

Interfaces of Psychiatry

Different Strokes



Indian Psychiatric Society

Different Strokes
Interfaces of Psychiatry

Editor

Dr. Vinay Kumar

Published by



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ACKNOWLEDGEMENTS



I am delighted to present the 3rd volume of *Different Strokes*, an official publication of Indian Psychiatric Society. The last two volumes were excellent collections of review articles on diverse topics. This year we are taking a different path by focusing on a unifying theme: *Interfaces of Psychiatry*. We realize the importance of addressing the issue of relationship of psychiatry with other disciplines. Yet, there is no book on this topic from an Indian perspective. To fill this gap, we have tried our best to cover almost all major interfaces ranging from biology to humanities and also parapsychology, which comes in our practice frequently but we find little scientific literature on it. I hope this edition of *Different Strokes* will be useful for all the members of IPS and especially postgraduate students.

I am grateful to all the office bearers and the EC members for accepting the proposal of Publication Committee to bring out this book. I am specially thankful to our President Dr G Prasad Rao, Vice President Dr M S V K Raju and Honorary General Secretary Dr Gautam Saha for all the help, encouragement and support. The idea and dream may be mine but this book belongs to all the authors. All of them are renowned academicians and accomplished clinicians. I am thankful to them for sparing time for this difficult task at such a short notice. I also thank my Co-Chair Dr Sandeep V Shah and Convener Dr Amlan Kusum Jana for helping me carry out this huge task. I will be failing in my duty if I do not express my sincere gratitude to Prof P K Singh for his invaluable help and guidance.

Dr Vinay Kumar
Editor, *Different Strokes*
Chairperson, Publication Committee
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MESSAGE FROM PRESIDENT



Creating opportunities and means to update scientific knowledge is one of the primary responsibilities of any professional organization. At IPS we have been performing these noble tasks since its inception in 1948. Our many publications and PubMed indexed journal, Indian Journal of Psychiatry, are eloquent testimonies of our endeavors. The publication of 'Different Strokes' for last two years is also a humble contribution towards this goal.

I am happy to note that this year's edition of 'Different Strokes' is really different. The idea of focusing on interfaces of psychiatry is an excellent one. A psychiatrist must have or inculcate a holistic view of human life because good psychiatric practice is just impossible without it. I hope, this book 'Interfaces of Psychiatry' will be helpful in broadening the perspectives of readers, specially postgraduate students.

I congratulate Dr Vinay Kumar and his team for this very useful publication and wish this work a wide readership.

Dr. G. Prasad Rao
President
Indian Psychiatric Society

MESSAGE FROM VICE PRESIDENT



Psychiatry is quintessential medicine. It is an overarching speciality of medical science that impinges on all areas of human existence in health and sickness. All branches of science – behavioural, social, biological and physical as well as aspects of arts have a relevance and significance for the study and practice of this unique branch of medicine and surgery. It indeed is a complete and comprehensive human and medical science.

Every psychiatrist is obliged to acquire at least a passing acquaintance of such subjects which include philosophy, ethics, culture, psychology, anthropology, ontology, epistemology, general and abnormal psychology and arts which are generally considered as somewhat thick and esoteric by an average physician. Besides the above a psychiatrist is expected to have a fair grip on medicine and needless to say- a thorough knowledge of psychiatry. Viewing from this angle a psychiatrist is always in the making.

It is a wonder that our little grey cells rise to the challenge to keep us afloat and sail the illimitable ocean of knowledge.

The journey to achieve excellence is always a process - for excellence is a horizon. Time sets the limit; knowledge is ever expanding. Psychiatrists in our country bear enormous work load and are required to keep abreast of things that matter to them and their patients. Dr Vinay Kumar and his team have done a great service by putting at the table of every psychiatrist material which brings into focus the interfaces of various topics with mainstream psychiatry. The language and content is lucid and easily assimilable. All the topics have been authored by persons who have enduring interest in the areas.

I congratulate Dr Vinay Kumar and his team for taking this thoughtful initiative and all the authors for their commitment and contribution to the growth of our society.

Long live Indian Psychiatric Society

Dr (Brig) M S V K Raju
Veteran Armed Forces Medical Services
Vice President (President Elect)
Indian Psychiatric Society

MESSAGE FROM HON. GENERAL SECRETARY



Seasonal Greetings from Hon. General Secretary!

Indian Psychiatric Society has always been glorified with the heights of excellence achieved and shared amongst the members. The experiences of the eminent psychiatrists mixed with the dynamism in form of write-ups bring laurels for the society and the country.

Different Strokes, published by the Publication Sub-Committee, revives the bygone golden memories of mine who first conceptualized and made a humble effort to imbibe the different avenues of Psychiatry in one single publication. This newly introduced issue of the Different Strokes also promises to act as an interface between the psychiatry and other medical avenues. Dr. Vinay Kumar, Chairperson along with other members of the Publication Committee has crafted a wonderful art and needs a well-deserved encouragement and special thanks from the society at large. I, on behalf of Indian Psychiatric Society heartily welcome all the articles, and wishes towards the success of Different Strokes and its progress. Please confer upon us the knowledge shared and contributed by the eminent authors.

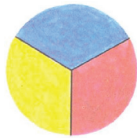
With lots of wishes, I thank all authors who have been the part of all issues of Different Strokes and heartedly invite all of the members to read and accumulate the experience shared.

Long Live IPS!

Warm Regards

Dr. Gautam Saha
Hon. General Secretary
Indian Psychiatric Society

Pictures from Page 130



[Fig.9a]: Primary



[Fig.9b]: Secondary & Tertiary

Picture from Page 132



[Fig.11]: Splash of colour

CONTENTS

<u>Topic</u>	<u>Page</u>
Interfaces of Psychiatry:	
INTERFACES OF PSYCHIATRY – KNOCKING AT THE DOORS -	3
Dr. Vinay Kumar, Lt Col (Dr)Shahbaz Ali Khan	
INTERFACE WITH BIOLOGY	7
Dr. Venkataram Shivakumar, Dr. Ganesan Venkatasubramanian	
INTERFACE WITH MEDICAL AND SURGICAL SPECIALITIES	19
Dr. Shiva Shanker Reddy, Dr Santosh K Chaturvedi	
INTERFACE WITH CARDIOLOGY	32
Dr. G. Prasad Rao, Dr. Anubhuti Upadhyay, Dr. R. Damodar Chari, Dr. V. Srirama	
INTERFACE WITH SEXUALITY	42
Dr. T.S. Sathyanarayana Rao, Dr. Abhinav Tandon, Dr. Shivanand Manohar	
INTERFACE WITH ETHICS & CULTURE	54
Dr. Savita Malhotra, Dr. Srinivas Balachander	
INTERFACE WITH HISTORY AND POLITICS.....	63
Dr. Sai Krishna Tikka, Dr. Umesh Shreekantiah, Prof. S Haque Nizamie	
INTERFACE WITH SOCIOLOGY.....	83
Dr. Shinjini Choudhury, Dr. Abhishek Ghosh, Dr. Debasish Basu	
INTERFACE WITH MYTHOLOGY	92
Dr. Ajit V Bhide	
INTERFACE WITH PHILOSOPHY.....	100
Dr B R Ravi Shankar Rao	
INTERFACE WITH SPIRITUALITY AND RELIGION	108
Dr. S.Vijayakumar	
INTERFACE WITH ART	126
Dr. Debasis Bhattacharya	
INTERFACE WITH LAW	135
Dr. S.Nambi, Dr. N.Nisha	
INTERFACE WITH PARAPSYCHOLOGY	142
Dr. P. K. Singh	

INTERFACES OF PSYCHIATRY – KNOCKING AT THE DOORS

Dr. Vinay Kumar¹

Lt Col (Dr)Shahbaz Ali Khan²

Let me start by borrowing from the words of Alvin Toffler, author of the International bestseller “Future Shock” where he says that the new age mantra for survival and growth seems to be the capacity to learn, unlearn and relearn. This is more true of psychiatry than anywhere else. One of the stalwarts of Indian Psychiatry, Dr J S Neki always used to quote Prof. Mike Ross, his professor at NIMHANS: “if you know only psychiatry, then you don’t know even Psychiatry”. Psychiatry today stands at a juncture where it touches almost all aspect of human life. From “I think therefore I am” to “to be or not to be”, Psychology has traversed the distance from realism and existentialism to socialism and capitalism as a way of life cutting through philosophy, culture, religion, sociology and economics among other fields. One has to appreciate the ripple effect of collective emotions on the rise and fall of the sensex to understand the impact of mind on aspects as distant as economy.

Psychiatry is a unique discipline which not only provides opportunities for healing the maladies of mind but also provides the impetus and opportunities to explore the mysteries of mind. This scientific exploration traverses various frontiers and makes significant interfaces at every front. From the confines of mental asylums, wrapped in spirits and witchcrafts, suffering from ostracisation of the mentally ill to the concept of one unitary psychoses to circuits and synapses to psychotropics tailored to individual milieu and gene therapy, psychiatry has made real long strides indeed. When the West was debating the Mind body dualism of Descartes, Eastern philosophy was looking at the two as seamlessly merging into each other in that the soul never dies and the body is but a harbor of the soul which is universal and also, transgenerational. Psychic distress manifesting as somatic symptoms is common here. Psychiatry has certainly moved beyond symptoms to circuits and networks. The mental illness which was unchained by Pinel in the Salpetriere is being provided nurturance and succor in the community. From deserting our people afflicted by mental illness, with the advancing knowledge and improved tools, we are back to claiming our mentally ill to our homes. It is a sign of collective accomplishment. Exploration of the various frontiers of psychiatry only extends this boundary further.

As every tool has a philosophy, the philosophy of mental health can be summarized in its transition from “Evidence-based Medicine” to “Value-based Practice”, which is a new model linking values with evidence in pursuit of a more patient centered approach.¹ Similarly, the interaction between

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psychiatry and sociology is underlined by clear impact of social milieu in causation to the primacy of social dysfunction in diagnosis as well as recovery. It has been realized that normalcy is a wide spectrum of emotions, thought and behavior in relation to social and environmental context and not a standalone concept in isolation. The spectrum of sanity touches many frontiers. One of the parameters of normalcy is being able to conform to social norms. If taken to an extreme, this may imply that undesirable behaviors may be taken as a sign of mental illness. It is anybody's guess that "desirable" is a very subjective concept and heavily influenced by society and the rules the society frames for itself. Misuse of psychiatry as a political tool in the erstwhile USSR to muzzle the voice of opposition is a case in point. It is imperative therefore to touch upon the interface of Psychiatry with history and politics in a sensible and scientific manner so as to avoid extreme exploitation of the concept.

In life, uncertainties abound. Quantum physics is pushing the boundaries of uncertainty further ahead by challenging the concept of real and unreal.² This perhaps adds to the existential uncertainties that humans face and the resulting anxieties that we are confronted with. And this is everyman's dilemma, the burden of sanity that all of us carry - collective existential anxiety, a matrix of factual uncertainty, conceptual complexity and personal inadequacies. Since times immemorial, there have been attempts to address this existential anxiety through societal norms, rules, culture, ideology and religion etc. That brings mental health to the interface with these streams. The most significant of these is religion. Classical studies have tried to address religiosity/spirituality as one big domain (though the two terms are not the same, they are closely interlinked). On one hand where a balanced, flexible and permissive approach in religiosity/spirituality gives a comforting definitiveness to the chaos and a soothing compression to our nervous existence, on the other hand a more strict, overly simplified, puritanical and intransigent approach runs the risk of flawed fundamentalism which may not be very healthy for society. This may be clearly seen in the current conflicts the world over. This interface is already being realized by mental health specialists world over in that Psychiatrists are more comfortable, and have more experience, addressing religious/spiritual concerns in their patients and are more likely than other physicians to note that religion/spirituality can cause negative emotions that lead to increased patient suffering.³ This has increased significance in the current scenario where the world is a global village and we are all world citizen. The world is in need of a balancing act, an interface. The relation between spirituality/religiosity and psyche is not only complex, it is extremely important. This interface needs to be realized and addressed.

The most important interface is that with physical medicine. Thanks to the work of George Engel and his seminal work on the Biopsychosocial aspect of illnesses, the complex relation between biology, psychology and environment was underlined. The bidirectional relationship between psychiatric illnesses and general physical illness is well known. From irritable bowel syndrome to psoriasis to outcomes in coronary syndromes, the role of psyche is well established. The detrimental effect of mental illness is evident in coronary syndromes not only in causation but also in outcomes.⁴ On the other hand increased rate of physical comorbidity in mentally ill is also well known to the extent that overall mortality rates are much higher in acute medical settings for patients who also have a comorbid psychiatric illness.⁵ This domain cannot be ignored anymore – a psychiatrist has to be

aware of the physical comorbidities in his pts and the physician cannot ignore mental symptoms in chronically ill patient. Be it, the shrinking of hippocampus in depression and many other psychiatric illnesses⁶ to impaired immune response in various mental illnesses⁷.

From the time that neuroscience was jolted from its static slumber by the discovery of adult neurogenesis to the astounding discovery of the fact that environment can cause heritable changes in the DNA, the relation between nature and nurture has been complex and bidirectional. The world is now debating whether our PIN code (environmental milieu) is as important as the genetic code. From Nature Vs Nurture, the discourse has become nature AND nurture with a permissive concept. The finer strands of the complex and dynamic nature of this interaction is being continually unfolded. In the age of modern research triggered by advances in functional neuroimaging, advanced cognitive assessment, psychoimmunology and psychogenetics, there is a trend towards biological reductionism. However, to see the mind and the psyche as only biology will be full of fallacy, because we are ourselves and much more. If we have to understand the Human mind and its afflictions well enough we need to look beyond biology, into the realms of philosophy, culture, sociology among others, in the lifetime and perhaps even beyond in the form of our collective unconscious.

When we talk of interface, the domains of causation to precipitation to maintenance to therapeutic factors are indicated as also the protective factors with regards to mental health as well as mental illness. In this context, the interface of psychiatry is with a vast and varied fields ranging from biology to culture to religion/spirituality to history to philosophy and more. Through this effort in the form of a book, a humble attempt has been made to explore the various interfaces of psychiatry and take a holistic view of the stream. In general, with the expanding boundaries, bloom in knowledge and research challenging old concepts by the moment, there is felt need for a balancing interface which Psychiatry is well poised to provide. If these interfaces are recognized and realized, it is hoped that it will finally lead to better understanding of concepts and help in collaborative decision making. This is a humble attempt in that direction. We have collected thoughts of greats in the field on this contemporary and challenging topic to address this interface in a holistic approach to the topic.

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INTERFACE WITH BIOLOGY

Dr. Venkataram Shivakumar¹, Dr. Ganesan Venkatasubramanian¹

Introduction

Historical precedents for ascribing somatic (biological) underpinnings for the pathogenesis of psychiatric disorders date back to 4th century BC. The modern beginnings of biological views about psychiatric disorders perhaps started from mid 1800s with the observations by the influential psychiatrists who recognized the importance of heredity. The prevalent view of simplistic organicity to underlie the manifestations of psychiatric disorders was refined by the concept of psychobiology. Over the next decades advances in the neuroscience coupled with research techniques have emboldened the biological basis of psychiatric disorders (Gelder, 1996).

It has been suggested that the first wave of biological psychiatry started in the second half of the 19th century with an aim “to uncover the relation between mind and brain by doing systematic research linking neuropathology and mental disorder and by using the experimental method in animals and humans” (Walter, 2013). The second wave perhaps originated in the later part of the 20th century primarily due to the advances in genetics and psychopharmacology. The third wave, which started just about two decades before, is promulgated by the technological advances in neuroscience research methods couples with exciting advances in basic science that has led the conglomeration several –omics (for example, genomics, proteomics, metabolomics, connectomics and similar others) (Walter, 2013). This overview attempts to summarize selectively (due to space limitations) certain key interfaces between biology and psychiatry. Since, it is exhaustive to list the interface with respect to all psychiatric disorders, the emphasis has been put forth on schizophrenia as an exemplar illustration to elucidate the application of these paradigmatic perspectives – increasingly, evidence to support similar applications are emerging for several other disorders as well (for example, bipolar affective disorder, obsessive compulsive disorder, autism, dementias and similar others).

The Paradigm of Aberrant Neurodevelopment & Neuroimmunopathogenesis

Neurodevelopmental model postulates the manifestations of several psychiatric disorders (for example schizophrenia) as a behavioral outcome of an aberration in brain development processes that begins long before the onset of clinical symptoms and is caused by a combination of genetic and environmental factors (Rapoport et al., 2005; Venkatasubramanian, 2007). Gene-environment

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interaction especially involving genetic factors and obstetric complications have been put forth as one of the important mechanisms that increase the risk towards schizophrenia (Nicodemus et al., 2008). Fetal brain development is particularly vulnerable to environmental insults, and deviations from the normal course of brain development are assumed to underlie several mental disorders.

Disparate lines of evidence compellingly support the association between abnormal fetal neurodevelopment and increased risk for schizophrenia (Schlotz and Phillips, 2009; Bale et al., 2010). Fetal neurodevelopment in schizophrenia can be affected by several obstetric complications like maternal infection, preeclampsia, bleeding, gestational diabetes, rhesus incompatibility, intrauterine growth retardation (Cannon et al., 2002). All these putative obstetric risk factors of schizophrenia are linked by the common denominator of fetal hypoxia (Cannon et al., 2002; van Os et al., 2010; Schmidt-Kastner et al., 2012).

Epidemiological studies have indicated that maternal infections during pregnancy increase the risk for these disorders in the offspring. Multiple lines of evidence from epidemiologic, clinical, and preclinical studies have provided evidence that gestational exposure to infection contributes to the etiology of schizophrenia (Brown and Derkits, 2010). Season of birth findings in schizophrenia robustly implicate birth in winter or spring months as a significant risk factor for schizophrenia; more specifically, a wealth of studies suggest that the prevalence of influenza in winter months might contribute significantly to this risk (Tochigi et al., 2004). Studies on schizophrenia incidence after epidemics of influenza offer unequivocal support to increased incidence of this disorder among exposed offspring. Examination of medical records of more than 12,000 pregnant women revealed threefold to sevenfold increase in the risk for schizophrenia in the offspring following second-trimester respiratory infection in the mother (Brown, 2006). Given the high prevalence of influenza infection, it has been estimated that about 14-21% of schizophrenia cases could have been due to maternal infection (Patterson, 2007).

In this context, the maternal cytokine response to infections (Maternal Immune Activation) may play a crucial role in this association, because the induction of cytokines is a fundamental immunological event triggered by virtually any infection (Patterson, 2007; Smith et al., 2007).

More specifically, it has been suggested that activation of pro-inflammatory cytokines (with robust support for interleukin-6 (Patterson, 2007; Smith et al., 2007), mediate the neurodevelopmental effects of maternal infections on the offspring. While these cytokines can modulate neuronal differentiation survival and dendrite growth and complexity, they have also been critically involved in the precipitation of the long-term behavioral, cognitive and pharmacological consequences of prenatal immune challenge (Meyer et al., 2006; Meyer et al., 2009).

The compelling role of interleukin-6 (IL-6) in the pathogenesis of schizophrenia is emphasized by the following factors: i) rigorous meta-analytic studies supporting significantly higher serum levels of IL-6 in schizophrenia patients that correlate with symptom severity (Potvin et al., 2008); ii) association of schizophrenia with IL-6 gene polymorphism (Paul-Samojedny et al., 2010); iii) potential influence on hippocampus by serum IL-6 with hippocampus being the most important brain regions implicated in schizophrenia (Marsland et al., 2008); iv) IL-6 playing a vital role in

established models like 'ketamine model' of schizophrenia (Behrens et al., 2008); v) IL-6 being implicated in foetal pathogenetic model of neurodevelopmental aberrations in schizophrenia (Smith et al., 2007). Thus, immunopathogenesis involving interleukin-6 is among the comprehensive models to understand schizophrenia.

Emerging research points towards novel functions of the MHC class I molecules in the central nervous system in that these molecules could play an important role in brain development as well as playing a role in the T and B cell maturation. MHC class I molecules and their immune-receptors play pivotal roles during neurodevelopment by influencing neurological cell interactions and signaling. It has been suggested that MHC class I expression is not only essential for the activity-dependent synaptic rearrangements during normal neural development but also for its negative regulation of the density and function of cortical synapses during their initial establishment (as reviewed in (Debnath et al., 2012). Recent genome-wide association studies have uncovered critical insights with respect to immunopathogenesis of schizophrenia (Sekar et al., 2016).

Brain Plasticity Basis for Psychiatric Disorders

The paradigm of brain plasticity deficit to underlie the genesis of psychiatric disorders like schizophrenia is another key perspective (Chhabra et al., 2015). Neuroplasticity, the ability of the human brain to actively grow and change itself, has been a path breaking revelation in the field of neuroscience (Kandel and Pittenger, 1999;Kandel, 2004). Aberrant neuroplasticity has been used as a framework to understand the complex psychiatric disorders such as schizophrenia, bipolar disorder and several others(Chhabra et al., 2015). Schizophrenia is increasingly being understood as a disorder of disrupted neuroplasticity (Balu and Coyle, 2011;Voineskos et al., 2013). Interestingly, the critical genes implicated in neuroplasticity signaling with functional significance in schizophrenia are Disrupted-in-Schizophrenia 1 (DISC1) (Nakata et al., 2009), Neuregulin 1 (NRG1) and ErbB4 signaling pathway (Bailey et al., 1996), dystrobrevin binding protein 1 (dysbindin) (Guo et al., 2009;Balu and Coyle, 2011;Alizadeh et al., 2012), V-akt murine thymoma viral oncogene homolog 1 (AKT1) (Desbonnet et al., 2009), brain-derived neurotrophic factor (BDNF) (Jonsson et al., 2006) and the N-methyl-D-aspartate (NMDA) receptor (Allen et al., 2008). A majority of the genetic links, their molecular products and their interactions converge towards glutamate signaling, GABA (Gamma amino-Butyric acid) and its receptors, the dopamine system and the cell migration and neuronal development pathways (Balu and Coyle, 2011). Further, dorsolateral prefrontal cortex (DLPFC) mediated executive functions deficits that are universally reported in schizophrenia have been conceptualized as markers of deficit in neuroplasticity since neural mechanisms associated with working memory are also closely related to those governing neural plasticity (Voineskos et al., 2013). These findings suggest that aberrant cortical plasticity may be an inheritable trait, and possibly a biomarker, for disorders like schizophrenia(Chhabra et al., 2015).

Neurochemical and Neurotransmitter Basis for Psychiatric Disorders

Several neurochemical systems interact in disorders like schizophrenia, bipolar disorder, obsessive compulsive disorder (OCD) and similar others; these involve most importantly serotonin, glutamate

and dopamine (Venkatasubramanian et al., 2009).

Serotonin: Serotonergic abnormalities are documented in both schizophrenia and OCD; elevated levels of 5-HT₂ receptors are demonstrated in the frontal cortex in schizophrenia and lysergic acid diethylamide (LSD), a 5-HT₂ agonist, is a well-known psychotomimetic (Busatto and Kerwin, 1997). Moreover, serotonergic modulation of dopaminergic function provides a viable mechanism in schizophrenia (Agid et al., 2008). Serotonergic abnormalities play a pivotal role as indicated by the differential efficacy of serotonergic reuptake inhibitors in alleviating OCD (Murphy et al., 1989) over noradrenergic tricyclic antidepressants like desipramine. In addition, serotonin transporter and serotonin receptor (Bengel et al., 1999; Mundo et al., 2002) abnormalities are documented in OCD.

Glutamate: Glutamate abnormality, mainly NMDA receptor deficiency is one of the influential hypotheses for schizophrenia pathogenesis (Sodhi et al., 2008). The phencyclidine model of schizophrenia symptoms and up-regulation of glutamate receptor expression in the frontal cortex after chronic exposure to clozapine or olanzapine (Tascedda et al., 2001) provide further support to glutamate abnormalities in schizophrenia. In OCD, reports from neuroimaging, genetic and cerebrospinal fluid (CSF) studies support involvement of glutamatergic system in the pathogenesis of OCD (Bhattacharyya and Chakraborty, 2007); (a) neuroimaging studies using magnetic resonance spectroscopy (MRS) consistently have demonstrated increased glutamate in caudate and frontal cortex (Rosenberg et al., 2000; MacMaster et al., 2008) (b) genes involved in glutamate transmission (SLC1A1) have been implicated in association studies (Dickel et al., 2006) (c) a CSF study examining glutamate levels has reported increased glutamate in OCD patients (Chakraborty et al., 2005) (d) the glutamate antagonist Riluzole is useful in treatment refractory OCD (Coric et al., 2005).

Dopamine: The revised dopaminergic hypothesis of schizophrenia postulates a regional abnormality in the dopaminergic system and dopamine as the final common pathway in the pathophysiology of schizophrenia (Keshavan et al., 2008a). In its current form, the dopamine hypothesis of schizophrenia postulates hyperdopaminergic state in mesolimbic pathway resulting in psychotic symptoms and a hypodopaminergic state in the frontal cortical terminal fields of the mesocortical dopamine neurons as the basis of the 'negative symptoms' of schizophrenia (Duncan et al., 1999).

Dopamine and serotonin abnormalities have been demonstrated in patients with OCD (Marazziti et al., 1992) and several lines of evidence from preclinical and clinical investigations implicate dopamine in the mediation of certain types of repetitive behavior (Goodman et al., 1990). Antipsychotic augmentation of treatment with serotonin reuptake inhibitors (SRI) suggest that dopamine receptor antagonism may further reduce symptom severity in SSRI-refractory OCD patients (Bloch et al., 2006). Similar aberrations involving neurochemical pathways have been demonstrated in other psychiatric disorders as well.

The Final Common Pathways: Oxidative Stress & Metabolic Abnormalities

Oxidative stress abnormalities have been proposed to play an important role in the pathogenesis of schizophrenia (Jiang et al., 2013; Shivakumar et al., 2014). Evidence points to the role of

mitochondrial dysfunction and elevated levels of oxidative damage as potential pathogenetic mechanisms in several psychiatric disorders including schizophrenia (Prabakaran et al., 2004). Independent studies have provided evidence to this in the form of genetic and functional impairment in schizophrenia patients to synthesize Glutathione, an antioxidant molecule (Gysin et al., 2007). Apart from glutathione and total antioxidant levels, some researchers have reported increased levels of neopterin in schizophrenia (Chittiprol et al., 2010). High neopterin production is associated with increased production of reactive oxygen species by stimulated immunocompetent cells and it has also been proposed that neopterin may not only be an indicator of oxidative stress resulting from immune activation, but may also contribute to the oxidative stress by modulating reactive oxygen species (Murr et al., 2002; Shivakumar et al., 2014). Magnetic resonance spectroscopy imaging studies in neuroleptic-naïve schizophrenia patients have demonstrated lower phosphocreatine/total phosphorus and phosphocreatine/total ATP ratios in basal ganglia, which could be due to reduced synthesis, perhaps related to mitochondrial dysfunction (Gangadhar et al., 2004). The translational evidence to the oxidative damage theory has been provided by (Berk et al., 2008) in their randomized, multicenter, double-blind, placebo-controlled study, which demonstrated the beneficial effects of administration of antioxidants like N-acetylcysteine, a precursor of Glutathione (Shivakumar et al., 2014). The oxidative stress abnormalities have complex relationship with the insulin signaling aberrations both at the pathogenetic as well as the pathoplastic effect of the illness as well as treatment (Venkatasubramanian, 2009;2012).

The Overarching Paradigm of Evolutionary Neuroscience

Evolutionary theories have been considered as potentially relevant to understand the genesis and persistence of schizophrenia; such evolutionary conceptualizations can be classified into one of the two categories: a) theories that assume schizophrenia as a disadvantageous by-product of human brain evolution, and b) theories that propose evolutionary advantages that are associated with the condition; the latter theories usually focus on one of the following vehicles of selection – namely – individual, kin, or group.

A clear and unequivocal hypothesis on the evolutionary basis of schizophrenia was first proposed by Huxley et al (1964). In their hypothesis, it was postulated that schizophrenia represented a genetic polymorphism accompanied by advantageous and disadvantageous characteristics. The net result would be no positive or negative selection pressure upon the genotype. The authors speculated that reduced fecundity in schizophrenia was compensated by higher resistance to shock, allergies, and infection; however, these possibilities have been substantiated (Polimeni and Reiss, 2003).

Along the lines of models to suggest evolutionary advantages, various propositions include benefits due to territorial instincts, benefits in the domain of social behaviour, resistance to infections in relatives of schizophrenia patients, group-splitting hypothesis of schizophrenia suggesting advantages as group leaders or schizophrenia could have enhanced a shaman's ability to conduct religious-based rituals; these theoretical conceptualizations attempt to unravel the 'evolutionary enigma' of schizophrenia (Polimeni and Reiss, 2003; Brune, 2004).

A series of much debated & researched evolutionary proposition is the potential relation between

exceptional ability and mental illness has been used to explain the persistence of schizophrenia genes. Historically as reviewed by Polimeni and Reiss (Polimeni and Reiss, 2003), this association dates back to Aristotle (Waddell, 1998) and includes various eminent personalities like Isaac Newton, Albert Einstein (with his son Eduard Einstein reported having suffered from schizophrenia) (Jeste et al., 2000), John Nash, Bertrand Russell (with many of his relatives having diagnosed to have schizophrenia) (Polimeni and Reiss, 2003). Studies based on records from Iceland's stable populations by Karlsson found superior academic success among relatives of schizophrenia patients (Karlsson, 1974;2001). These evolutionary neuroscientific perspectives offer overarching paradigmatic conceptualizations that can facilitate understanding persisting risk for psychiatric disorders.

Computational Psychiatry: The Future

Increasingly, it is being realized that use of formal models of brain function to understand psychiatric disorders can potentially facilitate characterization of the mechanisms of psychopathology in a way that can be described in computational or mathematical terms (Friston et al., 2014); these computational psychiatry approaches promise immense theoretical insights and translational implications (Friston et al., 2014). With regards to schizophrenia, such approaches can offer critical insight towards understanding how the 'abnormal' perceptions, thoughts and behaviour that are currently used to define the puzzling clinical manifestations relate to normal function and neural processes (Montague et al., 2012). Thus, by formalizing mathematically the relationship between symptoms, environments and neurobiology, computational psychiatry hopes to provide tools to identify the causes of particular symptoms in schizophrenia in terms of aberrant interactions of brain networks (Dauvermann et al., 2014). Indeed, initial applications of these computational psychiatry technical has promised immense implications for understanding the biological basis of disorders like schizophrenia (Maia and Frank, 2011;Huys et al., 2016).

Summary & Conclusion

To summarize, the impactful advances cutting-edge research techniques over the past two decades have immensely facilitated better understanding of the bi-directional "vectors of influence" that link genes, the brain and social behavior. This, in turn, has led to remarkable progress in biological research principles, paradigms & processes has rendered critical insights on the pathogenesis of various psychiatric disorders (Venkatasubramanian and Keshavan, 2016).

For instance, neuroimaging has revolutionized the research on understanding the biological underpinnings of several psychiatric disorders (Keshavan et al., 2008b). Coupled with the immense expansions on the computational techniques and resources to handle 'big-data', the neuroimaging procedures have facilitated non-radioactive, non-invasive research to examine the in vivo brain aberrations in patients with psychiatric manifestations (Turner, 2014). These techniques attempt to profile the 'panorama' of brain dysfunction involving structural, neurohemodynamic, neurochemical as well connectivity aspects. One is hopeful that these significant advances in neuroimaging techniques will pave way for insights about the disruption of neural networks in neuropsychiatric disorders (pathoconnectomics) (Deco and Kringelbach, 2014).

In tandem with vast advances in neuroimaging research, the progress in molecular biology

involving genomics, proteomics and several other related fields have been astonishing. Noteworthy among such advances is the feasibility of utilizing “stem cell models” to characterize the complex pathogenetic interactions that underlie the genesis of complex psychiatric disorders (Wright et al., 2014). These exciting advances have generated immense hope and novel avenues for identifying biological basis for psychiatric disorders that will have potential diagnostic as well as therapeutic utility (Venkatasubramanian and Keshavan, 2016).

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Conflict of interest

There are no potential conflicts of interest to report.

INTERFACE WITH MEDICAL AND SURGICAL SPECIALITIES

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Introduction

Psychiatry is now significantly integrated with other medical and surgical specialties than in the past. Psychiatric disorders are highly prevalent among medically ill patients. Studies done in our country found 38.6% of psychiatric comorbidity with Depressive disorder (28.2%) being the most common psychiatric diagnosis in the outpatient medically ill ¹. Several explanations have been offered for this association:

- i. Psychological reaction to distress imposed by a chronic medical condition, by a life threatening condition or by the overall severity of illness.
- ii. Common etiological factor producing both medical illness and psychiatric illness or medical illness directly causing psychiatric disorder.
- iii. Bodily symptoms due to psychiatric disorders presenting to medical OPD instead of Psychiatric OPD.
- iv. Medically ill patients are more prone develop psychiatric disorders than healthy people.

Many medically ill with psychiatric comorbidity will not directly seek psychiatric help due to several reasons like lack of awareness among patients, stigma, and lack of psychiatric services. Another important issue is psychiatric disorders in medically ill are underdiagnosed and under treated due several reasons like physicians unable pick up the psychiatric symptoms, not sensitive to psychological matters, lack of proper referral services to psychiatrist. The psychiatric symptoms will also interfere in the medical and surgical management of patients like complying with doctor's recommendations, obtaining consent for procedures and risk to patient and staff. So, the association between psychiatric disorders and medical illness is complex. The comorbidity has detrimental implications for the patient's health outcome, quality of life, medical treatment. In this chapter we discuss about the various psychiatric issues that arise in physical ill patients and the complex

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interplay between physical and psychological factors. We also discuss about various sub-specialities in this field and role of psychiatrist. The role of psychiatry in the interface of medical and surgical specialities is related to -

- i. Psychological reactions to medical diseases and surgical procedures.
- ii. Disturbances resulting from medical disorders affecting brain function, acute or chronic organic brain syndromes,
- iii. Medical complications of maladaptive behavior, drug abuse, obesity, anorexia.
- iv. Emotional disorders manifested by somatic symptoms with no organic basis like chronic pain or fatigue which present with medical symptoms to begin with.
- v. Physiologic concomitants of emotional states, like the classical psychophysiological medical disorders.
- vi. Psychosomatic diseases.
- vii. Physical illnesses presenting as emotional or psychological problem, e.g. myxedema, thyrotoxicosis.
- viii. Psychological adverse drug reactions to drugs used for medical illnesses.

Interface with Medical Specialities

The interface between psychiatry and medical specialities is very vast. It starts from the etiopathogenesis of a medical illness due to psychological and emotional problems, to psychiatric consequences of medical diseases, especially those which are chronic or life threatening. This has a lot to do with psychiatric side effects of medications and procedures, as well as drug interactions between drugs for medical treatment and psychopharmacological agents. Some of the interfaces have developed into super specialities like -

Psycho oncology – psychiatric aspects of cancer

Psycho nephrology - psychiatric aspects of renal diseases

Psycho cardiology - psychiatric aspects of heart diseases

Psycho ophthalmology - psychiatric aspects of eye diseases

Psycho Gynecology - psychiatric aspects of gynaecological disorders

Neuropsychiatry - psychiatric aspects of neurological diseases

However, psychosurgery is not psychiatric aspects of surgery, psychopathology is not psychiatric aspects of pathology & orthopsychiatry is not psychiatric aspects of orthopaedics.

Below we discuss about various psychiatric issues seen in non-communicable, infectious diseases, Auto-immune diseases and Endocrine disorders.

Non-communicable diseases

Non-communicable diseases (NCDs) are a group of conditions/diseases, which are non-infectious and non-transmissible among people. The common NCDs include diabetes, hypertension (HTN), ischemic heart diseases (IHDs) and chronic kidney diseases. In India, NCDs are estimated to account

for 53% of all deaths and 44% of disability-adjusted life-years lost in 2005. Psychiatric illnesses are important group of co-morbidities among patients with NCDs. Among the cross-sectional studies the prevalence of depressive, anxiety, somatoform symptoms in NCDs found as 29.1%, 19.1% and 35.1% respectively ². In diabetic patients depression was found be present in 27.6% ³. In a another study done on cardiac illness patients moderate to severe level of depression was found in 51.36% of females and 38.45% of males; and moderate to severe level of anxiety was found in 57.13% of females and 38.45% of males ⁴. From the above studies it is clear that psychiatric disorders are more prevalent in people with non-communicable diseases. The higher occurrence can be direct result of direct disease process, reaction to chronic illness or both are caused by single etiological factor which might be common gene polymorphism. There are common risk factors for mental illness and chronic non-communicable diseases like stress, irregular sleep habits, sedentary life style, and substance use so they share a bi-directional relationship. Often presence of mental illness in person with non-communicable disease makes the management of chronic disease difficult and challenging as these patients will have difficulty in having life style modification, regular check-ups and compliance to medication. This was shown in a meta-analysis where post-myocardial infarction patients with a clinical diagnosed depressive disorder had found to have a 2.0–2.5 fold increased risk of new cardiovascular events and cardiac mortality ⁵. So it is important to screen for the common mental illness in patients with non-communicable diseases and also treatment of psychiatric comorbidity.

Infectious diseases

Infectious organisms are implicated in causing psychiatric disorders. Psychiatric symptoms can occur as part of the clinical manifestations of several systemic and central nervous system infections ⁶. On the other hand, psychological stress can affect the function of the immune system and increase infectious diseases susceptibility. Even a small focus of chronic infection can result in organic psychiatric disorder with symptoms of subtle cognitive dysfunction, irritability, depression, psychosis and delirium. Febrile illness (e.g. urinary tract infection), septicaemia and encephalitis can lead to delirium. Dementia can be caused by infections such as HIV, neurosyphilis, post encephalitis syndromes and Lyme disease. The prevalence of psychiatric disorder in patients with epilepsy with neurocysticercosis was 68% as compared to 44% in patients with only epilepsy ⁷. In HIV positive patients there is psychiatric comorbidity as high as 90% ⁸. The relation between infectious diseases and psychiatric disorders can be categorised as

- Infectious diseases causing psychiatric symptoms: Psychiatric symptoms can be the initial presenting symptoms, (as in viral encephalitis), or could be part of the clinical picture (such as psychosis or mood symptoms in brucellosis or toxoplasmosis).
- Infectious diseases with possible etiological role for major psychiatric disorders: Influenza virus and HSV with possible etiological role for schizophrenia ⁹.
- Psychiatric symptoms due to adverse effects of drugs used for treatment of the infectious disease: e.g. Mefloquine, Interferons (INF), Cycloserine, Efavarinz
- Primary psychiatric disorders can increase the risk of contracting infection: High risk behaviours

in patients with mania and schizophrenia may lead to increased risk of infection.

- Psychiatric symptoms as a reaction to chronic and serious infections: e.g. HIV can lead to depression, anxiety or adjustment reactions.

The above discussion emphasises on early identification of the underlying aetiology for organic/secondary psychiatric symptoms and early treatment of the primary conditions that could be the cause of psychiatric symptoms.

Autoimmune and Inflammatory diseases

The positive correlation between the medical conditions and psychiatric illness suggests the presence of an underlying inflammatory process affecting the brain. Studies have shown peripheral cellular and humoral immunological abnormalities are more prevalent in psychiatric patients relative to healthy controls. Common Systemic autoimmune diseases which present with psychiatric symptoms are Systemic Lupus Erythematosus (SLE), Anti-phospholipid syndrome (APA), Autoimmune thyroiditis, Multiple sclerosis and Rheumatoid arthritis (RA). The term lupus cerebritis refers to the neuropsychiatric manifestations that appear due to SLE. The prevalence of neuropsychiatric manifestations in SLE has the following order (from most to least prevalent): cognitive dysfunction, headache, mood disorder, cerebrovascular disease, seizures, polyneuropathy, anxiety disorder, and psychosis¹⁰. In a systematic review in 2012 found depression (in up to 39% of patients) and cognitive dysfunction (up to 80%) as most common psychiatric symptoms in SLE¹¹. The neuropsychiatric symptoms in antiphospholipid syndrome (APS) are similar to those seen in SLE with most common psychiatric symptom being cognitive impairment¹². Hashimoto's thyroiditis usually presents either as change in personality or as depression. Alternatively it may present as myxoedema madness where patient have restlessness, hallucinations and persecutory delusions. Multiple sclerosis is inflammatory demyelinating condition which is associated with psychiatric symptoms¹³. The lifetime prevalence rate of psychiatric disorders in MS are approximately 50%, as compared to a rate of 10% to 15% in the general population and most frequent symptoms are dysphoria (79%), agitation (40%), anxiety (40%), irritability (35%) and rates of suicide are also significantly higher in those with MS¹⁴. In a study of relapsing-remitting patients with MS in remission, 95% reported significant psychiatric symptoms. Rheumatoid arthritis (RA) affects 0.5%-1% of the general population and is 2-3-fold more common among women. The frequency of depression and anxiety disorders among patients with RA ranges from 14 to 42%. Among female patients with RA who committed suicide, 90% had a depressive disorder¹⁵. Patients with RA who experience depression report significantly higher levels of pain, greater number of painful joints, and poorer functional ability¹⁶. Paediatric Autoimmune Neuropsychiatric Disorders Associated with Streptococcus infections (PANDAS) is a condition associated with childhood obsessive-compulsive disorders (OCD) and tic disorders triggered by group-A beta-haemolytic Streptococcus pyogenes infection¹⁷. There are another group of autoimmune diseases called synaptic autoimmune encephalitides or limbic encephalitis which present with psychiatric symptoms. In these conditions symptoms evolve over days to weeks and include psychiatric manifestations as diverse as irritability, depression, hallucinations, and personality disturbances, with neurocognitive changes in the form

of short-term memory loss, sleep disturbances, and seizure¹⁸. Cases of autoimmune encephalitis many times come to psychiatrist due to the non-specific nature of symptoms or with only psychiatric symptoms initially. The treatment of autoimmune diseases involves immunosuppressant's mostly corticosteroids which again may cause or contribute to the behavioural problems. Autoimmune diseases have relapsing and remitting course each time there is a relapse there is also recurrence of psychiatric symptoms. The management of these patients include keeping the autoimmune disease under control and symptomatic management of psychiatric presentations.

Endocrinal disorders

Psychiatric symptoms and syndromes are common in patients with endocrine disorders. Thyroid disorders are amongst the most frequent endocrine disorders in India. Psychiatric manifestations of hypothyroidism include cognitive deficits (Impaired memory, psychomotor slowing, reduced attention span), Vegetative symptoms (Hypersomnia, sleep apnea, fatigue, lethargy, apathy, anergia, low libido), mood symptoms (Depression, mood instability, mania, anxiety) and rarely psychosis (myxoedemic madness)¹⁹. Psychiatric manifestations seen in hyperthyroidism include Anxiety, apathy, fatigue, cognitive deficits, emotional lability, hypomania or mania, irritability and psychosis²⁰. Hyperadrenalism (Cushing's syndrome) most commonly results from exogenous corticosteroids, but may also be the result of adrenocorticotrophic hormone (ACTH) secretion by a pituitary tumour (Cushing's disease), or corticosteroid secretion by an adrenal tumour. In addition to somatic consequences—including diabetes, hypertension, muscle weakness, obesity, and osteopenia—psychiatric symptoms are common in hyperadrenalism and may actually appear before physical signs. Depression is most common, but anxiety, hypomania/mania, psychosis, and cognitive dysfunction are all common²¹. Hyperprolactinemia may be caused by pituitary adenoma, pregnancy, antipsychotics. These patients may experience reduced libido, depression, and anxiety along physical manifestations²². Hyperparathyroidism (HPT) is well recognised endocrine disease producing psychiatric symptoms. Early symptoms of HPT include vague neurotic symptoms like lack of spontaneity, initiative, emotional lability and depression. In chronic hypercalcemia know produce cognitive deficits but there is a poor correlation between severity of hypercalcemia and psychiatric manifestations²³.

Psychiatric issues in surgically ill

Psychiatric disorders are quite common in surgical patients. A large proportion of psychopathology in surgical patients is either undiagnosed or misdiagnosed and not optimally treated. In the preoperative period anxiety and health-related phobias, such as fear of anaesthesia, needles, sight of blood, and contamination from blood transfusions, are common in surgical patients. Approximately 8% to 10% of adults have unreasonable fears of needles that may interfere with treatment. In the preoperative period, surgeons sometimes request psychiatric consultation regarding informed consent and assessment of the patient's decision-making capacity. During the post-operative period common issues include complications related to alcohol abuse, dependence, and withdrawal; pain management, post-operative delirium and continuing psychotropic in patient with past psychiatric illness. Anxiety disorders, depression, bipolar disorder, schizophrenia, and personality disorders

may all flare up during the post-operative period. In a 2-year prospective study in 221 consecutive patients undergoing cataractomy found that the incidence of delirium at 1.8%²⁴. In a study done to know the type of psychiatric referrals in tertiary care, multi-speciality hospital in medico-surgical patients found that organic psychosis constitute (25.5%), non-organic psychosis constitute (11.2%), neurosis included (24.8%) other disorders (substance abuse disorders and adjustment reaction) (21.5%) and 'nil psychiatric' (17%)²⁵. Delirium was included in organic psychosis category. Post-operative delirium is very common, particularly in elderly patients undergoing hip replacement, major abdominal surgery, or cardiac surgery. Up to 40% of elderly orthopaedic surgery patients experience delirium²⁶. Traumatic brain injury (TBI) is another surgical problem in which almost half of people later be diagnosed with neuropsychiatric disorders. TBI commonly is implicated in cognitive deficits, mood disorders, organic personality disorders and rarely psychosis²⁷.

Speciality areas-

Psycho-oncology:

Psycho-oncology is presently defined as the subspecialty of cancer dealing with two psychological dimensions:

- The psychological reactions of patients with cancer and their families at all stages of disease and the stresses on staff
- The psychological, social, and behavioural factors that contribute to cancer cause and survival.

The common psychological and emotional responses to cancer arise from knowledge of life-threatening diagnosis, its prognostic uncertainty, and fears about death and dying. The emotional responses are also due to physical symptoms like pain, nausea, lymphedema and unwanted effects of medical, surgical, and radiation treatments. The stigma due to cancer and its consequences adds to the negative reactions to the disease²⁸. In the Indian setting, 38% to 53% of cancer patients were found to have identifiable DSM-III-R psychiatric disorder. In a large study including 903 cancer patients attending a hospice, a general hospital, and the neurosurgery department of NIMHANS, psychiatric disorders were identified in 48%, of which 44% had adjustment disorders. One of the most difficult and challenging role of a psychiatrist in cancer care is dealing with issues related to communication skills of health professionals. Health professionals dealing with cancer patients find it difficult to disclose diagnosis to cancer patients and their relatives. Psychiatrists are called upon to train cancer specialists in skills of breaking bad news. Dealing with "Collusion" is another challenging situation. In a study done regarding awareness of their diagnosis, in 294 newly admitted cancer patients at an oncology centre in South India found 54% of patients were aware that they had cancer and were able to discuss their diagnosis and 46% of patients reported nonawareness of diagnosis²⁹. Dealing with collusion and breaking collusion sensitively is important to maintain trust and communication between patient and family members without the conspiracy of silence. It also has been reported that antidepressants are grossly underused in cancer patients, for fear of addiction/dependence, caution against adverse side effects, drug interactions and thinking that depression is natural reaction. The principles of management include sensitive to breaking of bad news, providing information in accord with person's wishes, permitting expression of emotions and

feelings, clarification of concerns and problems, involving patient in decisions about treatments, and appropriate use of psychotropic.

Psycho-dermatology

Psychodermatology or psychocutaneous medicine encompasses disorders prevailing on the boundary between psychiatry and dermatology. Connecting the two disciplines is a complex interplay between neuroendocrine and immune systems that has been described as neuro-immunocutaneous system (NICS). The interaction between nervous system, skin and immunity has been explained by release of mediators from NICS. It has been reported that psychologic stress perturbs epidermal permeability barrier homeostasis, and it may act as precipitant for some inflammatory disorders like atopic dermatitis and psoriasis³⁰. Approximately 30-40% patients seeking treatment for skin disorders have an underlying psychiatric or a psychological problem that either causes or exacerbates a skin complaint³¹. The prevalence of active suicidal ideation among the patients with psoriasis and acne was 5.6-7.2%³². Ample evidence in literature suggests that the course of many skin disorders is affected by stress and psychological events³³. Psychocutaneous disorders classified into three types.

- Psychosomatic disorders are those in which the course of a given skin disease is affected by the psychological state of a patient. These disorders are often precipitated or exacerbated by emotional stress and/or anxiety in a significant number of cases E.g. Psoriasis, Atopic dermatitis.
- Primary psychiatric disorders where the primary pathology is in psyche and skin complaints are self-induced or secondary. Psychiatric disorders with dermatological symptoms like delusional parasitosis, trichotillomania, skin excoriation and OCD.
- Secondary psychiatric disorders caused by disfiguring skin conditions like ichthyosis, acne conglobata, vitiligo which can lead to states of fear, depression or suicidal thoughts³⁴.

Once the disorder has been diagnosed, management requires a dual approach, addressing both dermatologic and psychologic aspects. Majority of psychocutaneous disorders can be treated with cognitive-behavioural psychotherapy, psychotherapeutic stress-and-anxiety-management techniques and psychotropic drugs³⁵. The cooperation of the dermatologist and a psychiatrist in the management of these patients is of utmost importance. Medication is used where there is primary psychiatric condition causing skin manifestation in liaison with dermatologist.

Pain, Palliative Care and End of Life Issues

Palliative care deals with expertise in understanding the psychosocial dimensions of human experience to the care of dying patients and support of their families. Palliative care is specialized medical care for people with serious illnesses. This care is focused on providing patients with relief from the symptoms, pain, and stress of a serious illness irrespective of the diagnosis. The goal is to improve quality of life for both the patient and the family. With this holistic and all-encompassing view of pain, Saunders advocated for a more person-centred and comprehensive approach to address not just the nociceptive components of a patient's pain, but the emotional, spiritual, social,

and experiential dimensions³⁶. More specifically, psychiatric syndromes, such as depression, anxiety, and delirium, are common in palliative care settings. In hospice patients, roughly 50% will experience symptoms of depression; approximately 70% will experience clinically significant anxiety. Psychiatric conditions are often difficult to differentiate in the setting of serious illness, due to symptom overlap with medical conditions³⁷. The Psychiatrist working in palliative care should focus on increasing the quality of life using psychological interventions and psychotropic where ever appropriate. There are studies reporting about underusing, under treating the pain and psychiatric symptoms in palliative care. Psychiatrist as a part of palliative care focuses on comprehensive pain management as well as increasing the quality of life of the patients. Psychiatrist also does interventions like reducing the fear of dying and preparing the family for bereavement³⁸.

Psycho-nephrology

Psycho-nephrology is sub-speciality that deals with the psychological impact of kidney disease and focuses particularly on patients receiving kidney transplants or dialysis treatment. Patients on forms of dialysis and those who receive kidney transplants face many stresses connected with their illness and forms of treatment. These stresses may result in a variety of psychiatric disorders³⁹. The most common psychiatric complication occurring as a result of renal failure are depression and anxiety. Many observational studies have demonstrated that dialysis patients have higher suicide rates than the normal healthy population. Delirium is another common phenomenon observed in dialysis patients due to electrolyte imbalances that may occur after a dialysis run termed as the dialysis disequilibrium syndrome. Dialysis dementia is a term used to describe a rapidly progressive form of dementia, now considered rare, associated with aluminium toxicity in End stage renal disease(ESRD) patients⁴⁰. The management of these patients includes individual, group therapy and psychotropic. Many patients on dialysis do well if individual psychotherapy is administered during the dialysis sessions. It is also important to remember that pharmacokinetics of medications used to treat these patients requires special consideration of the route of elimination, whether or not the medication is dialyzable⁴¹. There are many challenges in treating these patients like denial of their problems, multiple comorbidities, non-compliance and change in pharmacokinetics of many drugs. The management of these patients involves multi-disciplinary team.

Medical Issues in Psychiatric Patients

A number of reviews and studies have shown that people with severe mental illness (SMI), have an excess mortality, being two or three times as high as that in the general population⁴². About 60% of this excess mortality is due to physical illness. Evidence suggests that persons with SMI are, compared to the general population, at increased risk for overweight (i.e., BMI =25-29.9, unless Asian: BMI =23-24.9), obesity (BMI \geq 30, unless Asian: BMI \geq 25)⁴³. People with schizophrenia have a 2.8 to 3.5 increased likelihood of being obese, those with major depression or bipolar disorder have a 1.2 to 1.5 increased risk^{44,45}. The Metabolic syndrome (MetS) is highly prevalent among treated patients with schizophrenia. Depending on used MetS criteria, gender, ethnicity, country, age groups and anti-psychotics (AP) treatment, percentages vary considerably (between 19.4% and 68%)⁴⁶. MetS rates in patients with bipolar disorder and schizoaffective disorder have been reported to be 22-30%

and 42%, respectively^{47,48}. The prevalence of DM in people with schizophrenia as well as in people with bipolar disorder and schizoaffective disorder is 2-3 fold higher compared with the general population^{49,50}. The risk of diabetic mellitus in people with depression or depressive symptoms is 1.2-2.6 times higher compared to people without depression⁵¹. The prevalence of Cardiovascular risk disease (CVD) in people with schizophrenia and bipolar disorder is approximately 2 to 3 fold⁵². People with depression have a 50% greater risk of CVD this is besides the fact that depression is an independent risk factor for aggravating morbidity and mortality in coronary heart disease⁵³. The prevalence of HIV positivity in people with SMI is generally higher than in the general population, (1.3-23.9%)⁵⁴. The prevalence rates of hepatitis B virus (23.4%) and hepatitis C virus (19.6%) in SMI patients found to be approximately 5 and 11 times the overall estimated population rates⁵⁵. From the above discussion it is clear that people with mental illness are at risk physical illness (non-infective or infective). There are several reasons for this association which includes

- Poor nutrition
- Reduced physical activity
- Poor self-care and hygiene
- More often involved in high risk sexual behaviour and substance use
- Adverse effect of Psychotropic
- Genetic factors where people with certain polymorphisms are at higher risk for mental illness and physical illness.

Role of Psychiatrist in the Medical and Surgical Interface:

There is major role of psychiatrist in dealing with psycho-social issues in medico-surgical specialities. It starts with identifying the high risk groups in medical ill patients. This includes

- Elderly patients who have multiple physical illness
- Patients with certain autoimmune conditions like SLE, Hashimoto's thyroiditis, Limbic encephalitis
- Patients with chronic medical illness like diabetic mellitus
- Specific infection like Tuberculosis, Retroviral disease
- Patients with terminal illness
- Patients undergoing amputations and post-operative patients.
- Patients who are taking multiple medication and medication which can cause psychiatric symptoms E.g. ATT, ART, Corticosteroids

Whenever a psychiatrist was called to see medical ill patient or send to psychiatric clinic he should see the patient in systemic manner. This includes identifying the patient with his hospital reference number, reading the referral note, going through the case record or documents, taking history from reliable informant, enquiring for pain and distress, making temporal correlation of events, doing bedside cognitive tasks and coming to diagnosis. Many a times patient may not have syndromal diagnosis they just may have sub-threshold symptoms or specific symptoms like pain, anger dyscontrol, sleep

related problems. The management includes using appropriate psychotropic starting at low dose and monitoring for side effects. Along with medication psychological interventions should be done. In situations where mental capacity of patients requires assessment, Psychiatrist should assess patient for his orientation, comprehension, his understanding of his illness and nature of treatment offered to him. Psychiatrist should also involve in educating the staff and doctors about communication skills for example breaking bad news about diagnosis or prognosis of disease and identifying the psychological illness at earliest.

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INTERFACE WITH CARDIOLOGY

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The relationship of our emotions and psyche to heart and heart disease is intriguing. There exists an interplay between heart and mind. The relationship between psychiatric illness and heart disease is complex and not yet fully understood. The experience of having heart disease has psychological effects, and heart disease increases a patient's risk of developing certain psychiatric disorders. The relationship between the heart and brain is complex and not fully understood. However, literature in this area has demonstrated that disease in one system does affect the other system. Conversely, aspects of behavior and psychiatric illness can result in cardiovascular system changes and worsen cardiac outcomes. Treatment, whether medical, surgical, or psychiatric, is also complicated given patients' disease states, medication side effects, and drug-drug interactions and metabolic syndrome. Cardiovascular disease has been shown to impact patient mental well-being, and psychiatric illness has been shown to have independent negative effects on cardiac outcomes. Cardiovascular disorders are the leading cause of death in India amounting to 24.8% of total deaths (age 25-69). Comorbidity poses a treatment challenge for cardiology and psychiatry. CVD and psychiatric illness often coexist. Anxiety and depression are more prevalent in patients with CVD than in the general population. Psychosocial and behavioral factors, including mood (depression, anxiety, anger, and stress), personality

(Type A, Type D, and hostility), and social support, are associated with both the development and progression of cardiovascular disease. "Negative" emotions have been associated with increased rates of cardiovascular death and recurrent cardiac events. Multiple psychological factors, have been examined as potential risk factors for CVD and generally fall into one of 3 broad domains: a) negative affective states including depression, anxiety, anger, and distress, b) personality factors such as Type A behavior pattern, hostility, and Type D personality, and c) social factors including

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socioeconomic status (SES) and low social support. The contribution of depression to the risk for coronary artery disease (CAD) incidence, morbidity, and mortality has been well understood.. Behavioral risk factors for coronary disease , such as smoking , failure to exercise, and failure to adhere to treatment and lifestyle recommendations , are clearly exacerbated by depression or anxiety and may benefit from psychiatric treatment. Anxiety or anxiety disorders independently predict sudden cardiac death in the general population as well as future cardiac events in patients with CVD. The treatment of psychiatric disorders in patients with CVD can be challenging because of the cardiovascular side effects of many psychotropic medications as well as the potential of multiple drug-drug interactions. Moreover, many medications for CVD have psychiatric side effects. Clinicians who treat patients with cardiac and psychiatric illnesses must understand the intricate relationship between these two systems in order to provide optimal patient care. In this article first section deals with Interaction between cardiac diseases, psychiatric illness, and psychosocial factors, psychological reactions. The second section details the psychiatric complications of cardiac procedures and medications.

PSYCHOSOCIAL FACTORS AND CARDIOVASCULAR DISEASE

Although traditional risk factors explain a substantial amount of CVD risk, psychological factors have also been shown to predict adverse CVD outcomes Multiple psychological factors, have been examined as potential risk factors for CVD and generally fall into one of 3 broad domains: a) negative affective states including depression, anxiety, anger, and distress, b) personality factors such as Type A behavior pattern, hostility, and Type D personality, and c) social factors including socioeconomic status (SES) and low social support.

THE RELATIONSHIP OF NEGATIVE AFFECT AND CARDIOVASCULAR DISEASE

Depression

Depression appears to be the most common psychiatric disorder in patients with CAD, acute myocardial infarction (MI), and unstable angina. Often, depressive symptoms are attributed to underlying cardiac disease or a “normal” psychological reaction to the illness. Depression increases the risk of development and progression of CAD. A dose response relationship appears to exist between the severity of symptoms after acute MI or unstable angina and the risk of death over 5-year follow up, even after controlling for other prognostically significant factors. The multicentre Canadian Cardiac Randomised evaluation of antidepressant and Psychotherapy Efficacy (CREATE) trial found that in 284 patients with major depression and CAD, citalopram (Celexa) plus clinical management was more effective for remission of depression than placebo or clinical management alone. Interpersonal therapy for depression conferred no advantage over clinical management alone. Poor response to antidepressant treatment after a heart attack may predict a higher risk for cardiac events and death. Non response to antidepressant treatment is associated with significantly higher risk for cardiac death than in the group that responded to antidepressant treatment.

Given increased risk of heart disease and related death in depression, does treating depression in these populations decrease the risk of cardiac morbidity and mortality. Two clinical trials sought to answer this question by studying patients following MI. The Sertraline Antidepressant Heart

Attack Randomized Trial (SADHART) was a randomized, double-blind, placebo-controlled trial of sertraline versus placebo examining 369 subjects with MDD hospitalized for unstable angina or acute MI. Originally designed to evaluate the safety of sertraline in this group, the study did not have sufficient power to detect a statistically significant difference in major cardiac events. Absolute numbers demonstrated that sertraline was superior to placebo in a lower rate of recurrent major adverse cardiac events.

The Enhancing Recovery in Coronary Heart Disease (ENRICH) trial also examined how treating depressive symptoms in post-MI patients affected mortality.¹⁶ In this study, patients were randomized to cognitive-behavioral therapy (CBT) or usual care if they were depressed or determined to have low social support after their cardiac event. The CBT group received 6–10 sessions over a 6-month period and mortality was assessed after 30 months. The intervention was found to not be effective in reducing mortality rates. Interestingly, in this study, while the prescription of sertraline was not randomized, mortality in those patients who took sertraline was only 7.4%, as compared to 15.3% in patients without antidepressant treatment and 10.6% in patients on tricyclic antidepressants. Sertraline had no effect on risk of recurrent non-fatal MI.

Other studies suggest that treatment with selective serotonin reuptake inhibitors (SSRIs) improve cardiovascular outcomes in patients with coronary disease. A study examined prophylaxis against depression in patients following cerebrovascular accidents. Not only did this study show a statistically significant decrease in depression in sertraline-treated patients, but it also found this group to have a two-thirds reduction in cardiovascular adverse events over the following year.

Further study is essential to elucidate how treating depression in patients with heart disease improves cardiovascular morbidity and mortality.

Mechanism:

Dysregulation of the hypothalamic pituitary adrenal (HPA) axis is closely tied to sympathetic activity and has been shown to occur among individuals with depression and other psychosocial risk factors. Chronic stimulation from this central output induces multiple pathophysiologic responses, including increase sympathetic nervous system activity causing heightened autonomic activity, insulin resistance, hypertension, exaggerated inflammatory response, platelet activation, endothelial dysfunction, and somatic effects, among others. Depression in particular has been shown to result in hypercortisolemia, blunted HPA activity, and diminished feedback control, which may in turn increase the progression of atherosclerosis. There is preliminary data to suggest that HPA dysregulation may be associated with increased risk of CVD death.

Anxiety

Anxiety has also been associated with increased cardiac mortality. Although anxiety appears to be associated with increased risk of CHD, it is also often comorbid with depression. Although studied less than depression, anxiety is common in patients with CAD. Anxiety may drive both hypervigilance and avoidant behaviors (nonadherence to medications and doctor visits). The latter

type of behaviors can have negative consequences on the health status of patients and is frequently a precipitant for psychiatric consultation. Anxiety symptoms have been found to be elevated in 5% to 10% of patients with chronic heart disease. Anxiety is associated with an increased risk of sudden cardiac death.

Sexual Dysfunction

Heart disease patients often suffer from sexual dysfunction in silence, and physicians neglect to inquire about this aspect of their patients' lives. Physical factors, such as comorbid peripheral vascular disease, diabetes, medication side effects, and impaired cardiac output, can result in sexual dysfunction. Psychological factors also can play a large role. Depression and anxiety may result in loss of interest in sexual activity or fear of causing a heart attack during sexual intercourse. Coital angina is rare in patients who do not have angina during strenuous physical activity.

TYPE A BEHAVIOR PATTERN, ANGER, AND HOSTILITY

The relationship between a behavior pattern characterized by easily aroused anger, impatience, aggression, competitive striving, and time urgency (type A) and coronary heart disease dominated studies in psychosomatic cardiology in the 1970s and 1980s. Several large prospective epidemiological studies found the type A pattern to be associated with a nearly twofold increased risk of incident MI and coronary disease related mortality. A clinical trial randomized survivors of acute MI to usual care versus usual care with Type-A behavior modification. After >4 years, the behavior modification group was found to have a significant reduction in recurrent MI.

Acute and Chronic Mental Stress

The relationship of psychosocial stress and CVD can be considered in two broad categories: acute stressors, or triggers, and chronic stress. Acute mental stress impacts CVD physiology by increasing the risk for arrhythmias, myocardial ischemia, and MI, 39,40 which may be proximally measured by physiological reactivity to mental stress in a laboratory and in real life situations. Acute stressors may include situations such as catastrophic events (war, earthquakes, etc.), intense sporting events (eg, World Cup soccer), and acute physical activity (eg, exercise or sexual activity). Chronic factors, in contrast, may be associated with CVD through chronic physiologic changes, such as persistently elevated blood pressure, coagulation factors, etc. Chronic stressors may include work-related stress, marital dissatisfaction, neighborhood factors (crowding, etc.), and lower SES. Acute mental stress is provoked by tasks, such as public speaking and mental arithmetic, and has been shown to be associated with elevation in heart rate, blood pressure, and sympathetic activation in people with and without coronary heart disease. Acute mental stress may also cause coronary vasospasm and resulting ischemia. Emotional stress is purported to be a trigger for approximately 20% to 30% of acute coronary events.

The INTERHEART study retrospectively examined >11,000 patients with a first MI and matched them to >13,000 controls from >50 countries. The study showed that a high level of work, home, and financial stress in conjunction with major life events over the past year were associated with increased risk of MI.

A meta-analysis of studies with interventions including stress management and health education conducted in cardiac rehabilitation settings found a reduction in recurrent MI of 29% and death of 34% at 2–10-year follow-up.

SOCIAL FACTORS AND CARDIOVASCULAR DISEASE

Social factors, including social support and SES, have also been linked with CVD outcomes. Social support may act as a buffer against negative life events, serving a protective function. Several forms of social support have been identified in the existing literature: structural support refers to the size, type, and density of one's social network, and the frequency of contact one has with this network. Functional support, sometimes referred to as tangible support, refers to the support provided by one's social structure. Low social support was associated with a 1.5- to 2-fold increased risk of CVD in both healthy and cardiac populations.

IMPLICATIONS FOR MEDICATION MANAGEMENT

Treatment of patients with both psychiatric and cardiac illness can be complicated due to the cardiac complications of psychotropic medications.

Psychiatric Side Effects of Cardiac Drugs

Some cardiac medications are known for psychiatric side effects. Digoxin and lidocaine toxicities can result in delirium. Digoxin is also classically associated with visual hallucinations of yellow rings around objects. Depression is associated with several cardiac medications including α -blockers, methyl dopa, reserpine, clonidine, and amiodarone (via thyroid effects). Although β -blockers are possibly associated with depression, sexual dysfunction and fatigue are more problematic symptoms. Angiotensin-converting enzyme inhibitors may cause derangements in mood.

Cardiac Side Effects of Psychiatric Medications

Antidepressants

Tricyclic antidepressants have been shown to increase mortality in post-MI patients and should not be used as first-line agents in depressed patients with heart disease. These medications have several effects on the cardiovascular system, including orthostatic hypotension, cardiac conduction delay, and ventricular arrhythmias in overdose. Nortriptyline and desipramine are better tolerated if tricyclics are required. They tend to cause less orthostatic hypotension than the tertiary-amine tricyclic medications, such as amitriptyline.

SSRIs have very little effect on the cardiac system. In the SADHART study, sertraline did not have an effect on heart rate, blood pressure, arrhythmias, ejection fraction, or cardiac conduction. SSRIs can cause a clinically insignificant slowing of heart rate (1–2 beats per minute). Clinicians should take this reaction into consideration when these medications are being used in conjunction with β -blockers.

Other antidepressants are less well studied. Mirtazapine and bupropion may occasionally cause hypertension. Monoamine oxidase inhibitors (MAOIs) cause hypotension, orthostatic hypotension,

and, if a tyramine-free diet is not strictly followed, may result in hypertensive crises. As a result, MAOIs are rarely used in patients with heart disease.

Antipsychotics

The most significant cardiac side effects of antipsychotics are orthostatic hypotension and QT interval prolongation. This must be considered when treating chronically psychotic patients with heart disease or patients with delirium in cardiac care settings. Orthostatic hypotension is caused by a-adrenergic blockade and is common with low potency typical (eg, chlorpromazine) and atypical (eg, quetiapine) antipsychotics. Although less common, cardiac arrest due to ventricular tachyarrhythmias, specifically torsades de pointes, can occur at low doses of antipsychotics and in populations other than schizophrenic patients. Thioridazine is the most common antipsychotic medication associated with torsades de pointes and sudden cardiac death.

Haloperidol is frequently used to treat delirium and agitation. Although this medication is associated with QT prolongation, it has been shown to be safe and effective in doses $\leq 1,000$ mg in a 24-hour period. Risk factors for torsades de pointes include QT interval prolongation of more than 500 milliseconds, family history of sudden death, female sex, hypokalemia, hypomagnesemia, and low ejection fraction. Close electrocardiographic monitoring is prudent.

The US Food and Drug Administration issued a mandate requiring manufacturers of atypical antipsychotics to add a black box warning noting that these drugs are associated with an increased risk of death in elderly patients with behavioral dyscontrol associated with dementia. Causes of these deaths were either heart-related events (sudden cardiac death, heart failure) or infections (pneumonia).

As a general rule, when using these medications, the potential risks and benefits must be considered and discussed with patients and their families.

IMPACT OF PSYCHOSOCIAL INTERVENTIONS AND PSYCHOTHERAPY ON CARDIOVASCULAR DISEASE:

When learning of the presence of medical illness, patients have unique psychological responses, including denial, sadness, anxiety, and anger. These are natural reactions and do not interfere with the ability to function or experience pleasure. However, these reactions can be maladaptive and lead to problems. For example, the patient whose denial of illness allows them relief from anxiety or fear may demonstrate nonadherence to treatment recommendations. Psychotherapy can play an important role in helping patients understand these responses and subsequently change their behavior to be more positive.

Few studies have examined the effectiveness of psychotherapeutic interventions in patients with heart disease. The ENRICH trial examined the effect of CBT on measures of social support and depression in patients who had a recent MI. Results showed a modest benefit of CBT compared to the usual-care group. The Recurrent Coronary Prevention Project showed that a CBT-like Type-A behavior modification protocol in post-MI patients had a strong benefit on Type-A

behavior. Interpersonal therapy (IPT), which is geared toward patients with specific interpersonal issues including interpersonal disputes, grief following loss, interpersonal deficits, and social role transitions, was studied in the Canadian Cardiac Randomized Evaluation of Antidepressant and Psychotherapy Efficacy (CREATE) trial. The use of citalopram and IPT in depressed post-MI patients was examined. Although the trial documented efficacy of citalopram, there was no evidence of a benefit of IPT over general clinical management during the 12-week course of the study. The SADHART trial was a randomized, doubleblind, placebo-controlled, 24-week trial of sertraline for MDD among patients hospitalized for acute MI. Results showed improvement in depressive symptoms among participants treated with sertraline, but only in patients with more severe depression. The MIND-IT study of antidepressant therapy for MI showed similar results. Stress management interventions among cardiac patients have shown somewhat better results. In the Stockholm Women's Intervention Trial for Coronary Heart Disease (SWITCHD), 257 women were randomized to a group-based psychosocial intervention or usual care following a CVD event (MI, CABG, or percutaneous coronary intervention). The intervention was initiated 4 months after hospitalization. Results showed that women in the treatment group were nearly 3 times less likely to die during the follow-up than usual care participants.

METABOLIC SYNDROME

The metabolic syndrome consists of a cluster of metabolic abnormalities associated with obesity and that contributes to an increased risk of cardiovascular disease and type 2 diabetes. The syndrome is diagnosed when a patient has three or more of the following five risk factors: abdominal obesity, high triglyceride levels, low HDL cholesterol level, hypertension and elevated fasting blood glucose level. Second generation antipsychotic medications have been implicated as a cause of metabolic syndrome. Treatment involves weight loss, exercise, and use of statins and antihypertensives as needed to lower lipid levels and blood pressure respectively.

Cardiovascular disease (CVD) is a major public health burden in the world. For decades CVD has been the leading cause of mortality and disability in the Western world with increased prevalence in developing countries as well. It remains one of the most common and costly ailments. Mortality data suggest that CVD was the underlying cause in 36.3% of deaths in USA while the estimated direct and indirect cost of CVD was \$431.8 billion.

PSYCHIATRIC DISORDERS IN CAD & HEART DISEASES

Depression

The rate of major depressive disorder has been reported to be threefold higher among patients with coronary artery disease (CAD) compared to the general population. The course of depression in those with cardiovascular disease (CVD) is usually chronic and recurrent, and it is often co-morbid with anxiety symptoms. Younger patients, females and those with a prior history of depression have been reported as more likely to develop depression in the context of CVD. Depression tends to exacerbate, prolong & amplify cardiac symptoms and CAD patients with depression have more severe symptoms than non-depressed patients.

There are various reasons for CAD patients having high depression. Both depression and coronary

vascular disease shares many risk factors. These include DM, Hypertension, Cigarette smoking, obesity and elevated Homocysteine levels.

Cholesterol and Depression

Chronically lower levels of cholesterol are associated with depression. Clinical recovery from depression is associated with increase in cholesterol to normal levels.

Mechanism: Low cholesterol → less binding to albumin → more free albumin → more binding to tryptophan → less serotonin to brain → less serotonin → depression

Congestive Heart Failure

CCF patients have point prevalence 20 % cases having co morbid depression. According to REMATCH study- a study comparing Left Ventricular Assist Device v/s Medical therapy in chronic, end stage CCF patients found mean baseline BDI score of 16 with more than 2/3rd had score >10 (threshold for depression).

Similarly study done in ambulatory patients with dilated cardiomyopathy, using Hospital depression & anxiety scale, the scores on anxiety symptoms was higher when compared to general population.

Arrhythmias

Patients with Supraventricular tachycardia often experience anxiety, especially when they are paroxysmal in nature. Paroxysmal supraventricular tachycardia (PSVT) occurs in young and middle-aged adults and may manifest with symptoms of shortness of breath, chest discomfort, and apprehension. Because these features may overlap with those of generalized anxiety symptoms and panic attacks, there is a significant risk of misdiagnosis. Patients who experience life-threatening rhythm disturbances are prone to secondary adjustment, mood, and anxiety disorders.

Hypertension

The main psychiatric consequence of hypertension seems to be long-term neurocognitive impairment and increased risk of dementia. Treatment that successfully controls blood pressure reduces the risk. The data demonstrate that dihydropyridine calcium channel blockers reduce the risk of dementia of probable Alzheimer's disease, as well as vascular or mixed dementia, and improve or maintain cognitive function in patients with impaired cognition.

Valvular Heart Disease

In panic disorder, mitral valve prolapse is detected in 10 to 25 percent of patients. The subjective experience of valve prolapse (e.g., fluttering and chest pressure) may be a trigger for panic sensations. Also, Obsessive-compulsive disorders (OCDs), tic disorders, and Tourette's syndrome have probable autoimmune pathology that are similar to those leading to glomerulonephritis and rheumatic heart disease.

Coronary Bypass Surgery

Depressive symptoms are present in almost 40 percent of coronary artery bypass graft patients .

Mild-to-moderate depression occurs in approximately one-third of patients following coronary bypass surgery but may remit within weeks to months.

Cognitive Impairment after Coronary Bypass Graft Surgery: Persistent, subtle memory and cognitive impairment may occur after CABG. The association between cognitive and affective disturbances after coronary bypass are attributable to small vessel cerebro vascular changes seen in many elderly persons with depression. These events were predicted by older age, proximal aortic atherosclerosis, and prior history of neurological disease. Nonspecific impairment in intellectual function occurred in 2.6 %, and seizures occurred in 0.4 %.

Patients on Defibrillators

Patients on defibrillators report of various unpleasant experiences such as like being kicked in the chest. These patients often report of symptoms of anxiety disorder, Depression and PTSD. Patient who complained of+++++ shocks during the follow up period report reduced mental well being,physical functioning and anxiety.

Valve Replacement

A high prevalence of delirium occurs in early post cardiectomy patients. Delirium can be attributed to toxic or metabolic processes in many cases.

Prolonged exposure to the intensive care unit (ICU) environment with sleep deprivation, sensory stimulation, and simultaneous monotony led to the phenomenon of delirium following a lucid interval (so-called ICU psychosis).

Three main categories of patients are at risk: patients with severe congestive heart failure, patients receiving antiarrhythmic agents for tachyarrhythmias early after myocardial infarction or cardiac surgery.

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INTERFACE WITH SEXUALITY

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“The temperate man holds a mean position with regard to pleasures. He enjoys neither the things that the licentious man enjoys most (he positively objects to them) nor wrong pleasures in general, nor does he enjoy any pleasure violently; he is not distressed by the absence of pleasures, nor does he desire them—or if he does, he desires them in moderation, and not more than is right, or at the wrong time, or in general with any other qualification.”-----

—By Aristotle in **The Nicomachean Ethics, Book III, Chapter xi**

According to World Health Organization(WHO) working definition (2006) : “Sexuality is a central aspect of being human throughout life and encompasses sex, gender identities and roles, sexual orientation, eroticism, pleasure, intimacy and reproduction. Sexuality is experienced and expressed in thoughts, fantasies, desires, beliefs, attitudes, values, behaviors, practices, roles and relationships. While sexuality can include all of these dimensions, not all of them are always experienced or expressed. Sexuality is influenced by the interaction of biological, psychological, social, economic, political, cultural, ethical, legal, historical and religious and spiritual factors”. Sexuality is a multidimensional concept, is socially constructed and is shaped by gender and sexual norms and inequalities. The multiple dimensions of sexuality include sensuality, intimacy, sexual behaviors and practices, sexual orientation and gender identity, sexual & reproductive health and power & agency in sexual relations. Sensuality implies to devotedness to the fulfillment of the bodily appetites especially sexual, free indulgence in carnal pleasures and luxuriousness. Every human interaction offers the possibility of love, “a strong feeling of deep affection”.¹ Love is a total submission of self and dedication to the beloved, like a saint insanely in love with God, with promise and trust to take responsibility for the soul and body.² Sternberg³ has described three components of love: intimacy, passion and commitment. Intimacy does not necessarily mean sex and its very much possible for

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two friends to be truly intimate without any sexual connection. Passion encompasses the drives that lead to romance, physical attraction and sexual commitment. Commitment encompasses in short term the decision to love and in long term decision to maintain love. The interaction between these three components produce different kinds of loving experience.⁴

Sexuality is an important component of the personality and physical, intellectual, psychosocial well-being of all the individuals. However, to define what is 'normal' or 'healthy', a patient

centered approach has been adopted. Hence a sexual problem is said to exist when an individual presents with a complaint about emotional or physical aspect of sexual functioning. Unless specified, sexual inadequacy refers to dysfunction in sexual functioning, by which Masters and Johnson in 1970 implied, some specific disruption of the 'SEXUAL RESPONSE CYCLE'.^{5,6}

The Sexual Response Cycle

Masters and Johnson proposed the four phase model of human sexual response which can be abbreviated as the 'EPOR Model'

E-Excitation phase characterized by somatic and psychogenic stimuli leading to increasing sexual tension and subjective sense of pleasure.

P-Plateau phase, characterized by intensified sexual tension and sexual pleasure

O-Orgasmic phase: During this phase, there is involuntary pleasurable climax with peaking of sexual pleasure and release of sexual tension.

R-Resolution phase is characterized by a sense of well-being and relaxation; men have a refractory period for subsequent orgasm whereas women can have multiple orgasms.

With subsequent research by Robinson and Helen Kaplan, the above model got modified into the DEOR model. Here 'D' stands for the 'Desire phase' which is influenced by sexual drive and fantasies and is the conscious desire to have sex.⁷ The 'Plateau phase' has been merged with the 'Excitation phase' as it is considered to be the final stage of the 'Excitation phase'.⁸ The 'Desire phase' depends on the psychological makeup and is influenced by the biological characteristics of the individual. The 'Excitation phase' begins with psychological or physiological (or both) stimulation and leads to penile tumescence and enlargement of testes in males & vaginal lubrication, hard clitoris, formation of orgasmic platform (vagina becomes barrel shaped with constriction in outer 1/3rd), thickening of labia minora, increase in breast size in females and nipple erection in both sexes. There is increase in heart rate, respiratory rate and blood pressure. In the 'Orgasmic phase', sexual pleasure peaks and there is rhythmic contraction of perineal muscles and reproductive organs; inevitable ejaculation triggers orgasm in males whereas in females there are involuntary contractions of uterus and lower third of vagina.

Resolution phase is characterized by disengagement of blood from the genital organs; following orgasm a general feeling of well-being and muscular relaxation occur (resolution is rapid following orgasm). However if orgasm does not occur, resolution may take upto 6 hours and may be associated with irritability⁶ and other psycho-behavioral symptoms

Neurobiology of Sexual Response Cycle

Human sexual response cycle is mediated by neurotransmitters and hormones. Neurotransmitters like serotonin, acetylcholine, nitric oxide and hormones like testosterone acting in specific brain structures like hypothalamus, limbic system and cortex, mediate sexual response cycle.

Sexual desire is mediated by emotions originating from the limbic system. Activation of amygdala can lead to penile erection, sensations of extreme pleasure and sexual feelings. Amygdala is known to produce sex specific behaviors. Visual sexual stimulation produces greater activation of amygdala in males when compared to females. An increased density of enkephalins and opiate receptors gives amygdala the ability to produce feelings of pleasure and motivate individuals for pleasure seeking behavior.^{9,10,11}

Brainstem exerts both excitatory and inhibitory influence over sexual impulses from the spinal cord. Ejaculation is the forceful expulsion of semen and seminal fluid from the epididymis, vas deferens, seminal vesicles and prostate into the urethra. Normal antegrade ejaculation includes three steps: emission (under sympathetic control; T10-L2), ejection (under parasympathetic control; S2-4) and orgasm (occurs due to cerebral processing of sensory stimuli from pudendal nerve).¹²

In females, vulva forms the external genitalia and includes the mons pubis, major and minor lips, clitoris, glans, vaginal orifice, vestibule of vagina, and the internal system includes part of the vagina, uterus, fallopian tubes and ovaries. Masters and Johnson have described the clitoris as the primary female sexual organ. Thrusting of the penis stimulates the clitoris via traction on the minor lips and leads to orgasm. Ernst Graefenberg in 1950 described an area of around 0.5 to 1 cm in the anterior wall of vagina surrounding the female urethra, known as G spot; it is considered equivalent of prostate in males. Stimulation of this area is highly pleasurable and leads to orgasm in females.

Nerves from the autonomic nervous system (ANS) innervate the sexual organs; parasympathetic nerves (S2,3,4) mediate reflex erections and a thoracolumbar sympathetic system mediates psychological impulses. Both sympathetic and parasympathetic system are involved in relaxing cavernosal smooth muscles which is aided by nitric oxide (NO). In females the sympathetic system causes contraction of smooth muscles of vagina, urethra and uterus during orgasm. The autonomic nervous system is influenced by external events like stress and also by biological mediators (internal events) of sexual functioning. 12

Erection involves dopamine (increases), serotonin (minimal change), norepinephrine (decreased activity at α and increased activity at β) and modulation of acetylcholine. Dopamine antagonists cause erectile dysfunction whereas dopamine agonists enhance erection and libido. $\alpha 1$ blockade may lead to priapism and β blockade may lead to impotence.¹⁴ Multiple neurotransmitters like dopamine, norepinephrine, serotonin, acetylcholine, oxytocin, GABA (Gamma Amino Butyric Acid) and nitric oxide are involved in ejaculation.¹⁵

During ejaculation and orgasm there is increased activity of norepinephrine at $\alpha 1$ receptors. $\alpha 1$ blockers may lead to impaired ejaculation and serotonergic agents may impair potency.

Serotonergic system largely plays inhibitory role in all phases of sexual response cycle. Serotonin's effects in the central nervous system are determined by the specific receptors activated. 5-hydroxytryptamine (5HT)-type 2 and 5-HT₃ receptors inhibit sexual activity while 5HT₁ receptors stimulate sexual activity. Dopamine plays a significant role in the sexual response cycle, through its involvement in the mesolimbic pathway and reward system. Activation of the Nucleus accumbens and medial preoptic hypothalamic region by dopamine is essential for sexual motivation. Activation of the paraventricular nucleus of the hypothalamus by dopamine is essential for penile erection^{16,17,18,19}

Testosterone is associated with libido in both men and women; in men it is inversely related to stress and lifestyle factors with highest levels seen in the morning (normal range 270-1100 ng/dl). Estrogen, testosterone and progesterone promote sexual desire; Oxytocin enhances sexual activity in both sexes and promotes orgasm. Prolactin inhibits arousal; androgens are said to increase libido in females but this still needs further confirmation.^{20,21,22}

Sexual Dysfunction

Common sexual inadequacies include hypoactive or inhibited sexual desire which is characterized by persistently decreased or absent sexual fantasies or desire for sexual activity. Sexual aversion disorders are characterized by persistent aversion to all genital sexual contact with a sexual partner. Sexual arousal disorders also known as inhibited sexual excitement may be seen in both males and females. Male erectile disorder is characterized by (i) persistent partial or complete failure to maintain an erection through completion of the sex act or (ii) persistent lack of pleasure during sex. Female sexual arousal disorder is characterized by either (i) partial or complete failure to maintain the lubrication in response to sexual excitement during completion of the sex act or (ii) persistent lack of pleasure during sex. For the diagnosis the problem must be present in 20-30% of occasions. In DSM-5 female desire and arousal disorder have been combined, as it is difficult to delineate between desire and arousal disorders²³.

Orgasmic disorders include inhibited female orgasm and inhibited male orgasm. Inhibited female orgasm is characterized by persistent inhibition of orgasm after an adequate sexual excitement phase. Inhibited male orgasm is characterized by persistent delay or absence of ejaculation following an adequate phase of sexual excitement. The most common male sexual dysfunction is premature ejaculation. It is characterized by recurrent ejaculation with minimal sexual stimulation before the man wishes it to occur. As per DSM-5 the time duration has been specified as 1 minute. Other sexual problems include dyspareunia, vaginismus and dhat syndrome. Dhat syndrome is a culture-bound syndrome seen in India and the subcontinent and is characterized by neurotic features of asthenia, anxiety, depression, and hypochondria usually in young individuals who attribute the symptoms to loss of semen, nocturnal emission, 'bad dreams', semenuria, masturbation or sexual intercourse. Fear and ignorance are the core features of this syndrome.²⁴⁻³¹

Gender identity disorders and paraphilias differ broadly from sexual inadequacies. An abnormality in one's sense of being masculine or feminine is the problem in gender identity disorders. Recurrent sexual urges or fantasies involving either non-human objects, humiliation of oneself or ones

partner or children or other non-consenting persons are the characteristic of sexual perversions or paraphilias. DSM-5 (Diagnostic and Statistical Manual of Mental Disorders 5th Edition) which was released in May 2013 has defined Sexual Dysfunctions as “a heterogeneous group of disorders that are typically characterized by a clinically significant `disturbance in a person’s ability to respond sexually or to sexual pleasure” Subtypes include Lifelong vs acquired and generalized vs situational. Also partner’s and individual vulnerability factors ; Relationship factors; psychiatric comorbidity; cultural and general medical factors need to be considered. DSM-5 has specified the threshold for making a diagnosis at 75%; that is to say that a sexual dysfunction is said to be present if the problem persists for 3/4th or more occasions.

Sexual Functioning and Mental Illness

Persons with Severe Mental Illness (SMI) are associated with lower overall frequency of sexual activity (30 to 70 %) and below than average occurrence of marital & long-term relationships. Around one-third and one-half of patients with SMI undergoing treatment, are reported to be sexually active. Women with SMI when compared to men, are more likely to be sexually active which may be associated with unprotected, high-risk sexual behavior,³² homosexual activity and concurrent sexual partnerships.³³ Persons with SMI have difficulty maintaining long term sexual relationships through marriage.³⁴The stigma of mental illness results in people with SMI getting sexually isolated and they are considered socially undesirable for marriage due to cultural stereotypes portraying them as dangerous.^{35,36}

Often partners find it difficult to cope with symptoms of psychiatric disorder in the partner which may lead to a break in the relationship. Only Mania is associated with high rates of sexual “promiscuity”, other psychiatric illnesses generally decrease libido; similar is the case with most psychotropic drug which have a negative impact on sexual functioning.³⁷ People in treatment programs are usually prohibited from sexual activity and in institutions sexual expression of any kind is invariably discouraged.³⁸

People with mental health problems have, lower self esteem and they may lack many of the social skills to succeed in romantic partnerships.³⁹ To avoid rejection they may withdraw themselves socially reducing contact with potential partners.⁴⁰ People with SMI especially women are likely to face abuse in sexual relationships.⁴¹

The prevalence of sexual dysfunctions is higher in persons with mental disorders and in those treated with psychotropic medications. Sexual dysfunction has been reported in as many as 30–60% of patients with schizophrenia who are on treatment with antipsychotic medications,⁴² in up to 78% of individuals with depression treated with antidepressants⁴³ and up to 80% in patients suffering from anxiety disorders.⁴⁴ Sexual dysfunction in schizophrenia may be due to personality related issues with lack of intimacy, paranoid behavior and infidelity. Blunted affect, anhedonia and antipsychotics (typical > atypical) also contribute to sexual dysfunction. A study conducted in 2003⁴⁵ concluded that 82% of men and 96% of women with schizophrenia, have at least one sexual dysfunction. . Male patients reported less desire for sex and female patients reported less enjoyment which was associated with negative symptoms and general psychopathology.

Loss of sexual interest is commonly seen in unipolar (upto 72%) and Bipolar (77%) depression.⁴⁶ Erectile dysfunction and premature ejaculation is noted in upto 90% cases,⁴⁷ & reduced nocturnal penile tumescence in upto 40% cases has been observed. Treatment emergent inhibition of orgasm, impairment in desire and arousal and less sexual satisfaction has been reported, specially with selective serotonin reuptake inhibitors (in 34 to 78% cases)⁴⁸ Paroxetine has the highest rate of sexual dysfunction, specially delayed ejaculation while bupropion has the lowest .

High level of anxiety is known to be associated with sexual dysfunction. Social phobia in men is reported to be associated with premature ejaculation , impairment in sexual enjoyment and subjective sexual satisfaction.⁴⁹ Women have more impairment in desire, arousal, sexual activity and subjective satisfaction.⁵⁰

PTSD is known to affect sexual functioning (in upto 80% cases)⁵¹ Anorexia nervosa patients are associated with less sexual interest, impaired sexual function and fear of intimacy.⁵² Pelsser⁵³ has described individuals with borderline personality who have sexual promiscuity, sexual avoidance, higher levels of sexual assertiveness, greater erotophilic attitudes, , greater sexual preoccupation and sexual dissatisfaction. Zeiss⁵⁴ reported 52% of Alzheimer's patients to have erectile dysfunction which is thought to be extremely distressing to the spouse . Common sexual problems are reduction in sexual drive or sexual apathy, increased libido,⁵⁵ sexually inappropriate behaviours, disrupted sexual relations with spouse and inability to give consent for sexual activity.⁵⁶ Non-consensual sexual abuse is common in adolescents with mental retardation which may include either exposure to sexual material, fondling, exhibitionism, oral sex or sexual intercourse. More than 90 % will experience sexual abuse at some point in their lives. 39 - 68 % of girls and 16 - 30% of boys will be sexually abused before their eighteenth birthday.

Psychosomatic Diseases and Sexual Functioning

Sexuality is the ultimate union of body and mind, the inseparable relationship between body and mind though known from ancient times, has been acknowledged in the modern medicine only in the recent times. Many diseases are fully described based on their effects on specific organs, but the impact on sexuality has not been emphasised⁵⁷

In order to simplify, several authors have conceptualized sexual problems arising from illness as primary, secondary or tertiary. Primary refers to dysfunction that is organic in nature directly related to the illness, secondary sexual dysfunction relates to physical changes that cause indirect impairment such as fatigue, weakness, bowel and bladder incontinence, tertiary sexual dysfunction refers to psychological impact of the illness like depression, fear, low self-esteem.^{58,59}

Sexual dysfunction may be one of the devastating aspects of neurological illness. Neurological illness like epilepsy, traumatic brain injury, spinal cord injury and multiple sclerosis can affect all phases of the sexual response cycle, which may include inability to process sexual stimuli to arousal dysfunction and anorgasmia.⁶⁰

Endocrine disorders are common in people with sexual dysfunction. Testosterone has primary role in different phases of sexual cycle in both men and women.⁶¹ Hyperprolactinemia causes decreased libido in men.⁶²

Erectile dysfunction is associated with diabetes mellitus and ED is a marker of cardiovascular dysfunction. Drugs used to control diabetes may also cause erectile dysfunction, but changes in the drugs causes improvement only in the early stages. Loss of sexual desire has been proven consequence of diabetes mellitus in both men and women^{63,64,65}.

Sexual dysfunction is highly prevalent in cardiovascular diseases. Recent studies have suggested impairment in penile blood flow causing erectile dysfunction, predicts major cardiovascular adverse events in patients free of clinical atherosclerosis. This predictive value is independent of severity of hypertension and levels of testosterone .⁶⁶

Arterial hypertension is a systemic disorder characterised by altered vascular resistance and cardiac index. Hypertension causes endothelial dysfunction by shear stress within the vessel wall leading to reduced vasodilation and problems with erection and vulvar /vaginal congestion. The close association between hypertension and sexual dysfunction may lead , one to conclude that adequate treatment of hypertension may lead to favourable outcome in sexual functioning. To the contrary antihypertensive drugs like nonselective beta blockers, angiotensin converting enzyme inhibitors, methyl dopa and thiazide diuretics are associated with sexual dysfunction.⁶⁷

30% of men with coronary artery disease have sexual dysfunction. Woman with diagnosed coronary artery disease have impairment in desire, orgasm, arousal and number of intercourse.⁶⁸

There is significant decline in sexual functioning in stroke patients. Some studies report 20-75% of people having stroke has sexual dysfunction. Post stroke sexual dysfunction can be explained based on autonomic dysfunction, consequence of imbalance between sympathetic overactivity and parasympathetic hypoactivity.⁶⁹

Psoriasis is a chronic inflammatory condition of skin which also affect joints. Sexual dysfunction in psoriasis appears to stem from physical disfigurement. Patients with psoriatic lesions in areas of sexual interest (ASI) had more sexual dysfunction than patients who were free of leisons in these areas.^{70,71}

Rheumatoid arthritis is an autoimmune inflammatory condition affecting all the joints leading to various degrees of disability. Hip and knee immobility causes difficulty in performing sexual acts. Pain, negative body image, morning stiffness and increased fatigue dampens sexual desire.⁷² Vaginal dryness associated with sjogrens syndrome and it causes dyspareunia.⁷³

Conclusion

Sexuality involves the whole experience of a person's sense of self, person's ability to form relationships with others and feeling about themselves. Sexuality has a significant impact on Quality of life. People of all ages and abilities involve in sexual intimacy as a means of connecting with partners and also to enhance the sense of wellbeing. Life threatening illness often precludes discussion on sexual health, even after recover practitioner persistently fail to acknowledge about sexual dysfunction. This is due to lack of knowledge about sexual dysfunction and treatment among health care professionals. First step in treating sexual dysfunction is becoming aware of

its association with almost every diseased organ system. Patients willingly discuss about sexual problems, if the healthcare professional broaches the topic. By identifying and treating sexual dysfunction, practitioners will not only help to enhance patients quality of life but also make complicated treatment more bearable. Even among healthy, sexual dimension makes an individual healthier and well and ultimately brings in better quality of life.

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INTERFACE WITH ETHICS & CULTURE

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Abstract

The universal core ethical principles of beneficence, autonomy, justice and non-maleficence, have had their roots in Western philosophy and ideology. On the other hand, the philosophy of “bahujanhitaye, bahunjansukhaye” (for the benefit of all and for happiness of all), enshrined in Rig Veda, is the one of the guiding principles prescribed for human conduct in India. The field of psychiatry is unique in its place, as cultural values, norms and ideals have an influence in its practice more than in any other branch of medicine. The current article discusses how culture may influence ethical principles in the context of psychiatric practice, decision making in ethically challenging situations involving autonomy, confidentiality and therapeutic boundaries. Being culturally sensitive at the same time adhering to the core ethical principles can lead to providing better patient care.

Introduction

The subject of ethics deals with what is good and bad, and how best to behave in order to maximize good in a society. Medical ethics serve as guiding principles used to establish professional behaviour and boundaries in clinical practice. Given the responsibility of doctors towards patients, society, others in the profession and to self, several sets of principles have been drawn to guide professional behaviour; the earliest recorded being the Hippocratic oath itself. The most popular current framework for medical ethics are the four basic principles as given by Beauchamp and Childress¹ include respect for autonomy, beneficence, non-maleficence, and justice. These are not meant to be rigid rules or laws, but are guiding principles. These principles, were put forth as part of international declarations of medical associations, have gradually become legislations at various levels, national or local. They have transformed clinical and research approaches in health care, and in-turn societal attitudes towards the profession.

An Overview of Ethics in Psychiatry

Psychiatric ethics is concerned with the application of moral rules to situations and relationships

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specific to the field of mental health practice². A myriad of ethical problems pervade clinical practice and research in psychiatry, which are different from those seen in other medical specialities. This is due to several factors:

- 1) Definition of normalcy, or what is normal versus what is deviant behavior is not absolute. It is dependant on norms defined by the society and culture from time to time.
- 2) The nature of psychiatric diagnoses, which may add the baggage of stigma, prejudice and discrimination to the patient.
- 3) The need for involuntary treatments in patients whose judgement may be impaired, as a result of the mental illness.
- 4) The nature of the therapeutic relationship, in which several intimate personal and emotional details are shared, requires a high degree of confidentiality to be maintained.

Psychiatry, as a branch of medicine, even today continues to grapple with accusations of being an inexact science. Thomas Szasz³ vehemently indicted the field of being an “agency” of political or societal forces to act against deviant behaviour, and exert social control, thus calling all of mental illness a “myth”. There have been several instances in the past where psychiatry has drawn severe criticism, for practices that are known to have been evidently wrong today.

Understanding these distinct difficulties, the World Psychiatric Association drew up guidelines for professional ethics to the field of psychiatry in 1977, known as the Hawaii declaration, which was to serve as professional ethical guidelines that are universally applicable to psychiatrists practicing all over the world. This was later revised in 1996, which is currently known as the Madrid Declaration⁴, to include certain newer dilemmas that had come up with the advances in the field of medicine. Issues as diverse as genetic research, conflict with third party players, addressing media and organ transplantation relevant to mental health have been addressed in the document.

The essence of all these recommendations is that psychiatric patients should be treated with dignity and respect, and address specific issues such as the procedure for involuntary admissions, use of physical restraints, the rights of the mentally ill, and the need for adequate resource allocation to have access to mental health care for all.

Considering the various dimensions of psychiatry, ethics plays a crucial role in safeguarding psychiatry as a profession. Ethics helps psychiatrists to be transparent and accountable in their practice. It also helps us to protect the rights of the persons with mental illness.

It is well known; that cultural differences may change the way the field of psychiatry is practiced in different societies. In view of this, the first question that comes to mind, as worded by Norman Sartorius⁵ is “Is there one set of rules that should govern psychiatry as a profession, or are there as many sets of rules as there are societies?”.

To answer this, we shall first try to understand the philosophy behind the framing of four basic principles. Then, by looking at the influence of culture in the practice of psychiatry, we shall look at certain situations where culture may blur the lines drawn by the ethical principles.

Philosophical Underpinnings of the Ethical Principles

Two main philosophical schools are considered to be the fundamental roots of contemporary ethics – deontology (Immanuel Kant) and utilitarianism (Bentham and Mill)¹.

Utilitarianism, also known as consequentialism, states “the ends justify the means”. This means, if the final outcome of any act, turns out to be “good”, that is, whatever be the method used, leads to the betterment of the individual (or patient) or the society, then the act is considered justifiable.

The problem with utilitarianism lies in determining what can be termed as “good” in an outcome. There are differences between societies and also individuals within a society as to what “good” means. For example, the outcome of experimentation on Jews during the Nazi regime, or the indiscriminate use of psychosurgery, were all carried out under the notion that they were for the betterment of humanity. People can be treated unfairly if it will benefit the community. Acts that would be generally considered evil are acceptable under utilitarianism if they are likely to benefit the society.

Deontology, on the other hand, also known as “rule-based ethics”, posits that every act has to be done according to certain rules or laws. No matter what the outcome, these rules have to always be followed and no transgression is acceptable at any time. Immanuel Kant, an 18th century philosopher, gave the concept of the “categorical imperative”, and argued that certain ways of behaving are obligatory regardless of the consequences. A simple example of a deontological stance is that it is always wrong to lie and steal, no matter what the outcome is. It also stresses the importance of respecting individuals because they are rational creatures. The principles of autonomy & informed consent have been derived from the deontological school of ethics. In short, patients are not just a “means to an end” but the end itself, and should always be taken into consideration.

Both these seemingly contrasting viewpoints on ethics have their individual merits and demerits, but can be taken together. In deciding an ethical course of action, one needs to balance the concerns of these different schools of thought. “Rule-based” utilitarianism is what forms the foundation of contemporary medical ethics.

The above basic ethical principles have been devised based on philosophies derived from Europe and Britain. They have been implemented world-over and have been incorporated in the curriculum of both under-graduate and post-graduates of every speciality curriculum. These ethical norms periodically also undergo revision, as it is understood that values can change with time, and with advancements in medical technologies, new ethical problems keep cropping up. The Declaration of Helsinki, which is considered to be the cornerstone document of the World Medical Association regarding medical research human experimentation, underwent its latest revision 2013.

Virtue based ethics, which is considered to be the oldest of the schools as it is based on Aristotelian concept of phronesis (“practical wisdom”), is seeing a re-emergence in medical ethics⁷. It posits that in order to safeguard against ethical problems, professionals are required to acquire certain attributes

or “virtues” which are specific to their field. For example, Radden stated the virtues necessary of a psychiatrist may be as follows – compassion, humility, fidelity, respect for confidentiality, prudence, warmth, sensitivity, perseverance. Certain groups have argued that virtue ethics alone can provide or inform more prescriptive codes of ethics in psychiatry⁷.

Wig⁸ explored how Indian philosophy is also in many ways virtue-based (termed “subjective” based in his paper). The chief components of subjective ethics are austerity, self-control, renunciation, nonattachment, and concentration. In Hinduism, leading an ethical life means living simply; not being greedy; being charitable, compassionate, gentle, and pious; acting in consideration of the welfare of others; providing succor to distressed persons; being of service to all; and bearing no ill will toward others.

Culture and its Influence in the Practice of Psychiatry

The influence of culture in almost every aspect of the practice of psychiatry cannot be over-emphasized, and this has been documented as early as by Emil Kraepelin himself⁹. Culture can be understood in many ways. Leninger¹⁰ defined culture as *“learned, shared and transmitted values, beliefs, norms and life ways of a particular group that guides their thinking, decisions, and actions in patterned ways.”* Barrett¹¹ defined culture as that which encompasses the symbols and conventions human beings construct to understand and interact in the world, and cultural variety lends to extraordinary plasticity and diversity to human behaviour. Culture operates at two levels: at the macroscopic level it represents the social and institutional pattern of a society at large and at the microscopic level it influences the individual thinking and behaviour, both consciously and unconsciously¹².

There is sufficient evidence now to say that culture may influence aspects of the occurrence, causes, manifestation, prognosis, course of various psychiatric illness. Culture affects the presentation of psychiatric illness in various ways – in the generation of symptoms, in the expression of symptoms, in the experience of symptoms and coping mechanisms, help seeking behaviour, etc.

In the clinical setting, culture plays a part in the interaction patterns, expectations and even prescribing patterns of clinicians and the expectations of the patients. Cultural competence can be defined as the ability of individuals to see beyond the boundaries of their own cultural interpretations, to be able to maintain objectivity when faced with individuals from cultures different to their own, and to be able to interpret and understand behaviours and intentions of other people non-judgementally and without bias. Cultural competence requires cultural sensitivity, cultural knowledge and cultural empathy.¹³

Key differences in Western versus Eastern Societies

The differences given in the table below represent a broad mainstream norm in comparing Western and Eastern cultures. Each of the two groups encompasses several countries, religions, ethnicities, sects, races, between which also there may be a wide variation of cultural practices. With increasing globalization, we may be heading towards a more uniform society¹⁴.

Table 1. Some of the Key differences between traditional and western cultures with respect to mental health care

Western Culture	Eastern (Traditional) Culture
Autonomy is valued	Inter-dependence, affiliation & cohesion are valued
Individualism (independence) is the ideal of development	Collectivism (Family and group orientation) is the developmental goal
Nuclear family orientation	Extended or joint family set-ups common
Locus of control internal	Locus of control external
Status achieved by own efforts	Status determined by age and position in the family, care of the elderly
Doctor-patient relationship is defined by principle of consumerism	Doctor-patient relationship is defined by respect and reverence for the physician
Guilt proneness is more	Less of guilt proneness, more prone to shame
Malpractice suing is likely	Malpractice suing is generally unlikely

How these cultural differences and dynamics pattern the socio-dynamics, which in turn further reflect in and determine the psychodynamics; and cultural relativism of dependence is beautifully illustrated by J S Neki in his scholarly articles published in British Journal of Medical Psychology(1976). Analysis and understanding of patient’s psychodynamics, therefore, requires a deep understanding of patient’s socio cultural world on part of the psychiatrist to be therapeutically effective.

Also, when there are differences between a clinician’s cultural values and belief systems with that of the patient, ethical dilemmas may arise¹⁵. They can arise in several aspects of care, including the diagnosis, types of treatment chosen, communication patterns & boundaries of the therapeutic alliance with the patient and significant others, just to name a few.

Autonomy& Informed Consent

Autonomy refers to the patient’s right to make decisions about his or her own healthcare. Clinicians recognize and respect the autonomy of patients by engaging them in decision-making discussions about their medical care through the process of informed consent. Attempts to influence a patient to accept a course of action may be limited to persuasion, after having provided patients with a rational understanding of their diagnosis and options for treatment. The importance for autonomy has gradually risen since the last few decades, and in several clinical encounters can over-ride the principle of beneficence, unless it can be demonstrated that the patient’s judgment is incapacitated and is not fit to be engaged in the decision making process. Informed consent is now part of nearly every aspect of clinical practice.

Of the four core ethical principles elucidated by Beauchamp & Childress, respect for autonomy is be the one most closely tied to Western “individualist” societal values. In individualist society the

individual is viewed as unique, independent and in charge of his or her own destiny. However, in Eastern societies, where individual autonomy is not prized as much as interdependence and family cohesion, the emphasis on autonomy may seem out of place.

Being an inter-dependent society, locus of decision-making is generally the elders in the family or the head. An individual decision that is not in keeping with the collective may leave the decision-makers alone in bearing responsibility of the outcome and may deprive them of family support. When the decision is taken collectively by both patient and family members, the negative consequences of the decision are then not the patient's fault alone and the patient does not have to bear the guilt of having made a wrong decision.

Treatments against the patient's will, such as involuntary hospitalizations, use of physical restraints or somatic treatments and surreptitious medications are commonly undertaken with consent from family members, and this generally does not lead to ethical or legal problems when the family is well-informed regarding the rationale, risks of these measures.

It is also generally the case in clinical encounters especially in Indian settings that the entire onus of decision-making lies with the clinician himself. Until recent times, the 'doctor' in an Indian society was likened to God, and was bestowed upon the privilege that all decisions made by the clinician were not to be questioned, no matter what the end result would be. Certain patients and their families would tend to look that the process of "informed decision making" to be cumbersome and not by no means empowering in any sense. Taking an informed consent is generally perceived a mere signing of a piece of paper, the purpose of which no questions are generally asked. Thus, assuming a "paternalistic" attitude may be expected in a clinician in these societies. J S Neki proposed guru-chela relationship as the more appropriate paradigm in psychotherapy in Indian setting where the therapist is seen as embodiment of knowledge and the patient as seeker holds the therapist in higher esteem, which can be seen as antithetical to the principle of autonomy in western setting.

Confidentiality

Disclosure of information regarding all aspects of health care including diagnosis, nature and purpose of the proposed treatment, risks and prognosis should be limited only to the patient or any one else whom that patient wants it to be known to. Confidentiality is one of the most crucial components in a therapeutic relationship in a psychiatric setting. In Western cultures, awareness of confidentiality helps foster a sense of trust, which would enable the patient to confide in personal and intimate details, which would aid in the therapeutic process.

In Eastern settings, it is generally the family who supports the patient through his or her treatment, and tend to accompany the patient in most visits. Family members generally tend to ask questions regarding the patient's illness as a matter of right and these are generally required to be entertained by the clinician without the necessity of seeking the consent of the patient for disclosing information. Many patients feel comfortable in discussing their problems in presence of family members and do not like to maintain confidentiality. Often the patients in psychotherapy are accompanied by their

family members to visit the psychiatrist's office, who would like to know all that transpires during the session and the patient may feel obliged to share.

A common ethical dilemma encountered in India is when families seek advice regarding the patient's marriage prospects, on recovery from an illness. Due to reasons of stigma, families prefer to hide facts about mental illness to other families. Certain clinicians advise family to only partially disclose information, to the other party, as full disclosure may weaken the prospects of getting married. Full disclosure regarding the illness and treatment is ideally encouraged, but is often toned down or partially shared by the family. Another situation is about disclosure of a serious diagnosis such as cancer to the patient. Many families in India prohibit the doctor from informing the patient of his/her diagnosis of cancer despite the doctor wanting to do so. This is a situation of conflict of medical ethics with social practice that is often encountered in India.

Boundary Violations

A boundary may be defined as the "edge" of appropriate professional behaviour, transgression of which involves the therapist stepping out of the clinical role. Certain boundary violations may be harmless and non-exploitative, such as accepting inexpensive gifts, self-disclosure, and occasional meetings in non-therapeutic settings. Gabbard, has conceptualized that there is a "slippery slope" to sexual boundary violation, which begins with seemingly benign non-sexual exchanges.

There can be no doubt whatsoever, in any cultural setting, that an exploitative boundary violation, can be a serious offence. However, there can be variation in what constitutes a non-sexual boundary violation.

Refusal of non-therapeutic exchanges may hamper the fiduciary relationship between the clinician and patient. For example, patients may get offended on refusal to accept a gift as a token of appreciation, in Japanese culture.

Other non-sexual boundary violations, such self-disclosure by the therapist, physical contact such as handshake, giving blessings (purely Indian) – also may be culturally influenced by what is acceptable and what is not.

Beneficence & Non-maleficence :

Beneficence involves preventing harm, removing harm, and promoting good. ¹Physicians are expected to act in the best interest of their patients. Nonmaleficence is the principle of "first do no harm", and requires refraining from acts that cause harm to patients. Providing psychiatric care based on sound knowledge and using somatic treatments and psychotherapy with documented benefit are expectations of psychiatry.

These principles are generally agreed-upon, without much variation in most cultures. However, along with different explanatory models of illness that accompany various cultures, there may be different notions of what is perceived as beneficial or harmful.

The most common ethical dilemma encountered in this context is with regards to the engagement of certain spiritual or magico-religious faith healing in patients.¹⁸ Despite significant growth in the

availability and access to mental health care infrastructure, a parallel line of care for many still continues to be faith healers. Certain faith healers may simply prescribe wearing certain ornaments (eg a *tabeez*), or performing an elaborate “puja”. However, some of the rituals involve inflicting pain by branding with rods, chaining inside temples, exorcism, etc are performed in inhumane environments. These are overtly harmful practices, but culturally accepted and are generally not questioned from an ethical or legal standpoint.

Quite often, psychiatrists in India are faced with a query from family members whether a patient can be taken to a faith healer or for religious healing practice. This may elicit feelings of negative counter-transference within a clinician trained in modern medicine. However, prohibiting patients and their families to engage in the healing practices of their faith may also be violating their autonomy, and can damage the rapport to the extent that patient may be taken against medical advice or without the knowledge of the doctor. A culturally competent clinician should navigate through this being aware of the faith healing process that is planned, and discussing its risks and possible benefits. At the same time, psycho-education to ensure their continuation and adherence to the current treatment should be undertaken, without blatantly challenging the families belief systems. There are also circumstances when the psychiatrist uses analogies and metaphors from religion and mythology to make a point in psychotherapy with a patient who shares the same belief system. An example is that of using shivling as a phallic symbol in psychotherapy in a patient with shaivite belief system (Nand 1961); or using “hanuman complex” from Indian mythology in treatment of patients (Wig 2004).

Conclusions:

It can thus be seen that in order for ethical principles to aid in the health care, especially in the field of psychiatry, cultural factors need to be taken into account. After all society and culture define the morals and ethical principles. Principles of medical ethics may need to be interpreted and applied in the cultural context for it to prove useful to patients, and the society.

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INTERFACE WITH HISTORY AND POLITICS

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Introduction

The political interface of human psychology is a well-known social philosophical paradigm and often traced back to ancient times. Rapidly expanding knowledge has stimulated the awareness to understanding '*political behavior*' systematically. Researches exploring various psychological processes upon political processes and vice-versa have led to an inception of a discrete academic discipline i.e. Political Psychology today. Scholars of west chiefly dominate current researches on '*politics-psychology interface*'; however, it is becoming increasingly popular in Asia and other parts of the world as well. Both remote and recent history have overflowed with examples of calamitous results from intrusions of 'political ideology' into the domains of mental health. Examples range from the inquisition and witch hunts in the late Middle Ages to the extermination of over 40,000 'incurable' psychiatric patients in Nazi Germany during 'The Holocaust' and the psychiatric incarceration of political nonconformists in the USSR. Looking back, our Indian history has documented considerably in understanding this politics-mental health interface, which is dealt in detail in this chapter. To begin, the focus will be on the historical aspects of politics-psychology interface.

Theories Elucidating Political behavior/attitude

A 'political phenomena' is investigated by exercising various psychological theories. However, every theory is more appropriate for some phenomena than for others. Historically, according to western literature, the greatest contributions emanated from Vienna and Frankfurt. Theorists such as Sigmund Freud and Erich Fromm in particular created a special impact on the development of the

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field. Many theories emphasize the importance of ‘context’ or the ‘nature of the time’ rather than the nature of individuals. The following are few theoretical approaches that elucidate a political behavior or attitude.

Psychoanalytic approach

This psychological approach uses individual personality or characterological predispositions as a crucial explanatory variable. In the 1940s and 1950s, focus was on personality and reflected, in particular by psychoanalytic theory, then prevalent. Freudian or psychoanalytic theory was chiefly suited to the analysis of personality because it breaks down into drives or motives. Freud regarded many of political motivations as ‘unconscious’ in nature. The role of the unconscious motives, childhood development, and defense mechanisms would all have a particularly marked impact on the development of political ‘psychobiography.’ Few decades later, it was Charles Merriam and Harold Lasswell, two of the founding fathers of political psychology, took Freud’s ideas and applied them to the study of politics. Harold Lasswell, an American political scientist, in his famous book on *Psychopathology and Politics*¹ analyzed personalities of political activists like former British Prime Minister Winston Churchill and Nazi leader Adolf Hitler in terms of the unconscious conflicts that motivated their political activities. This approach led to numerous psychobiographies of famous leaders, such as the analysis of Woodrow Wilson, a former president of United States by George² and theologian Martin Luther by Erik Erikson³.

Psychoanalytic theories and their derivatives have been applied to politics in the study of war, enmification and also peace-making. Researches have analyzed that there is a universal tendency either to have or to create political enemies. Volkan⁴ provides an explicit psychoanalytic interpretation of the dynamic psychogenic process by which this tendency may reflect a universal need. He traces the deepest roots of enmification to stranger anxiety; a universal occurrence in children that produces one’s sensing another as a bad presence. Later on, the child, under the influence of the family, begins to select targets to externalize his or her black and white self, and projects images, good and bad, onto objects in the environment. The particular targets selected are often determined by ethnicity and nationality and give rise to racism, prejudice and so on. Later, the child’s identification with parents, peers, teachers and leaders leads to a fuller identification with their religion, ethnicity and nationality. If there are no suitable targets of externalization, the child will lack the ability to protect and regulate a sense of self. Volkan⁴ then applies his theory to ethnic and national political conflict, a timely political issue in the last years of the twentieth century.

Behavioral Approach

Another general approach to understand political behavior evolved from the behaviorist theories. This was much in trend in the middle half of the twentieth century. One version of it emphasizes the learning, which in turn guide later behavior. A political behavior can be approached from a simple classical conditioning to operant conditioning and social learning. Imitative learning examined by Bandura, may seem to have long dominated the analysis of mass political attitudes. Political socialization, develops from the assumption that children learned basic political attitudes (such as party identification, racial prejudice and discrimination) from their families and friends,

and that the residues of these early attitudes dominated their later political attitudes/behaviors in adulthood, such as their voting preferences. Mass communication effects are analyzed in terms of the “reinforcement” through congruent communication and prior situational experience.

Traditional explanations for the origins and maintenance of political preferences rest primarily on external stimuli/incentives as the ultimate cause of human behaviors. Reductionists have mentioned that all behavior results from social conditioning ⁵. Social learning theory have examined diverse political issues such as the diffusion of innovations in political campaigns and elections ⁶, the psychological basis of political authoritarianism, ⁷ the emergence of torture among soldiers and citizens working on behalf of authoritarian regimes or terrorists fighting against powerful regimes ⁸, the social-psychological basis of charismatic leadership ⁹, and the socialization experiences that distinguish heroic political rescuers from mere bystanders ¹⁰.

‘Ideology’ and Political Behavior

‘Ideology’ is a potent motivational force of human beings for committing atrocities (as well as acts of generosity and courage) and sacrificing their own lives for the sake of abstract belief systems. Human beings are often ideological animals and from a psychological point of view, the pervasiveness and potency of political belief systems or ideologies, highlights a fundamental enigma about human motivation. Ideologies arise from ‘*under uncertainty and prevail to ward off uncertainty*’ and it confers existential security. Ideologies help an individual to cope with anxiety concerning one’s own mortality through denial, rationalization, and other defense mechanisms. Moreover, people are also drawn to socially shared belief systems for reasons of affiliation, as suggested by ‘social identity’ and ‘shared reality’ ¹¹. Jost et al. ¹² has proposed that ideology possesses motivational structure and potency because it serves underlying epistemic, existential, and relational needs. Hence, political ideologies offer certainty, security and solidarity. However, this does not mean, that all ideologies are the same or that they satisfy these needs unequivocally. Do political ideologies exert influence healthcare systems? There are three basic approaches and trends that influence health care system i.e. conservative, liberal and radical.

The conservative approach is based on the ‘equality in front of the law’ principle and implies government involvement only with the purpose of law enforcement. Planning is normally rejected and the market is free and acts upon demand and supply only.

The liberal approach is based on the ‘equality of chances’ principle that cannot be let in the hands of free market. State intervention is often accepted with the purpose of accomplishing improvements in population health status. Practically, this principle inspires those states that either adopted a national healthcare system, either a system with state controlled health insurance agencies.

The radical approach is based on ‘equality of results’ principle wherein state intervention is allowed, no matter how substantial it would be. Centralized planning and incorporating maximum resources by the state are among the characteristics of this approach.

Regardless of the system and its philosophy, there are a few general accepted principles. Medical assistance in case of ‘emergency’ is considered a fundamental human right, no matter if the person

involved can or cannot pay for this service. Importantly, patients have the right to universal and equitable access and to a basic package of healthcare services. Healthcare systems have to respect the *macro-economic efficiency principle*, as healthcare costs should not override a reasonable percent of the gross domestic product (GDP), and the *principle of micro-economic efficiency*, as the services offered have to produce good results on health at minimum cost.

NEWER APPROACHES

Neuroscience of Political Attitude/Behavior

Today, evolutionary psychology, philosophy and neuroscience are beginning to influence research on an array of questions linked to political behavior. Researchers have started describing brain as a system of “functionally specialized circuits” designed through the process of evolution to handle distinct tasks and make decisions. Also, different types of emotional responses, such as enthusiasm, anxiety, aversion, motivation that manifest a political behavior are under the control of different neural processes and can be effectively translated in the neuroscience laboratory (political neuroscience or ‘Neuropolitics’). Initial research on political neuroscience has been largely exploratory, with the aim of mapping patterns of neural activity to various types of politically significant responses. Ideologies like ‘liberal/conservative’ have been assessed using functional MRI regardless of participant’s own political orientation. However, the processing of conservative statements was associated with greater activity in the right dorsolateral prefrontal cortex associated with withdrawal motivation, negative affect and response inhibition¹². Although this finding may have multiple elucidations, one may speculate that thinking about more conservative positions elicit a withdrawal-oriented response from the brain, which is usually seen as a response to disgusting or threatening stimuli.

Genetics of Political Attitudes/Behavior

Hans Eysenck and many other researchers have pioneered in finding genetic variance accounted for individual differences in social and political attitudes¹³⁻¹⁴. It is, till now well recognized that children resemble their parents in political attitudes because of their genetic relatedness as much as parental upbringing and social environments. Most of empirical investigations focusing ideologies rely on self-identification measures of liberalism, conservatism, authoritarianism and so on; more global measures of ideology that focus on individualism, collectivism, egalitarianism. Although sparse, researchers have started exploring associations between genes and various political and attitudes and behaviors. The serotonin transporter gene (5HTT) and monoamine oxidase A gene (MAOA) and found that both polymorphisms were predictive of ‘voter turnout.’ It is speculated that 5HTT, associated with individual differences in mood and individuals may have a varied regulation of stress and fearful emotions through its interactions¹⁴. Genetic polymorphisms are also linked to both cognitive flexibility and threat sensitivity and may quantify general attitudinal measure of liberalism-conservatism.

As of now, hunting for a “political gene” is a futile endeavor. There can be imagined political and social dangers of a belief in biological determinism, quoting Nazi ideology as a precedent. Death of countless Jews was routinely draped around eugenics, as they belonged to different ethnic

and social groups [15. Also, the execution of ‘genetically vulnerable’ individuals with psychiatric illness and involving them in unethical researches in Germany during World War II was mainly to harness a fairer gene. Seemingly, such theories were used to justify their persecution and hence genetic determinism may, in-fact create unsubstantiated assertion that can hinder conceptualization and theorizing the realm of politics and may induce harmful policies ¹⁴.

Historical Interface of World Politics and Mental Health

The evolution of mental health as a medical discipline since the beginning of the 19th century has been influenced (politically) by society’s beliefs and the dominant social organization. For the past two centuries till the present day, two discrete courses can be traced in the political history of psychiatry; firstly, psychiatry as ‘social control of deviance’ and secondly ‘psychiatry as advocacy’ of the ‘right to be different’. For the last five decades, a psychiatric revolution, which is still now in progress in many parts of the world, has been inspired by the second set of beliefs, so called ‘Antipsychiatry movement’.

Political Influence on Psychoanalysis

Although, Freud’s psychoanalysis before 1921 revolutionized the understanding of deeper psychic facts of the individual, as bearer of dreams, desires and so on, this psychology didn’t serve as an exhaustive explanation of the deeper political and social facts of groups and masses. In 1933, Freud published ‘Why War’ during which Hitler clutched power and established the Nazi state based on the Nazi ideology of anti-Semitism (hostility or prejudice against Jews) and racism and Stalin consolidated his reign over Russia. Freud singled out “economic motives as the only ones that determine the behavior of human beings in society.” He used the word ‘economic’ in terms of the dynamic variability of libidinal energy of “instinctual impulses, their aggressiveness”, that was the determining psychological factor, seemingly a counterpart to materialistic determinism. To the Nazis, psychoanalysis was a prime example of the corrosive nature of Jewish thought, its degenerate capacity to poison the sources of idealism and feeling for race and nation. During the Nazi period, there was a troubled history of psychoanalysis, a source of some controversy and introspection within the analytic community as it deliberated a ‘Jewish Science.’ ¹⁶. The notion of it as ‘Jewish’ had a strong anti-Semitic connotations and was catalogued by the Nazis. On the contrary, there are also many serious Jewish scholars who were interested in linking between psychoanalysis and Jewish thoughts. Freud identified himself as a Jew throughout his life, ever more so as anti-Semitism became increasingly endemic in Germany and Austria. The ‘Jewishness’ of psychoanalysis was even regarded by Freud as more than just a response to anti-Semitism. After Hitler rapidly consolidated his power in 1933, the mechanisms of terror had been put in place, many Jewish analysts had left Germany and Freud’s books had been publicly burned. By November 1933, all the offices of ‘The German Psychoanalytic Society’ had been taken over by non-Jewish members, while only non-Jewish candidates for membership were approved.

The ‘Asylum’

The Athenian philosopher Plato regarded social deviance as a disorder of the mind and recommended

the placing of 'delinquents' with appropriate guardians¹⁷. Was Plato's notion to place the 'deviants' in asylum? The birth of psychiatry as a discipline and as an organized medical practice in the 19th century took place in the mental hospital or asylum¹⁸, and was associated with the mass aspect of mental morbidity, rather than with an individualized care. The 19th century mental hospitals were of a 'peculiar miniature' located in a distant locality away from the social reach. They would function by practice of physical segregation of the 'residually deviant', perceived as an irritant or a burden on the society and economy. The ideology of this segregation was basically meant not only for a political transformation but also to change the ethno-cultural image of madness into a concept of 'mental illness.' However, this approach gave inception to various socio-political obligations like de-individualization, stigmatization, discrimination, atheoretical psychiatric doctrines. Due to these practice, as a discipline, psychiatry was genetically loaded with a potential for totalitarianism.

Conflicting 'Political' Trends in Psychiatry

Until now, politics and psychiatry seem to have an interface and tend to influence each other bi-directionally. This interface is more often an arena of conflict rather than of synergistic notions. Psychiatry can protect society and its values against threat by social control of deviant behavior. It not only 'segregates' and 'labels' individuals with 'abnormal' behavior but also protects the foundations and symbols of social order and hierarchy of values against the intrusion of irrationality and unpredictability¹⁹. The very act of 'labeling' of behaviors can de-individualize or (de) stigmatize in the society. Earlier, certain psychiatrists in the USSR believed that 'sluggish schizophrenia' or 'psychopathy' could often be detected beneath the surface of apparent political protest, and ought to be managed accordingly. USSR was purported for misuse of psychiatric diagnosis, treatment and detention for the purposes of violating the fundamental human rights of certain groups in a society. Absence of legal barriers and political 'labeling' of deviant behavior in the USSR resulted in actual abuse of psychiatry (whether intended or not by the experts) an oppressive political force for political purposes²⁰.

The Turbulence of 'Antipsychiatry'

Antipsychiatry surfaced as an international movement during the 1960s. Antipsychiatrists profoundly opposed psychiatry, a medical specialty legally empowered to treat and institutionalize the mentally ill. Indeed, many antipsychiatrists argued against the actual existence of mental disorders. Activated by the political excitement of the 1960s, a consensus had formed that psychiatry was 'illegitimate' form of social control and that psychiatrist's power to lock people up must be abolished. Antipsychiatry key ideologists attempted to spread themselves in the most varied ways; in the media and among patients, artists and politicians. After the 1970s, the antipsychiatry movement became increasingly less influential²¹, due in particular to the advances in psychiatry and neurobiology in explaining the etiological basis of mental disorders and in improving the efficacy of available treatments²². However, in few countries, the antipsychiatric movement still retains a tenacious admiration. In a way, by questioning psychiatry per se, antipsychiatry has inadvertently contributed to a considerable refinement of psychiatric nosology. Additionally, intense criticisms have changed overall approach of psychiatric care perhaps constructively.

INDIAN SCENARIO

Political History and Its interface with Psychiatry

Although Indian history has its birth during the Indus Valley Civilization in places like Mohenjo-Daro and Harappa, history of united India dates to the Maurya dynasty (4th century BC). Arthashastra, an ancient Indian political treatise written by Chanakya (also identified as Kautilya or Vishnugupt) is one of the first landmarks in the history of Indian politics.²³

Before Chanakya, political ideas have also been embedded in the sayings and narratives of Buddha-Nikayas (400-300BC); two of the five nikayas- Digha and Anguttara. The Jataka stories (600BC), which illustrate Buddha's doctrines, also highlight similar ideas. Heads under which the political ideas were described are:²³

1. Origin of state: Social contract theory
2. Importance of state
3. Essential qualities of the ruler
4. Duties of the ruler

A brief history on these concepts (and wherever relevant other related concepts) are described along with the interface of these concepts with mental health principles.

Social Contract Theory

Although an alternative 'divine' source has been attributed to the origin of state in the 'Manu Smriti' (*laws of Manu*) (200BC-200AD) and '*Shantiparva*' (a part of Vyasa's Mahabharata (200BC-200AD)) who state that the lord created state and king by taking eternal particles, origin of state has a sociological foundation.²³ Historically, before the concept of 'state' emerged, for long people were righteous in every way possible in their interaction and relationship with every other and with themselves as well. Then there occurred a point in time where 'evil customs, sins' arose, which made human beings gather together and agree upon on a 'moral' contract that defined roles and deeds of individuals and punishment when they were not followed. This concept is what is known as the 'social contract theory'. Although, western literature dates the first notes on social contract theory in Plato's *Republic* (3-4th century BC),²⁴ they were already recognized in India then and were followed for about two centuries as in the Jataka stories.

Social contract theory or the 'contractarianism' can be simplified as an exchange of certain natural rights for some social goods. Individuals with mental illnesses (specifically those belonging to the psychotic spectrum), who sometimes may be incapable of delivering 'social goods', are at a risk of losing out of certain rights. Not just patients, psychiatrists and other mental health professionals pose a challenge to the social contract agreement. They sometimes have to face the so called 'dual role dilemma', where they are struck amidst their responsibilities towards patients and the society/community at large.²⁵ This dilemma may be at its peak while practicing forensic psychiatry and while conducting research, especially drug trials. Most principles of ethics- benevolence, non-maleficence, etc. are all relevant to the concept of social contract theory.

Importance of State

Punishment

Predominant literature on this subject theme is based on justice, especially *punishment*. And it has been rightly stated that ‘the history of punishment is the history of death penalty.’²⁶ As we date back the history of punishment in India to Mauryan dynasty again, we find that capital punishment was well known and practiced.²³ Although for the period, during which emperor Ashoka strictly followed the principle of ‘ahimsa’, capital punishment was retracted, it was prevalent from the start of Mauryan dynasty (as part of courts named *Kantakasodhan*) and made a comeback soon after Ashoka’s kingdom decayed. Important to note is that according to *Arthashastra* these punishments were based on *varna*(skin color) hierarchies i.e. they were biased based on the social divide.²⁷ Capital punishment was prevalent during the Mughal Empire’s rule too. The ultimate judge in most, if not all cases was the king himself; all cases however needed to get a confirmation from the King before being executed. Remarkable is the mode of capital punishment- while the most common one was where the criminals were being trampled under the feet of elephants, there are instances of having criminals bitten by several poisonous snakes.²⁸ The colonial rule brought several changes to the punishment system of India. The East India Company sought to bring an end to what they criticized as cruel punishments (as in the case of Mughals) and eliminate religious and social privileges (as in the case of Mauryan Dynasty).²⁹ However, counter arguments suggest that “there is little doubt that race played perhaps the single most prominent role in the construction of the late nineteenth-century judicial system in India”.³⁰ In the independent India, the life execution is on a significant down fall. While about 1800 capital punishments were executed till 2001,²⁷ only 4 death sentences were completed later till date.³¹ Interesting observation here is that though historically, India was among the first to significantly restrain capital punishment during Ashoka’s rule, in 2012 India voted against the United Nations (UN) General Assembly draft resolution seeking to ban death penalty. However, in 2015, the Law Commission of India recommended the government to abolish capital punishment for all crimes with the exception of terrorism-related offences and waging war against India.³²

While the role of psychiatrists in death penalty proceedings is argued both for and against, their moral role in making death row prisoners competent and when required treating them is extremely imperative, given the fact that suicide rates on death row have been found to be higher than that for the general population.³³ Moreover, a number of psychological symptoms have been observed in death row prisoners- while some manifest marked symptomatic responses in relation to stress, many show a lowering of perceived stress; both instances perhaps leading to a socially undesirable position.³⁴ Psychiatrists participating in proceedings, specifically forensic evaluations, of defendants facing capital punishment are supposed to have thorough understanding of various legal and ethical issues.³⁵ Kermani and Drob³⁶ suggested certain ‘safeguards’ with respect to such participation which include a recommendation that testimonials by mental health professionals should be testified with medical “possibility” or “probability” and that they should not to be permitted in addressing ultimate legal issues. With respect to the ‘dual role dilemma’ (discussed in the earlier subsection), when

exacerbating psychiatric/psychological testimony by a mental health professional is necessary, it is considered that their hippocratic oaths or other ethical codes are NOT violated.³⁶

Caste system

As mentioned earlier, social division based on varnas and provisions of each of the varna was very evident in Chanakya's Arthashastra. However, it is estimated that caste system might have began around 1500BC during migration of 'aryan-speaking nomadic groups' to India.³⁷ Original descriptions on origins of various varnas describe that the Brahmans were *born* from the mouth of Brahma, Kshatriyas from his arms, Vaishyas from his thighs, and Shudras from his feet.³⁸ This division (based on caste system) among the people of the Hindu rule is regarded as one of the factors in dethroning Prithviraj Chauhan by Mu'izz ad-Din Mohammad Ghori.³⁹ The Islamic rules, which were devoid of division of public based on caste, were in fact welcomed by outcast castes among Hindus. Regrettably however, *caste* system started to infringe into Islamic rules, to an extent that the Indian Muslim system has acquired the caste system.³⁹ The conventional division in the Indian Muslim system was—Sayyad, Sheikh, Moghul and Pathan. Other divisions like- Ashraf, Ajlaf and Arzal also came into existence. Then came British and with them the 'political intensification of caste';⁴⁰ they strengthened the caste system by offering people of higher castes British education and positions in government services. Further, by defining the term "Scheduled Castes" in Government of India Act of 1935, they overvalued the system of caste.³⁸

BR Ambedkar⁴¹⁻⁴³ in a series of articles under "Annihilation of Caste", states that destroying religious notions upon which the Indian caste system is based on is essential for breaking this system up. Contemporary politics still have an immense influence of Dr. BR Ambedkar and his arguments with MK Gandhi.⁴⁴ However, for many years following independence, the caste divide in holding prominent elected positions in most parts of India persist- Ahirs, Kurmis, Koeri, Lodh Rajputs, and Jats in northern India; the Vanniyars and Thevars in Tamilnadu, Vokkaligas and Linagayats in Karnataka, etc. (for a brief review see Chapaitkar⁴⁵). Although apparently, relationships between castes have improved significantly,⁴⁶ even after about sixty nine years of political freedom, caste system still grips the nation from deep beneath. Inclusion of 'caste' in the latest national census of 2011 reiterates the persistence of caste system even today. Analysis of data collected from a nationally representative survey of 41,554 households to study the relationship between social background and different dimensions of well-being suggests "continued persistence of caste disparities in education, income and social networks".⁴⁷

From a psychological perspective, while on one hand the Indian caste system has been fastened to Sigmund Freud's group psychology ideas and Melanie Klein's *mechanisms* of splitting and projective identification,⁴⁸ on the other hand it is mainly understood on the process of stigma. According to the 'Identity process theory', it has been revealed that caste-based group affiliation and caste-based stigma have distinct implications for identity processes among people belonging to the high and the low caste groups; While negative social representations in the low caste threatens the self-esteem amongst themselves, differentially it enhances the self-esteem among the high caste.⁴⁹ Deprivation and human rights violation resulting from discrimination among the lower

castes, result in a multitude of mental health related problems- epigenetic influences on early psychosocial development, scholastic difficulties, aberrant reactions to rejection, stigmatization, abnormal personality attributes especially poorly formed self-concept, etc.⁵⁰

Essential Qualities of the Ruler

Rulers in the history of Indian politics can be divided broadly based on the type of governance- monarchy and democratic-republic. India is known to be ruled by monarchs since ancient days dating back to the Brihadratha dynasty (about 800BC) to the last ‘emperor of India’, King George VI until 22 June 1948. From then on the leader/ruler is the President of India.

Literature on monarchy or Indian theories of monarchy, again, dates back to Chanakya’s *Arthashastra*. One sentence in it that summarizes the theory of monarchy is ‘the king and his rule, this is the sum total of the constituents’.²³ Chanakya has defined various sciences and arts whose knowledge (if not mastery) has to be attained by the prospective king; a developmental trajectory with what to be learned by what age is described in great detail. In monarchy- a monarch’s power is hereditary; as per the two nikayas- *Digha* and *Anguttara*, the essential qualities of a ruler are that he should be: a) well born on both mother’s and father’s side, b) of pure descent tracking back to seven generations, c) handsome and pleasant in appearance, d) good warrior, e) intelligent to foresee future on the basis of the happiness of the past, f) possessing great wealth, and g) commanding a loyal and disciplined army. Broadly the characteristics can be classified as hereditariness; physical charisma; and, strength and intellect to influence.²³

With known explicit differences between heredity and heritability, the present day ‘behavior genetics’, have been interested in understanding the heritability of leadership. Modern day research has shown that leadership is associated with rs4950, a single nucleotide polymorphism (SNP) residing on a neuronal acetylcholine receptor gene (CHRNA3).⁵¹ Nevertheless, studying leadership is an important research theme in the field of social psychology. In social psychology, being charismatic is considered most personal and a special gift held by the leader; but more than ‘physical’ characteristics, it is the character of being ‘one of us’ makes a group perceive their leader as charismatic according to social identity and self-categorization theories.⁵² Hence, the definition of charisma has transformed from being a physical attribution to a group dynamic over the course of political history. Finally coming to strength and intellect to influence; Smith⁵³ defines leadership itself as a social influence- the ability to alter the beliefs, feelings, or behaviors of others. According to the ‘prestige theory of leadership’ in behavioral psychology, the position of influence has to be attained by earning prestige i.e. through leading-by-example (allowing followers to learn from them and in return they earn prestige).⁵⁴ Perhaps, these characteristics form core aspects of social intelligence. Interestingly, we find all these characteristics that make a good leader, are essential for being a good psychiatrist, as well,⁵⁵ after all, a good psychiatrist has to be a good leader!

Positive psychology lays strong foothold on modern psychology. Social/emotional intelligence as a trait is very closely related to positive psychology.⁵⁶ Reference to this theme can be found in the excerpts of *Arthashastra* by Chanakya, who emphasized on experiencing ‘material wellbeing’ and ‘sensual pleasures’, along with spiritual good as indispensable qualities of a ruler. Counterarguments

to this theory also exist- a king who has attachments to things of enjoyment and passion is considered *Tamasa*, a part of demons in *Sukraniti*(around 400AD).²³

Duties of the Ruler

Historically, ‘Dhamma’ or ‘Dharma’ translated as righteousness was the prime duty of the ruler according to *Dighanikaya*, *Anguttaranikaya* and the *Jataka* stories. Other important duties accrued to the king were providing protection to public; punishing the wrongdoers; and giving wealth to poor. Chanakya’s postulates deviated a little from the path of extreme righteousness and allowed acts that brought happiness and benefits to the public and considered- ‘in the happiness of the subjects lies the happiness of the king’.²³

Welfare State

The concept of ‘welfare state’ (the English word coined during the Second World War) first evolved in Chanakya’s *Arthshastra*. Chanakya, while describing the duties of ruler, states that the ruler should look after and maintain the helpless (children, aged, ill, etc.) and provide food and proper shelter to all during periods of famine- ‘the king should act like father’.²³ This concept was advocated in several political ideologies to follow that includes Vyasa’s *shantiparva*. Apart from Chandragupta Maurya (Mauryan dynasty-4th century BC), Harshavardhan (Pushyabhuti dynasty-7th century AD) and Akbar (Mughal dynasty-17th century AD) are examples of rulers who headed welfare states. In current day terminologies, ‘relief’ better explains the described system. With democracy taking over the monarchy, the definition of the ‘welfare state’ has evolved. It is defined as “a government on the liberal end of the political continuum wherein the state protects and promotes equity and public responsibility and makes broader investments (e.g., health care, education, social services) to provide its citizens with more protections from social, economic, and political hardships”.⁵⁷ Although strictly not a welfare state, India follows certain principles of it; part IV of Indian constitution provides provisions under the rubric of welfare state. Social insurance and social security, by and large, are synonymous with welfare state.

From a positive psychology perspective, research has shown that subjective wellbeing, quality of life and ‘life satisfaction’ have been found to be positively correlated with increases in generosity of the welfare state.⁵⁸ Very recently, it has been found that retrenchment of the welfare state policy might be related to higher number of hospitalizations with mediation by educational inequality.⁵⁹ Ironically however deinstitutionalization, an exercise under the welfare state policy,⁶⁰ has been a failure in many countries.

Foreign Policy, War, Peace

The credit of the first foreign policy in India goes, again, to Chanakya. In *Arthashstra*, he describes six constituents of it- Peace (entering into a treaty); War (doing injury); Staying quiet (remaining indifferent); Marching (augmentation of powers); Seeking shelter (submitting to other); and Dual policy (peace with one and war with another).²³ Manu in his *Manu Smriti* states six measures of the royal policy, which he calls *Guna*- alliance, war marching, battling, dividing the army and seeking protection. Diplomacy, the art and practice of conducting negotiations between nations

(Merriam-Webster dictionary) and its descriptions were first evident in *Manu smriti*. Manu defines ‘diplomacy’, a necessary trait for a good ruler, as ‘knowing the weaknesses of enemy and not allowing enemy know his weaknesses’.²³ Modern definition- ‘the art of restraining power’ given by Henry Kissinger⁶¹ by far seems to have strings attached with the one given by Manu. Diplomats of today, were termed *Dutas*; qualities of whom were defined in Acharya Somadeva’s *Yasastilaka*- should be an aged Brahmin, learned, eloquent, forbearing in face of provocation and amiable.²³ The components proposed by Chanakya and Manu were followed by subsequent political ideologies and were all limited mostly to ‘peace and war’. In monarchical governments, decision making processes of individual leaders was primary and in many instance exclusive. This is rather contrary to the current concept of foreign policy making. Firstly, various aspects other ‘war’ are now considered- realist balance of power and transition, a variety of capitalist and institutionalist domains.⁶² Secondly, with democratic republic governance (and political reforms globally), generally there seems little room for individual personalities, emotions and decision making processes in national foreign policies.⁶² However, many events have been significantly implicated to individual leaders. While Hitler’s association with Holocaust, Stalin’s with Soviet policy in the 1930-40s, Mao’s with Chinese foreign and Putin’s with contemporary Russian policy are examples for international politics,⁶² Gandhian nonviolence’s influence on India’s foreign policy⁶³ for long is a firm illustration of role of individual psychological processes. Muhammad bin Tughlaq (14th century AD), the eccentric Sultan of Delhi, and his *decision* of shifting the capital from Delhi to Daulatabad as part of his policy is considered a failure as that encouraged the Mongol, Tarmashirin Khan to attack the country.⁶⁴ Muhammad bin Tughlaq is often called the ‘mad monarch’. Only time will tell how the ‘*Modi Doctrine*’ (India’s current foreign policy) will unfold!

Coming back to war, Thiruvalluvar’s *Tiru-k-kural* (200AD) describes a phenomena or a strategy where he states “making alliance with opponent’s enemies should be more prompt than securing confirmation from already friends”.²³ This concept, although explained on an outline of diplomacy, has distinct psychological underpinnings. Social psychologists consider this ‘the enemy of my enemy’- the ‘balance theory’. In contemporary social psychology, the balance theory was proposed by Fritz Heider.⁶⁵ It is furthered by political scientists and social network theorists. Another related construct is demonizing of the enemy, which is a propaganda that promotes aggression/hatred towards the opponent, has been exploited for long- Mauryas against Greeks to British against Mughals. The great Indian sepoy mutiny (the first war of Indian independence) of 1857 is an exemplary example of an outcome that resulted from demonization of the ‘Enfield rifle’ among Indians in the British troops.⁶⁶ More recently, the antics in the electoral campaign of Bharatiya Janata Party during 2014 general elections can well be labelled as demonization of Congress. These techniques- such as social networks, demonization are all subsumed under the broad rubric of ‘Psychological operations (PSYOPS) or Psychological Warfare (PSYWAR).

Nonviolence

Moving from war to peace, one movement in the history of Indian politics that determined the nation’s independence was that of ‘nonviolence’; a form of silent PSYWAR! Nonviolence was the integral

part of the non-cooperation movement that began after the Jallianwala Bagh Massacre. Nonviolence has been defined as a dynamic condition of conscious suffering- one's soul against the tyrant's will. From a behavioral psychology's perspective nonviolence is closer to the term 'passive resistance'; however, Mohandas Karamchand Gandhi describes the fundamental difference between the two. While strength is demonstrated by love in 'resistance' of 'nonviolence', in 'passive resistance', weakness is hidden in the fact violence is permitted when suitable occasion arises.⁶⁷ According to Gandhi, nonviolence has three facets- ahimsa, satyagraha, and tapasya.⁶⁸ Ahimsa and tapasya, being ancient terms and processes, were described since the postulation of 'dharma' in Jataka stories; Ahimsa flourished during Ashoka's rule. *Satyagraha* (also termed as truth force, soul force, love force etc.), however, was a concept developed by Mahatma Gandhi. They are a set of principles that guide deploying nonviolent methods as means of protest.⁶⁹ No anger, no insult, no retaliation but suffering. Gandhi emphasized the fact that this method of protest is going to take a lot of time (long and arduous path) to achieve the goal.⁷⁰ Gandhi and his principles succeeded in bringing the nation its independence. The social identity psychology hence infers that when crowds embrace nonviolence, there is potential for positive social and political change.⁷¹ Very interestingly, a psychotherapeutic strategy based on the notion of nonviolence- *Non Violent Resistance (NVR)* has been devised to treat/manage externalizing behaviors/disorders, especially in children. Principles of de-escalation; breaking taboos; taking non-violent action; reconciliation gestures; and child focus are used in this form of approach.⁷²⁻⁷³

The proponent of nonviolence, however, falls prey to assassination.

Assassinations

Assassinations, imperative societal happenings, lie at an interface of history and politics. Chanakya proposed 'silent'/'concealed'/'clandestine' wars, which are covert operations/assassinations in *Arthashastra*; he considered that they can bring larger victories at smaller costs.⁷⁴ In this pursuit, Chandragupta Maurya got many a Greek officials assassinated.⁷⁴ In the history of united India, assassinations and Shunga empire can be referred together closely. Shunga Empire was founded with assassination of King Brihadratha (the last emperor of Mauryan dynasty) by Pushyamitra, his Senapati who became the first ruler of the Shunga empire. Ironically, Shunga empire's last ruler Devabhuti was assassinated by his senapati Vasudeva Kanva.⁷⁵ There are several assassinations to follow. During the Mughal rule, emperors like Farrukhsiyar, Aziz-ud-din Alamgir II too succumbed to assassinations. Post-independence, apart from MK Gandhi; Prime ministers Indira Gandhi and Rajiv Gandhi, were assassinated.

A series of four papers, by Donald Hastings, titled "the psychiatry of presidential assassination" were published in the *Lancet* in 1965;⁷⁶⁻⁷⁹ concretely, this to us seems an important milestone in understanding 'the interface of psychiatry with history and politics'. These papers iterated various facts of these assassinations from psychiatry/psychology point of view. Interestingly, David Rothstein⁸⁰ went on to describe a new syndrome the 'Presidential Assassination Syndrome' that depicted the personality of the assassins. First prime minister of independent India to have

been assassinated was Indira Gandhi. Very interestingly, Varma et al.⁸¹ reported the impact of her assassination on psychiatric inpatients in India.

Terrorism

A large proportion of assassinations in India (with the notable case of Rajiv Gandhi) and worldwide, have been linked to a terrorist group.⁸² Terrorism in India, yet again, can be dated back to Mauryan dynasty- Chandragupta Maurya is reputed for using guerrilla warfare in early part of his reign. All the Mughal kings are alleged to have maintained terrorism in their kingdoms by terrorizing subjects at the point of their sword.⁸³ Then during the war for India's independence, Bal Gangadhar Tilak (often called the father of Indian unrest), his speeches and writings spurred the use of terrorism to radicalize masses to agitate for India's independence; conspiratorial groups inspired by the newspaper 'Jugantar' terrorized the British. Apart from this ethno-nationalist terrorism before independence, later in the post independent era, India has been constantly terrorized by various religious fundamentalists (such as the Lashkar-e-Taiba in Kashmir), separatists (such as the United Liberation Front of Assam in Assam), etc.⁸⁴

Salman Akhtar⁸⁵ while determining various psychodynamic dimensions of terrorism suggests that 'mistrust', 'killing off to eliminate fear' and 'narcissistic rage' are primary mechanisms; he also suggests that group psychology principles of 'intensified affect' and 'diminished intellectual acumen' also act during the formation of terrorist groups. Although psychopathic and sadistic personality profiles are found in the terrorists, they are extremely rare and there is no 'terrorist personality';⁸⁶ majority are ordinary people who share a common group dynamic- 'doing harm in the name of a noble cause- coradicalization'.⁸⁷ 'Noble cause' is an ideology and every ideology does not lead to violence and terrorism; a psychological construct 'ideological absolutism' is better allied with terrorism.⁸⁸

History of Psychiatry and its Interface with Politics

Pre-British

Ancient history of Indian psychiatry suggests that treatment of mental illnesses has a long tradition. Treatment modules during various rulers suggest a strong influence of the religion to which the dynasty belonged; Ayurveda, Siddha and Unani- all played a crucial role in the treatment of mental illnesses. Even though it is believed that the mental health care in asylums is a British innovation,⁸⁹ there is evidence suggesting that King Ashoka (300 BC) built hospitals for mentally ill.⁹⁰ There is a suggestion that the mentally ill took "asylum" in the areas adjoining the *Saivite* and *Vaishnavite* temples and the Jain/Buddhist monasteries during 11-12th century AD.⁹¹ During the Mughal period, a mental hospital was established by Mohammad Khilji (15th Century BC) in Dhar, near Mandu in Madhya Pradesh.⁹⁰

British

Primarily, the 'lunatic asylums' were established as per the three lunacy/lunatic asylums acts (Acts XXXIV, XXXV and XXXVI of 1958) that were passed by the Government of India in the year

1858, the year direct British rule began. Although, these acts intended to provide provisions for better care of ‘Indian lunatics’, and codified the procedure for admitting patients to asylums, it was primarily a part of a political mechanism that envisioned to consolidate British control over native Indians, after the first war of Indian independence.⁹² It is suggested that psychiatry- practice and theory tended to “reify the ideology of colonialism and neglect... mental hospitals as the locus of care and medicalization”.⁹³ Subsequently, some amendments and related acts were passed before the Indian Lunacy Act of 1912- the Military Lunatics Act, 1877 (Act XI of 1877), the Indian Lunatic Asylums (Amendment) Act, 1886 (Act XVIII of 1886), The Indian Lunatic Asylums (Amendment) Act, 1889 (Act XX of 1889), Chapter XXXIV of the Code of Criminal Procedure, 1898 and Section 30 of the Prisoners’ Act, 1900. Thereby, in the years to come, these asylums “occupied an unsteady position between judicial and medical branches of the government”,⁹² while being nearly perfect from a legal point of view, these amendments hampered the progress of the mental health movement.⁹⁴ Although initially, the asylums seemed to represent archetypal colonial institutions,⁹² later on towards the period of independence, greater emphasis of alternate models and treatment paradigms was being laid.⁹³ (*For more details on the history of lunatic asylums please refer to review by Nizamie and Goyal⁹⁰*).

While lunatic asylums played a prominent role in the political frames, political themes that were reflected in many patients admitted to these asylums during this period are described by Jain et al.⁹⁵

Post-independence

The Indian Lunacy Act 1912, governed the mental health in India for 81 long years till 1993 when the Mental Health Act 1987 officially came into force. The Government of India’s prejudicial attitude regarding mental health reforms is clearly evident in the fact that it took 37 long years from submission in 1950 by the Indian Psychiatric Society (IPS) for the mental health bill to be passed by the Parliament in 1987. The Erwadi tragedy in 2001, made the Supreme Court of India realize that the Mental Health Act 1987 was not being followed in most parts of India and more importantly serious inadequacies in the Mental Health Act were evidenced. Subsequently, the Ministry of health and family welfare, Government of India formed a committee to draft a new mental health ‘care’ bill; ironically it did not involve the IPS.

Conclusion

Ever since its inception, psychiatry has always been enmeshed with history, and politics. Both evolutionary psychology and neuroscience are currently influencing psychiatry and its identity as a discipline is still resting on this ‘dual principle.’ However, fundamental notions are also influenced by various socio-political attitudes as psychiatry is intertwined with the social fabric. Hence, one should attempt to recourse historico-political dimensions of mental health and also emphasize the ‘political and epistemic concerns’ in modernity in order to elucidate the politics of psychiatry.

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INTERFACE WITH SOCIOLOGY

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Abstract

The disciplines of psychiatry and sociology share a dynamic relationship. Before the twentieth century, interaction between these fields was regarded as inconceivable. The first several decades of the last century witnessed a rise of socially oriented psychiatrists, social epidemiological studies, and significant wide scale geo-political changes across the world, all of which contributed to the development and predominance of a sociological view to understand mental illness. 1970s onwards, the introduction of an atheoretical-empirical approach, proliferation of psycho-pharmacology and evidence based medicine in conjunction with opposition from the anti-psychiatry camp created a rift between the two disciplines which has only grown wider with time. Leaving aside a few exceptions, the interface today is quite distinct. This essay ends with some future recommendations which might help to reconcile sociology with psychiatry.

Introduction

Sociology deals with the study of groups and their collective consciousness. It is the study of social behaviour or society, including its origins, development, organization, networks, and institutions.^{1,2} It endeavors to explain a social phenomenon, in a particular context and time. Psychiatry, as per the current bio-medical model, is a disorder of an individual sans the society. Being a medical discipline, psychiatry speaks about eliciting and alleviating ‘symptoms’ of the disorder with treatment. Apparently these two disciplines are distinct in their approach and agenda. However, a closer look makes it inevitable to be aware of the interactions between the two. An individual lives in, to, and for a society. Therefore, societal influence on the individual is undeniable. Nevertheless,

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the transactions between the two disciplines depend on the mutual respect, collaboration, and the basic philosophy endorsed by them. Contrasting viewpoints and intolerance to the other have ended up with a troubled relationship between sociology and psychiatry- especially when the prevailing ‘sociology in psychiatry’ is threatened to be replaced by ‘sociology of psychiatry’, is resulting in a turf war between the disciplines. In this essay, we shall try to understand and analyze this relationship over the years and also try to give some future directions attempting reconciliation. We have divided the last one hundred years into three parts to demonstrate the topsy-turvy course of the relationship.

Before 1900: Psychiatry as an Alien Branch

Before the dawn of the 20th century, psychiatrists were considered as *Alienists* and patients with mental illnesses were treated in *Asylums* situated far away from the mainstream society.³ There was little or no chance of interaction with other disciplines of science. The prevailing view of patients with psychiatric disorders was the eugenic view of *Victorian Psychiatry*, where patients were considered both as the victims and the etiological sources of the disease.^{4,5} Stemming from this understanding of mental disorders, patients were physically and sexually segregated from the society, leaving no opportunity for further interaction. Psychiatric epidemiology was limited to counting of *Lunatics*. Therefore, sociology despite its significant practical role in medical epidemiology (*social medicine*) was unable to find its place in psychiatry.⁶

From 1900 to 1970: The Era of Mutual Collaboration

Emile Durkheim’s “*Suicide: A Study in Sociology*” could be considered as the first major breakthrough which laid the path for a psychiatry-sociology bonhomie in the next several decades. Durkheim argued that suicide can be caused by social factors, not just individual psychological ones. Durkheim explained it on the basis of social integration. The more socially integrated a person is, i.e. connected to society and the general feeling that they belong, that their life makes sense within the social context - the less likely they are to commit suicide.⁷ The appealing theoretical validity of his hypothesis attracted critical acclaim from the psychiatric community, giving rise to a new generation of socially oriented psychiatrists. Active collaboration among psychiatrists (or psychoanalysts), psychiatric social workers, and sociologists followed shortly. This collaboration resulted in several psychiatric epidemiological studies focusing on the social angle. Faris & Dunham, Chicago School researchers, published one of the first American studies to establish a link between social class and mental illness.⁸ They found high rates of schizophrenia and substance abuse disorder “*in the deteriorated regions in and surrounding the center of the city, no matter what race or nationality inhabited that region.*” However, the study of social class and mental illness by Hollingshead and Redlich, a sociologist and a psychiatrist respectively, may be regarded as the first creative collaborative research in the true sense. The main conclusion of this study was that there was a significant relationship between social class and mental illness, both in type and severity of mental illness suffered, as well as the nature and quality of treatment provided.⁹ Alexander Leighton and

Jane Murphy, in their famous longitudinal *Stirling County Study* demonstrated the universality of depression across countries, and proposed social disintegration as a causal influence contributing to psychiatric disorders.¹⁰ Burrow, another champion of the social causes of mental illness, introduced the term ‘sociatry’ as a name of a new discipline.¹¹ All these studies paved further ways to the contribution of social sciences in understanding psychiatric disorders in general and psychiatric epidemiology in particular. During the same time, George Engel, who was working on his “*Monica project*” pioneered the role of social environment in psycho-somatic medicine, which finally eventuated into his widely accepted bio-psycho-social model to understand medical disorders.¹² Another concept, deeply contributed by the social sciences, is the theory of abnormal illness behavior which discussed about the role of society’s reaction and attitude towards those with an illness (or perceived illness).¹³ Another sociological development which caught the fancy of psychiatrists was expressed emotion (EE), which depicts the emotional aspect of relationship between the psychiatric patient and the family members.¹⁴ The concept was floated by a psychiatrist, Julian Leff. It has five dimensions, namely, critical comments, hostility, over-involvement, warmth, and positive remarks. Role of EE in relapse and recurrent hospitalizations in patients with schizophrenia has been well validated.¹⁵ Currently, the concept has been extended to other psychiatric disorders as well.¹⁶

The contribution of social sciences was not only to understanding the genesis of mental illness, but also to their management. Maxwell Jones and Thomas Main proposed the therapeutic community, which is deeply rooted in social interaction and modeling.^{17,18} It was an attempt at democratization of psychiatric treatment by substituting authoritarian doctors with the clients as active participants of their own and others agent for treatment.¹⁹ Thus in this era, the co-existence of sociology and psychiatry, with mutual respect and support, was a rule rather than exception.

At least two major international events occurring during this time, helped shape the collaboration between psychiatry and sociology. First, the Great Depression, which began in 1929 in the USA and quickly spread to the rest of the world. Its strong, incisive, and pervasive impact impelled scientists to direct their attention towards social factors. The social epidemiological studies may be an indirect indication of its influence. Additionally, the world observed two major wars during this period. The war veterans with *shell shocks* and the inmates of the concentration camps with *institutional neurosis*, revealed the inevitability of the social-environmental factors in the genesis of mental illness.^{20,21}

With the examination and understanding of the collaboration between the two branches, let’s move on to the hypothetical next era.

1970 onwards: The Phase of Divergence and Disillusionment

Several noteworthy developments in the field of psychiatry require special mention, to understand the drift. This was the era of empiricism and a-theoretical approach towards mental illness. Psychiatric disorders were started to be defined upon the basis of specific diagnostic criteria or

symptoms, embracing the medical model. Mental illnesses were thus dichotomized. The continuity model of illness, which supported the social factors, became nearly redundant with the advent of a new nosology, the Diagnostic and Statistical Manual (DSM)-III. This was closely followed by the “*decade of brain*”.²² Biological research in psychiatry overshadowed the research on social factors. Genetic epidemiological studies of schizophrenia replaced the social epidemiological studies.^{23,24} Several drugs were introduced in the market for the treatment of psychosis and depression. Psychiatry began to emphasize the inherently beneficial role of treatment services, early intervention and its equitable distribution. This contrasted the sociological view where services were seen as a threat to well being and citizenship.²⁵ In principle, psychiatry ruled out sociology for the latter’s lack of empiricism and poor construct validity, and instead embraced ‘*methodologism*’ and ‘*quantitativism*’. Empowered by the recent biological instruments, psychiatry focused to establish the construct validity of its diagnoses.²⁶ All these factors acting together took away the social fervor from mental illness. Psychiatry as a discipline became closer to other branches of medicine and insidiously severed its connections with its long-term collaborator, sociology. The bio-medical model began to predominate the scene. However, the “*Anti-psychiatry*” movement may be regarded as the factor which finally and decisively pushed psychiatry and sociology apart. This movement, paradoxically, was led by the dissident members of psychiatry and not sociology. The pioneer, Thomas Szasz, who emphatically claimed about the “the myth of mental illness” was himself a psychiatrist in the New York State Hospital.²⁷ David Cooper, Ronald Laing, the other two renegade soldiers were also from the psychiatric fraternity. Although, they were psychiatrists, their theories were highly influenced by the social sciences.²⁸ All of them categorically and radically dismissed the concept of mental illness as a metaphor! The categorical diagnostic approach of DSM received stern criticism from sociological commentators. For Carpenter, DSM-IV represents “the psychiatric equivalent of the World Trade Organization promoting the principles of *American Universalism* as objective standard beyond reproach”.²⁹ The drug development and trials to concur with the evidence based medicine also met with harsh comments from the other quarter, and an unholy nexus with the pharmaceutical companies were portrayed as an ulterior motive. These defiant and intolerant discourses made the co-existence of sociology and psychiatry almost impossible.³⁰ Eventually by late 1980’s, most of the sociologists had neither the theoretical orientation, nor the practical competence, to support social psychiatry research.^{31,32} They became deskilled as social psychiatric collaborators.

The geo-political state might help us understand the disillusionment. The post World War sentiments were dominated by individual’s autonomy and human rights. Societal acceptance to deviant behavior increased significantly resulting in greater freedom of expression and a compassionate and empathetic attitude towards others. These changes affected psychiatry from within, resulted in deinstitutionalization and humanistic philosophy for treating patients with mental illness.^{33,34} The same changes might also be held responsible for the attacks imposed on psychiatry from outside, namely from the sociologists or the *anti-psychiatrists*.

Figure 1: The Rise and Fall of Relationship between Psychiatry and Sociology

Before 1900 (No link between sociology and Psychiatry)	1900-1970 (era of convergence)	1970 onwards (era of dichotomy)
No contact of psychiatry and sociology Psychiatry was confined to the asylums	Durkheim’s contribution Social epidemiological Studies in psychiatry Role of social factors in Psychiatric disorders Evolution of important concepts: therapeutic community, expressed emotion	Predominance of nosology Anti-psychiatry movement Advent of biological psychiatry Divergence of sociology and psychiatry

Few Notable Exceptions

George Engel proposed a holistic alternative to the reductionistic bio-medical model to understand and respond adequately to patients’ suffering. He named it as the bio-psycho-social model. This model is both a philosophy of clinical care and a practical clinical guide. Philosophically, it is a way of understanding how suffering, disease, and illness are affected by multiple levels of organization, from the molecular to the societal. At the practical level, it is a way of understanding the patient’s subjective experience as an essential contributor to accurate diagnosis, health outcomes, and humane care.³⁵ The overt emphasis on the role of the social domain, the macro-environment could have mandated the re-entry of social sciences into the arena of psychiatry. Despite its appeal, it had received its fair share of criticism.³⁶ As Ghaemi thinks, “biopsychosocial model is the conceptual *status quo* of contemporary psychiatry. Although it has played an important role in combating psychiatric dogmatism, it has devolved into mere eclecticism”.³⁷

Pat Bracken and Phil Thomas have brought about a new concept in psychiatry, the post-psychiatry, which implies that a person with mental illness is part of a complex, interacting matrix of social influences in which the mind cannot be abstracted or studied as an independent phenomenon. They reasoned that government policies are beginning to change the ethos of mental health care.³⁸ The new commitment to tackling the links between poverty, unemployment, and mental illness has led to policies that focus on disadvantage and social exclusion.³⁹ These emphasise the importance of contexts, values, and partnerships and are made explicit in the national service framework for mental health.⁴⁰ The service framework raises an agenda that is potentially in conflict with biomedical psychiatry. In a nutshell, the government (and the society it represents) is asking for a very different kind of psychiatry and a new deal between health professionals and service users. Critics of Post-psychiatry declare, “True, as Bracken and Thomas assert, community care is failing. It is failing because of government underfunding, not because of a failed model of science. We ask for bread, and you offer us postmodernism”.⁴¹ Thus the relationship remains status quo.

The two social factors which may have found a comfortable place in psychiatry are culture and migration. It is well recognized that culture plays a profound role in the way a person experiences and expresses his/her symptoms in the process of symptom formation. Culturally mediated *idioms of distress* and *culture bound psychiatric syndrome* are frequently discussed and studied empirically.^{42,43} Cultural formulation to understand the interaction of culture with mental illness, cultural competency and culture sensitive care to factor in the role of culture for optimal management of patients with mental illness, are now commonplace in the practice of psychiatry.⁴⁴ Migration is known to cause an unprecedented change in the lifestyle, goals and coping among individuals and families.⁴⁵ This concept is one that is central to social psychiatry, as it depicts the conflicts between man's hopes and aspirations for a better prospect in a new socioeconomic-cultural matrix (the "pull" factor), pressures and obligations forcing a person to migrate to a socio-culturally alien land, outside the country or inside (the "push" factor), and the resilience of human beings and their families in the face of new challenges of change.^{46,47}

Even in this era of adversity, a couple of interdisciplinary journals are still in place. *International Journal of Social Psychiatry* is a peer reviewed journal published since 1954, which provides a forum for the dissemination of findings related to social psychiatry. *Social psychiatry and psychiatric epidemiology* is another journal which intended to publish research papers of psychiatric epidemiology, with social aspects (in addition to biologic and genetic). The *Indian Journal of Social Psychiatry* is dedicated to the cause of social psychiatry since 1984. 2015 onwards, it is being published by the Wolters-Kluwers/MedKnow Publications, an internationally acclaimed publishing house that handles and publishes more than 300 scientific journals from India and abroad. The World Association of Social Psychiatry (WASP) founded in 1964, laid down its emphasis on the role of culture and national-international collaboration across various disciplines related to social psychiatry. All these are encouraging developments for psychiatry in general and social psychiatry in particular.

The Future: Breaking the Barrier

Breaking the apparently insurmountable barrier needs special and combined efforts from both the fraternities. Multi-disciplinary journals, conferences, and professional bodies are required to take the lead in the much awaited reconciliation. Socially informed psychiatrists must come together and assert, not for the benefit of sociology, but for the sake of psychiatry. The biological and social psychiatry should not be viewed as divergent and incompatible, but must be used judiciously to complement each other.

Among other possibilities, social capital might be seen as a bridge between sociology and psychiatry. Social capital is a multidimensional construct which has risen to prominence in the last few decades. It cuts across the fields of sociology, economics, politics, administration, health and behavior among others. It is defined as, "Features of social organization, such as trust, norms and networks that can improve the efficacy of society by facilitating coordinated actions".⁴⁸ This concept has been in vogue in medical epidemiology for quite some time now, since its potential role in mortality has been probed.⁴⁹ However, application of social capital in psychiatry is a relatively

recent phenomenon. The evidence of its role in a wide spectrum of mental illness starting with common mental disorders to schizophrenia has been investigated successfully.^{50,51,52,53} Social capital has also found its place in recovery of mental illness.⁵⁴ More research on the association between mental health and social capital is warranted in future.

The human race in general, and science in particular has made such rapid progress not through non-cooperation and cold wars, but through mutual respect, collaboration, debate, discussion and pragmatism. We hope that psychiatry will break the current proverbial barrier and reach out to sociology, thus bestowing a fair chance upon the revival of the prestige of social psychiatry.

Panel:1 The Way Forward

- More interdisciplinary journals and conferences
- Change of viewpoint and attitude: flexibility to accept the view of one another
- Adoption of the bio-psycho-social model to understand and treat behavioral disorders
- Application of the social capital in psychiatry

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INTERFACE WITH MYTHOLOGY

Dr. Ajit V Bhide¹

Myth, Legend and History

The word 'myth' conjures up tales of imaginary persons, gods, goddesses, demigods and demigoddesses, ogres, monsters, and also of happenings that mix the plausible with the fantastic. Blessings, curses, adventures and misadventures abound, to tell stories, often of fantastic imagination. Somehow, the word myth is too quickly associated with untruths. This in itself is a fallacy, or at the least, an overvalued notion.

Actually much of mythological compendia is traceable to real happenings recorded, granting that the recording often is distorted by the archivist. In the Japanese tradition, the history of the country is so interwoven with a charming mythology, adhered to as the truth by many of that nation to this day.

It has been argued that when real happenings of great import are recorded and retold, they are not myths but legends. Important dramatis personae of these stories then become 'legendary' and remembered for some act or personal quality, as we shall see.

The author finds the fine distinction between legend and myth a confounding one, and in the present essay the two are used practically interchangeably. Historicity, which is the authenticity of a told history, is not a concern in mythology per se, though it does give rise to passionate polemics on the actuality of some tales, arguments abounding for and against. A case in point is the recent proclamation by a noteworthy leader of the country at an international science congress, that plastic surgery existed in this country eons ago, as exemplified by the implant of an animal head on a human torso, to restore a slain divine child to life. This led to an uproarious outrage from the vast majority of the scientific community, and a spirited defense by believers in the story of Ganesha.

This paper focuses on mythology in the context of its relevance to the discipline of psychiatry and I plead the readers' indulgence for the slightly skewed emphasis on the mythology of India, particularly the puranas and the two great epics of the subcontinent.

Cultures and Myths

Myths exist wherever language does and these tales are passed on in oral or written fashion with great scope for embellishment, alteration, deletion and other forms of corruption or modification.

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There are certain parallels between mythical tales that are fascinating in the absence of any actual or known forms of transmission of the core content.

Thus two legendary heroes, early in their life are set afloat in rivers, seas as neonates, fated to great futures as leaders: Karna the premarital offspring of Kunti, is a blemish on her virginity, and from a mixture of shame and compassion she disposes of her baby by safely setting him afloat in a basket, to later be rescued by strangers. He is to emerge as one of the principal warrior heroes of the Mahabharata. Moses, in the Judeo-Christian tradition, is rescued by a sleight of hand, from an campaign of infanticide of Hebrews by drowning them ordered by the Pharaoh of Egypt. He will later emerge as the rescuer of his race.

Another analogous occurrence is the story of matricide in two unrelated cultures. In the Greek tradition, Orestes murders his mother, Clytemnestra. This is on account of her having murdered his father Agamemnon with the help of her illicit lover. This avenging act of the son is after all the expected honourable path. In turn, this leads to some torturous consequences for the lad which will be resolved after a convoluted series of happenings. Similarly in Indian puranas is the tale of Parashurama, son of sage Jamadagni and an avatar of Vishnu, who at his father's command slays his beloved mother Renuka, again for an act of infidelity. The pleased father offers his son a boon, and the son now asks that the mother be restored to life.

There are probably innumerable such parallels between mythologies of vastly distant cultures. Jung, who arguably was the most serious compiler, student and analyst of myths, certainly so among psychiatrists, gave us the concept of the collective unconscious of humans to understand the recurrence of such themes in different civilizations. He believed that ancient frameworks that were common across vastly separated populations existed in the minds of men and these he called archetypes.

Some recent researchers in the field of mythology have drawn parallels between phylogenetic evolution and the morphosis of myths over periods. Based on the study of myths from folklore across the world, a phylogenetic tree has been suggested to show the relatedness of myths. In India, most myths are related to the range of emotions, called the ashtarasa, later modified into the navarasas.

It is interesting also how narratives change in proximal cultures. In Persia, where Zoroasterism was the universal religion the supreme deity was the Ahura Mazda. Linguists believe ahura and asura are linked and good spirits in that country were the asuras. In India, not geographically far from Persia, asuras are regarded as the evil ones, while suras are the virtuous and godly ones.

Mythology and the Mind

Myths come about from observation as well as imagination. There can also be an admixture of the two, and quite possibly that is the commonest root. In any case, characters and events from the narrative impress upon the thinking mind the presence or lack of differing qualities: virtue and vice. This serves as a template for the mind to work on especially in the vulnerable developing states but adults are not immune from such influences and can change the courses of their lives when

converted by convincing tales of salvation or doom. The mind seems to need vindication of its motives, whether positive negative or mixed, and this is very often to be found in the text of various myths.

Virtue and Mythology

Western tradition speaks of four cardinal virtues: prudence, justice, temperance, and courage. After the arrival of the New Testament, the three additional Christian virtues became adjuncts: faith, hope and charity (love). Exemplars of each of these are many.

Prudence has itself been derived from the Goddess Prudentia, traditionally shown holding a mirror and a snake. The mirror signifies a proper perspective, the snake the need to tackle difficulties. Implicit in prudence are the sub-virtues, so to say of wisdom, insight and knowledge. Prudence is closely related to the next virtue, justice.

Justice, represented by Justitia, is the sense of fairness. The icon of the Goddess being blindfolded in order to avoid any chance of bias in arbitrating an issue brought before her, also holds a balance to weigh fairly what is presented, and a sword to signify punishment for the guilty.

Temperance (Temperantia) upholds modesty and humility, while strongly avoiding excesses of all kinds, particularly of sensual pleasures.

Fortitude or Courage is exemplified by most heroes who are fearless and unshaken in their resolve, unmitigated by threats and dangers. From the various Greek myths Jason, Samson and Orestes are examples of such bravery, each faced with differing daunting tasks and moral dilemmas.

In Indian systems too, there are virtues listed. There are many scattered references to these. In the Manusamhita, uprighteous living calls for ten virtues: dhriti (courage), kshama (forgiveness), dama (temperance), asteya (non covetousness), shucha(purity), indriyanigraha(overpowering the sensuous), dhi (prudence), vidya (wisdom), satyam (truthfulness), akrodha (angerlessness). To this one may add vinaya (humility) and ahimsa (non violence). Myriad examples are to be found of these virtues in heroic figures of Indian mythology. It would suffice to give here the instance of Shri Rama, the eponymous hero of the Ramayana, who largely embodied all these good qualities and has therefore been called the maryada purush or ideal man.

Vice and Mythology

In Indian systems, there are six cardinal human failings. These are called the shadripu: kama (lust), krodha (anger), lobha (greed), mada (arrogance), moha (attachment) and matsarya (jealousy).

Kama and moha are well exemplified by King Shantanu, the grandsire of the principal families in the Mahabharata, who in his blind desire for the fisher princess Satyawati, makes his son Devavrata forego his rights as an heir. The Mahabharata is replete with examples of krodha that I cited in an article several years ago in the Indian Journal of Psychiatry. Mada is the undoing of King Hiranyakashipu in the Prahalada tale. Lobha and matsarya are the failings (among many other faults) of the Kaurava prince, Suyodhana (later called Duryodhan). He is morbidly jealous of his Pandava cousins for their skills, their wisdom and also their wife Draupadi. He covets their kingdom

and craftily plots to usurp it. Lobha is also evinced by the eternally hungry rakshasa, Bakasura, also in a story within the Mahabharata.

The vices in this Indian list correspond in some measure to the Western notion of the seven deadly sins: lust, gluttony, greed, sloth, wrath, envy, and pride. Lust is the near fatal flaw in the English Arthurian legend, of Sir Lancelot for his King, Arthur's, wife. Gluttony and greed both speak of an excess of wanting, the former for consumables, the latter for covetable objects like land and power. Wrath is the burning rage of the spirit Lyssa in Greek myths. Envy, in the Biblical story, is what caused the downfall of Cain who could not tolerate God's choosing the offering of his brother Abel, leading eventually to the former killing the latter in a cowardly manner. Extreme pride, also called hubris, is displayed by Lucifer, at one time a much favoured angel of the Creator, and causes him to be condemned to hell.

Aergia, in Greek mythology is the demigoddess guarding the entrance to the court of Hypnos, God of sleep. She is the model for sloth. The last one does not figure in the Indian list.

Most of these characters mentioned in relation to virtues and vices, in both the Indian and western systems are proverbial for embodying those qualities.

Blessings and Benevolence and Curses and Damnation

Many mythological figures go through austerities and penance or some other acts of devotion to be blessed with unusual gifts. Thus the egoistic asura, Hiranyakashipu, gains from Brahma the boon to never be killed by man or animal. He is eventually killed by Vishnu in the avatar of half man half lion Narasimha).

In the Ramayana, Dashrath unwittingly kills Shravana the devoted son of his parents, who upon his confession curse him to die lamenting for his own son. Forlorn at this fate, Dashratha at least temporarily has respite for he has till now been dejected, having had no offspring from any of his three wives. The curse does mean that he will have a son. Thus is Shri Rama born with three other brothers, to the joy of the King, his queens and the populace; later by a turn of fate, Dashratha has to face the fulfillment of the curse when his beloved son and heir apparent willfully goes into exile in the interest of his father's honour. The tale of Dashratha with a curse that is a temporary blessing is most poignant as a paradigm for many life situations.

In a tale of within the Bhagvata, is the story of Shakuntala, the beautiful and clever daughter of sage Vishwamitra and the nymph Menaka, abandoned by the parents and brought up as a foundling by Kanva, a gentle sage himself. Shakuntala meets in the forest, where her foster father's ashram is, the handsome King Dushyant, who is besotted with her. But he has to return to his kingdom and by the time he does, she is carrying his child. Still lost in romantic mooning, Shakuntala fails to notice and answer a visiting sage. The latter, enraged curses her that the object of her preoccupation, that is, the person on whom she was daydreaming would forget her. Twists and turns befall the girl, effectively retold by poet Kalidasa. It is interesting that many of the curses are followed by remorse of the cursed and the latter's pleas are usually met with some remedial measure.

In the Mahabharata are two tales of students gaining martial skills from teachers, unbeknown to the masters. Thus Ekalavya, a skillful tribal archer seeks to refine his mastery at the feet of the guru, Dronacharya. The latter refuses as he would only impart his knowledge to princes. Ekalavya, builds an effigy of the master and starts practicing after paying obeisance to the figurine. Dronacharya chances upon this young man's superior abilities, and is impressed. Upon learning of the stratagem of the Ekalavya, he demands his fee; it is to be the archer's thumb, thus disabling him forever from archery. In another story, the Brahman warrior Parshuram, avowed foe of the Kshatriyas, is tricked into teaching his battle axe techniques to Karna who pretends to be a Brahman. On the discovery of the deceit, Karna is cursed by Parshurama to be rendered helpless when he most needs his divine armour. The curse plays out in the eventual battle between the Kauravas and Pandavas.

Conditions and Syndromes from Mythology.

A number of clinical conditions exist that in varying measure mimic the states or characters of mythology, across cultures.

Panic disorder came to be identified as a distinct variation, once subsumed in the anxiety neurosis, relatively recently. It is worth recalling that Panic comes from the mischievous demigod Pan, of Greek lore, notorious for scaring away shepherdesses by startling them with the sound of his musical pipes.

Freud, fascinated and fixated by sexuality, coined the term Oedipus complex. He believed it to be a normal phase in the development of a boy (with of course the Electra equivalent for the female child), where there is erotic love for the parent of the opposite sex. The core was apparently derived from the story of monarch Oedipus, who ended up marrying his mother Jocasta. Most non-psychoanalytically oriented psychiatrists do not agree with the claimed ubiquity of this phenomenon. But Freud also erred in naming it; the legendary Oedipus fell in love with a woman whom *he did not know* to be his mother.

The term Electra complex was actually first suggested by Freud's then acolyte, Carl Jung, as a daughter's competing with the mother for the father's attention and indulgence. Freud seems to have rejected this idea and called the condition in girls the female Oedipal attitude. He continued to believe that in normal development the boy resolved the complex through castration anxiety and the girl through penis envy. To this day most of the orthodox psychoanalysts feel these are valid concepts and claim to have found even the neuro-anatomic substrates of these states.

Priapism is named for the Greek God Priapus, famed for his disproportionately large phallus on a short ugly body. In reality, priapism is a state of sustained erectile state that can be quite painful.

Narcissistic Personality Disorder is named after another Greek male, Narcissus, who had never seen how handsome he actually was. On seeing his reflection for the first time, he fell madly in love with that image, so much so, he could not bear to be away from it; he finally fell into the water body where he had seen his appearance, and died. Excessive self love that interferes with normal functioning is the hallmark of this personality disorder.

Hermaphroditism is a name for a broad title for states where an individual has features, physically and/or psychologically, of both genders. It takes its name from the Greek figures of Hermes, a handsome God and Aphrodite, the goddess of paramount beauty. In clinical practice hermaphroditism is a complex set of conditions with very different causations.

Closer home, an eminent though self effacing Indian psychiatrist, HS Narayanan, noted the similarities between the Klein Levin syndrome and the mythological figure of Kumbhakarna. Hypersomnolence and hyperphagia do occur in this condition and were said to be attributes of this brother of Ravana. Hypersexuality, however, has not been mentioned as a character of Kumbhakarna.

Pathological gambling could find an eponym in being called the Yudhishtir syndrome. This person, the eldest of the five Pandava brothers, in his preoccupation to win a game of dice gambled away all his belongings one by one, even losing their kingdom and the clothes on his back. Ultimately he even put at stake their wife Draupadi who was humiliated publicly in the court of the wily Kauravas. In fact, Yudhishtir was trapped into this situation by Shakuni, the maternal uncle of the Kauravas, who knew the former's weakness for gambling and was working to aid his nephew Suyodhana who coveted the righteous Pandavas' kingdom and envied them (see above).

Trishanku Avastha: this is a condition where an individual is in limbo between his goals and desires and his actual position in life, often for no fault of his. It is named after Satyavrata (later called Trishanku: three times sinner), son of King Prithu, an ancestor of Shri Rama, who could neither enter Heaven nor was allowed to return. One version has it that he was refused entry by the devas because he had slaughtered a cow and eaten beef, another says that he had insisted on going in with his physical body. One way or the other, the sage who thought Heaven befitted Satyavrata for all his good deeds, (Vishwamitra or Kaushik in the differing versions) would not let him descend to Bhooloka (the Earth), and so he remained, suspended between Heaven and Earth. One other version has it, that a separate Heaven was eventually constructed for Trishanku!

Mythology and Therapy

There are stories in mythology that can have therapeutic value. One redoubtable doyen of Indian psychiatry JS Neki has expanded at large on the guru chela paradigm in psychotherapy in this country. NN Wig, another eminent psychiatrist has given an actual mythological example that he found useful in therapy. He christened it the Hanuman complex.

The anthropoid demigod Hanuman, unflinching devotee of Shri Rama had for some reason been cursed that he at crucial moments when he most needed his legendary physical strength, he would forget that he possessed it. In the Ramayana on such an occasion, he sat dejected over his inability that called for his prowess as he had become unaware of it. He had to be reminded of his power, and then stunningly rose to the occasion. This is a practical point in the therapeutic situations when a patient needs to be reminded to recall his/her own inner resources that diffidence has caused to have faded in memory.

Literature on cognitive therapy emphasizes Socratic thinking an important component of which is perseverance in questioning. In the Kathopanishad we have the example of Nachiketa, driven to the death God Yama by his father in a fit of rage. Determined to understand the mystery of life death and the hereafter, Nachiketa asks these of Yama who has been pleased with Nachiketa. He offers him many other boons but Nachiketa will not be deterred from his quest and after dogged firmness he does get his answer.

Indian folklore is replete with other instances of therapeutic value. Thus we have the swallowing of poison by the God Shiva in order that the Gods and good people be saved by the treasures that emerge from the churning of the ocean, for the poison precedes those treasures and must be done away with. A metaphor for taking, I believe the rough to have the smooth. We also have the unending series questions that Vetal, the vampire asks of the King Vikram.

Modern Mythology

Mythical stories it is sometimes conjectured, have been over and done with. This is far from the truth. Every age has had its own fantasy stories and these abound even in this day and age. The immense popularity of the Harry Potter series is a case in point of the hold that fantastical tales, spells and potions, curses and eternal plotting have on the human mind. To name just one other example is the cult following that the recently deceased Terry Pratchett has among adolescents and mostly young adults.

There could be one important distinction between this mythology and that of the past: the new variety is almost purely fiction with little or no mixing of factual happenings. The importance of religious and spiritual content is also practically absent in modern mythology

The Need for Myths: Eternal Indeed

The need to have mythology is probably an inbuilt one on man. Myths according to Pattanaik, condition thoughts and feelings. 'Mythology influences behavior and communication,' he avers. 'People outgrow myth and mythology when myth and mythology fail to respond to their cultural need.'

In a lighter vein, the Anglo American poet, WH Auden asked

*By what myths would your priests account
for the hurricanes that come
twice every twenty-four hours,
each time I dress or undress,
when, clinging to keratin rafts,
whole cities are swept away
to perish in space, or the Flood
that scalds to death when I bathe?*

*Then, sooner or later, will dawn
a Day of Apocalypse,
when my mantle suddenly turns
too cold, too rancid, for you,
appetising to predators
of a fiercer sort, and I
am stripped of excuse and nimbus,
a Past, subject to Judgement.*

Auden wrote this after being fascinated by an article in a popular science journal, which talked about the microbes inhabiting the human skin. Would microbes, or indeed higher life forms, ever have a mythology series of their own? One does not see the possibility of the complete disappearance of myth and mythology in the foreseeable future of the human race.

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INTERFACE WITH PHILOSOPHY

Dr B R Ravi Shankar Rao¹

Introduction

In many countries mental health is experiencing a lot of revolutionary changes. This is driven in part by the growing power and authority of the 'user' voice, by new models of service delivery (user led, community based, multidisciplinary, and multiagency) and by the advances in neurosciences (such as behavioural genetics and functional neuroimaging). With this has arisen a conceptual and ethical issue which need clarification which is at the heart of psychiatry's need for philosophy (Fulford, Thornton, Graham 2007 pp xxv).

Karl Jaspers, philosopher- psychiatrist, writing at the start of the twentieth century which came to be known as psychiatry's first biological phase was keenly aware of the importance of philosophy to the neurosciences. Yet for most of the twentieth century psychiatry lost touch with philosophy. However, the new interdisciplinary field of philosophy and mental health is leading the way in the development of a model of twenty first century health care that is equally science based and person centred. Embracing this emerging discipline of philosophy and psychiatry the World Psychiatric Association and other natural and subject based groups around the world have established a new section in this field.

Philosophy and science are distinct in that philosophy deals with conceptual problems and science with empirical. Western philosophy in the twentieth century has followed two main traditions- Anglo-American and Continental. The former philosophy has been more analytic in orientation seeking explicit understanding of the meanings of high level concepts such as mind, person, and system and so on. It maintains a strong interest in the natural sciences. The latter philosophy seeks to explore meaning and ethical value through an intuitive understanding of human experience and expressiveness.

The three main sub-divisions of Continental Philosophy are Phenomenology, Existentialism and Hermeneutics, each of which have been important in different ways to philosophy and mental health.

Phenomenology, Existentialism, Hermeneutics

The German philosopher Edmund Husserl, in the early twentieth century, saw phenomenology as a philosophical method that seeks in human awareness and the structure of consciousness, the ways

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in which we structure and give meaning to experience. One should note the contribution of one of Husserl's most famous pupils, the German philosopher, Martin Heidegger. His phenomenology is important not just for psychopathology, classification and diagnosis but in generating new approaches to treatment.

Existentialism, founded by the nineteenth century Danish philosopher Soren Kierkegaard, is a philosophical attitude that the most important thing is one's own existence and only when we make our own choices that we relate to our existence. Therefore all truths are 'subjective' and 'personal' i.e. what is important is what is true for me. It was only in the twentieth century that existentialism was regarded as a movement. It gained immense popularity along with psychoanalysis after the two world wars. The 1960's saw the emergence of the Existential schools of psychology led by Rollo May, Victor Frankl and Ludwig Binswanger. Taking up Heidegger's approach Ludwig Binswanger introduced a distinctive type of 'existential psychotherapy'. Medard Boss, trained as a psychiatrist and psychoanalyst, was influenced in his clinical work by Heidegger. Victor Frankl, after surviving the horrors of the Nazi concentration camp, came out with his work on existential psychotherapy that he called logotherapy.

Existentialism is to do with philosophical attitude and phenomenology with philosophical method for exploring the structure of consciousness. It was quite in order to be a phenomenologist and existentialist.

Hermeneutics seeks to provide a clearer understanding of language through the interpretation of the meanings of instances as they appear in texts and in discourse. It puts human expressiveness at the centre of its concerns. Paul Ricoeur (1970) describes psychoanalysis as a kind of hermeneutics of the mind i.e. individual meaning generated in specific instance of discourse.

Karl Jaspers 'General Psychopathology', appeared in 1913 in the background of Kraepelin's system of classification when he emerged with his diagnosis of MDP and Dementia Praecox. In the same period neuro- pathological advances led to the discovery of Alzheimer's disease and General Paralysis of the Insane. In the midst of these achievements Jaspers came to emphasize the need for meaningful as well as 'causal' explanations in psychiatry. 'Empathy' is Jaspers term for the grasp of the subjective side of mental states, or what he calls 'subjective' symptoms which 'cannot be perceived by the sense organs, but have to be grasped by transferring oneself, so to say, into the other individuals psyche, that is, by empathy'. His descriptive psychopathology has come to form the basis of modern 'scientific' approaches to psychiatric diagnosis.

Karl Jaspers stands out as central figure in psychiatry's first biological phase. The present second biological phase has had his impact in that the whole discipline of philosophy and psychiatry has sprung up exploring with its insights the psychopathology that is informed equally by the empirical findings of the new neurosciences.

Methodenstreit

Empathy was the tool used in psychopathological methodology in understanding mental phenomena. At the time of Jaspers there was a debate regarding the nature and status of the 'human sciences'. The

debate, mainly in Germany influenced by Kantian philosophy, was whether the methods and aims of the human sciences such as history and political science are the same as the natural sciences. Hence it became known as *Methodenstreit* or 'methodological debate' which gave distinct meanings to 'understanding' and 'explanation'. Understanding came from the human sciences and explanation from the natural sciences. And philosopher John Stuart Mill felt that understanding should not be different from causal explanations (Fulford, Thornton, Graham 2007,pp 215).

Philosophy of Science and Mental Health

Philosophy proceeds with 'experiments' in the mind with thoughts, meanings, symbols, concepts. This is in contrast to science which proceeds by observation of the world. Natural philosophy the name for natural sciences in the late medieval period, owes its origin to stands taken, in the face of personal danger by Galileo, Bacon and others for the primacy of observation over received authority of religion (Rossi, 2003) .In the middle ages philosophy had to liberate itself from theology. It emerged as an independent subject only in the seventeenth century.

Is Psychiatry a Science?

The problems arising from the status of psychiatry as a science are not merely philosophical problems but are problems arising from everyday practice and research. These range from methodological aspects of research design, to empirical status of psychological treatment, to disputes about classification of mental disorders and on to debates about the very validity of mental illness as a proper object of scientific study. (Austin,1956-7)

Freudian psychoanalysis has come in for criticism from the supporters of the traditional view of science at all stages of the traditional four stage model of the practice of science.

- Stage 1 Observation: Data is peculiarly subjective. Most important observations are called interpretations.
- Stage 2 Theory Building: the descriptively defined categories vary radically from those of scientific psychiatry and even between different schools of thought in psychoanalysis (Laplanche and Pontalis, 1973)
- Stage 3 Testing: Psychoanalysis has made little use of experiment (Eysenck and Wilson 1973 pp32-33).
- Stage 4 Progress: There is little evidence of growing corpus of widely accepted knowledge in the over 100 years of its existence (Storr A, 1989)

The conceptual difficulties about the scientific status of psychoanalysis and psychiatry highlight that these are relatively difficult (not deficient) sciences and exploring these difficulties may shed light on the nature of science as a whole. Slater and Roth (1969) called for a clearer definition of the terms in which mental events are described and they warned of the dangers of 'vagueness and verbosity' and emphasised on a scientific method. They viewed psychiatry moving in the tracks of physical medicine. But the fact has been that organic psychiatry has not expanded in scope and influence and much of its territory is now taken by liaison psychiatry, where the focus is on

psychological components of general medical disorders. Psychopharmacology has made advances but many disorders treated in the past with drugs are treated by psychological and cognitive behavioural techniques. Many feel that mental disorders are better dealt with by psychologists, counsellors and therapists of various kinds and this explains the growth of self-help and advocacy groups.(Fulford,Thornton, Graham pp 252)

Antipsychiatry and the Debate about Mental Illness

Since the 1960's there has been a debate about the validity of the concept of mental illness. Thomas Szasz, was the first to attack psychiatry primarily on conceptual grounds that mental disorders are not, properly, medical disorders. Szasz's argument was that those conditions widely regarded as mental illness were defined by moral rather than by factual (medical) criteria. They are closer to moral categories rather than to bodily illness.Hence mental illness is a myth.(Szasz,T. 1972). There are many models advanced by antipsychiatrists of the 1960's and 70's. Like Szasz's argument they can be seen focusing on the parts of the mental health map rather than viewing it as a whole.

The Central Role of Diagnosis

In general medicine, diagnostic explanations are more in terms of aetiology. In psychiatry and nosology they are more in terms of symptoms and syndromes. Diagnostic explanations are seen as a species of scientific explanation. This begs the question as to what a sound scientific explanation is. The philosophy of science has closely scrutinised this issue. There have been no definite answers but it has raised a number of key points that help us in our understanding of the nature of a scientific explanation in general and of diagnostic explanation in particular. (Fulford,Thornton, Graham pp 385)

Ethical and Conceptual Issues in Psychiatry

Modern bioethics has become rich and varied but so far has largely failed to engage effectively with mental health. Ethical issues in mental health are more complex conceptually. It is necessary to raise awareness of the pervasiveness of ethical issues in mental health as a first step towards tackling them. Development of awareness, attitude, knowledge and thinking skills in medical ethics education are useful in achieving the ultimate objective of improving practice.(Fulford,Thornton, Graham pp 475)

Cross-Cultural Perspectives

The limitations of autonomy are particularly emphasised in cross-cultural ethics. This is where clashes of ethics occur. Autonomy is so widely taken as a granted in North America and Europe in contrast to the values of societies in which family ties and integrity of communities' rate ahead of individual self-fulfilment. (Okasha ,A 2000)

User and Provider Perspectives

Professionals should be aware of the values of their clients. The professional may be driven by his values and the values of the profession that may be different from that of the particularly diverse values that occur in mental health care compared to others areas of health. The values of the professional may be different from the client and values could differ from one client to another.

It may sometimes be right to act against patient's wishes in which their insight is psychotically disturbed. This has led to a tendency among professionals to deny the validity of patient values (usually tacitly) in situations in which their insight is not psychotically disturbed. The most dangerous lack of insight in mental health is not service users' lack of insight but professionals' continuing lack of insight into service users' real needs. (Perkins and Moodley, 1993)

Consent and Involuntary Treatment

Beauchamp and Childress (1989), the former a philosopher and latter a theologian, define two conditions for consent, Information and Voluntariness (including freedom from coercion which is sometimes treated as a third condition). Questions arise as to how much information is appropriate? Is an apparently free choice covertly coerced through an unequal power relationship between doctor and patient? As in other areas of health care mental health also shares these difficulties. In addition there may be other conditions that may impair the very capacity for consent. The other capacity impairing conditions include mental impairment, unconsciousness or being a young child. Consent may also be impaired depending on the different kinds of psychopathology. For example anxiety blocks the ability to retain and recall new information. Hence people suffering from severe anxiety secondary to anxiety disorders may be especially incapacitated in this respect. Consent may also be impaired when we consider that choice can be truly voluntary where there is an equal power relationship. Mental disorder often leaves a person demoralized and powerless. This in itself may leave a mentally ill person disempowered. It is now a cardinal principle in health care law that an adult patient who is capable of making a choice can refuse treatment if he so wishes. But in mental disorder involuntary treatment can be considered in a fully conscious, adult patient with normal intelligence not only for the protection of others but also in that *persons own interest*. Historically the intuition that people with delusions are not responsible for their actions is used more as an excusing condition in criminal law rather than as an incapacity as a condition justifying involuntary treatment. Capacity is decision specific. Loss of capacity for one kind of decision does not involve loss of capacity for a different kind of decision.

Confidentiality

Compared with consent confidentiality has not raised distinctively conceptual issues in mental health. Ethical concepts and confidentiality developed in physical medicine have generally been applied unchanged to mental health. Maintaining confidentiality may have ethical difficulties while establishing the concept of mental disorder as an invalidating condition. As with the bioethical principle of autonomy confidentiality may run into difficulties in societies that value family and social networks above individualism. The problem may be that the disorder may be understood in family and social terms. In children and adolescents often disorders are located within the dynamics of family relationships rather than the individual. There are problems in health care about when it is right to share information given in confidence. There is a diversity of values by which mental disorder is characterised. When there is a clear danger to the third party the value of sharing information to protect the third party clearly outweighs confidentiality concerns. There may be a need to share information to different agencies well beyond health and social care as for example the police. As

with consent, confidentiality has a depth dimension of conceptual difficulty lacking in the high-tech areas of bodily medicine. (Fulford, Thornton, Graham 2007, pp 482-483)

Conceptual difficulties and Mental Health Law

Mental health law historically and cross culturally reflects intuitions about loss of responsibility that go with some kinds of mental disorder. Modern mental health legislation requires two conditions to be fulfilled for involuntary psychiatric treatment. First that the patient must be suffering from a mental disorder and second there must be a risk to the patient or others arising from the disorder. These conditions vary in the way they are described in different legislations (Fulford, Thornton, Graham 2007, pp 486).

Bioethics and Health Care

There have been a number of historical factors for the growth of bioethics. The Nuremberg trials not only revealed the gross abuse of human rights in Nazi Germany but also the complicity of doctors in those abuses in the name of medical research. There has been an unprecedented advance of medical science and technology from the 1960's and with it the growth of associated ethical concerns. There has been a loss of trust in medicine and the hitherto privileged status of doctor- patient relationship has been questioned by lawyers, moral philosophers, theologians and sociologists. The Civil Rights Movement in the 1960's provided a momentum for a movement for 'equality of ethnic minorities, and women's liberation paved the way for patient's rights and a new approach to ethics in medicine' (Maehle A H and Geyer Kordesch 2002).

There are three important methods of ethical reasoning widely used in bioethics- principles, casuistry and perspectives.

Bioethics rests on the *four principles*

- 1 Autonomy: respecting the patient's wishes
- 2 Beneficence: doing good
- 3 Non –maleficence: avoiding harm
- 4 Justice: fairness in the provision of care

The principles approach is top down. It approaches ethical problems by applying general principles to particular cases.

Casuistry or case based reasoning

The way to reason about ethical issues is not to apply general theories but to look carefully at the details of particular cases. This is a bottom up approach. Historically casuistry has had a bad reputation as it became associated with the practice of moulding cases to fit one's own beliefs and wishes.

Perspectives

The perspectives approach emphasises the importance in ethical reasoning of the different points of view i.e. perspectives of those concerned (Hope et al, 1996). Misunderstandings about perspectives are especially common in primary care and mental health because people's values are inherently more diverse in this area.

Bioethics aims to empower patients by giving them autonomy as to how they are treated and their legal rights to self-determination thus controlling the uses to which medical sciences and technology are put to. Thus there is a shift from the older medical ethics of beneficent paternalism to patient autonomy.(Beauchamp and Childress 1989)

Autonomy, however, is not a universal principle being recognised only in those cultures that value individuals ahead of family and community.

As a discipline bioethics has developed as an extension of medical law whose aim was to regulate medical science and technology by laws strengthening patient rights. This has resulted in a growing number of codes and regulatory documents and defensive practice by practitioners consequently disadvantaging patients.(Fulford 2001)

Values-based Practice

'Values -based practice is a response to the growing complexity of health care decision making. Evidence -based practice is a response to the growing complexity of *facts* bearing on health-care decision making. Values-based practice is a response to the growing complexity of the corresponding *values*. ' It is a model of service delivery that is user centred and multidisciplinary/ agency providing different perspectives as a basis of balanced decision making where values conflict. Evidence -based and Values- based approaches are complimentary and by combining them the partnership between user and provider of services is restored. (Fulford, Thornton, Graham 2007 pp 519)

Philosophy of Mind

The philosophy of mind is an area of philosophy that has the closest connection to psychiatry. There has been a growth in philosophy of mind influenced philosophy of psychiatry in last two decades. This has been particularly so in the philosophical understanding of psychopathology.

Conclusion

'A psychiatrist has said that he did not want to burden himself with philosophy..... but the exclusion of philosophy would.....be disastrous for psychiatry.' (Karl Jaspers)

We are in the second biological phase of psychiatry where the rapid advances in neuroimaging and the neurosciences have contributed to the progress of psychiatry in the direction of biological medicine. However, there has also been as strong a movement of psychiatry in the direction of psychology and sociology. New varied perspectives bring in ethical conflicts that have to be resolved through philosophical methods. There has been a rapid growth in interest in philosophy and psychiatry the world over and philosophy too may become an increasingly important part of psychiatry.

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INTERFACE WITH SPIRITUALITY AND RELIGION

Dr.S.Vijayakumar¹

Introduction

The human brain has evolved from the reptilian to the mammalian and now the human brain this is the structural development. In this evolution, the mind has created its illusionary existence. Structurally, it is divided into the conscious and the unconscious parts. The conscious is the unconditioned consciousness and the unconscious is the conditioned consciousness. The contents of the mind are the story we have created from our life which begins with birth and ends in death. This conditioned story conditioned and programmed by the religion, culture, society and education is what is called the EGO or the conditioned consciousness.

Thus the self is comprised of the false self (EGO) and the true self which is the spirit and the witnessing presence and consciousness. The spiritual journey starts on seeing, how the ego conditioned by society, religions, parents and education controls our lives and how the spirit which is the basis for human evolution is neglected and unnoticed. The spiritual journey is to stay in the spirit, and become aware of and use the mind as a tool and not be used by the mind. Once a witnessing presence is brought to life the human reaction to life is replaced by the response which is most relevant and appropriate to the present moment. This is done only after cleansing the negative emotions of the individual where he is grateful for every moment of his life and starts seeing the positives in his/her life. He sees that every problem has an inbuilt solution and is able to look at the solution by experiencing the problem and not resisting it. This problem ceases to be the problem because the learning experience of each problem allows the individual to mature and evolve.

Projection

The science of Spirituality deals with the understanding of the spirit that resides in every living being. Human beings generally identify themselves with the body and the mind and forget their true nature of the spirit in them. Human beings falsely identify themselves with their life story and the roles they play, and constantly get frustrated and disappointed in falling short of their expectations. This mind identification with the sense of “ME” and “MY” story is referred to as EGO identification. This is our suffering. *“Peace doesn’t require two people; it requires only one. It has to be you. The problem begins and ends there.”* As a Psychiatrist we tell our psychotic patients not to take their voices (auditory hallucination) they hear seriously. We tell our neurotics not to

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give importance to their irrational fearful thoughts, obsessive thoughts or post-traumatic stressful thoughts. The futility of accepting and believing these thoughts is well understood by us. We the human beings fail to question the reality of our day to day stressful thoughts which causes suffering. Questioning the validity of these thoughts in the present moment is true inquiry. And this can occur only in a meditative mind. *“The world is nothing but my perception of it. I see only through myself. I hear only through the filter of my story.”*

This projection and questioning our reality moment to moment is experientially brought about by Byron Katie’s Philosophy



About Byron Katie

Byron Katie is an American born, who underwent severe Depression with suicidal ideations. In the rehabilitation centre where she was admitted, she realized that her thoughts were a problem and started questioning the reality of them. She gradually conquered and battled through her depression. She went on to start her ‘THE WORK’ and started helping thousands of others all over the world by this technique of hers. This cognitive technique is very useful and effective. Questioning the reality in the present moment renders the assumptions and imaginations to disappear. The stories created disappear and one is set free.

Mastering your mind occurs when you transcend your mind by enquiring in your unquestioned thoughts, beliefs and attitudes. Enquiring them meditatively sets you free to your original nature of peace and understanding. Once you question one belief after the other. You shift from a negative attitude to the positive attitude and slowly feel grateful for your very existence and creation. You then find you are mysterious, and are a part of the mystery unfolding every moment. Gratitude flows out of you moment to moment. The work is like peeling an onion layer after a layer, till you find the empty core which is your natural state of peace and understanding. Happiness which is your true nature is recognized as your core being and you don’t need to go outside world to seek it. Thus, by mastering your mind, you enter the mystery of your consciousness which you start experiencing moment to moment to moment.

On stress and choice, she says, that *‘You’re either attaching to your thoughts or inquiring. There’s no other choice. No one can hurt me-that’s my job. That’s the purpose of stress. It’s a friend. It’s an alarm clock, built in to let you know that it’s time to do the work.’*

On Mind and Sin, she comments that *‘Thought, the mind can justify itself, is, faster than the speed of light, it can be stopped through the art of writing. Every story is a variation of a single theme: This shouldn’t be happening. I shouldn’t be having this experience. God is unjust. Life isn’t fair’.*

On fear she comments, that *‘Without our stories, we are not only be able to act clearly and fearlessly, but, we are also a friend, a listener. We are people living happy lives. We are full of appreciation and gratitude that have become as natural as our breath itself. Happiness is the natural state for*

someone who knows that there's nothing to know and that we already have everything we need right here and now. Who would you be without the thought "I need more money to be safe?" You might be a lot easier to be with. You might even begin to notice the laws of generosity; the laws of letting money go out fearlessly and come back fearlessly. You don't ever need more money than you have, That's where the fear comes from—from your uninvestigated thoughts. Without an uninvestigated story, there's only the perfection of life appearing as itself. You can always go inside and find the beauty that's revealed after the pain and fear are understood. A teacher of fear can't bring peace on earth. We have been trying to do it that way for thousands of years. The person who turns inner violence around, the person who finds peace inside and lives it, is the one who teaches what true peace is. We are waiting for just one teacher. You're the one. When you run in fear, it's square into the wall'.

Her entire work had being summarised by the 21 exercises described, below in dealing with the mind and enquiring it, in the present moment.

The following are simple yet powerful practices that can give you new ways of looking at your life circumstances, and in that, create new possibilities for self-realization.

1. Reversing Judgements

Practice noticing when you judge or criticize someone or something. For example, in a grocery store line, you might be impatient and think the person in front of you is disorganized and rude. Quickly turn your judgment around and ask yourself: "Is it just as true about me? Am I rude? (Am I rude sometimes; to others - or to myself?) Am I being rude inside of me when I think they are rude?" This exercise takes your attention off the "other" and places your attention on you. Forgiveness naturally results. Placing the blame or judgment on someone else leaves you powerless to change your experience; taking responsibility for your beliefs and judgments gives you the power to change them. Remember, beyond the appearance of who it is you are looking at, it is always God disguised, standing in front of you so that you can know yourself. Reversing judgments allow complete forgiveness. Forgiveness leads to awareness of oneself, and reestablishes personal integrity.

2. The Three Kinds of Business

Notice when you hurt, that you are mentally out of your business. If you're not sure, stop and ask, "Mentally, whose business am I in?" There are only three kinds of business in the universe: mine, yours, and God's. Whose business is it if an earthquake happens? God's business. Whose business is it if your neighbour down the street has an ugly lawn? Your neighbor's business. Whose business is it if you are angry at your neighbor down the street because they have an ugly lawn? Is it your business? Life is simple—it is internal. Do the count, in five minute intervals, how many times you are in someone else's business mentally. Notice when you give uninvited advice or offer your opinion about something (aloud or silently). Ask yourself: "Am I in their business? Did they ask me for my advice?" And more importantly, "Can I take the advice I am offering and apply it to my life?"

3. Being in Nobody's Business

After working with the practice of staying out of others' business, try to stay out of your own business as well. Hold lightly whatever you think you know about yourself. "I am contained within this physical body." Is it true? Can I absolutely know that it's true? What do I get by holding that belief? There is a widespread belief that we are our bodies, and we will die. Who would I be without the belief?

4. "Detaching" from Your Body/Your Story

Try speaking about yourself, for a period of time, in the third person rather than as I or me. Instead of saying, "I'm going to lunch", say, "She's going to lunch," (referring to yourself), or, "This one is going to lunch." Do this with a friend for an hour, the afternoon, or the entire day. Eliminate the use of all personal pronouns (I, me, we). For example, "How is that one (or this one) today? Does he want to go to the park?" Experience impersonally the body, the stories, and the preferences which you think you are.

5. Speaking in the Present Tense

Become mindful of how often your conversations focus on the past or future. Be aware of the verbs you use: was, did, will, are going to, etc. To speak of the past in the present is to reawaken and recreate it fully in the present, if only in our minds, and then we are lost to what is present for us now. To speak of the future is to create and live with a fantasy. If you want to experience fear, think of the future. If you want to experience shame and guilt, think of the past.

6. Doing the Dishes

"Doing the dishes" is a practice of learning to love the action that is in front of you. Your inner voice or intuition guides you all day long to do simple things such as doing the dishes, driving to work, or sweeping the floor. Allow the sanctity of simplicity. Listening to your inner voice and then acting on its suggestions with implicit trust creates a life that is more graceful, effortless, and miraculous.

7. Listening to the Voice of the Body

The body is the voice of your mind, and it speaks to you in physical movement as muscular contractions - as twitches, twinges, tickles and tension, just to name a few. Become aware of how often you move away from peace or stillness. Practice stillness and let your body speak to you of where your mind contracts, no matter how subtle the flickering contraction may be. When you notice a sensation, inquire within, "What situation or contracted thought is triggering this physical sensation? Am I out of alignment with my integrity in this circumstance, and if so, where? Am I willing to let go of this belief or thought that causes my body to contract?" Listen and allow the answers to guide you, and return to the peace and clarity within.

8. Reporting to Yourself

This exercise can help in healing fear and terror. Practice reporting events to yourself as if a circumstance you find yourself in is actually a news story and you are the roving reporter. Announce exactly what your surroundings are and what's happening "on the scene" at that very moment. Fear is always the result of projecting a re-creation of the past into the now or the future. If you

find yourself fearful, find the core belief and inquire: “Is it true that I need to be fearful in this situation? What is actually happening right now, physically? Where is my body (hands, arms, feet, legs, head)? What do I see (trees, walls, windows, sky)?” Impersonalizing our stories gives us an opportunity to look at circumstances more objectively, and choose our responses to what life brings. Living in our minds, believing our untrue thoughts, is a good way to scare ourselves to death, and it can appear in form as old age, cancer, degeneration, high blood pressure, etc.

9. Literal Hearing

Practice listening to others in the most literal sense, believing exactly what they say, and do your best to resist falling into your own interpretations about the information they share with you. For example, someone might compliment you on how beautiful you are, and you interpret that as an implication that the person has ulterior motives. Our interpretations of what we hear people say to us are often far more painful or frightening than what people actually say. We can hurt ourselves with our misconceptions and our thinking for others. Try trusting that what they say is exactly what they mean: not more, not less. Hear people out. Catch yourself when you want to finish a sentence for someone either aloud or in your mind. Listen. It can be amazing to hear what comes out when we allow others to complete their thoughts without interruption. And, when we are busy thinking we know what they are about to say, we are missing what they are actually saying. You might want to consider these questions: “What can be threatened if I listen and hear literally? Do I interrupt because I don’t want to really know what they have to say? Do I interrupt to convince them I know more than they do? Am I attempting to portray an image of self-confidence and control? Who would I be without the need to possess those qualities? Is there a fear of appearing unintelligent? Would people leave me if I heard them literally, and no longer engage in manipulative games?”

10. Speaking Honestly and Literally

Speak literally. Say what you mean without justification, without any desire to manipulate, and without concern about how another may interpret your words. Practice not being careful. Experience the freedom this brings.

11. Watching the Play

See yourself in a balcony, watching your favourite drama about you and what distresses you. Watch the story on the stage below. Notice how you have seen this drama performed hundreds, perhaps thousands, of times. Watch this until you find yourself becoming bored. The performers having to exaggerate their parts to keep your attention. Notice when you get honest with your boredom, you get up from your seat, leave the balcony, exit the playhouse, and step outside. Always know you can re-visit. Who would you be without your story?

12. Watching a Second Version of the Play

Write your story from the eyes and mind of another. Write as many different versions with as many different outcomes as you like. Notice, what you notice?..

13. Exercising Polarity

If you find yourself dwelling on a negative thought, practice, going to the opposite positive extreme

or polarity. When you catch yourself slipping back into negativity, choose again to return to the positive polarity and be present with your conscious choice; feel the truth of it. There is only love, and what doesn't appear as love is a disguised call for love. It is your birthright to live in the positive polarity of love and the truth.

14. Self Loving Process

Make a list of everything you love about someone and share it with them. Then, give yourself everything that is on the list. You may also recognize that what you love about someone else is just as true of you. Then allow the fullness of it to be expressed in your life.

15. Coming from Honesty

Practice moving and responding honestly. Laugh, cry, scream, and speak as it is genuinely true for you in each moment. Be a child again; act in full integrity with your feelings. Don't let beliefs compromise your integrity. For example, practice leaving a room honestly without manipulating those you leave behind with a polite excuse. Live your truth without explaining yourself.

16. Asking for What You Want - Giving Yourself What You Want

Ask for what you want, even though it may feel bold or awkward. People don't know what you want until you ask them. The act of asking is a validation of the awareness that you deserve to have what you want. If others are unable or unwilling to accommodate your request, give it to yourself.

17. Awareness of You

Recognize that the one in front of you is you. Beyond all appearances and personalities is the essence of goodness, which is you. Remembering your presence in all forms will bring you immediately into the present moment, in awe of the fullness therein. The person before you will become an opportunity to know yourself. The heart overflows with love and gratitude, humbly saying, "Oh yes, this person or situation is here for me to learn about who I am."

18. Self Gratitude

For twenty-four hours, stop looking outside yourself for validation. On the other side of that you become the experience of gratitude.

19. The Vanity Mirror

If you want to see who you are not, look in the mirror. Use the mirror once a day only. Who would you be without your mirror?

20. Go beyond Justification

Begin to notice how often you explain or justify yourself, your words, actions, decisions, etc. Who are you trying to convince? And what is the story you are perpetuating? Become aware of your use of the word "because" or "but" when you speak. Stop your sentence immediately. Begin again. Justification is an attempt to manipulate the other person; decide to be still and know.

21. The Gift of Criticism

Criticism is an incredible opportunity to grow. Here are some steps on how to receive criticism

and benefit from it. When someone says you are “wrong, terrible, sloppy,” etc., say (either in your mind, or aloud to that person) “Thank you.” This thought immediately puts you in a space where you’re available to hear and to use the information in a way that can serve you. After the criticism, ask yourself, “Do I hurt?” If the answer is “yes,” then know somewhere within you, you believe the criticism also. Knowing this gives you an opportunity to heal that portion of which you find unacceptable within yourself. If you want to cease to be vulnerable to criticism, then heal the criticisms. That is the ultimate power in letting go of every concept. Being vulnerable means you can no longer be manipulated for there is no place for criticism to stick. This is freedom.

Present State

The body is dealt with appropriate diet and exercises, the mind with meditative practices and constant inquiry of stressful thoughts in the present moment. This Conscious Spirit is brought as an unchanging witness in the background. It acts like a TV screen which projects our story and the roles we play but remains totally unaffected. This is likened to the paper in which the story is written where the paper is like the conscious spirit is unaffected by the story and the characters. *“What we are doing with inquiry is meeting our thoughts with some simple understanding, finally. Pain, anger, and frustration will let us know when it’s time to inquire. We either believe what we think or we question it: there’s no other choice. Questioning our thoughts is the kinder way. Inquiry always leaves us as more loving human beings.”* The Spiritual approach would be to deal with this individual more comprehensively (Body-Mind-Spirit).

The Science of Spirituality

The science of spirituality has been most comprehensively described by Dr.Sashidhara a practicing pediatrician in Bangalore - drshashi25@gmail.com

IDENTIFY PROGRAM INSTALLED IN YOU

AT BIRTH	PLACE OF BIRTH	BORN TO FAMILY	LANGUAGE ACQUIRED	PROGRAMMED KNOWLEDGE	ACQUIRED RELIGION	PROGRAM GOING
Thoughtless Present state	India	Hindu	Hindi/Tamil/Telugu/Kannada	Bhagvad-geetha, Etc.	Hinduism	Rama/Ki Shiva/D
Thoughtless Present state	Japan	Buddhist	Japanese	Dhammapada	Buddhism	Buddha
Thoughtless Present state	Australia	Christian	English	Bible	Christianity	Jesus Christ
Thoughtless Present state	Gulf	Muslim	Arabic	Qu-ran	Islam	Allah
Thoughtless Present state	Pakistan	Muslim	Urdu	Qu-ran	Islam	Allah
Thoughtless Present state	Israel	Jewish	Hebrew	Judaism	Yahoodi	Yahowa
Thoughtless Present state	America	Christian	English	Bible	Christianity	Jesus
Thoughtless Present state	India	Sikh	Punjabi	Granth Sahib	Sikhism	Guru (Nanak)



CENTER SOURCE PRESENT

PERIPHERY PRESENT CULTIVATED PAST DEPENDENT

Objetives of scientific spirituality:

Education on truth of existence - PRESENT - The greatest truth of life is ‘here’ and ‘now’ state called the Present. There are two dimensions to the Present: Outer Present and Inner Present. These

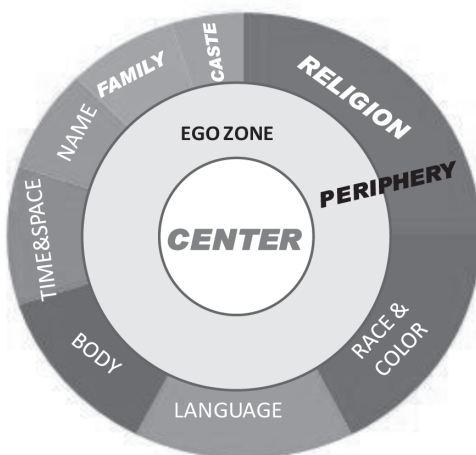
two dimensions are the twin pillars of the Present, where one needs to maintain harmony in both pillars in order to create peaceful body-mind conditions.

Paying attention and enhancing aliveness and awareness of body and mind in the Present (Body- Mind - Spirituality) - Body – Mind - Spirituality recommends a balanced diet, clean air, plenty of water and organic beverages and treating each and every thought and feeling with positivity so that it creates beneficial epigenetic activity which in turn influences genetic activity to produce a state of well- being.

Blossoming uniqueness of an individual - No two individuals are alike in the Peripheral Present. Scientific Spirituality helps you take action with respect to blossom your unique talents in the Present. Scientific Spirituality helps one become aware of one’s latent potential, blossom it and become the crown of nature.

Respecting and protecting everything in the nature of creation- Nature itself is God or Source. We need not fear any other Gods. Take care of Nature, and Nature will take care of you.

SILENCE IS THE SOURCE PRESENT



**NIRAKARA
NITHYA
SHUDDHA
BUDDHA
SHIVA
ACHALA
NIRMALA
NIRANJANA
NIRGUNA
NIRVIKALPA
NISHABDHA
NIRAMAYA
NIRVIKALPA
Etc., etc.,**

***Ayam atmaa bramha. Pragnanam bramha, Aham brahmashmi
tatvamhasi, Chaithanyam brahma, Allah , Christ consciousness,
Spirit, Tao etc***

Source Present : The Inherent and universal Dimension

We have an inherent ‘essence’ dwelling in every cell and tissue of our body. It does not belong to any period, zone, religion, region, lineage or family, *the best example of this state is our ‘deep sleep state’*. It is the Silent part of us and is universal.

WHO AM I

Body: The Physical Dimension: [stula] - Body is the physical dimension and its nature and form is influenced to a great extent by the quality of our genitor’s genes.

Mind: the cultivated Dimension: [shukshma]- This is a cultivated dimension of our existence. It is responsible for our ‘awakened and dream state’. Mind is an interpretation of preconceived data.

Present state: The Inherent and universal Dimension: [kaarana] - We have an inherent ‘essence’ dwelling in every cell and tissue of our body. It does not belong to any period, zone, religion, region, lineage or family. Our Silent part of us and it is universal. In reality, each one of us is a combination of inherited [physical], cultivated [mental] and inherent [silent] dimensions.

Universe is an illusion

It is scientifically established that 99.999999999% of all that we see and believe as concrete matter is nothing but empty space.

Life is an Illusion

RECALL YOUR EXPERIENCE OF WATHCING A MOVIE

While watching a movie we see only a static film at a particular moment but what we perceive is movement or motion picture. It is certainly an illusion. Similarly unitized reel of Source Present State is a static reality. But, the way in which we perceive it is the universe as we experience it. Source Present state will always be static and real.

ELECTRIC PROJECTOR — MOVIE ILLUSION

BIOELECTRICAL PROJECTOR— LIFE ILLUSION

The experience of existence/universe emerges from thoughts [MIND STATE] But, Source Present/ Silent state is the only reality [NO MIND STATE]. Hence life is an illusion.

Analyze the Time

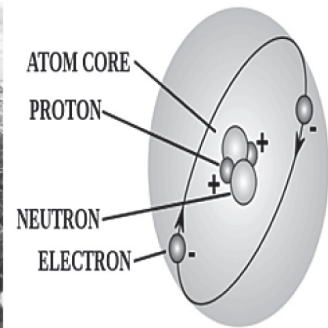
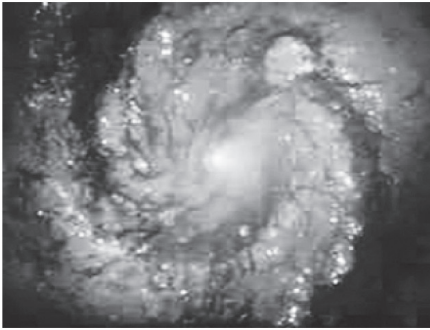
Mind experience only in Milli or Micro seconds	
1 Second	= 1000 milli seconds
1 Milli second	= 1000 microseconds
1 Microsecond	= 1000 Nanoseconds
1 Nanosecond	= 1000 Pico seconds
1 Pico second	= 1000 Femto seconds
1 Femto second	= 1000 Yatto seconds.



Our eyes and brain together are incapable of perceiving in micro, nano, pico, femto and yatto seconds. What really exists in these seconds is quantum essence/source present which is not perceived but, what the whole Existence is made of.

Understanding the Existence

What superficial existence is made up of, Galaxies-Stars-Solar system-Earth-Mountains/Oceans-Plants/Animal kingdom.,etc....etc...,



Deep core of whole existence is made up of Quantum essence [Present state]-Empty like state-[Silent state]

Spiritual Being

In understanding the spiritual context, Upanishads tell us that the spirit before it chooses the couple to give birth to itself in the form of a body comes with a package of experiences that it needs to experience in this lifetime. It chooses the environment and parents, so that these experiences can be fulfilled. This is called as the Prarabtha karma and becomes one's destiny. While the individual has to go through his set of experiences without much choice, his family/caregivers have to go through their set of experiences as a part of their Prarabtha karma. This is how each event is interconnected and is described as a web of existence.

Deeper understanding of this spiritual truth and explaining this to the client and his relatives early in the disease process helps in making them to accept reality as it is. This aspect should be addressed by a therapist who has really understood and experienced his true spiritual nature. Advice and counselling coming from experience are far more effective than a conceptual advice.

The spiritual journey which is our true life purpose is to experience the true nature of the spirit which is freedom. Initially, the journey starts with, we dissociating ourselves from our thoughts, feelings and behaviour. This is the freedom 'from' the egoistic functions of the mind.

The second part of the journey consists in embodying the spirit in our day to day living which is the freedom 'to' experience the body and the mind and experiences without being attached to it. This leads to the ultimate dissolution of 'me' and 'my' story and the ego dissolves. This is called as conscious suffering or in the spiritual journey is described as 'if you die before you die there is no death for you'. This sets free the spirit which becomes fearless and celebrative and starts awaiting its release from the body which we term as death. This is considered by the spirit as ultimate liberation as it liberates the spirit from the imprisoned mind and body. Death, as much as life is then considered as a celebration.

This leads to the final journey when the spirit experiences freedom 'for' the freedom's sake because

that is the true nature of the spirit and it can express itself only this way. Thus the spirit to experience its freedom takes a complete journey.

At the start of the spiritual journey we believe that we are ‘human beings’ having a ‘spiritual experience’ but as the journey reaches its destination, we realize we are ‘spiritual beings’ with ‘human experience’

Once this is experienced, one transcends the wheel of life and death and sees and lives his immortality.

This state is achieved by meditation and enquiry.

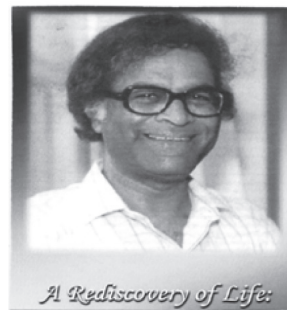
The whispers of the spirit can be heard only by a ‘silent’ and a ‘still’ mind.

As a zen master once said, it is a state of ‘NON DOING’ but as the master emphasizes one has to really ‘DO’ the ‘NON DOING’!

This journey of the spirit is living life consciously with awareness and this is most aptly described by the late mystic Anthony de Mello

‘Rediscovering Life’

Anthony de Mello was director of the Sadhana Institute of Pastoral Counseling in Poona, India. A member of the Jesuit province of Bombay, he was widely respected for his inspiring workshops and conferences on the spiritual life. He died in 1987 of a heart attack. His books include *Sadhana*, *The Heart of the Enlightened*, and *The Way to Love*.



*CLARITY
 *AWARENESS
 *REDISCOVERY
 *HAPPINESS
 *FREEDOM
 *INDEPENDENCE
 *LAUGHTER
 *LOVE

“Be alert. Be watchful. Listen with a kind of fresh mind. That’s not easy, either — listening with a fresh mind, without prejudices, without fixed formulas.” De Mello shares a transformative experience he had 12 years earlier when he met Ramchandra, a rickshaw puller in Calcutta who was poor, sick with TB, and exhausted after a decade of this gruelling work. Yet he never complained or seemed upset. “We gotta take life as it comes,” he tells de Mello.

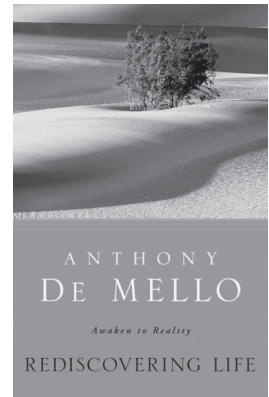
The author realizes that he is in the presence of a true mystic, an extraordinary man, a saint who has rediscovered what it means to be alive. De Mello discovers the same spirit in a man dying of AIDS who is rejoicing in the six happiest months of his life.

Why aren’t the rest of us living like these two kings who are not enslaved to fear, anxiety, tensions, stress, heartache, disappointment, despair, and depression? We continue to subscribe to the shibboleth that happiness can be acquired rather than seeing that we already have it as a gift of God. Another reason for our plight is that we feel comfortable in our familiar mess and lack the will power to change our ways. A final reason is that we have bought into the consumer ethic that makes selfish desire and attachment the central focus of our days.

We were not created to be slaves; we were created to be free. De Mello points out that nothing in this world can upset us. We upset ourselves by being drained by the ideas and emotions roaring through our minds.

“Spirituality means no longer being at the mercy of an event, or a person, or anything else.” Do you know how truly liberating this way of living is? Absolutely nothing has the power to upset us, hurt us, or take away our joy or enthusiasm — two more gifts of God.

The exhilarating freedom de Mello is talking about means we no longer have to play the blame game. Nor do we need to despise the world. The author challenges us to take responsibility for our mistakes and to love the world.



In this masterwork, de Mello gives us a road map to enlightenment and to the rediscovery of life. It is a spiritual journey that will take time given all our bad habits, illusory ideas, and the immense programming of our culture and consumerism. We highly recommend this book. It has the potential to be life transforming!

Awareness, awareness, awareness, awareness. What they trained us to do in that course was to become participant observers. To put it somewhat graphically, I'd be talking to you and at the same time I'd be out there watching you and watching me. When I'm listening to you, it's infinitely more important for me to listen to me than to listen to you. Of course, it's important to listen to you, but it's more important that I listen to me. Otherwise I won't be hearing you. Or I'll be distorting everything you say. I'll be coming at you from my own conditioning. I'll be reacting to you in all kinds of ways from my insecurities, from my need to manipulate you, from my desire to succeed, from irritations and feelings that I might not be aware of. So it's frightfully important that I listen to me when I'm listening to you. You don't always have to imagine yourself hovering somewhere in the air. Just to get a rough idea of what I'm talking about, imagine a good driver, driving a car, who's concentrating on what you're saying. In fact, he may even be having an argument with you, but he's perfectly aware of the road signals. The moment anything untoward happens, the moment there's any sound, or noise, or bump, he'll hear it at once. He'll say, "Are you sure you closed that door back there"? How did he do that? He was aware, he was alert. The focus of his attention was on the conversation, or argument, but his awareness was more diffused. He was taking in all kinds of things.

As the Japanese Zen masters say: "Don't seek the truth; just drop your opinions." Drop your theories; don't seek the truth. Truth isn't something you search for. If you stop being opinionated, you would know.

Silence is not the absence of sound, but the absence of Self.

Eternal life is now. We're surrounded by it, like the fish in the ocean, but we have no notion about it at all. We're too distracted with this attachment. Temporarily, the world rearranges itself to suit our attachment, so we say, 'Yeah, great! My team won!' But hang on; it'll change; you'll be depressed tomorrow. Why do we keep doing this?

Do this little exercise for a few minutes. Think of something or someone you are attached to; in other words, something or someone without which or without whom you think you are not going to be happy. It could be your job, your career, your profession, your friend, your money, whatever. And say to this object or person, 'I really do not need you to be happy. I'm only deluding myself in the belief that without you I will not be happy. But I really don't need you for my happiness; I can be happy without you. You are not my happiness, you are not my joy.' If your attachment is a person, he or she is not going to be very happy to hear you say this, but go ahead anyway. You can say it in the secrecy of your heart. In any case, you'll be making contact with the truth; you'll be smashing through a fantasy. Happiness is a state of non-illusion, of dropping the illusion.

You fear no one because you're perfectly content to be nobody. You don't give a damn about success or failure. They mean nothing. Honour, disgrace, they mean nothing! If you make a fool of yourself, that means nothing either. Isn't that a wonderful state to be in! Some people arrive at this goal painstakingly, step by step, through months and weeks of self-awareness. But I'll promise you this: I have not known a single person who gave time to being aware who didn't see a difference in a matter of weeks. The quality of their life changes, so they don't have to take it on faith anymore. They see it; they're different. They react differently.

In fact, they react less and act more. You see things you've never seen before. You're much more energetic, much more alive. People think that if they had no cravings, they'd be like deadwood. But in fact, they'd lose their tension. Get rid of your fear of failure, your tensions about succeeding, you will be yourself. Relaxed you wouldn't be driving with your brakes on. That's what would happen.

Loneliness is when you're missing people; aloneness is when you're enjoying yourself.

"How does one seek union with God?"

"The harder you seek, the more distance you create between Him and you."

"So what does one do about the distance?"

"Understand that it isn't there."

"Does that mean that God and I are one?"

"Not one. Not two."

"How is that possible?"

"The sun and its light, the ocean and the wave, the singer and his song — not one. Not two."

We see people and things not as they are, but as we are.

Said the monk: "All these mountains and rivers and the earth and stars - where do they come from?"

Said the master: "Where does your question come from?"

First, realize that you are surrounded by prison walls that your mind has gone to sleep. It does not even occur to most people to see this, so they live and die as prison inmates. Most people end up being conformists; they adapt to prison life. A few become reformers; they fight for better living conditions in the prison, better lighting, better ventilation. Hardly anyone becomes a rebel, a revolutionary who breaks down the prison walls. You can only be a revolutionary when you see the prison walls in the first place.

“Is there anything I can do to make myself Enlightened?” “As little as you can do to make the Sun rise in the morning.” “Then of what use are the spiritual exercises you prescribe?” “To make sure you are not asleep when the sun begins to rise.”

When the Zen Master attained Enlightenment he wrote the following lines to celebrate it:

“Oh wondrous marvel:

I chop wood!

I draw water from the well!”

After enlightenment nothing really changes. The tree is still a tree; people are just what they were before; and so are you. You may continue to be as moody or eventempered, as wise or foolish. The one difference is that you see things with a different eye. You are more detached from it all now. And your heart is full of wonder. That is the essence of Contemplation: the Sense of Wonder.

Contemplation is different from ecstasy in that ecstasy leads to withdrawal. The enlightened contemplative continues to chop wood and draw water from the well. Contemplation is different from the perception of beauty in that the perception of beauty (a painting or a sunset) produces aesthetic delight, whereas contemplation produces wonder—no matter what it observes, a sunset or a stone. This is the prerogative of children. They are often in a state of wonder. So they easily slip into the Kingdom.

Most people tell you they want to get out of kindergarten, but don’t believe them. Don’t believe them! All they want you to do is to mend their broken toys. “Give me back my wife. Give me back my job. Give me back my money. Give me back my reputation, my success.” This is what they want; they want their toys replaced. That’s all. Even the best psychologist will tell you that, that people don’t really want to be cured. What they want is relief; a cure is painful.

“Help us to find God.”

“No one can help you there.”

“Why not?”

“For the same reason that no one can help the fish to find the ocean.”

If I am enlightened and you listened to me because I was enlightened, then you’re in big trouble. Are you ready to be brainwashed by someone who’s enlightened? You can be brainwashed by anybody, you know. What does it matter whether someone’s enlightened or not? But see, we want to lean on someone, don’t we? We want to lean on anybody we think has arrived. We love to hear that people have arrived. It gives us hope, doesn’t it? What do you want to hope for? Isn’t that another form of desire?

We never feel grief when we lose something that we have allowed to be free, that we have never attempted to possess. Grief is a sign that I made happiness depend on this thing or a person, at least to some extent. We’re so accustomed to hear the opposite of this that what I say sounds inhuman, doesn’t it?

Happiness is our natural state. Happiness is the natural state of little children, to whom the kingdom

belongs until they have been polluted and contaminated by the stupidity of society and culture. To acquire happiness you don't have to do anything, because happiness cannot be acquired. Does anybody know why? Because we have it already!! How can you acquire what you already have? Then why don't you experience it? Because, you've got to drop something. You've got to drop illusions. You don't have to add anything in order to be happy; you've got to drop something. Life is easy, life is delightful. It's only hard on your illusions, your ambitions, your greed, your cravings. Do you know where these things come from? From having identified with all kinds of labels!

Again and again in my therapy groups I come across people who aren't there at all. Their daddy is there, their mummy is there, but they're not there. They never were there. Well, that's absolutely, literally true. I could take you apart piece by piece and ask, "Now, this sentence, does it come from Daddy, Mummy, Grandma, Grandpa, whom?" Who's living in you? It's pretty horrifying when you come to know that.

You think you are free, but there probably isn't a gesture, a thought, an emotion, an attitude, a belief in you that isn't coming from someone else. Isn't that horrible? And you don't know it. Talk about a mechanical life that was stamped into you. You feel pretty strongly about certain things, and you think it is you who are feeling strongly about them, but are you really? It's going to take a lot of awareness for you to understand that perhaps this thing you call "I" is simply a conglomeration of your past experiences, of your conditioning and programming.

The tragedy of an attachment is that if its object is not attained it causes unhappiness. But if it is attained, it does not cause happiness – it merely causes a flash of pleasure followed by weariness, and it is always accompanied, of course, by the anxiety that you may lose the object of your attachment.

Eternal life is now. We're surrounded by it, like the fish in the ocean, but we have no notion about it at all. We're too distracted with this attachment. Temporarily, the world rearranges itself to suit our attachment, so we say, 'Yeah, great! My team won!' But hang on; it'll change; you'll be depressed tomorrow. Why do we keep doing this?

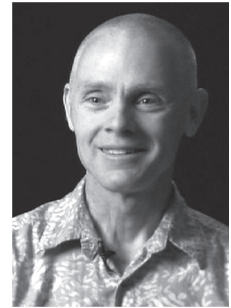
Loneliness is not cured by human company. Loneliness is cured by contact with reality.

The heart in love remains soft and sensitive. But when you're hell-bent on getting this or the other thing, you become ruthless, hard, and insensitive. How can you love people when you need people? You can only use them. If I need you to make me happy, I've got to use you, I've got to manipulate you, I've got to find ways and means of winning you. I cannot let you be free. I can only love people when I have emptied my life of people. When I die to the need for people, then I'm right in the desert.

In the beginning it feels awful, it feels lonely, but if you can take it for a while, you'll suddenly discover that it isn't lonely at all. It is solitude, it is aloneness, and the desert begins to flower. Then at last you'll know what love is, what God is, what reality is. But in the beginning giving up the drug can be tough, unless you have a very keen understanding or unless you have suffered enough. It's a great thing to have suffered. Only then can you get sick of it. You can make use of suffering to end suffering.

Loneliness is when you're missing people, aloneness is when you're enjoying yourself. Remember that quote of George Bernard Shaw. He was at one of those awful cocktail parties, where nothing gets said. Someone asked him if he was enjoying himself. He answered, "It's the only thing I am enjoying here!" You never enjoy others when you are enslaved to them. Community is not formed by a set of slaves, by people demanding that other people make them happy. Community is formed by emperors and princess.

ADYASHANTHI is a western mystic from the Zen tradition is still alive today and his talks are very illuminating. His concept of looking within, true meditation and what it is to live as a self realised person is described below in his own words



That Which is Looking, by Adyashanti

"Only when you turn attention to awareness itself, there isn't anything behind it. That's what returning to the source means. It means that nothing is next. There's nothing behind it. With a thought there's always something behind it. There's always the awareness of thought. So awareness is behind it. With a feeling there's always something behind it. With the conditioned tendency there's always something behind it. There's always awareness behind everything that's perceivable. Everything that's thinkable. There's always something behind it: namely that awareness. Spirit. To 'look within' doesn't mean to look for something really amazing to happen. To look for the states of consciousness to change. That's not what look within means. Have any of you looked within like that? I've spent so many hours looking within that way - not thousands, tens of thousands of hours looking within. And I was looking ... the same way we look outside. You know, like we're looking for something. And so you look inside. It's a great teaching, but then what do you do? You tend to look for stuff. Look for really groovy spiritual stuff to happen. Right? It's the same looking. It's not really different than looking for a million bucks, or a hot looking guy or gal or success. It's just looking for inner stuff. And there's a world of inner things and experiences, just like there's an outer world of things to look for. But the inner world, it's not any more real or significant than the outer world. So to look within doesn't mean that, to look within in a way that you're looking for something. Looking for a treasure. It means to go to the root. And the root is the looking itself. To turn within is to turn to that which is looking. So that we find out for ourselves that there isn't anybody that's looking! Looking is looking. There isn't someone there called 'me' that's behind awareness that's aware. Awareness is aware. It's the opposite: I'm not aware; awareness is aware of me. And this is quite a shock when you really come upon it! This is really 'one without a second' as Ramana (Maharshi) used to say. That the self is one without a second. Without a second means: nothing behind it. No deeper return to go to. You've returned to your natural state. In Zen we used to call it 'taking the backward step.' We (generally) want to take the forward step: to pursue, to seek, to find. But the backward step is very simple ... return to what you are. Till that flash of recognition dawns, that awareness itself is what you are. Just like the flash of lightning in an empty sky - a spontaneous flash! The easiest thing in spirituality is for it to become complex, instead of simple. But this is a very simple thing which is why it can penetrate so deeply. So quickly. So immediately.

“ –Adyashanti

True Meditation Has No Direction, by Adyashanti

“True meditation has no direction or goal. It is pure wordless surrender, pure silent prayer. All methods aiming at achieving a certain state of mind are limited, impermanent, and conditioned. Fascination with states leads only to bondage and dependency. True meditation is abidance as primordial awareness.

True meditation appears in consciousness spontaneously when awareness is not being manipulated or controlled. When you first start to meditate, you notice that attention is often being held captive by focus on some object: on thoughts, bodily sensations, emotions, memories, sounds, etc. This is because the mind is conditioned to focus and contract upon objects. Then the mind compulsively interprets and tries to control what it is aware of (the object) in a mechanical and distorted way. It begins to draw conclusions and make assumptions according to past conditioning.

In true meditation all objects (thoughts, feelings, emotions, memories, etc.) are left to their natural functioning. This means that no effort should be made to focus on, manipulate, control, or suppress any object of awareness. In true meditation the emphasis is on being aware; not on being aware of objects, but on resting as primordial awareness itself. Primordial awareness is the source in which all objects arise and subside.

As you gently relax into awareness, into listening, the mind’s compulsive contraction around objects will fade. Silence of being will come more clearly into consciousness as a welcoming to rest and abide. An attitude of open receptivity, free of any goal or anticipation, will facilitate the presence of silence and stillness to be revealed as your natural condition.

As you rest into stillness more profoundly, awareness becomes free of the mind’s compulsive control, contractions, and identifications. Awareness naturally returns to its non-state of absolute unmanifest potential, the silent abyss beyond all knowing.”

Applying Realization to Relationships, by Adyashanti

“ Many spiritual seekers have had glimpses of the absolute unity of all existence, but few are capable of or willing to live up to the many challenging implications inherent in that revelation. The revelation of perfect unity, that there is no other, is a realization of the ultimate impersonality of all that seems to be so very personal. Applying this realization to the arena of personal relationships is something that most seekers find extremely challenging, and is the number one reason why so many seekers never come completely to rest in the freedom of the self absolute. Inherent in the revelation of perfect unity is the realization that there is no personal me, no personal other, and therefore no personal relationships. Coming to terms with the challenging implications of this stunning realization is something that few people are willing to do, because realizing the true impersonality of all that seems so personal, challenges every aspect of the illusion of a separate, personal self. It challenges the entire structure of personal relationships which are born of needs, wants, and expectations. This is the challenge, to let your view get this vast, to let your view get so vast that your identity disappears. Then you realize that there is no other, and there is nothing personal going on. Contrary to the way the ego will view such a realization, it is in reality the birth of true love, a love which is free of all boundaries and fear. To the ego such uncontaminated love is unbearable in

its intimacy. When there are no clear separating boundaries and nothing to gain the ego becomes disinterested, angry, or frightened. In a love where there is no other, there is nowhere to hide, no one to control, and nothing to gain. It is the coming together of appearances in the beautiful dance of the self called love. To the seeker who is sincere, an experiential glimpse of this possibility is not enough. If you are sincere, you will find it within yourself to go far beyond any glimpse. You will find within your Self the courage to let go of the known and dive deeply into the Unknown heart of a mystery that calls you only to itself.” -Adyashanti

“When you argue with reality you lose – but only 100% of the time.”

“Would you rather be right or free?”

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Note: The last two books are written by people who have gone through near death experience and are here to relate their stories. Several such stories truly indicate that the spirit and soul is immortal and the body and mind are recycled in every birth.

INTERFACE WITH ART

Dr. Debasis Bhattacharya

The most important role of interface between art and psychology lie in how they relate to us as human beings. The interface is qualitative. It is difficult to conceptualize art-therapy as a clearly defined entity. It is definitely not a training course in art-work. Art-therapy is a dynamic encounter between the two entities: art and mind. It exploits new potentials in a range of diverse activities and is not restricted in form or content. ^[1,2]Therefore the field is essentially inter-disciplinary. Whilst conventional therapy or psychotherapy involves verbal communication, ‘art therapy’ offers the opportunity to delve into the non-verbal and surpass verbal and linguistic barriers. Therefore art therapy is therapy that goes beyond what is commonly referred to in the west as ‘talking therapy’. It is long recognized in human communication that non-verbal communication plays a key role even in conventional verbal psychotherapy.. Hence art therapy offers the opportunity to tap into this powerful and sometimes raw and un-tampered feelings and messages which may go beyond verbal narration. ^[3,4,5]

Exploring non-verbal communication with the therapist is also a creative venture. The art-therapist helps to access and awaken the client’s personal, latent creativity by the use of art-materials and engagement in process of ‘creating art’. The focus of this process is not rational thinking and ‘theories of art’ or attaining artistic skills; instead the therapist scaffolds creativity in the session to explore the intuitive mind. Creative processes of this venture aims to find hidden patterns and to make connections between seemingly unrelated phenomena including linking this to the clients’ world. By avoiding ‘dialogue’ and didactic communication it provides an opportunity to explore subtleties which are often difficult to access or articulate in verbal therapy sessions. ^[6,7]

Paradigm-Shift: Towards a holistic and an integrative approach

New treatments or variation of old therapies sometimes represent a revolutionary departure from what was done before. ^[8,9]There is an emerging trend to combine different classical methods of treatment with the more unconventional or lesser known alternatives to provide a more integrated approach with the aim to provide a more person- specific and holistic care. Verbal psychological therapies have evolved from classical Freudian analytical approach to Klein-ian perspective focusing on human dynamics of relationships. Subsequently with the rise of Cognitive and Cognitive Behaviour Therapy (CBT) there was an increased emphasis of more structured and manualised

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approach involving a patient-driven (therapy client) self-exploration and promotion of change. While recognizing the advantages of the latter it is also increasingly appreciated that CBT is not the answer to all problems. Some problems are too deep seated or painful or unique to respond or even explore in such a standardized approach. The emergent transformation of psychological theories, often challenges such relatively mechanistic approach and introduces a radical revision of how the human consciousness itself is perceived. Acknowledging the patient's own subjective world-view, beliefs, values and narrative (not necessarily verbal) is the key to providing a more holistic and patient-centred therapy approach. This has a broad philosophical implication on the principles of therapy as such. This paradigm-shift lays emphasis on 'thriving' and 'well-being', rather than to treat a breakdown due to disease or a specific symptom or illness. Hence the focus shifts from illness to health.^[10]

Art-therapy can be used for enhancement of mental-health, not merely for the treatment of any specific disease. Hence I believe the target group of art-therapy is varied and not restricted to specific conditions. Art-therapy works under wide variety of settings including both physical ailments like AIDS, Asthma, Cancer, Chronic disabilities and psychological distress like PTSD, Torture, Drug-abuse and anxiety or conflict due to any psychiatric disorder. Clients from all the age group may participate in therapeutic sessions.

Evolution of Art

'Art' has evolved and has been redefined over human history. What constitutes art is sometimes all encompassing and esoteric; therefore at this point I should clarify for this article I am referring to art synonymously to 'visual art'.^[11] The domain of 'art' refers to the diverse type of activities with the use of imagination to express ideas of feeling. This broad conceptual frame also includes music, theatre, film, installation, crafts, architecture etc. in addition to painting and sculpture. Conventionally art-therapy focuses on visual arts, which includes the creation of images and objects in the field of drawing, painting, sculpture and other related works of visual media. In this article, I shall focus only on the field of visual art particularly in relation to drawing and painting.

Basically art may be comprehended as a mode of non-verbal communication focusing on 'visual-language'. This view shifts our focus in art-therapy on different aspects of art-activities. The focus here is on shifting paradigm from 'art as a recreational activity' to 'art as a transformative process'. The emphasis is on 'collaboration' rather than 'transaction'. Here the client defines goal of collaborative and interactive treatment-planning in contrast to didactic plan. The process is not manualised in detail but keeps faith in the process of shared exploration by the therapist and the client (or patient). The therapist does not play the role of an expert. He participates as a learner and if needed as a rescuer. The whole process maintains a close interconnection between rationality, imagination and sensitivity.

Evolution Of Language: Verbal & Non-verbal

Human communication systems use sounds and words of verbal language or signs, symbols including abstract visuo-spatial components of visual language. Visual-art is essentially a form of visual language. The expression of cave-paintings of paleo-humans as early as 30,000 B.C. was the

imprint of rudimentary human language.^[13,14,15] Subsequently we find the ‘pictographs’ representing the images of what they were and eventually representation of idea or concept i.e. ‘ideograph’, and finally the development of an alphabet or symbolic representation of ‘one -sound-one-sign’ system.

Alphabets, words and grammar offer structure to communication through a process of manualization. However when the client is not proficient in the manual or have not managed to crystallize their feelings and thinking to be expressed in this form and therefore this can be restrictive in the process of exploring their mind. In such situations visual- language affords a much wider range of expression as it is not restricted by existing words or verbal semantics. Another advantage of using visual idioms lies in its ability to mediate our psychological pain, anxieties and imperfections.

Development of language and Psychological Processing – Verbal and Visual

If we examine the general principles of development of human children, we find the expression begins with pre-verbal communication. Human infants look and recognize before they speak. Gradually they become attentive to sounds and images and finally get tuned to categorical perceptions of verbal and visual language.

Verbal language often fails to communicate the direct experience and involves a degree of cognitive processing as it does not offer a direct avenue for our sensory experience. It serves only to share labels or name what we have seen or heard or thought. In fact perceptual experience may be far more subtle, subjective and contextual.^[5] Even with the development of language our processing of memory retains the sensory component and before memory is stored away it goes through a transient ‘sensory memory’ phase followed by processing through ‘working memory’ before being coded in ‘long term memory’. It is hypothesized this process is disrupted leading to flashback and nightmare leading to ‘re-living’ symptoms in Post Traumatic Stress Disorder (PTSD).^[7,16]

Visual language offers an opportunity to tap into such sensory experiences and allow suitable expression. One may hypothesize such an avenue allows ‘processing’ and shaping of agreed goals, fears and trauma through art therapy.^[5]

Characteristics of visual language

In contrast to verbal language, visual language is a single unfolding stream and is relatively universal and transcends verbal and embedded cultural nuances. In a multi-lingual country like India, there are added benefits of an all-pervasive visual language.

The characteristics of visual may be categorized under two dimensions: (1) Mimetic or representational and (2) Non-mimetic or abstract quality.^[5,16]

The power of mimesis (similar etymology as mime the theatrical technique of suggesting action, character, or emotion without words, using only gesture, expression, and movement) is cultivated by training in perspective-study, application of light and shade to produce a desired illusion.

The apparently exact representation almost always project the unconscious emotional interpretation of the artist by making subtle distortion or exaggeration. It is equally true in case of figurative drawing, portrait-painting, landscape-painting or even still-life.

The power of mimesis facilitates discharge of our basic instinctual urges. Mimesis may also reflect symbolic meaning of the content.

On the other hand ‘non-mimetic’ aspect constitutes the abstract components and their psychic organization which can be approached as the whole or the ‘Gestalt’ (as proposed by Gestalt psychology). Our eyes and mind seek pattern and simple ‘whole’/’Gestalt’ to grasp or to express. This is an innate ability of human mind. Perception is a continuous judgment of scale and colour relationships and includes making categories of forms to classify images and shapes. Perception produces a ‘Whole’ or a ‘Gestalt’. The perceiving eye tend to bring together elements to complete a form perception appreciate ‘Figure’ as well as ‘Ground’

Gestalt psychology has examined some basic perceptual laws.^[5,15] It has been found that tensions between Perception and balance of Human Mind may be expressed by the abstract pattern of ‘dots’.

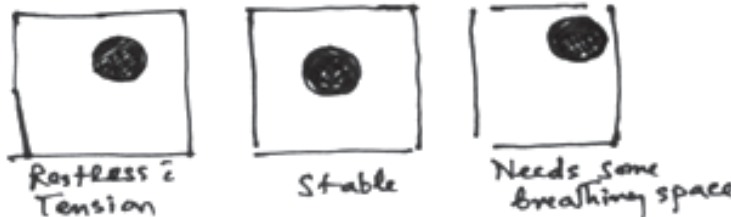


Fig: 1

Fig: 2

Fig: 3

The grouping of ‘dots’ or ‘shapes’ follows the innate perceptual-laws of –Grouping by : Proximity, Continuity and Similarity has also been demonstrated.

Grouping by:



[Fig.4]: Proximity



[Fig.5]: Continuity



[Fig.6]: Similarity

Every visual stimulus is a dynamic affair. Perceptual qualities of wedge-shape, oblique, direction or expanding pattern give the experience, which can be explored as a metaphor. We do not have the appropriate terminology to describe how we perceive visual forces. However all the illusionary experience of depth and distance are appreciated by the laws of perception. The perception of ‘movement’ is an illusion. . Immobile shapes give impression of actual displacement in space due to varieties of spatial relations. Perhaps the viewer generates within his body an appropriate kinesthetic reaction.



[Fig.7a]: Movement



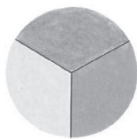
[Fig.7b]: Movement

Perceptual urge to see a superimposition and perceptual illusion of transparency-effect creating space & depth

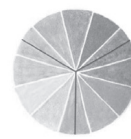


[Fig.8]: Space and Depth

Colour is one of the most essential component of visual language. As soon as the client adds colour, we introduce another dimension in communication. Naming colours is problematic. The world of colours is an assortment of potentially innumerable hues derived from the range of electromagnetic waves within the visible spectrum creating visuo-sensory neuronal stimuli. It is clearly structured on the basis of three primary colours i.e. red, green and blue (in terms of stimuli) and their combinations. In this context it might be interesting to note that for the creative process of mixing pigments and creating colours the primary colours are red, blue and yellow. Colours might have a connotation for the individual client. The therapist must be aware that single colour bears multiple meanings. Psychologists have studied non-mimetic qualities of colours e.g. red looks stable, yellow tends to expand and blue suggests introversion or retraction. Same colour bears some personal association evolving personal or cultural idiom and may bear symbolic meaning. Colours may also have a representational meaning eg. Blue sky, Yellow sunflower or Red rose. So when the client starts splashing colours, he or she exposes a complex inner world with several potential layers of meanings thereby opening the opportunity for multiple avenues of exploration by the therapist.



[Fig.9a]: Primary



[Fig.9b]: Secondary & Tertiary

In fact there is a continuity and complementary relation between mimetic and non –mimetic elements. The combination and application of these various elements are abundant in wide range of folk-art, craft, design and highly acclaimed ‘abstract-art’

Therapeutic Methods: The approaches to art-works and the use of process

The structured attempt of art-therapy began around the mid-twentieth century arising independently in Europe and US. In 1940s the artist Adrian Hill was a pioneer in the field of art-therapy. He believed that the client builds up a defense against his miseries and misfortunes by involving himself in art-making. Subsequently Edward Adamson started an art-studio in asylum in UK. Adamson also emphasized on the importance of the exhibition of those art-works or the 'products'. He used such show as an instrument to inter-personal interaction and socio-cultural intervention. In the US in almost same period Margaret Naumberg and Dr. E. Kremer introduced psychodynamic art-therapy. [7,17]

The ideas of Sigmund Freud largely influenced this classical phase of art-therapy. The search for meaning (mimesis) of created images, the projection of unconscious urges of sex and aggression also facilitated catharsis.^[18,19]

Jung's concept of analytical and archetypal psychology also crossed over to art-therapy. Jung believed – Human beings share a similar anatomy, so they also share a common tendency to enshrine their deepest experiences in similar motifs, symbols like 'mandala' and images.

Subsequently 'Mandala' became a multi-cultural idea of 'Art-therapy'. Humans have fascination with the 'primordial-circle'. Sanskrit word 'mandala' means 'sacred circle'. Creation of circular design had been part of spiritual practices of different traditional cultures. It broadly signifies 'wheel of time' or life-cycle. In contemporary practice it often represents unit of life or a cell or outer-world or the universe. In Jungian concept it is described as symbol of 'unconscious self'.^[19]

Gestalt therapist encouraged active participation and enactment of sensori-motor activation. The therapists look beyond the 'meaning' of the 'content' of art-work. He appreciates the expression of the abstract pattern and dynamic wholeness or 'gestalt'. This is a shift from the mimetic to the non-mimetic form of visual expression.

Now-a-days therapists usually prefer to be eclectic and assume that there is a continuity of expression of both the mimetic and non-mimetic components of visual language 'Moreover the mere interpretation of art-work or search of meaning is the task of psychometritian. Basically many psychological tests like Thematic Apperception Test, Rorschach's ink-blot test, Bender Gestalt Test, Draw A Man Test etc.

In contrast to this attitude to detect psychopathology, the therapist primarily encourages the client to build resilience by discharging the pent-up emotions and to provide. Hence the 'process' not the 'product' is considered to be of prime importance.^[20] The therapist stimulates the Creative drive, which is a compulsion to produce new ideas and also the Creative Skill which is an ability to produce a new idea and to reach a creative outcome. Creative process is the act of grasping, nurturing inspiration through experiencing a stimulation or through brain-storming (unlike other activities remembering and forgetting is not crucial) It is not a discipline, it is a devotion.^[21]

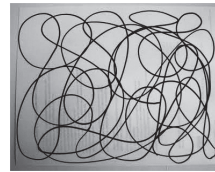
Unlike other methods of psychotherapy, art-therapy is usually conducted jointly by a trained artist and a competent psychologist or psychotherapist.

Such a process includes the handling of different components of the art-form. The medium of art also offers avenue to the sensory experience and may provide cues that open avenues of discourse. Hence the emotional release possible through rubbing a pastel on a sheet may offer special opportunities which water-colour may not offer and which may be relevant in an individual client. Similarly scribbling with pen or splashing colours on canvas might be relevant in certain situations.^[5,20,21]

The usual starting phase often shows a process of scribbling. Scribbling is an immensely powerful way to spur new ideas and explore inner self.^[22] When you are scribbling you are telling your brain to hold off on evaluating the value of the idea. This results in a greater number of ideas in the long run. The process allow relaxation and familiarity with the process of art therapy.



[Fig.10a]: Scribbling



[Fig.10b]: Scribbling

Alternative starting rituals may involve splashing of colours or making some arrangement of different shapes to make a pattern over the space of the paper or canvas.



[Fig.11]: Splash of colour

Here art is considered as a ‘tool’- a tool that serves a rather complex yet straight forwardly important purpose in our existence. When the client starts composing, he wants to remember or exhibit what really matters and thus he tries to make the right choices about what to communicate. So therapeutically ‘good’ art work pins down the core of significance of one self.^[23]

Thus the therapeutic process fosters self-awareness, encourages emotional growth, and enhances relationships with other through access to imagination. The creative process of art-therapy generally has the ability to pick up on allegorical expressions and use of metaphors that are often expressed through creative process of art-activity. Allegory often reveals conflict between human nature and the external world so that metaphors penetrate the conventional shell of the world by juxtaposing objects that have little in common.

Scope of Art-Therapy in India

The advantage of using non-verbal communication in addition to conventional methods of psychotherapy is especially important in a multi-linguistic country like India. In India social-workers have been widely and effectively using art-making in their rehabilitation programme for mentally challenged children, destitute, prisoners and under-privileged group of the society. At the same time, we have rich resources comprising trained artists, psychologists, psychiatrists and psychotherapists and educationists. Unfortunately, in spite of having a sizeable skilled workforce, our mental hospitals, institutes and clinics do not yet provide adequate space and interest in art-therapy. There is a need to form partnerships between this workforce and the institutions to create multi-disciplinary teams e.g. consisting of an artist, a psychotherapist and a social worker and arrangement to provide art-material and set-up to get art therapy started across the country. Therapy in art is concerned with the development of communication-skill of ‘visual-language’. The therapist accordingly needs to be mindful about the temperament of the client before offering materials. Some clients may feel comfortable with pen and ink, some may like fluidity of water colour while others may choose pastel colour to produce rough texture. As visual language has a direct contact with sensory experience, the role of the method and material is important for free expression.

Future Direction: Questions are raised in planning of Psychotherapy (& art-therapy in particular) in respect of sample-characteristics, research-design, procedures, data-evaluation and assessment. [23,24,25] The predominant assumptions of natural science model with the emphasis on quantitative evaluation with predictability, may hardly appreciate the role of art-therapy. We must understand that art therapist emphasize creativity and subjective ways of knowing. The process has the affinity with the qualitative, descriptive, phenomenological, metaphorical and interpretive methods of enquiry. Accordingly the suitable research philosophy and methods to be evolved.^[26]

The inherent conflict and incongruities between the assumptions of natural science model and art-therapist’s typical approaches to human experience has not yet been adequately resolved by evolving appropriate research strategies. Given the complexity of research on art-therapy, the related knowledge accumulating slowly. Hence, compared with global growth of clinical experience in art-therapy, the findings of researchers look very meager. We hope in the next decade methodological advances in evaluation of Art-therapy will lead to stronger link between research & practice.

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INTERFACE WITH LAW

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Abstract

There is an increasing awareness regarding mental health among our population. Along with this, comes an increasing involvement of psychiatry with the law, which forces into focus our attention on the relationship between the psychiatry and law. Legislation forms an essential component in the implementation of mental health care. There is a dynamic relationship between the concept of mental illness and treatment of mentally ill and the law. There is a possibility of increased litigation centered around psychiatric practice in India because of increased awareness about mental illness and awareness about the rights of these people, apart from the increased activities of the civil rights movements and the consumer protection groups. Hence, every practicing psychiatrist should have a better understanding and knowledge about the interface between psychiatry and law. Every practicing psychiatrist, during their day- to-day practice is vulnerable to face civil issues , criminal laws, mental health legislations and other acts related to psychiatry.

Keywords : Legislation, mental health care , interface between law and psychiatry, civil and criminal laws.

In an era in which the pace of changes in every aspect of life seems to be accelerating, the field of psychiatry and law is no exception. Forensic psychiatry focuses on mental health issues that interface with the law. This fascinating field, however , is not an esoteric, isolated sub-specialty. Quite the contrary! In fact, mental health evaluators and experts are increasingly confronted with complex, often, frightening issues that mirror out evolving society.

Almost every aspect of life in the modern society is regulated or affected in some way by law. All civilizations in the world have enacted laws to regulate human behavior, so that, the weakest can live freely and enjoy all his human rights.

Legislation forms an integral component in the implementation of mental health care. It has been known that there is a dynamic relationship between the concept of mental illness, treatment of mentally ill and the law. Because of the increased awareness about the rights of the mentally ill

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and increased activities of the civil rights movements and the consumer protection groups, there is a possibility of increased litigation centre on psychiatric practice in India. Hence, mental health professionals should have a better understanding of the medico legal aspects related to mental health problems.

Psychiatrist have a unique role among medical specialist regarding the law , because they have regular contact with legal issues, lawyers and courts .whether they like it or not , psychiatrist must regularly confront sensitive legal issues. Psychiatrist often gets caught in the middle between what may be legally right and what may be ethically right; because of this interface with the law. Psychiatrist who treat mentally ill persons, need to have understanding of fundamental legal issues and the typical problems they face as practitioners.

In enacting laws for the mentally ill, a recurring dilemma is the conflict between the freedom bestowed in the individual and restraint to be imposed on him for his own and other's protection.

It is universally accepted that the persons, who are mentally ill, require different sets of rules in relation to their rights, responsibilities and liabilities. Not only the society should be protected from the mentally ill , but also, such people should be given care and concern of the society. Of course, the emphasis has varied from time to time and from region to region. It has depended on the state of prevailing knowledge (and ignorance) and the values of the society.

Three fundamental assumptions about the mind are responsible for special consideration about the mentally ill.

- The mind is innocent and does not know the difference between the right and wrong. (Mental sub-normality may also fall in this category)
- The mind is diseased i.e, insane.
- The mind is (temporarily) absent,i.e, automatism.

It is painfully noted that there are mentally ill persons who:

- Cannot grasp the situation, circumstances and the reality
- Cannot understand the consequences of their action (or inaction).

This abnormal mental state is likely to:

- Harm the interests of the other persons, by causing injury to the individual and / or destruction of the property.
- Jeopardize the interests of the affected person also.

There is an increasing awareness regarding mental health in our population. Along with this comes an increasing involvement of psychiatry with the law which forces our attention on the relationship between psychiatry and law.

In the present age of increase in the crime , many a times a criminal pleads “ not guilty “ by virtue

of being insane and the psychiatrist has to appear in the court and testify as to the soundness of mind and to advice about criminal responsibility of the defendant .this is the only one of the circumstances when a punishment comes into contact with law.

Legislation is an expression of the society with regard to the way it views and cares for the mentally ill persons. It has been known that there is a dynamic relationship between the concepts of mental illness , the treatment of the mentally ill and the Law. Social systems , through laws set boundaries of acceptable or mentally competent persons entitled to take an active part in the social, economic and political life of the community. Those people found to fall outside these boundaries and definitions are generally considered mentally incompetent or “insane” , treatment programs also have a legal component in that they are often controlled by laws on admissions and discharge , or on the use of treatment methods or therapeutic drugs, this is likewise the case, where psychiatric services are a part of social programs for the sick and the handicapped , however, it is recognized that “ an access to effective treatment and rehabilitation , and would guarantee full protection of the individual’s rights. Mental Health Administration and Legal Experts have been searching for such a model for many years. Searching for a model law is like searching for the end of a rainbow: the goal , although, eminently attractive can never be attained . in short, “ Model legislation of universal applicability for Mental Health Problems , is an illusion , at times, even a dangerous illusion .”

The development of mental health is chiefly influenced by larger developments in the society. The WHO Expert Committee on Mental Health in its 1955 report was critical of the Mental Health Laws of its day, are as follows:

“Most of the existing Mental Health Legislation is unsatisfactory, although , in some countries , laws based on outmoded concepts of mental abnormality when interpreted liberally, can be made to work fairly well in practice . The greatest single weakness is that purely legal consideration is given too much weight, and medical considerations too little” (WHO,1955)

Forensic Psychiatry is one of the sub specialties in Psychiatry. In the west, Forensic Psychiatry in its various aspects like teaching, training and practice in one of the well developed specialty, whereas in India and in some developing underdeveloped countries still in an infant stage. The practicing psychiatrist and the Post graduates in Psychiatry have very little practical knowledge of forensic psychiatry. Though the IP s has formed a separate specialty section in forensic psychiatry there is not much progress in this area.

The Need to Know the Basic Law Related to Psychiatry

Today the practice of psychiatry is no longer defined by the psychiatrist and the patient; as they were once. The law is omnipotent in the practice of psychiatry; becoming legally knowledgeable is not optional for psychiatrist today. Psychiatrist do need to choose between what is clinically good for the patient and what is legally good for the psychiatrists.(Defensive practice).Defensive Psychiatry practice, intended to protect the psychiatrists with marginal benefit for the patient, is

neither legally nor clinically beneficial. Legally informed psychiatry and good clinical psychiatry do not happen serendipitously; they require specialized knowledge.

Another reason for psychiatrists to experience knowledge of the law is not to respond to a there at, but to assist in achieving in the laws therapeutically potential if properly understood. Psychiatry and the law have much to offer each other.

During the British rule in India, few mental asylum were established and mostly with the aim of removing the unfortunate mentally ill patients from human visibility. The British also brought about written laws and the Indian lunacy act promulgated in 1912. They also brought the so called modern systems of medicine in the country and with it cause the modern trends on psychiatry.

The psycho criminology which deals with interaction before offending and psychiatry, the criminal responsibility focus our attention on the relationship between psychiatry and the law. Patients who require the expertise of a psychiatrist are those who may harm themselves or the society; those who cannot look after their property. The concept of protection of human rights of the mentally ill is gaining momentum. Spouse of mentally ill patients may drag the psychiatrists into court to offer evidence in matters of divorce and nullity of marriage.

Forensic psychiatry is a comparably a new upcoming and developing field in India. The definition of forensic psychiatry, as provided by the American board of Forensic psychiatry and the American academy of psychiatry and law, is as follows "It is a subspecialty of psychiatry in which scientific and clinical expertise is applied to legal issues in legal context, embracing civil, criminal, correctional or legislative matters. Forensic psychiatry should be practiced in accordance with guidelines and ethical principles enunciated by the profession of Psychiatry."

The scope of forensic psychiatry in India is related to the legal provisions as are available in relation to psychiatry patients their implications benefits and drawbacks. The training of Postgraduates in psychiatry include the role of psychiatrist report, presentation in the court when called upon to give opinion about civil matters and criminal matters connected with mentally ill and research in forensic psychiatry.

Legislation and Mental Health Care:

It is the implementation of mental health care. Legislation forms an integral part. There is a dynamic relationship between the concept of mental illness, the treatment of the mentally ill and the law. In the recent past there is an increase incidence of litigation in psychiatric practice in India probable due to:

1. Increased awareness about the mental illness among the public
2. Increased activities of the civil rights and human rights movements
3. Increased intervention by the lawyers and judiciary
4. Increased activities of consumer protection groups
5. Influence of media

Whether we like it or not, psychiatrists are in regular contact with legal issues, lawyers and courts. Psychiatrists are often caught between what is legally right and what is ethically right. Psychiatrists should be in a position to differentiate the concept of medical insanity and the legal insanity. Psychiatrists should have a better understanding of the medico-legal aspects related to mental health problems.

Various Indian Acts Related to Mental Health Care

Mental Health Care Legislation

- A. Mental Health Act 1987
- B. Mental Health Care Act 2016
- C. Persons with Disabilities Act 1996 With amendment act 1988
- D. Juvenile Justice Act (Child Care and Protection Act 2000)
- E. Protection of Children from Sexual Offences Act 2012 (POCSO)
- F. Others like Consumer Protection Act 1986

Civil Laws Related to Person with Mental Illness

- Marriage and mental health legislation; Various laws related to marriage and divorce existing in India and Family Court Act 1984.
- The Evidence Act 1925, sec. 118
- Law of Contract sec 6, 11 and 12
- Right to vote and stand for election Act 326, 102 of the Constitution of India
- Testamentary Capacity- Indian Succession Act 1925, sec 59

Criminal Laws of Mentally Ill Related to Psychiatry

- Mentally ill persons who commit a crime are dealt in sections 328-339, Cr.Pc 1973.
- Criminal Responsibility –Section 84, IPC 1860
- Attempt to commit suicide-Section 309 IPC
- Right to private defence against an insane person-section 98 IPC
- Misconduct in public under intoxication. Example Alcohol intoxication section 510 IPC

Other Special Acts Related to Mental Health

- Narcotic Drugs and Psychotropic Substances Act 1985 (Amended 1988)
- Domestic Violence Act 2005.

A working knowledge of the law that regulates the practice of medicine and psychiatry assists clinicians to provide good care to their patients and avoid unnecessary and counterproductive defence practices. Clinicians cannot be expected to be knowledgeable of the law as lawyers; but they do need to understand how the law and psychiatry interact in various common clinical situations. This understanding should be a core competency for every clinician. Good psychiatry and the law are complementary. Psychiatrists may be better able to address legal misunderstandings of psychiatry by understanding the legal process and what it seeks to accomplish.

The law at times plays an important protective role in the life of clinical psychiatrist. Clinical psychiatrist, like other physicians are the beneficiaries of a host of rights and privileges recognized in our legalistic society. Psychiatric malpractice is a growing one as tort law (civil law). As society increases, its use of psychiatric services, it manifests a greater willingness to hold psychiatrist accountable for the care they provide. Basic elements of clinically based risk management are :

- Patient centered
- Clinically appropriate
- Supportive of treatment and therapeutic alliance
- Working knowledge of legal regulation of psychiatry
- Clinical management of psychiatric-legal issues
- Wellness, not legal agenda
- “ First do no harm” ethic

Conclusion

All practicing psychiatrist and postgraduates should have a better understanding and knowledge about the interface between psychiatry and law. They should be familiar with the various aspects of psycho criminology which includes the relationship between mental illness and crimes, criminal responsibility and others. They should also be familiar with civil issues like (civil responsibility), the role of mental illness in assessing testamentary capacity, fitness to give witness, entering into contract and transfer of property of mentally ill, the right to vote and right to stand for election by mentally ill, the civil issues include marriage ,mental health and Indian legislations. The civil issues also includes the fitness regarding the mentally ill to get driving license and accepting to donate organ transplants. It is very essential for the psychiatrist to understand the difference between medical insanity VS legal insanity. The younger psychiatrists should be thorough in the latest legislations like mental health care act in the future which is going to govern the practice of psychiatry. In the area of child sexual abuse in the recent act POCSO should be familiar with the practicing psychiatrists. All medical institutions having post graduate in psychiatry should sensitize there student s in forensic psychiatry with periodic CME s , guest lectures and also make it mandatory to have training I state psychiatry hospital s where there is forensic psychiatry units. The young psychiatrists should not think that only once is away there are going to face legal problem in their practice only once in a way and somehow or other will manage whenever necessary. Facing the legal problem in psychiatry is akin to a road traffic accident, where even one accident in lifetime may make the person incapacitated or fatal. In future psychiatrist can offer valuable expert service for the welfare of the society at large, safe guard his own interests as well as that of the patients.

Law is the sanctioning discipline and psychiatry is the therapeutic discipline due to various reasons “forensic psychiatry is reared as Cinderella in our country “which is much neglected, ignored, misinterpreted and misunderstood. Practicing psychiatrist s should have knowledge about the practical Implementation and difficulty of various laws regarding psychiatry. Mental health professionals, postgraduates in psychiatry, lawyers, police officers and judicial officers are all expected to know

the basic mental health legislation in India. There should be periodic desensitization programs. The forensic psychiatry in India is to focus following areas:

1. Active training of postgraduates in forensic psychiatry
2. Research activities
3. Better understanding and implementation of the mental health legislations
4. Improving of prison psychiatry units

Finally we have to understand that the majority of psychiatry patients do not require any intervention from the law and can be managed comfortably in day to day practice without any clinical or legal conflicts.

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INTERFACE WITH PARAPSYCHOLOGY

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Introduction

The interface of Psychiatry with Parapsychology must be examined objectively and rationally because they both deal with experiences which are out of the ordinary and are therefore either deviant or different. They are of great theoretical as well as practical value because it is incumbent upon the therapist to decide as to when, how and how much to intervene to bring relief to the suffering individual in great mental distress and consequential dysfunction and danger. Psychiatry has so far associated itself only with the disciplines of Psychology, Neurophysiology, Sociology and a few others. Parapsychology has so far remained completely marginalized, even though it deals quite intimately with the phenomena that Psychiatry deals with. Parapsychology does not find a place even in the standard textbooks of Psychiatry. A very basic difference between the two should be understood. Parapsychology deal with paranormal experiences, whereas Psychiatry deals with abnormal experiences. Paranormal refers to experience of real events and entities through unknown channels whereas abnormal refers to experience of non-existent events and entities through seemingly known channels. This provides the rationale for examining the interface between Psychiatry and Parapsychology. The first step would be not to dismiss it straightway or to consider it psychopathic by default.

Definitions

Psychiatry is a medical discipline which deals with the study of causes and treatment of mental disorders. Psychology is the scientific study of behavior and experience. Parapsychology refers to supposedly scientific study of behavior and experience which manifest independent of or without subservience to the known laws of space, time and causality. Paranormal phenomena are also referred to as Psi phenomena. From a purist perspective, Parapsychology should also be considered an integral part of Psychology itself because paranormal experiences also find their expression through the medium of Mind only, which is in the domain of Psychology.

Para-psychology is divided into two main branches: a) extra-sensory perception (ESP) which is the study of communications ostensibly without participation of the known sensory organs and, b) psychokinesis (PK) or the study of physical events that apparently occur without involvement of any recognized motor organs.⁽¹⁾ Parapsychology has gained wider recognition primarily because of

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J.B. Rhine's pioneering work in experimental parapsychology at the laboratory of Duke University where researchers successfully used statistical tools to demonstrate that psychic phenomena are dormant in ordinary people, and not necessarily confined to people who overtly demonstrate such gifts.⁽²⁾ It was only after his contributions that this word has gained access in common parlance.

Differences

Most of the things in this universe are more similar than different, which obviously will depend on the perspective from which we are examining the said entities. The same applies more appropriately to Psychiatry and Parapsychology also. As has been mentioned earlier, there may be phenomenological similarities between parapsychological experiences and psychiatric conditions. However, with adequate knowledge and training a detailed evaluation would show that the two conditions are entirely different and require different management strategies 10. A psychiatrist who is not at least open-minded about the possibility of paranormal experiences will almost certainly be unable to distinguish psychopathological from paranormal and equally unable to assist the occasional person who is perplexed about unusual paranormal experiences that he would like to report and discuss with someone outside his family.⁽¹⁾ Unless and until more and more professional attention by larger and larger number of mental health workers is given to the possibility of encountering the generally fleeting parapsychological events in their day to day clinical and paraclinical works, the expansion of this interface and emergence of newer relevant insights would not occur. Parapsychological entities have not found any formal place in any of the nosological systems of Psychiatry.

Certain points which can help in differentiating between parapsychological experiences and psychopathological states of mind have been mentioned in the literature, which can help in differential diagnosis of various psychiatric conditions. Points of differentiation⁽¹⁾ are as follows:

- i) The difference lies in the correspondence between the content of the claimed experience and independently verifiable occurrence of that event at a distant place. The details of parapsychological experiences correspond with an actual event whereas hallucinations or delusions of psychotic patients do not.
- ii) Paranormal experiences usually last for a few minutes and rarely recur or do so only infrequently whereas psychopathological events occur on a sustained basis and recur quite frequently.
- iii) Paranormal experiences are more commonly visual than auditory, psychopathological hallucinations on the other hand are more auditory than visual.
- iv) Patients experiencing psychopathological hallucinations are usually strongly convinced of their reality and have no interest in having them verified while this is not so with people having paranormal experiences.
- v) Similarly, psychopathological delusions have no relation with reality but are expressed and experienced with inflexible conviction associated at times with inappropriate emotions.

Paranormal experiences do not always have a pathological significance. It has been part of anecdotal personal experience of many.

Interface

Even though the famous psychiatrist and philosopher Karl Jaspers, in his book *General Psychopathology* (Jaspers, 1913/1997), stated that all claimed paranormal phenomena could really only be manifestations of psychiatric symptoms. However later advances of psi research based on scientific protocols and the resultant changes in epistemology of parapsychology that occurred in the nineteenth and twentieth century, modified to some marginal extent at least, psychiatrists' opinions about psi phenomena. ⁽³⁾

It has been opined that 'parapsychology helps us to develop a deeper understanding of mind, affording us fresh insights into psychopathology. A notable example is that it enables analysis of near death experiences, assisting in the study of the process of dying and it also illuminates the inner psychological life of the individual. Survival research has notable usefulness on account of its applicability in counselling grieving families and helping suicidal patients. Furthermore, it is relevant in a number of issues that are currently matters of debate, such as euthanasia. Parapsychology can also function as an effective mediator between religion and psychiatry. It is conceivable that it may assist in the testing out of some of the contentious aspects of religious belief.'⁽²⁾

Variety

A variety of different types of paranormal phenomena have been described in different types of literature from time immemorial and surprisingly in almost all cultures and countries of the world. Some of the major types are given below.

Telepathy: Telepathy refers to mind to mind communication through means other than the normal senses. The apparent communication between two minds without the use of known sensory channels was initially called 'thought transference' and later came to be known as telepathy. Telepathic communications usually occur between persons who share a bond of affection or love. Such experiences most commonly have been reported among members of the same family and close friends; marital partners experience telepathic communications as frequently as do members of the same biological families. In other words, the bond between the persons concerned is emotional rather than physical or genetic one. Sometimes even physical symptoms have been reported to be precipitated by telepathic communications. Apart from family members and close friends, a few psychiatrists have reported telepathic links with their patients. Jung has reported to having unexpectedly experienced severe headache when his patient shot himself in the head. ⁽¹⁾

Precognition: Precognition refers to knowledge of an event that has not yet occurred, or information that appears to have been transferred from the future into the present. In this form of ESP, an individual experiences awareness of future events in the absence of the possibility of having access to any kind of source of rational inference. It may occur while awake or in dream and vary in the quantum of precise details perceived about the future event. Precognitive experiences are usually unpleasant when they occur and are generally concerned with accidents, deaths or other disastrous events. This may lead to severe distress, depression and sometimes to marked guilt feelings due to irrational self-blame. This has both diagnostic and therapeutic implications. Precognition per-se

may not be pathogenic. On the contrary, there are a number of instances recorded in the literature which show that because of these experiences some persons were forewarned of the impending dangers and could be saved from them and hence may be regarded to serve an adaptive function. ⁽¹⁾

Retro-cognition is a related phenomenon wherein individual displays the knowledge of a past event that could not have been learnt or inferred by normal means.

Clairvoyance: Clairvoyance or Remote Viewing refers to knowledge of objects, people, or events that are hidden via space or time. For example, an object hidden in a box in a different room, a photograph sealed in an envelope, an event that is occurring to a loved one who is thousands of miles away, or the characteristics of a room that only existed in the past.

Psychokinesis: Psychokinesis or telekinesis is an alleged psychic ability allowing a person to influence a physical system without physical interaction. It is like Mind interacting with Matter at a distance without an intervening physical link. The word 'psychokinesis' was coined in 1914 by American author Henry Holt in his book 'On the Cosmic Relations'. ^(Wiki) On closer scrutiny it appears that some phenomena very similar to psychokinesis is constantly in operation within the mind-brain system of every individual. The non-physical component of the mind influences the brain through 'internal psychokinesis' to allow the execution of voluntary motor actions and various executive mental functions. Every time we decide to carry out a task or speak out a thought, this phenomenon of mind acting upon the matter, takes place. Even though qualitatively and contextually different, it is also a kind of psychokinesis. Paranormal healing or faith healing is also sometimes included in this category.

Reincarnation: Reincarnation is one example of the survival of consciousness in a disembodied or discarnate form. Other examples of paranormal survival of consciousness even after death of physical form are apparitions, near death experiences, out of body experiences, ghost activities including poltergeist phenomena and mediumship phenomena,

Spontaneous cases of reincarnation, mostly seen in children, have been repeatedly observed and reported from almost all cultures and countries of the world. Nearly 2600 reported cases of the reincarnation type have been scientifically investigated in several cultures over the past about five decades. In 64-80% cases a deceased person matching the statements of child was identified. Cross-cultural comparisons have shown that certain features recur across cultures, which are; age of speaking about a previous life (between 2 and 4 years), age of discontinuation of talk about previous life (usually between 5 and 8 years), high incidence of violent death (63%) of the previous personality, far beyond the rate of violent death in the general populations of the respective countries, and high frequency of mention, by the subjects, of mode of death (78%) in the previous life, other features such as sex change and intermission between two lives vary between cultures. ⁽¹⁾

However, no case should be taken as a case of reincarnation type without carefully excluding normal and paranormal explanations. The phobias and phobias of infancy, unusual play in early childhood, a child's idea of having parents other than its own or non-acceptance of parents, differences in temperament manifested soon after birth, unusual birthmarks and their correspondence with wounds

on a deceased person, unusual birth defects, cognitive, physical and behavioral differences between monozygotic twins reared together, gender identity disorder, and similar disorders or abnormalities reported in psychology, child psychiatry or medicine that cannot be explained in terms of known influences of genetics or environment, either alone or in combination might find an explanation in the hypothesis of reincarnation. ⁽¹⁾

Apparitions: ‘A visual appearance, usually manifesting only once or rarely, which suggests the presence of a deceased person or animal or of a living person or animal not within the sensory range of the percipient. Such communications are perceived in visual and auditory modalities and occur usually in a state of altered consciousness. A considerable number of authentic cases have been documented wherein images (apparitions) of persons in crisis have been perceived by their close relatives or friends.’ ⁽¹⁾

Near Death Experiences: Many people when they are close to death, report later on, that they had undergone profound, transcendent experience of having moved out of their body and the ordinary constraints of time and space.

‘Although NDEs occur to psychologically healthy individuals, they have been mistaken for psychopathological conditions.’ NDEs have been compared with depersonalization, autoscapy, psychoactive substance-induced hallucinations, post-traumatic stress disorder and brief psychotic disorder. Regardless of their cause, the after effects of NDEs have been, by and large, beneficial to the experiencers in personal growth in the form of increased spirituality, generosity and concern for others, decrease in fear of death and forgiveness.’ ⁽¹⁾

Out of Body Experiences: An out-of-body experience (OBE) is an experience that typically involves a feeling of floating outside one’s body and, in some cases, the feeling of perceiving one’s physical body as if from a place outside one’s body (autoscapy). OBEs can be induced by brain traumas, sensory deprivation, near-death experiences, dissociative and psychedelic drugs, dehydration, sleep, and electrical stimulation of the brain, among others. It can also be deliberately induced by some. One in ten people have an OBE once, or more commonly, several times in their life.

Neuroscientists and psychologists regard OBEs as dissociative experiences arising from different psychological and neurological factors.

Poltergeists: This German word literally means a ‘noisy ghost’. It refers to a type of ghost or other supernatural entity which is responsible for physical disturbances, such as loud noises and objects being moved or destroyed. ^(Wiki) ‘Such occurrences have been reported even in ancient literature. However, in the past century, a number of authentic cases have been recorded by the investigators of such phenomena that they were able to witness themselves, at first hand.’ ⁽¹⁾

VALIDITY

Future of Parapsychology will depend on whether or not the issue of validity for paranormal phenomena gets unquestionably established in a manner that is comparable to the definitiveness of scientific methods. A considerable number of cases of paranormal experiences have been carefully

investigated, found authentic by independent investigators, and published in the scientific books and journals of high standards. Suffice it to say that enough evidence is available on the authenticity of the phenomena to understand its relevance to psychiatry. Independent surveys of general populations have shown that between 10% and 15% of persons reported having had communications from persons not in contact with them; perception of such communications generally occurs in visual or auditory modalities. Such visions usually occur during an altered state of consciousness (dozing or daydreaming) and the person perceived is usually a close relative or a friend in a crisis or stressful situation, often in a life-threatening situation. Some of the persons having such experiences may be confused or perplexed. ⁽¹⁾

The issue of validity applies also to psychiatric categories. The validity of nearly all nosological psychiatric categories remain to be established. However, there has been good progress as far reliability in identifying these categories is concerned. Parapsychological entities have difficulty with both validity and reliability in terms of replicability. However both psychiatry and parapsychology deal with entities which are not amenable to direct observation in the same way that other worldly and natural phenomena are available to sensory cognition.

The argument of theoretical implausibility of paranormal phenomena gets contradicted by the observations of the modern physics subsumed under the rubric 'Paraphysics'. 'The view held by classical physicists that two objects cannot occupy the same space at the same time has given way to the observations made by Klauber that two subatomic particles can exist together just as two waves rolling over the ocean heading in opposite directions and passing through each other unhindered, occupy the same area of water surface for a time.' ⁽²⁾ This generates the stage for possible theoretical acceptance of coexistence of material brain and subtle mind within the same space. The discovery of physical properties of Neutrino and similar other subatomic particle has raised the hope that the Physics of sub-atomic particle might provide answers to at least some of the mysteries of Mind and may be of other occult phenomena. To understand this, one has to go back to the era of discovery of X-Rays for which Roentgen was awarded Nobel Prize in 1901. For the first time in history of Mankind, people came to know that there are rays which can cross through human flesh and cast shadow of his bones on a photographic plate. This was miraculous at that point of time but it was very much within the laws of Nature. The relevance and utility of X-Rays continues to be maintained even after more than a century. It is possible therefore that there may be subtler rays and particles with other more differentiated functions. 'Trillions of neutrinos are passing through one's body every second and yet no one is able to detect them. They pass through matter virtually without our being aware of their presence. One can only imagine the existence of similar unknown particles not coupling with physical fields, constituting other worlds co-existing with ours. The right-handed electrons and quarks have been proven to exist. Thus, there may be a variety of neutrino-like particles, in the sense that they are tenuous and imperceptible and it may be conjectured that the extracerebral component of the 'mind stuff' may be partly or fully composed of such diverse particles. Our bodies are made up of leptons and quarks, unobservable with the present-day instrumentation. Subtle realms may be made of such 'particle families', coexisting with our physical world without our being aware of their existence. Thus, extra dimensions have been

postulated based on elementary-particle physics evidence and the possibility of our consciousness drifting over to other dimensions has been speculated.’⁽²⁾

Inspired by the shadow matter theory of astrophysics, Wassermann proposed a Shadow Matter theory for living beings as having a twin body made of heavier ‘Matter Proper’ along with lighter ‘Shadow Matter’. Given that the density of Shadow Matter universe is much less than the ordinary matter, the Shadow Matter body is immensely lighter than ordinary matter body. According to this theory, every quark in the nucleus of an atom can bind a corresponding Shadow Matter quark. So also every electron can bind a Shadow Matter electron. From this hypothesis it follows that every atom made up of quarks and electron can bind a Shadow Matter atom. Our ordinary matter brain will have a corresponding Shadow Matter brain bonded with the ordinary brain. The binding force of shadow Matter body and physical body is supposed to be the gravitational force.⁽²⁾ The subtler shadow matter brain may be the bearer of mental functions. The ‘new’ physics may bring in more answers for the psychiatric patient in future than their modern doctors of science have today. Therefore, all the possibilities that the validity of paranormal experiences may get established as a natural or supernatural phenomena has not exhausted as yet.

Carl Jung, who was deeply interested in parapsychological events, has described the collective unconscious, which serves as man’s repository for all history’s archetypes. He comments in ‘Psychology and the Occult’ (1977) that ‘anyone who has the least knowledge of the parapsychological material which already exists and has been thoroughly verified will know that so-called telepathic phenomena are undeniable facts’. He describes how synchronicity occurred in his own life and served to guide him to his discoveries, very much like those Nobel Prize winning physicists noted in Koestler’s book ‘The Roots of Coincidence’, who believed they had been guided to answer scientific problems via synchronistic events, even while attempting to discern the phenomena ‘scientifically’.⁽⁴⁾ Jung coined the word “synchronicity” to describe “temporally coincident occurrences of acausal events.’ The theory of Synchronicity is culmination of Jung’s lifelong engagement with paranormal phenomena.^(Wiki)

Criticism

Just as there are strong and committed believers in the reality of paranormal phenomenon, there are equally strong critics and opponents of this concept, who consider this whole area as full of fraud and deception. Many doyens and stalwarts of Parapsychology were found to be resorting to deception as reported by a few other authors. However, there are also many diehard and honest believers who are committed on the basis of personal experience and anecdotal evidences.

All such criticisms of parapsychology must be understood against the backdrop that one of the basic flaws of science of parapsychology and also psychology is that it applies the methods of scientific investigation to a field where it is not strictly applicable. Scientific methods are applicable to observable phenomenon. Neither Mind nor Psi are phenomena which are observable in the traditional sense by the perceptual apparatus.

The philosopher Raimo Tuomela has summarized as to why much of parapsychology is considered

a pseudoscience in his essay “Science, Protoscience, and Pseudoscience”:⁽⁵⁾

- Parapsychology relies on an ill-defined ontology and typically shuns exact thinking.
- The hypotheses and theories of parapsychology have not been proven and are in bad shape.
- Extremely little progress has taken place in parapsychology on the whole and parapsychology conflicts with established science.
- Parapsychology has poor research problems, being concerned with establishing the existence of its subject matter and having practically no theories to create proper research problems.
- While in parts of parapsychology there are attempts to use the methods of science there are also unscientific areas; and in any case parapsychological research can at best qualify as prescientific because of its poor theoretical foundations.
- Parapsychology is a largely isolated research area.

One very important criticism of this field is the lack of predictability and replicability of paranormal phenomena. However, lack of predictability should not be taken as foolproof evidence for lack of validity. It simply indicates that the phenomenon cannot be brought under predictable voluntary control. There are many other normally available human abilities which are not under strict voluntary control, such as creativity and innovativeness. They are different from the ‘standard’ psychological phenomena or processes such as attention, perception or memory. Creativity cannot be commanded at will. It is a transcendental expression based on inspiration. It is possible therefore that glimpses of paranormal experiences that many reasonable people authentically report, may actually be true and valid. The subtle phenomenon of Psi cannot be brought down to the level of crude matter. Across the whole of science, rates of successful replications are relatively low. According to one 1994 survey, the success rate for replication across all social and physical sciences was only 41 percent. In other words, it appears that the replication criteria applied to ESP experiments are unduly harsh.⁽⁶⁾

The mental and the material are qualitatively different and therefore cannot be measured by the same yardstick. They are likely to exhibit different properties and characteristics. Taken together also, they cannot be conceptualized to represent the whole truth. It would be irrational therefore to assume that human beings have an objective and complete awareness of total reality, and that there are no natural laws or phenomena or forces beyond those we can presently detect or conceive of.⁽⁶⁾

Implications

Scientists and Philosophers have both ventured to conjecture on the nature of Mind from time immemorial but have not made any progress of such nature that can be understood by people of all pursuits of knowledge. The moment we accept that parapsychic phenomena are valid and real, we lay the foundation of its relevance to Psychiatry. Acknowledgement of the validity of paranormal phenomenon will very fundamentally change the mindset and explanatory models of psychiatrists as they will not jump to inference of psychopathology at every mention of paranormal experience. Their schemas of conclusion will allow them to accept that so called paranormal experiences

might at times be experiences of normal people with normal mental processes. Examination of the interface with parapsychology is likely to be the most fertile interface to explore from the point of innovations and breakthrough to understand the mysteries of mind

‘It is important to emphasize that when an individual with psi abilities lives in a culture that may not believe in or recognize his claimed paranormal or otherwise exceptional experiences, this rejection may cause him to react in several ways. The experient may deny his own experiences and consciously or unconsciously suppress them; this may lead to a variety of compensatory behaviors. The subject may become distressed due to social rejection. This, again, may interfere with his functioning and manifest itself with anxiety or other neurotic features and, at the same time, he may find his subjective experience quite difficult to handle. Therefore, he may become uncertain as to whether his experiences are indeed real or just a figment of his imagination. This may disturb his reality testing, since he does not have anything that he might compare personal experiences with. Consequently, psi experiences could potentially precipitate into psychiatric diseases, into psychosis in particular. In some ways, a personal psi experience can variously produce fear of insanity due to the misunderstanding of one’s subjective experiences that leads to a morbid preoccupation with psychic experiences, feelings of isolation, psychosomatic symptoms, anxiety and affective disorders.’⁽³⁾

Future

Future is full of immense potentials emanating out of this interface between Psychiatry and Parapsychology. Only a few centuries ago Psychiatry was not a known branch of science even though psychiatric phenomena were described millennia ago. Parapsychology too is poised for a leap. In the 1970s this field of research was known as Metapsychiatry. With increasing validation of parapsychology as an acknowledged and established branch of knowledge, the doors would be flung wide open for completely new, integrated and comprehensive nosology for psychiatric conditions, for clinical parapsychology, for parapsychopharmacology, for parapsychological counselling and psychotherapy, for interfacing with spiritual therapy, prayer healing, faith healing and many more which hitherto fall in the despicable basket of occult and magic. One of course must be honest, selective and objective.

Conclusions

However, it should be kept in mind that although it is important to be alert to the possibility of paranormal experiences being presented independently or as an integral or coexistent part of other psychopathologies, the psychiatrists should be extremely careful in evaluation of such experiences. Because there may be boasters, braggers and imposters presenting or claiming credit for pseudo-paranormal experiences. Satwant Pasricha summarizes that Para-psychology is relevant to psychiatry in the following spheres: First, its knowledge would assist mental health professionals in differentiating paranormal experiences from psychopathological phenomena leading to adequate treatment strategies. Second, it would enhance understanding of certain medical, psychological and psychiatric disorders that cannot be explained in terms of currently available theories of the genetic

or environmental influences. Third, it would facilitate advancement of knowledge in brain/mind relationship. ⁽¹⁾ Furthermore, this is the best way to emphasize the wholeness of mental health and the deep value of considering the patient as a full human being even if he or she has a paranormal experience. This is a very important starting point for the emerging development of a person-centered psychiatry. ⁽³⁾

Parapsychology lies in the borderland between Science and Spirituality. Any major breakthrough in this area might prove to be the much-sought after providential bridge between the two.

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