etc. The prevalence of cannabis use is high in schizophrenic patients and in individual with schizotypal traits (12, 13). Cannabis can cause a schizophreniform psychosis in normal individuals, may precipitate schizophrenia in predisposed persons and can increase positive symptoms in schizophrenics. Cannabis can aggravate schizophrenia by releasing dopamine from limbic areas.

Neuro - cognitive deficits induced by cannabis are dose-related and may persist for some time (upto 2 years) after the last dose in heavy users (14).

It is clear from above discussion that there is a complex interaction between severe mental illness and the use substance such as cannabis. Cannabis use can have major detrimental effects on the course of the illness when patients continue to use the drug. Cannabis use by people with mental illness can lead to behavioural disturbances such as increased risk of violence and criminal activity (15) It is not uncommon in clinical setting to observe a sudden increase in suspiciousness and hallucinatory behavior when a patient with severe mental illness uses cannabis. Cannabis particularly Ganja induced psychosis is common in our country.

Cannabis, particularly Marijuana can have both stimulant and sedative properties. In usual intoxicating doses, it produces a sense of well-being, relaxation, a sense of friendliness, confusion, slowing of thought processes, impairment of short-term memory and a feeling of achieving special insights.

At high doses, marijuana can induce panic, toxic delirium and psychosis. One complication, of long-term use is the 'amotivational syndrome'. This syndrome is frequently seen in heavy daily users and is characterized by the emergence of decreased drive and ambition, thus 'amotivation'. It is also associated with other socially and occupationally disability. Shortness of attention - span, poor judgment, easy distractibility, impaired communication skills and introversions are prominent features. Personal habits may deteriorate and there may be a loss of insight.

Despite high levels of cannabis use, only a minority seek assistance from a health professional. The literature on cannabis dependence treatment is also embryonic compared with alcohol, opioids and nicotine.

There has been less work on the use of cannabinoid agonists in the management of cannabis use disorder. There are few data on the use of selective cannabinoid receptor antagonists. Usually treatment of cannabis use rests on the same principles as treatment of other substance abuse such as abstinence and psychosocial support with psychotherapy. Abstinence can be achieved through direct interventions such as institutional care or through careful monitoring on an outpatient basis. Motivational enhancement with cognitive-behaviour therapy has been studied

and is effective in adult marijuana smokers. Some patients need anti-anxiety drugs (lorazepam, clonazepam, chlordiazepoxide). For few patients cannabis use may be related to an underlying depressive disorder that may respond to specific antidepressants (TCAs, SSRI), Treatments. (16, 17, 18).

Recently small clinical trials have been conducted with Bupropion and Nefazodone.

Divalproex, Lithium, Oxytocin, Dronabinol and Rimonabant have been used for cannabis abuse recently.

No doubt there is a need of more research into pharmacological and psychological interventions for cannabis use disorder. This is because marijuana abuse and dependence is a growing concern through out the world including our country, particularly in adolescent populations.

Declaration of Interest - None.

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## FIBROMYALGIA : A CHANGING CONCEPT

— Kangkan Pathak

*"I am more seriously ill than my doctors think." Alfred Nobel*

### INTRODUCTION :

Pain is a common presentation not only in pain clinics but also in psychiatric practice. Elimination of pain is increasingly recognized as necessary in order to have full symptomatic remission of many psychiatric disorders. Detection, quantification and treatment of pain is rapidly becoming standardized part of psychiatric evaluation. When perceived pain is out of proportion to a physical cause or even has no identifiable physical cause, this can add an extra dimension to the patient's suffering<sup>1</sup>.

Fibromyalgia (formerly called 'fibrositis' 'muscular rheumatism and 'Rheumatic pain modulation disorder' ) though a common diagnosis is often ignored by medical fraternity. This contentious condition causes great suffering and disability to the sufferers. Physicians often find it difficult to handle and perceive the patient as 'difficult' or malingerer and may give the verdict that the pain is in their 'mind'. But good medical practice is to accept that if the patient reports pain, he or she is in pain and deserves treatment, whether or not we can identify a rational cause. The link of chronic pain to the pathophysiology of numerous psychiatric disorders is established by the recent discovery that certain psychotropic agents are also now proving to be beneficial in reducing the symptom of pain. So pain is not "all in the mind" but it may be "all in the brain"<sup>1</sup>. Malingering and unconscious mechanism do exist- especially when litigation and disability payments are involved.

### HISTORY :

Fibromyalgia is not a new condition. From the description by Charles Darwin and Alfred Nobel, it appears that they suffered from the same condition what is now termed as fibromyalgia. Freud conceptualized similar condition as 'neurasthenia' and treated with psychoanalysis; Charcot named it as 'hypochondria' and treated with hypnosis. The legitimacy of the nosological status of fibromyalgia was debated in the last century – whether a syndrome of abnormal muscle, sleep, pain and mood or an entity invented by lawyers and disability seekers. In 21<sup>st</sup> century there is resurgence of interest and it is emerging as a diagnosable and potentially treatable pain syndrome. The term *fibromyalgia* was coined from the Latin *fibra* (fiber) and the Greek words *myo* (muscle) and *algos* (pain). The increasing interest and growing research in last few decades on this enigmatic

Associate Professor of Psychiatry, L.G.B. Regional Institute of Mental Health, Tezpur Assam

condition has not been successful to solve many issues. Fibromyalgia was recognized by the American Medical Association as an illness and a cause of disability in 1987. The American College of Rheumatology (ACR) published criteria for fibromyalgia in 1990<sup>2</sup>. Contradictory findings from clinical research led to polarization of researchers; some believe in subtypes of the condition whereas others have proposed that the clinical phenomena that fall under the label 'fibromyalgia syndrome' might actually comprise several clinical entities<sup>3</sup>.

### PRESENTATION

Fibromyalgia is recognized as diffuse and chronic widespread pain syndrome in joints, muscles, tendons and other soft tissues without apparent underlying pathology. It occurs in about 2% of the population in the US. Women are much more likely to develop the disorder than men and the risk of fibromyalgia increases with age. The peak age is 30-50 years. Though rare, onset can occur even in childhood<sup>4</sup>.

Patients with fibromyalgia frequently experience a range of other symptoms including sleep disturbance, fatigue, difficulty in swallowing, functional bowel and bladder abnormalities, difficulty in breathing, diffuse sensations of numbness and tingling, muscle aches, prolonged muscle spasms, weakness in the limbs, functional bowel disturbances, abnormal motor activity (i.e. nocturnal myoclonus, bruxism), and cognitive dysfunction (known as "brain fog" or "fibrofog") which may be characterized by impaired concentration, problems with short-term and long-term memory, impaired speed of performance, inability to multi-task, diminished attention span and anxiety and depressive symptoms. "Brain fog" may be directly related to the sleep disturbances. Eye problems such as pain, sensitivity to light, blurred vision, and fluctuating visual clarity, can also be a symptom of the condition. Not all affected persons experience all the symptoms. It often begins after a physical or emotional trauma but in many cases there appears to be no triggering events. Though chronic and debilitating, fibromyalgia is not necessarily progressive. The recognition that fibromyalgia involves more than just pain has led to the frequent use of the term "fibromyalgia syndrome"<sup>5</sup>.

### DIAGNOSIS

Multicenter Criteria Committee of the American College of Rheumatology (ACR 1990) defines fibromyalgia according to the presence of the following criteria:<sup>6</sup>

- A history of widespread pain lasting more than three months—affecting all four quadrants of the body, i.e., both sides, and above and below the waist.
- The patient must feel pain at 11 or more of 18 designated possible tender or trigger points.

### AETIOLOGY

The cause of fibromyalgia remains obscure in spite of vigorous research. It was hypothesized



that it may occur due to viral infection, exposure to toxins, aberrant immune response, vasomotor dysregulation or sympathetic overactivity. Several mechanisms may be involved<sup>7</sup>.

Fibromyalgia is considered as a variant of sleep disorder. It is supported by the findings of alpha wave intrusion during the non-REM sleep stages 3 and 4<sup>8</sup> and the observation that disrupting the non-REM sleep of normal subjects leads to muscular aching and generalized tender points<sup>9</sup>. But this typical sleep pattern can also be found in other disorders. Non-restorative sleep is reported by 75% of fibromyalgia patients<sup>10</sup>. Deep sleep is critical to reset the substance P mechanism which has the effect of amplifying pain and secretion of growth hormone which is disturbed in patients with fibromyalgia.

The range of pathophysiological phenomena reported in fibromyalgia is primary or just epiphenomenon is not clear. "Moth eaten" appearance of muscle fibres reported in earlier studies are not substantiated. Fibromyalgia is no longer considered to be a muscular disorder<sup>11</sup>.

The research on aetiology of fibromyalgia has focussed on:

- Central sensitization syndrome linked to abnormal neurotransmission in pain pathways and reduced pain threshold.

Dysregulation of the stress response: Fibromyalgia may be a consequence of dysregulation of the human stress response, which is mediated predominantly by the endocrine and sympathetic systems<sup>12</sup>. Fibromyalgia may result from stress-induced changes<sup>13</sup> in the function and integrity of the hippocampus<sup>14</sup>.

- Abnormal sensory processing at NMDA-glutamate receptor mediated neurotransmission in unmyelinated C fibres which carry pain impulses
- Abnormal substance P mediated neurotransmission
- Impairment of information processing in the dorsolateral prefrontal cortex and dopamine neurotransmission leading to fibrofog. Preliminary reports suggest that chronic pain may even shrink the brain in dorsolateral prefrontal cortex and thereby contribute to cognitive dysfunction. Stressful condition that cause pain as well as pain that causes distress, may all be involved in causing brain atrophy and/ or cognitive dysfunction in fibromyalgia<sup>15</sup>.
- Genetic predisposition: There is high aggregation of fibromyalgia in families suggesting the role of genetic factors. Polymorphisms of genes in the serotonergic, dopaminergic and catecholaminergic systems are suggested<sup>16</sup>.
- Motor cortical dysfunction demonstrated by transcranial magnetic stimulation in both excitatory and inhibitory mechanisms<sup>17</sup>.
- Impairment in autonomic system is also reported<sup>18,19</sup>

- Endocrine abnormalities: Stress may mediate the development of fibromyalgia through HPA axis<sup>20</sup>. Other abnormalities reported are: low levels of growth hormone (GH) and insulin-like growth factor-1, varying degrees of gonadal hypofunction, and blunted secretion of thyrotropin and thyroid hormone release in response to thyroid-releasing hormone (TRH)<sup>21</sup>. GH deficiency in adults has been associated with a miscellany of symptoms that are similar to those described by fibromyalgia patients. Other abnormalities include mild elevation of prolactin levels with disinhibition of prolactin release in response to challenge<sup>22</sup> and hyposecretion of adrenal androgens<sup>23</sup>.
- Alterations in neurotransmitters and receptors are reported. The cerebrospinal fluid has a threefold increase in substance P<sup>24</sup> and decrease in norepinephrine<sup>25</sup>. This is important as substance P is believed to be a major factor in the process of central sensitization<sup>26</sup>.
- Abnormal serotonin metabolism: Serotonin play a role in regulating sleep patterns, mood, feelings of well-being, concentration and descending inhibition of pain. Dysregulation of serotonin metabolism is suggested in fibromyalgia as evidenced by decreased serotonin metabolites in plasma and cerebrospinal fluid<sup>27</sup>. However, selective serotonin reuptake inhibitors (SSRIs) have met with limited success in alleviating the symptoms of the disorder, while drugs with activity as mixed serotonin-norepinephrine reuptake inhibitors (SNRIs) have been more successful. Efficacy of 5-HT<sub>3</sub> antagonists, ondansetron, contradicts this theory.
- Central dopamine dysfunction (hypodopaminergia): Dopamine plays a critical role in pain perception and natural analgesia. This is supported by the frequent musculoskeletal pain complaints by patients with Parkinson's disease<sup>28</sup> which is characterized by drastic reductions in dopamine owing to neurodegeneration of dopamine-producing neurons and pain insensitivity in patients with schizophrenia, which is thought to be due (in part) to hyperactivity of dopamine-producing neurons<sup>29</sup>. Positron emission tomography study demonstrated a reduction in dopamine synthesis among fibromyalgia patients in several brain regions in which dopamine plays a role in inhibiting pain perception, including the mesencephalon, thalamus, insular cortex and anterior cingulate cortex<sup>30</sup>. Moreover, a substantial subset of fibromyalgia patients respond well in controlled trials to pramipexole, a dopamine agonist that selectively stimulates dopamine D<sub>2</sub>/D<sub>3</sub> receptors and is used to treat both Parkinson's disease and restless leg syndrome<sup>31</sup>.
- Psychological factors: Older hypothesis considered fibromyalgia as result of unconscious conflicts manifesting as physical symptoms with pain serving as a somatic metaphor for unhappiness and used the terms 'masked depression' and



'somatoform disorder' to describe such conditions. This is strongly resented by those afflicted who see the psychological and emotional symptoms as being the result of their fatigue, pain and general ill-health and not as causes. With the advent of neurobiological findings, the psychological hypothesis is fast losing ground. But definitely there are certain behavioural factors which exacerbate the symptoms. Those are: emotional distresses, weather change, sleep problems, strenuous activity, mental stress, worry, car travel, family conflicts, and physical inactivity<sup>32</sup>. There are substantial similarities in neuroendocrine abnormalities, psychological characteristics, physical symptoms and treatments between fibromyalgia and depression, but currently available findings do not support the assumption that major depression and fibromyalgia refer to the same underlying construct or can be seen as subsidiaries of one disease concept<sup>33</sup>.

- Cerebrospinal fluid abnormalities: The most reproduced laboratory finding in patients with fibromyalgia is an elevation in cerebrospinal fluid levels of substance P, lower levels of metabolites of serotonin, norepinephrine, and dopamine—all of which play a role in natural analgesia, while concentrations of endogenous opioids (i.e., endorphins and enkephalins) appear to be higher<sup>4</sup>.
- Brain imaging studies: Decreased blood flow in specific brain areas and reduced availability of mu-opioid receptors in the ventral striatum/nucleus accumbens and cingulate cortex<sup>4</sup>.

## TREATMENT

There is no universal consensus for treatment of fibromyalgia. Most patients often use over the counter analgesics and a range of alternative treatments with some benefit. Treating the concomitant psychiatric disorder is very crucial. Management includes both pharmacological and non-pharmacological approaches. In 2005, the American Pain Society produced the first comprehensive guidelines for patient evaluation and management<sup>34</sup>. More recently, the European League Against Rheumatism issued updated treatment guidelines<sup>35</sup>.

### Pharmacotherapy

The efficacy of Alpha 2 delta ligands and SNRIs in the treatment of fibromyalgia is well established and they are considered first-line treatment in this condition.

Alpha 2 delta ligands, such as gabapentin and pregabalin, bind to the alpha 2 delta subunit of voltage sensitive calcium channels and change their conformation to reduce calcium influx and therefore reduce excessive stimulation of postsynaptic receptor. Pregabalin, originally labelled for the treatment of diabetic neuropathy, has been cleared by the US Food and Drug Administration for treatment of fibromyalgia<sup>36</sup>. It is useful not only for pain but also for reducing symptoms of anxiety and slow wave sleep disorder in fibromyalgia.

SNRIs (duloxetine, milnacipran, venlafaxine, desvenlafaxine) in addition to pain relief, reduce symptoms of anxiety, depression, fibrofog and health related quality of life. SNRIs, especially milnacipran, increase dopamine concentration in dorsolateral prefrontal cortex and improve symptoms of fibrofog.

Low dose tricyclic antidepressants continue to be widely prescribed for fibromyalgia, although their efficacy appears to be limited, with the largest improvement being in sleep quality. Tricyclics also have many side-effects due to interaction with adrenergic, cholinergic or histaminergic receptors, and sodium channels. SSRIs and SNRIs do not have the side-effects that are associated with tricyclics. SNRIs, sometimes augmented with modafinil, stimulants or bupropion can also be useful for symptoms of physical fatigue as well as mental fatigue in fibromyalgia. 2<sup>nd</sup> line treatment includes mirtazapine, tricyclic antidepressant as well as tricyclic muscle relaxant – cyclobenzaprine. The anticonvulsant – tiagabine, can not only help pain but also enhance slow-wave sleep in same patients with fibromyalgia<sup>1</sup>.

Adjunctive treatment to fibromyalgic pain that can augment 1st line treatment includes: opiates, anticonvulsants (e.g. oxcarbamazepine, carbamazepine and topiramate), sedatives such as benzodiazepines, and trazodone. There is accumulation of evidences for the efficacy of gamma hydroxybutyrate, which is approved for narcolepsy, in fibromyalgia also. But caution is needed for its abuse potential. The use of gamma hydroxybutyrate for treatment of severe and treatment resistant cases may be justified. Occasionally serotonin dopamine antagonists are used as augmenting agents to first line treatment for sleep and pain symptoms<sup>1</sup>.

### Analgesics

A number of analgesics were used to treat the pain symptoms resulting from fibromyalgia but results were disappointing. Local Anaesthetic Injection and Dry Needling Injection of tender points with local anaesthetic are used in the effort to provide pain relief. Piercing tender point with a needle but injecting nothing (dry needling) may be of benefit, suggesting that the release of met-enkephalin may be an important factor<sup>37</sup>.

### Dopamine agonists

Dopamine agonists (e.g. pramipexole and ropinirole) have been studied for use in the treatment of fibromyalgia with good results<sup>31</sup>.

### Other Treatments

Some experts have suggested that cannabinoid agonists would be applicable for the treatment of chronic pain<sup>38</sup>. Oral corticosteroids, GH, Ketamine ((NMDA receptor antagonist) and S adenosyl L methionine are tried with variable results. Electromyogram biofeedback, hypnotherapy, acupuncture, Botulinum toxin – these are some other methods tried in fibromyalgia with promising result.

Common strategy adopted for choosing pharmacological treatment include, deconstructing the symptoms of the disorder into components ( pain, fatigue, anxiety, depression, sleep problem, poor concentration) then matching these symptoms to hypothetically malfunctioning brain circuits and neurotransmitters that hypothetically mediate those symptoms and then choosing and combining treatments that target neurotransmitters in these circuits to reduce all symptoms and attain remission<sup>1</sup>.

### Non-drug therapy

Graded aerobic exercise, education about the nature and course of the illness and cognitive behaviour therapy are also important in the management of fibromyalgia. There is some evidence of efficacy, but prolonged benefit is doubtful. A multidisciplinary approach may yield best result. Many new therapeutic vistas are emerging.

### Co-morbidity

Most of those diagnosed with fibromyalgia have a co-morbid mood disorder ( Major Depression , Bipolar disorder<sup>39</sup>, anxiety disorders ( Panic, post traumatic stress disorder, social phobia, obsessive compulsive disorder)<sup>40</sup> and co-morbid functional somatic syndromes ( chronic fatigue syndrome, irritable bowel syndrome, temporomandibular disorder, tension and migraine headache, multiple chemical sensitivities, interstitial cystitis, chronic pelvic pain) or both<sup>1</sup>.

Many patients with fibromyalgia also qualify for diagnosis of somatoform disorder. High co-morbidity raised the query about its legitimate diagnosis status. Life time rate of major depression is higher in fibromyalgia patients in comparison to patients with rheumatoid arthritis.

Because of their clinical similarities there is debate whether fibromyalgia and chronic fatigue syndrome are two entities or only two syndromes of a spectrum of similar disorders of common aetiology and pathogenesis. Due to overlapping of symptoms in conditions like fibromyalgia , chronic fatigue syndrome, irritable bowel syndrome, tension headache, migraine, and restless leg syndrome- they were included under one umbrella named the "Dysregulation Spectrum Syndrome", defined as "a common biophysical syndrome characterized by endocrine dysregulation and dysfunction."<sup>5</sup>

### Prognosis

The chronic pain of fibromyalgia is pervasive and persistent. At 3 year follow-up, only 3% of patients were found to be free of all pain<sup>41</sup>. Current treatment is far from satisfactory. Of those diagnosed with fibromyalgia, 10% to 30% report being work-impaired, and patients often need accommodations to fully participate in their education or to remain active in their careers.

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## FORMAL THOUGHT DISORDER: EVOLUTION OF THE CONCEPT

— Sujit Sarkhel<sup>1</sup>, Prof. V. K. Sinha<sup>2</sup>

### INTRODUCTION

Schizophrenic formal thought disorder can be defined as a gross disorder of conceptual thinking in the absence of coarse brain disease and in the presence of direct or indirect evidence that the patient had an adequate intellectual performance in the past<sup>1</sup>. The literature on formal thought disorder has been riddled with myriad terminologies often describing overlapping concepts. The basic assumption that this is a disorder of form (way or mode) of thought processes which manifests itself in speech has been challenged in favor of the view that it is primarily a disorder of language itself. Apart from psychiatrists and psychologists, the concept has been enriched by contribution from neurologists, linguists and speech language pathologists.

### EVOLUTION OF THE CONCEPT AND RELATED THEORIES

**Kraepelin** : According to Kraepelin, "incoherence of thought" was the most basic symptom. He attributed the incoherence to "derailment" - a tendency for the line of thought to part from the given idea and move in indistinct spheres of ideas. At the most basic level this could occur in the finding of words, leading to the fusion and mutilation of words and to the replacement of the correct words by others similar in sound or meaning: paraphasia. The same process could occur at a more complex level and the correct expression or phrase be replaced by something similar in sound: akataphasia. The derailment could occur at a higher level still, the subject spoken of being lost and a new subject started apparently as a result of new ideas intruding themselves into the original thought sequence: paralogia.

**Bleuler**: Bleuler's theories of thought disorder were based on the then dominant associationist psychology. The ability to communicate in speech was thought to depend on the strength and universality of associations, so that a word spoken will evolve similar associations in the audience to those that it does in the speaker<sup>3</sup>. In this model of thinking, thoughts can be seen to flow in an uninterrupted sequence, so that one or more associations, with resulting further psychological events, may arise from each thought. In spite of several possible associations, thinking usually proceeds in a definite direction due to the operation of the determining tendency<sup>4</sup>. Loosening of associations was the basic disorder on the

1. Senior Resident, 2. Prof. of Psychiatry, CIP, Ranchi  
Correspondence : suj\_doc@yahoo.com



premise of which Bleuler<sup>5</sup> described schizophrenic thought disorder. The absence of central determining tendency led thought to be determined by incidental thoughts (coexisting with the original one), clang associations (when ideas are associated by sound), condensation (when two or more ideas are fused into one concrete way). Bleuler borrowed these concepts from Freud, who had pointed out that these mechanisms were characteristic of thinking in dreams<sup>6</sup>.

**Carl Schneider:** Schneider described five abnormalities in schizophrenic speech: fusion (unrelated concepts are broken together), derailment (speech proceeding along certain path slips on to another path), omission (a part of a thought in the main stream drops out), substitution (a major thought is substituted by a subsidiary one) and irrelevancy or drivelling (sequences of thought are mixed together in confusion). He described three disorders of thinking in schizophrenics which corresponded to three features of healthy thinking: disturbance in constancy, organization and continuity resulted in transitory, drivelling and desultory thinking respectively.

**E. Kretschmer :** Kretschmer attempted to interrelate psychologic functions and thought disorder with his theories of personality, body build and types of illness. According to him, leptosomes (and hence schizothymes and schizophrenics), showed a greater degree of dissociation than pyknics (and hence, cyclothymes and manic depressives) and also showed more perseveration and unusual association. Schizophrenic thinking was thought to be regressive. He mentioned condensation, displacement and symbolization as the common manifestations of disordered thought processes.

**Karl Kleist:** Kleist<sup>7</sup> added a neurological viewpoint to thought disorder by drawing parallel with aphasia. He considered that disorders like literal paraphasia (disorders of production of sounds or sequence of sounds in a given word), verbal paraphasia (correct word can't be found or a word is used incorrectly), agrammatism (simplification of word sequences by omitting necessary words) and paragrammatism (correct word sequence but phrases and sentences are incorrectly selected or mixed up) were also found in schizophrenic speech. He also mentioned three kinds of thought disorder-incoherence (no understandable connection between one thought and the next), paralogia or sensory thought disorder (concepts emerge in an incomplete way resulting in derailment and displacement) and alogia or motor thought disorder (no new thoughts emerge)<sup>1</sup>.

**Babcock:** Babcock calculated the efficiency index of patients by measuring their abstract intelligence on the Terman vocabulary test (which was assumed to measure pre-illness intelligence) and comparing it with their present intellectual capacity. The "efficiency index" was seen to fall in schizophrenics. Based on these findings, he hypothesized that because of "extreme intellectual slowness", schizophrenics did not have time to think out the answer to one problem before the next one was presented. As a result, they answered in the random and this gave rise to formal thought disorder.

**Gruhle and others:** Gruhle proposed that speech abnormality in schizophrenia resulted from a method of expression adopted by the patient to describe his unique experiences. He felt that the "oddity" of schizophrenics pervaded all spheres and affected their speech occurred to a lesser degree in normals and in those who were "scatter-brained" either in normal circumstances or when drunk.

**Goldstein and theories of concreteness:** The theory of concreteness was mainly popularized by Goldstein who proposed that the ability to form normal abstract concepts is lost in schizophrenia. This followed his work on brain damaged patients who failed to perform a object sorting test correctly. He borrowed ideas from Gestalt psychology and said that schizophrenic thought resulted from loss of figure-ground relationship (inability to differentiate between essential and non essential aspects of a situation) coupled with intrusion of personal idiosyncratic ideas.

**Cameron and theories of overinclusion :** Cameron<sup>10</sup> was an American psychiatrist who was one of the earliest to carry out an empirical study of thought disorder with the help of logical problems and Vigotsky concept formation test. He mentioned four types of thought disorders:

- i. Asyndetic thinking: This involves use of loose cluster of more or less related thoughts for well integrated concepts.
- ii. Metonymy: Substitution of a related term in place of a more appropriate term.
- iii. Interpenetration of themes: Two concurrent streams of thought- one dealing with current situation and another dealing with personal matters or fantasy - keep interfering with one another resulting in confused speech.
- iv. Overinclusion: The schizophrenic is unable to maintain the boundaries of the problem.

**Von Damarus :** Von Damarus<sup>11</sup> attempted to define abnormalities in schizophrenic thinking in terms of disorders of formal logic. He believed that paralogic thinking shown by schizophrenics was the same as that shown by primitive men and was merely a deviation from norm rather than an independent abnormal phenomenon.

**Bannister and Salmon and Personal construct theory :** Bannister and Salmon<sup>12</sup> developed a method of investigating schizophrenic thought disorder based on personal construct theory which was originally described by Kelly<sup>13</sup>. According to this theory, each individual has his own repertoire of predictive constructs by which he codifies his environment. Schizophrenic thought disorder resulted from repeated invalidation of the constructs.

**Mednick and learning theory:** Mednick<sup>14</sup> attempted to explain thought disorder in terms of learning theory. He suggested that schizophrenics' anxiety increases stimulus generalization and reduces discrimination so that "any unit of a thought sequence might call up some remote associate and this associate will call up another remote associate".

**Chapman and meaning responses:** Chapman et al.<sup>15</sup> suggested that disordered verbal behaviour of schizophrenics is because they respond "to words by their strongest longer represented their appropriate objects and became subjected to primary process thinking with displacements and condensation."

**Family theories:** Lidz et al.<sup>17</sup> and Singer and Wynne<sup>18</sup> were the major proponents of family theories of schizophrenia. When explaining schizophrenic thinking, they opined that the children never learn to form stable concepts because the parents, although they may label objects correctly and form adequate concepts, never let any meaning maintain its value consistently.

Trunell<sup>19</sup> based his theory of thought disorder on Piaget's theory of cognitive development. He suggested that through lack of conceptual consistency in the parents, the child may fail to achieve the equilibrium between "assimilation" and "accommodation" through "decentering" which Piaget believed to be the basis of normal cognitive development. This failure formed the basis for later development of thought disorder.

**McGhie and filter theory:** In considering how the brain processes information, Broadbent suggested a filter mechanism operating on the input side that enables us to handle efficiently the multitude of information that impinges on us selecting only what is relevant to the task in hand. McGhie<sup>20</sup> have both suggested that the schizophrenics' apparent increased distractibility could be caused by a failure of the filter. Payne similarly suggested defective filtering as the basis for overinclusive thinking.

Regarding speech comprehension, McGhie<sup>20</sup> found that due to distractibility, schizophrenics were less able than normals to deal with contextual cues.

**Wing:** Wing, while interviewing recently discharged chronic schizophrenic patients, came across some patients who used a lot of words but conveyed very little meaning with them. Wing<sup>21</sup> incorporated this new type in the scale of "poverty of speech" and called it "poverty of content of speech".

**Harrow:** Harrow and his coworkers decided to investigate thought disorder by understanding a new, descriptive approach. They chose the term "bizarre idiosyncratic thinking" to reflect a theoretically neutral approach to thought disorder. They developed a standardized interview and assessed idiosyncratic thinking under the domains of linguistic form and structure, the content of the statement, intermixing tendencies, the relation between question and response and behaviour. Harrow and Quinlan<sup>22</sup> also emphasized the importance of stilted speech in schizophrenia and were one of the earliest workers to point to the possibility of underlying executive dysfunction in schizophrenia.

**Nancy Andreasen:** Prior to the publication of DSM-III, Andreasen<sup>23</sup> was entrusted with the job of developing and evaluating a standard set of definitions of thought disorder from the innumerable confusing and overlapping terms that were in use at that time. She compiled a set of definitions for describing disorders of speech and language in psychiatric disorders without attempting to characterize underlying cognitive processes. Terms like

loosening of associations, interpenetration of themes and flight of ideas were excluded. Finally, a set of 18 disorders of thought, language and communication were selected. This gave rise to the scale for measurement of thought, language and communication disorders and the inter-rater reliability was also tested<sup>23</sup>. Andreasen's scale marked a watershed line in research on formal thought disorder.

## NEWER ETIOLOGICAL THEORIES OF THOUGHT DISORDER

**Thought disorder as a form of dysphasia:** Karl Kleist<sup>7</sup> was the first to point out the similarity between formal thought disorder and sensory and motor aphasia. Chaika<sup>24</sup> undertook a linguistic analysis of schizophrenic speech and commented that it was indicative of disturbance in areas of brain concerned with language. Subsequent studies<sup>25,26</sup> compared speech of thought-disordered schizophrenics with patients of aphasia and did not find significant difference between the two groups. Oh et al<sup>27</sup> showed that deficits in comprehension and naming were generally characteristic of schizophrenia and not specific to thought disordered individuals. Although the debate still remains open, the current consensus is that dysphasic disturbances can only account for a small proportion of schizophrenic thought disorder.

**Primary deficit in communicative competence:** Components of communicative competence include discourse knowledge, pragmatics and sociolinguistics. Chapman et al<sup>15</sup> proposed that schizophrenic patients showed a bias towards stronger meaning of a word even when the context dictated otherwise. Kuperberg et al<sup>28</sup> showed that schizophrenics showed no change in reaction time when asked to identify a target word in spite of various degrees of linguistic violation in the sentences. This finding contrasted with normal controls and non-thought-disordered schizophrenics. Rochester and Martin<sup>29</sup> found that schizophrenic patients used lesser number of cohesive ties than normal controls but this was not supported in subsequent studies<sup>30,31</sup>. Finally, the inability of schizophrenics to take into account the listeners' perspective began to be investigated as a cause for language disturbance. A series of studies<sup>32,33</sup> found impairment in schizophrenic patients in theory of mind tasks.

**A deficit in executive function:** Harrow et al<sup>34</sup> while describing "intermixing tendencies" in his study of thought disorder hinted at defects of executive function. McGrath<sup>35</sup> explained schizophrenic thought disorder in terms of failure to establish set, failure to change set, failure to planning and editing and failure to monitor errors. Barrera et al<sup>36</sup> found that schizophrenia patients with thought disorder performed poorly in tests of executive function in compared to those without thought disorder.

**Dyssemantic hypothesis of thought disorder:** Cameron<sup>10</sup> used the term over inclusiveness to refer to the inability of the schizophrenics to confine thinking to a single frame of reference. Subsequently, Chapman et al<sup>15</sup> reported over inclusive thinking after applying various tests to schizophrenic patients. Hawks and Payne found highest correlation between over inclusiveness and formal thought disorder in their sample of schizophrenic



patients. Manchsrek et al<sup>38</sup> and Spitzer et al<sup>39</sup> showed that increased spreading activation in semantic memory was responsible for schizophrenic thought disorder. This was confirmed by Goldberg et al<sup>40</sup> who proposed that schizophrenics do not have a decrease in semantic memory but the organization of the network is aberrant. This finding was substantiated in other studies<sup>41, 42</sup>.

## CONCLUSION

Thought disorder has come a long way from Bleuler's disturbances of association to Andreasen's synthesis of various concepts in disorders of thought, language and communication. Its presence across diverse psychiatric disorders has prompted researchers in various fields to explore its etiology from their own perspective. However, no particular cause has been identified although several researches have been carried out in last three decades. It remains to be seen whether newer methodological advances in research could crack the unsolved puzzle of formal thought disorder.

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## CONTINGENT NEGATIVE VARIATION IN ADOLESCENT REMITTENT BIPOLAR POPULATION

— Shravani Sur<sup>1</sup>, Saddichha Sahoo<sup>2</sup>, Vinod Kumar Sinha<sup>3</sup>

### INTRODUCTION

Bipolar disorder is characterized by deficits in sustained attention, focusing-execution, cognitive flexibility and general cognitive functions. While neurobiological dysregulation is thought to produce these behavioral changes, the mechanisms responsible for bipolar disorder remain obscure. Biological markers sensitive to state changes during the illness (e.g. manic or euthymic) might provide a bridge between behavioral and neurobiological abnormalities. Cognitive changes are documented even in the remission phase of bipolar illness. Event related potential (ERP) are very small voltages generated in the brain structures in response to specific events or stimuli (1). They are EEC changes that are time locked to sensory, motor or cognitive events. The CNV is a slow surface negative ERP which has been classically linked to expectancy (2) or motor preparation (3). It is sometimes divided into two phases; the early phase with a more frontal distribution which is supposed to be related to orientation induced by the warning stimulus and the later phase to motor anticipation, if a response to the second stimulus is required (4). Hence, the CNV appears to reflect a mixture of sensory, cognitive and motor preparation, each depending on the type of task. CNV has been studied extensively in aging, dementia and schizophrenia. However there is scarcity of literature in bipolar disorder.

In this study, we attempted to record CNV in remittent bipolar child and adolescent population and compare with normal controls.

### METHOD

25 patients were recruited from Child and Adolescent Psychiatry Unit Outpatient Department of Central Institute of Psychiatry, India. Controls were matched for age, gender and social class. Structured diagnostic interviews were performed for all participants using the Schedule for Affective Disorders and Schizophrenia-Present and Lifetime Version (5). Additional information regarding the nature of symptoms and remission period was obtained to enable DSM-IV diagnoses to be made. Remission was determined by Young Mania Rating Scale (6) and Children's Depression Inventory (7).

1. Resident, 3. Prof of Psychiatry, CIP, Ranchi, 2. Resident, NIMH & AS, India  
Correspondence : shrav1980@gmail.com

EEC activity was recorded from the scalp through 38 electrodes placed according to the 10/20 international system (19 frontal, 7 central, 2 temporal, 10 parietal electrodes). Linked earlobes were used as the reference, the forehead as ground.

Patient was subjected bilaterally to an auditory alerting stimuli (S1), followed by an imperative stimulus (S2), consisting of repetitive flashes of red light being provided through the goggles at an interval of 3 seconds. Subjects were instructed to press a switch as soon as the repetitive imperative stimulus was given which terminated the imperative stimuli (S2). Analysis of data was done using the Statistical Package for Social Sciences (SPSS) version 13.0 for Windows. Statistical significance for all hypothesis testing was established at  $P < .05$ .

### RESULTS

Clinical characteristics of the patient population showed the mean age of onset of illness as 13.44 years (2.02 yrs) with 2 years (1.19 yrs) duration of illness. There were 2.68 (1.51) episodes of illness with remission being 6.2 months (4.69 months).

The mean number of depressive, manic and mixed episodes being 0.75 (1.03), 1.43 (0.72) and 0.30 (0.47) respectively.

Table 1 : CNV latencies of patient and control groups

| Electrode areas | Patients (n=25)<br>Mean (SD) | Controls (n=25)<br>Mean (SD) | T value | Df | Significance |
|-----------------|------------------------------|------------------------------|---------|----|--------------|
| Midline lat     | 552.40( 182.59)              | 609.22(143.64)               | 1.223   | 48 | .227         |
| Parietal lat    | 758.28(261.02)               | 829.06( 213.50)              | 1.049   | 48 | .299         |
| Central lat     | 699.84(235.64)               | 796.56(184.85)               | 1.615   | 48 | .113         |
| Frontal lat     | 827.97( 278.93)              | 893.44( 197.68)              | .957    | 48 | .343         |

Table 2: CNV amplitudes of patient and control groups

| Electrode areas | Patients (N=25)<br>Mean (SD) | Controls (N=25)<br>Mean (SD) | T-value | Df | Significance |
|-----------------|------------------------------|------------------------------|---------|----|--------------|
| Midline amp     | -5.07( 5.43)                 | -6.57( 8.95)                 | .716    | 48 | .478         |
| Parietal amp    | -8.28(12.96)                 | -11.47( 13.46)               | .855    | 48 | .397         |
| Central amp     | -7.68(9.05)                  | -7.63(10.85)                 | -.016   | 48 | .987         |
| Frontal amp     | -8.78( 8.03)                 | -7.09( 10.51)                | -.638   | 48 | .527         |

Using independent samples T-test for analyzing parietal, central, midline and frontal CNV

amplitudes and latencies between patient and control groups, no significant difference was seen.

## DISCUSSION

In the present study, late CNV was measured, which is associated with attention to the experimental task (8). It is also associated with motor preparation and stimulus anticipation.

There is dearth of literature of CNV in bipolar population. In our study there was no difference in latency (Table 1) and amplitude (Table 2) of the CNV waveform in both patients and controls. This reflects that during remission phase, bipolar patients have intact process of anticipation and preparedness for taking action. Small sample size, lack of ERP data of patients in acute phase and unequal sex distribution are the limitations of the study.

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## EVENTS

### IAPP (Indian Association of Private Psychiatry) 10th Annual Conference

Date : 23rd to 25th October 2009

Venue : Holiday Inn Resort, Mobor (Near Margao), South Goa

Theme : Sharpening Clinical Skills

### CEZIPS-2009 (Annual Conference of East Zone)

Date : October, 9, 10, & 11 2009

Venue : Sikim Manipal Medical College, Gangtok

Theme : "Substance Abuse & Suicide"

Contact Persons : Chairperson - Dr. C. S. Sharma

Org. Secretary - Dr. Sanjiba Dutta

### Annual Conference of IPS (ANCIPS)

Date : 17th to 20th January 2010

Place : Jaipur

Organizing Chairman - Dr. Shiv Gautam

Organizing Secretary - Dr. Lalit Batra

Theme : Preserving mental health through family & culture

### 2009 World Congress of the World Federation for Mental Health

"Working Together for Mental Health"

September 2-6, 2009

Hilton Hotel, Athens, Greece

### IRBD Asia Pacific 2009

25-27 September 2009

Cochin, Kerala, India

### WPA Regional Meeting

Will be held on 21-23 January, 2010, Dhaka, Bangladesh,

The last date of early bird registration is 30.11.2009 and

The last date for submission of abstracts, proposal for symposium / workshop is 30.11.2009

**Silver Jubilee National Conference of Indian Association for Social Psychiatry**

(NCIASP 2009), marking 25 years of formation of IASP

Dates : 15 - 17 November 2009

Place : Lucknow

Theme : Mental Health : Prioritizing Social Psychiatry

arch 12-15, 2010, at JLN Auditorium Complex, AIIMS, New Delhi

**XVth National Conference of Alzheimer's & Related Disorders Society of India (ARDSI)**

XVth National Conference of Alzheimer's & Related Disorders Society of India (ARDSI) to be held in Kolkata on 4th, 5th & 6th December, 2009,

Theme : Dementia Solidarity

**Recent Advances in Cultural Psychiatry for South Asia**

3rd UCL-BALM Short Course

chennai, Tamil Nadu, India

9-11 November 2009

**International Seminar on Mind, Brain and Consciousness**

14th, 15th January 2010, Thane, India

**13th European Symposium on Suicide and Suicidal Behaviour**

Date : 1st to 4th September 2010

Place : Rome, Italy

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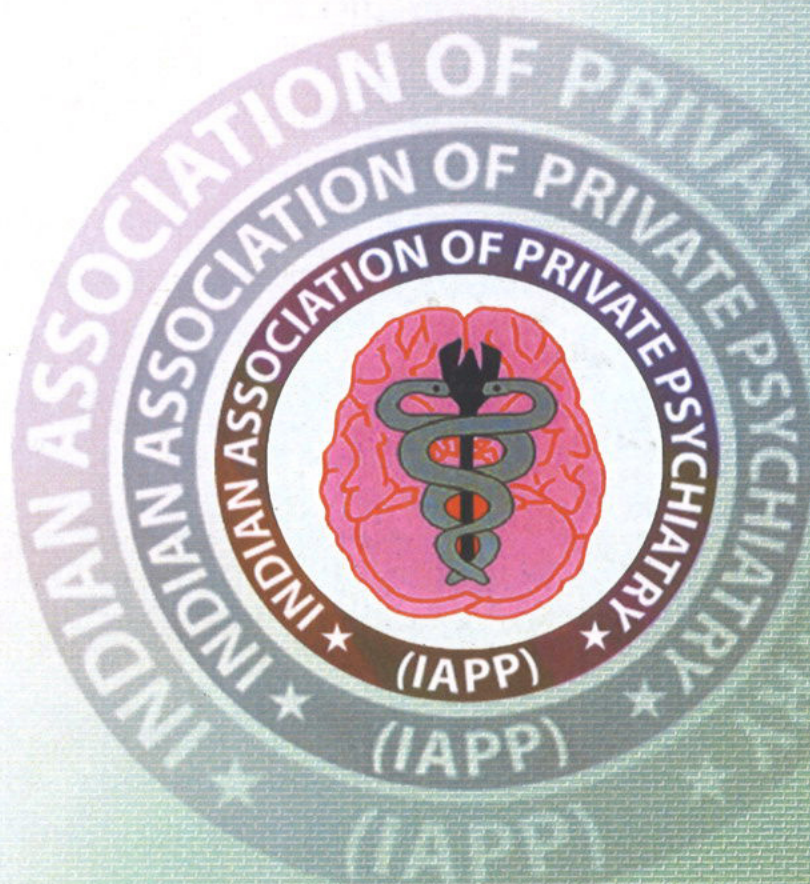
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