Cultural Aspects of Major Mental Disorders: A Critical Review from an Indian Perspective

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ABSTRACT

Major mental disorders such as schizophrenia and affective disorders are highly disabling illnesses. The cultural factors that influence the diagnosis and treatment of these disorders are of paramount clinical significance. We attempted to critically review the cultural factors in relation to the epidemiology, phenomenology, treatment, and outcome of major mental disorders from an Indian perspective, and tried to compare these with the cultural factors identified in major international studies. The clinical expression of major mental disorders was noted to vary across cultures in the review. In addition, the outcome of major mental disorders is reported to be better in developing nations than in the developed countries. Transcultural variations are also noted to exist in pharmacokinetics, pharmacodynamics, traditional healing practices, and psychotherapeutic approaches. The role of cultural factors in severe mental illnesses needs adequate attention from mental health professionals. Continued research on the cultural aspects is required to understand the interplay of all social, cultural, and biological factors. It is important to consider other cultural, traditional, and folk methods for understanding and management of mental illnesses.

Key words: Bipolar, culture, schizophrenia

CULTURE AND MAJOR MENTAL DISORDERS

The phenomenology of major mental disorders (schizophrenia and affective disorders) is recognized in all parts of the world. It was previously assumed that culture merely plays a patho-plastic effect on the strong central biological pathogenesis of these disorders. However, current understanding is that culture has multiple roles to play in the expressions of psychopathology. These are as follows:

1. Pathogenic effects – Culture is a direct causative factor in forming or generating illness
2. Patho-selective effects – Tendency to select culturally influenced reaction patterns that result in psychopathology
3. Patho-plastic effect – Culture contributes to modeling or shaping of symptoms
4. Patho-elaborating effects – Behavioral reactions become exaggerated through cultural reinforcements
5. Patho-facilitative effects – Cultural factors contribute to frequent occurrence
6. Patho-reactive effects – Culture influences perception and reaction.

Culture influences the epidemiology, phenomenology, outcome, and treatment of schizophrenia and affective disorders. We review the effects of culture in each of these parameters.
CULTURAL INFLUENCE ON EPIDEMIOLOGY

Schizophrenia

Prevalence
A large number of studies [Table 1] have estimated the prevalence of schizophrenia. Although there are methodological differences, most have found a point prevalence of between 1.5 and 7 per thousand populations at risk. There were pockets of high (e.g., Ireland) and low (e.g., New Guinea) prevalence. Much of the evidence points toward equal prevalence in Asia and the West, although inconclusive. A meta-analysis of 188 studies from 46 countries calculated median lifetime prevalence as 4.0 (1.6-12.1).[3] The prevalence of schizophrenia in “least developed” countries was significantly lower than in the “emerging” and “developed” countries. Indian studies have suggested that the prevalence of schizophrenia is lower in India than in the West.[4] One reason for this difference could be underreporting.[3]

Incidence
The incidence of schizophrenia is comparable across cultures. There are differences based on whether a “narrow” or “broad” definition of schizophrenia is used [Table 2]. Studies that have used broad definition (International Classification of Diseases (ICD)-8, ICD-9) have found incidence rates between 0.17 and 0.54 per thousand populations, whereas studies that have used narrow criteria (ICD-10, Diagnostic and Statistical Manual of Mental disorders (DSM)-III) have found incidence rates to be much lower. The WHO 10 country study (DOSMED–Determinants of Outcome of Severe Mental Disorders) was a cross-cultural epidemiological study aimed at determining the incidence of schizophrenia in various cultures.[6,7] The incidence rate in the broad diagnostic group was 0.15-0.42 per 1000 and there was significant difference across areas. The rate for “restrictive” diagnostic group was 0.07-0.14 per thousand and the difference across areas was nonsignificant. These results have been replicated in similar studies.[8,9] In another transcultural study, it was found that late-borns were more prone to develop schizophrenia in West, whereas early-borns were more susceptible in India.[10]

Affective disorders
The WHO collaborative study of mental illness in primary care attendees[11] studied rates of depression in 15 countries. The rates varied greatly from 2.6% to 29.5%. However, this study did not use an unselected community sample. The Diagnostic Interview Schedule (DIS)[12] and the Composite International Diagnostic Interview (CIDI)[13] have been used in large surveys to make case-finding techniques uniform. Using the DIS, 12-month prevalence rates were found to range between 0.8% and 5.8%. European nations had higher rates of depression than the United States (two- to threefold), whereas the rates in East Asian countries were low. Using ICD-10 criteria/Clinical Interview Schedule–Revised (CIS-R), the range was 1.7-5.5%. Lower rates were found in the Goan community survey and higher rates were found in Chile. Also, the prevalence rates were particularly low in African countries. A list of studies using DIS/CIDI/CIS-R is given in Table 3. The prevalence of affective disorders has been found to be lower in most Indian studies than the West.[4]

CULTURAL INFLUENCE ON PHENOMENOLOGY

Schizophrenia

Subtypes
The first systematic examination of schizophrenia...
subtypes\(^{14}\) found that catatonic subtype was rare in the West, hebephrenic subtype was common in Japan, and simple subtype was common in Asia. The International Pilot Study of Schizophrenia (IPSS) sheds more light on this issue.\(^{15}\) Paranoid schizophrenia was the commonest subtype (40%). The hebephrenic subtype (11%) was more prevalent in Cali and Taipei, whereas the catatonic subtype (11%) was more in developing countries (Agra, Cali, and Ibadan). Another transcultural study, International Study on Psychotic Symptoms (ISPS) found the catatonic subtypes to be equally prevalent in all sites; this may be due to the use of DSM-IV criteria for examining catatonic subtypes.\(^{14}\) Greater linguistic competence leads to more elaborate, systematized delusions, and poorer prognosis. Low linguistic competence prevents delusional elaboration and manifests catatonia. Cultural defenses and modal personalities also play a role in the differential expression of psychopathology.\(^{16,17}\)

Other symptoms: Negative symptoms and neuropsychological deficits are common in most cultures. There are differences in the frequency of types of negative symptoms between patients in India and the United States.\(^{29}\) Symptoms in schizophrenia such as not eating, not sleeping, and negative symptoms were reported to be more distressing in Indian patients, compared to aggression and positive symptoms among those from UK.\(^{30}\)

Reasons for cultural differences in psychopathology: Cross-cultural differences in language and thought result in cross-cultural differences in symptoms and subtypes.\(^{31}\) Greater linguistic competence leads to more elaborate, systematized delusions, and poorer prognosis. Low linguistic competence prevents delusional elaboration and manifests catatonia. Cultural defenses and modal personalities also play a role in the differential expression of psychopathology.

### Affective disorders

Culture greatly influences the way in which depressive symptoms are expressed. In the WHO collaborative study on standardized assessment of depressive disorder,\(^{12}\) 583 patients in five centers (Basel, Montreal, Tehran, Nagasaki, and Tokyo) were assessed for core depressive symptoms. Most of them had in common features of sadness, anhedonia, lack of interest and energy, impaired concentration, and ideas of worthlessness. Feelings of guilt and suicidal ideations were least common in Tehran. Indian studies have also found guilt to be less common among Indian patients than those in the West;\(^{33,34}\) in addition, they reported guilt of an impersonal nature: The present suffering is attributed to possible bad deeds of previous life (consequence of “Karma”) rather than due to self-failure as in the West.\(^{3,35}\) Studies in India have reported physical symptoms to be common presenting symptoms in depression.\(^{16,37}\) A comparison of depression in Western and non-Western societies noted that disorders of conduct and somatic complaints were more common in non-Western cultures.\(^{38}\)

There have not been many comparisons of the

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**Table 3: Prevalence studies of depressive disorder**

| Study                  | Country   | Instrument | N  | Lifetime prevalence (%) |
|------------------------|-----------|------------|----|-------------------------|
| Bland et al. (1988)    | Canada    | DIS        | 3258 | 9.6                     |
| Hwu et al. (1989)      | Taiwan    | DIS        | 11004 | 1.5                    |
| Robins et al. (1991)   | USA       | DIS        | 19182 | 4.9                    |
| Chen et al. (1993)     | Hong Kong | DIS        | 7229 | 3.7                     |
| Kessler et al. (1994)  | USA       | CIDI       | 8098 | 17.7                    |
| Rihmer et al. (2001)   | Hungary   | DIS        | 2953 | 15                      |
| Singleton et al. (2001)| UK        | CIS-R      | 10108 | 2.3                    |
| Araya et al. (2001)    | Chile     | CIS-R      | 3870 | 5.5                     |
| Thavichahart et al. (2001)| Thailand| CIDI       | 2948 | 19.9                    |
| Patel et al. (2006)    | India     | CIS-R      | 2494 | 2                       |
| ESEMeD (2006)          | Europe    | CIDI       | 21425 | 12.8                   |

DIS - Diagnostic Interview Schedule; CIDI - Composite International Diagnostic Interview; CIS-R - Clinical Interview Schedule-revised
phenomenology of mania between cultures. Indian bipolar patients have preponderance of mania in contrast to patients in Western countries.\(^{39}\) Indian studies have found higher prevalence of grandiose delusions, delusions of persecution and reference, and those related to sexual and religious themes than in the West.\(^{40}\) Hostile irritability is the predominant affect in Indian manic subjects.\(^{41}\) There are reports of seasonal occurrence of mania in summer season, which is not reported in the west.\(^{40,42}\) Recurrent unipolar mania is commoner in India and tropical countries than in temperate western countries.\(^{42}\)

**CULTURAL INFLUENCES ON OUTCOME**

**Schizophrenia**

The IPSS was a landmark study which identified differences in the course and outcome of schizophrenia between cultures.\(^{7,43-45}\) This study evaluated 1202 patients from nine countries. At 5-year follow-up, a more favorable outcome was observed in developing countries in comparison with that in developed countries. India and Nigeria had the highest percentage with best outcome (66%) and the lowest percentage with worst outcome (10%), respectively. The major limitation of the study was that the sample was not an epidemiological sample. To circumvent this limitation, the DOSM Edwards\(^{46}\) used an epidemiological sample from 12 centers in 10 countries and recruited 1379 subjects in 2 years. As observed in IPSS, there was favorable outcome in developing countries in comparison with that in developed countries. The Madras longitudinal study,\(^{47,48}\) and the study of factors associated with course and outcome of schizophrenia (SOFACOS)\(^{49}\) again demonstrated that two-thirds of schizophrenia patients in India have partial to full remission of symptoms. However, cognitive function, quality of life, and effect of medication have not been extensively researched in studies from these countries.\(^{50}\)

**Affective disorders**

The outcome of affective disorders has been found to be favorable in India than in developed countries. In a 4-year follow-up of first-episode manic patients from Ranchi,\(^{51}\) 40% of the patients did not have any recurrences and 25% had one recurrence. In the Chandigarh acute psychosis study,\(^{52,53}\) 17 depressive and 21 manic subjects were followed up for 1 year. Three-fourths of the subjects had no symptoms or social impairment at the end of follow-up. In a follow-up study of 92 depressed patients for 5-10 years, it was found that 36% of the subjects had no recurrence of symptoms.\(^{36}\)

**CULTURAL INFLUENCES ON TREATMENT**

**Pharmacotherapy**

Various cultural differences exist in the way drugs are prescribed, the way they are metabolized and excreted, and the way individuals respond to medications. Many of these variations are secondary to genetic mechanisms. In addition, nongenetic factors such as medication acceptance and adherence, drug availability and affordability, and explanatory models about illness also play an important role.\(^{54}\)

**Pharmacokinetics**

Every drug taken by a person needs to be absorbed, metabolized, distributed, and excreted. It is the process of metabolism which usually leads to variations between individuals of different backgrounds.\(^{55}\)

Cytochrome p450 (CYP) enzymes are the most important enzymes for drug metabolism. CYP2C9, CYP2C19, and CYP2D6 account for nearly 40% of human hepatic metabolism phase I. CYP2D6 metabolizes many psychotropic medications, including antidepressants and antipsychotics. Based on how the drugs are metabolized, there are ultra-rapid metabolizers (UM), extensive metabolizers (EM), intermediate metabolizers (IM), and poor metabolizers (PM).\(^{56}\) These variations are secondary to allelic variations of the CYP2D6 gene.\(^{57}\) The frequencies of variant alleles differ among ethnic groups. The frequency of PM is much higher in the Asian population than in the Caucasian or African population.\(^{58}\) Slower drug metabolism leads to poorer drug response and more adverse effects.\(^{59}\) Nongenetic factors which affect CYP450 enzymes include smoking and diet. For example, a diet rich in cabbage and broccoli can increase the activity of CYP1A2 enzyme.

**Pharmacodynamics**

Pharmacodynamic mechanisms include transporters, receptors, and key enzymes in neurotransmitter biosynthesis and catabolism. Genetic polymorphisms involving these mechanisms can lead to alterations in drug responses between ethno-cultural groups. For example, Asian subjects with schizophrenia require lower haloperidol dosages and lower plasma concentration for drug responses than Caucasians, possibly mediated by dopamine receptor-related mechanisms.\(^{53,56}\) They also develop side effects on low doses.\(^{34}\)

**Differences in clinical practice**

Physical treatments are used more often used in India and other developing countries (e.g., Electroconvulsive therapy). The roles of family members are very different transculturally. They play a more significant role in
treatment in an Indian setting. Communicating with patients and families regarding diagnosis, illness, and care is an art that needs to be attuned to individual cultural frameworks. Follow-up rates were poorer in those whose sociocultural beliefs were contradicted. In addition, the nature of expressed emotions and life events differ between cultures.

**Coping with severe mental illnesses**

Indian patients with schizophrenia used less number of coping strategies compared to German patients. Indian patients endorsed strategies of avoidance, relaxation, and meditation, and waited for situation to change. German patients sought medical help, counseling and problem solving. The degree of perceived stress was lower among Indian patients, possibly due to better family support.

**Stigma associated with severe mental illness**

Rural Indians had higher stigma scores and deployed punitive measures to deal with severe mental illness (SMI). Urban Indians and not rural Indians showed more discrimination to work with SMI. Urban Indians hid their illness and illness history; rural Indians felt ridicule, shame, and discrimination.

**Traditional healing practices**

Motivational factors to follow traditional healing practices include cultural faith, inadequate recovery with allopathic treatment, economic factors, social stigma, and easy approachability. Various diagnoses (e.g., pher, kartab, shaitani aid, jadu tona, and stars positioning) and treatment methods (e.g., tabiz, jhaad, phook, chirag, and jap) have been documented, but treatment effectiveness rates have not been mentioned. It is important to understand the concepts, classification, and management of other health systems to have effective liaisons with them. Concomitant use of traditional therapies may enhance the acceptance and adherence of modern treatments.

**Psychotherapy**

Cultural values are important to determine psychotherapeutic needs and interventions. There are cross-cultural differences in personality configurations which have to be taken into account. The Western-model psychotherapy in its usual form may not be suited for a diverse culture like India.

In addition to these modifications in Western psychotherapy, indigenous models of psychotherapy may be needed. For example, the guru–chela relationship might be a particularly useful paradigm in India.

Some proposed modifications to suit the need of Indian patients are as follows:

1. Use of religion or spirituality – Religious beliefs can be used for the benefit of the patient if used carefully
2. Family involvement – Unlike in the West, many Indian subjects might want active family involvement. The need for confidentiality may not be as high
3. Lower emphasis on individual responsibility and autonomy – Indian culture fosters dependence and dependability
4. Superior class of the therapist and paternalistic approach – In Indian societies, the doctor is considered superior and the patient becomes submissive. This may be used for patients’ benefit
5. Greater active participation by the therapist – Unlike the Western-style therapist, the Indian therapist has to be more active and direct suggestions might be particularly useful
6. Single session therapy may be useful for the poor and underprivileged

**CONCLUSIONS**

The role of cultural factors in SMI needs adequate attention from mental health professionals. Cultural sensitivity and competence in assessment, and management are as important as other aspects. Continued research on cultural aspects along with biological aspects is required to understand the interplay of all factors. The use of cultural factors in a positive way will improve coping with symptoms and illness, as well as recovery. It is also important to consider other cultural, traditional, and folk methods for understanding and management of mental illnesses.

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