Cultural factors and international epidemiology

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The debate on the role of culture on psychiatric epidemiology has evolved considerably in the past two decades. There is now a general consensus that the integration of the universalist and culturally relativist approaches, and their methodologies, is required to generate a truly international psychiatric epidemiology. The large body of research investigating the influence of culture on the epidemiology of depression has produced a number of key findings: the clinical presentation of depression in all cultures is associated with multiple somatic symptoms of chronic duration; psychological symptoms, however, are important for diagnosis and can be easily elicited. The diagnostic differentiation between depression and anxiety in general health care settings is not clinically valid. Culturally appropriate terminology for depression can be identified and their use may improve levels of recognition and treatment compliance. It is also evident that culture is only one factor in the difference between, and within, human societies which has a bearing on the epidemiology of depression. Other factors, which may interact with culture, such as gender and income inequality, are major risk factors for depression. Future international research must focus on two themes: (i) intervention studies including cost-effectiveness outcomes; and (ii) research aiming to bridge the gap between regional public health priorities and the concern that psychiatrists have about depression.

The debate on the extent and nature of the influence of cultural variables on psychiatric syndromes and mental health services has been extensively covered elsewhere. In particular, this debate has focused on the theoretical rationales of the ‘etic’ and ‘emic’ approaches which emphasized either biological universality or cultural diversity, respectively. The assumption that mental illnesses as conceptualized by a dominantly biomedically based psychiatry was automatically valid in the rest of the world is the basis of the ‘etic’ approach. This approach underpins the bulk of epidemiological research world-wide. The effort to acknowledge and incorporate the profound role played by culture in the experience, expression, diagnosis and management of mental illness (the ‘emic’ approach) had its roots in the increasing role of medical anthropology in healthcare, particularly in non-industrialised countries.
The ‘emic’ approach suggested that psychiatric classifications in the West were as much a product of its own culture as the apparently exotic foreign conditions which were dumped into the miscellaneous categories of ICD. A general consensus emerged that both approaches had their limitations and strengths and that, for psychiatric research to be ‘culturally and biologically correct’, an integration of methods and concepts was required. As a result of this debate, culture became firmly ensconced as a key variable in psychiatric epidemiology, particularly when the research was based in non-Western societies.

As a researcher working in non-industrialised countries, the author was profoundly influenced by the theories of this ‘new’ cross-cultural psychiatry. These theories formed the basis of a series of ethnographic and epidemiological studies on depression in two, apparently culturally different, developing societies (Zimbabwe and India). This article uses this research evidence to question the actual contribution of culture on the international epidemiology of depression. The article proposes that culture is only one variable, and arguably not the most important one, which needs to be taken into account in international epidemiology of mental disorders. The health systems model provides a more relevant and pragmatic framework for the investigation of mental disorders from an international perspective.

The relevance of cross-cultural psychiatry: a critique

An important anomaly in cross-cultural psychiatry is that it is largely a specialty of interest to researchers and academics, particularly in industrialised countries. It is not accidental that the recent surge of interest in culture as an independent variable in the design and interpretation of psychiatric research coincides with the spectacular demographic change in the ethnic composition of many industrialised countries. The majority of research initiated by researchers in non-industrialised countries mimics the ‘etic’ approach and ‘culture’ is rarely considered as an independent variable. Another major anomaly is that whereas Western societies are considered ‘multi-cultural’ so that studies need to be conducted for different ethnic groups to ensure findings are ‘culturally correct’, non-industrialised societies are not offered the same privilege. It is common to see studies from vast, and hugely diverse, countries such as India or China being used to suggest that the findings are representative of the culture of the entire nation. Such naive assumptions have greatly limited the value of cross-cultural studies where the choice of country settings are used as a means of ensuring representativeness of cultural diversity. Furthermore, there is often an implicit assumption that non-Western cultures are, by definition, ‘traditional’ or ‘non-scientific’ in their explanatory models.
Research from Western cultures is considered to be of international significance whereas research from non-industrialised countries is of interest for its demonstration of the influence of culture on psychiatric disorders. The main limitation of cross-cultural psychiatry, of course, is that it fails to recognize that cultures are dynamic, complex social constructs which defy easy definition or measurement. One definition of culture is that it is ‘the customs, civilization and achievements of a particular time or people’ (Concise Oxford Dictionary, 9th edn). This suggests that cultures are ever-changing; herein lies the key factor which influences the role of culture in international epidemiology. Globalization has been phenomenal in its impact on culture; no longer are cultures living in relative isolation from one another so that attitudes, practices and beliefs evolve separately in different cultures. Instead, cultures are integrating, with values and beliefs from one culture finding new homes in other cultures. While the process of globalization may work in diverse ways, in reality, the dominant cultures are those of industrialised societies because much of the mechanisms of globalization, such as the media, are largely controlled by these societies. The homogenization of cultures across the non-industrialised world in the past decade is a marker of the vulnerability of cultures to the onslaught of modern marketing and global media networks. In the face of this reality, one of the key rationales behind cross-cultural psychiatry is becoming rapidly redundant. Thus, this is an opportune time to consider a paradigm shift from cross-cultural psychiatry to an international psychiatry as discussed later. At this point, however, it would be fair to give due justice to the large and important body of work generated in the field of cross-cultural psychiatry. These studies have approached the international epidemiology of depression from a number of perspectives. The next section of this paper will consider some of the key questions posed and answered by cross-cultural psychiatric research on depression.

Culture and diagnosis of depression

Symptoms of depression

Several studies have described the clinical presentations of depression in primary and general health care settings. The commonest complaints are somatic, in particular tiredness and weakness, multiple aches and pains, dizziness, palpitations and sleep disturbances. However, psychological symptoms can be elicited relatively easily on inquiry. Thus, typical psychological symptoms such as loss of interest in daily or social activities, suicidal thoughts, poor concentration and anxiety or worry.
can are experienced by the majority of patients. Earlier theories suggested that somatic symptoms were the ‘cultural’ equivalent of depression and that somatization, the process by which psychological distress was ‘converted’ to somatic symptoms, was typical in non-industrialised countries. This hypothesis has now proven to be wrong in two respects. First, somatic symptoms are also the commonest presenting features of depression in industrialised societies\(^6\)\(^7\); second, the classic psychological symptoms of depression can often be elicited\(^8\)\(^{-10}\). Acute presentations of depression are more likely to be somatic; as the illness becomes chronic the patient re-evaluates the illness and becomes more likely to present with psychological symptoms\(^11\). These, in turn, make them more likely to be detected by the physician. Thus, culture plays a limited role in the experience of common symptoms of depression; however, volunteering of these symptoms by patients in health care encounters may be influenced by stigma and awareness of depression as an illness category. Furthermore, some symptoms, such as visual hallucinations, may occur in the context of depression in some cultures\(^12\); these are, however, not crucial or central to the diagnosis of depression.

**Culture and measurement of depression**

A variety of screening questionnaires and interviews have been used internationally for the study of depression. Among the screening questionnaires, both locally developed measures and local versions of foreign measures have been used. Perhaps the most commonly used screening questionnaire is the *General Health Questionnaire*\(^13\). Cut-off scores for caseness have been found to vary considerably between centres\(^14\). Similarly, the 20 item *Self Reporting Questionnaire* (SRQ)\(^15\), another widely used screening questionnaire in non-industrialised countries, was found to have a cut-off score in African countries often higher than the standard cut-off\(^16\). This re-affirms the need to evaluate the validity of screening questionnaires as an essential prerequisite of any study using them in a new population\(^14\)\(^,\)\(^17\). Short 5 item versions of the GHQ have been developed and evaluated in India and these investigations have shown that the shorter versions are as sensitive and specific as the longer versions\(^8\)\(^,\)\(^18\). In clinical settings, simple screening questions derived from such short questionnaires, focusing on loss of interest, sleep problems, tiredness and feelings of sadness may provide a sensitive method of identifying cases of depression\(^19\). Examples of locally developed screening questionnaire include the *Primary Care Psychiatric Questionnaire* (PPQ)\(^20\) in India, the *Shona Symptom Questionnaire* in Zimbabwe\(^12\), and the *Chinese Health Questionnaire*\(^21\). In general, the item composition of these indigenous measures share much with the
questionnaires developed in the West, and there is a high degree of agreement in case classification. Despite the high frequency of somatic symptoms, psychological symptoms have a higher sensitivity and specificity for the diagnosis of depression. This may be due to the fact that somatic symptoms such as tiredness can also occur in a variety of chronic infectious and other diseases common in non-industrialised countries. Of the structured interviews, the Revised Clinical Interview Schedule (CISR), which was specifically developed for the measurement of common mental disorders in community and primary care settings, has been widely used in studies in the international context. The PSE and its successors, the SCAN and CIDI, has been used in the WHO multinational studies. There are few examples of indigenous structured interviews, including the Indian Psychiatric Survey Schedule. It is evident that the measurement of depression in the international context can be undertaken with similar instruments in different cultural settings, provided care is taken to ensure an adequate translation and validation of the cut-off score.

Culture and classification

Classification of depression remains a contentious issue. The first major issue is that diagnostic labels such as depression and phobias have no conceptually equivalent term in many non-European languages. These terms, derived from European cultures, have made the leap from common language to medical classifications and, in the process, acquired a biomedical significance. Thus, ‘depression’ in medicine is seen as being closely linked to mood changes. Using such labels in non-European cultures often leads to the mistaken belief that the experience of sadness is an essential presenting feature of the disorder. Terms such as common mental disorders, though offering some advantages over ‘depression’ because they do not imply a specific mood state, also have problems. The word ‘mental’ is associated with severe mental disorders and asylums. In settings where these are associated with a generally poor quality of care and outcome, patients and health care providers are understandably reluctant to stigmatise their patients as being ‘mental’ cases. Thus, while the experience of dysphoric mood may be a universal human phenomenon, the concept of depressive disorder which focuses on the mood change as the primary or core feature of the disorder has evolved from within a Western culture and may not be universally applicable. This problem is not just a semantic one and may account, in part, for the low recognition rates of depression (see below). Even in psychiatric settings, only a quarter of patients in one study attributed their symptoms to a mental illness, while ‘nerves’ was
cited by half\textsuperscript{27}. Arguably, a more acceptable alternative to any of the above terms would come through the identification of local concepts which bear some similarity to the construct of depression. Such constructs have been identified in several cultures, such as the construct of thinking too much or \textit{kufungisisa} in the Shona language of Zimbabwe\textsuperscript{28} and neurasthenia in China\textsuperscript{29}. Another difficulty in the classification of depression refers to the clinical validity of the distinction between depression and anxiety. The recent WHO multinational study in general healthcare found that ‘co-morbidity’ of depression and anxiety exceeded 50\%\textsuperscript{30}. This considerable overlap, which agrees with other studies and clinical evidence that patients in primary care tend to have a general spectrum of anxiety and depressive symptoms\textsuperscript{31}, diminishes the validity of a meaningful distinction between these two constructs. In this instance, it would appear that it is the ‘culture’ of biomedical, tertiary-care oriented psychiatry which differs from the clinical reality of depression in culturally diverse populations.

\textbf{Culture and aetiology of depression}

Like most psychiatric disorders, the precise aetiology of depression remains unclear. The vast majority of international studies of depression have focused on sociodemographic and life-event risk factors for depression. These have conclusively shown the following findings: women, persons with less education, and persons who are less economically privileged are at significantly higher risk to suffer depression.

\textit{Gender and depression}

Both community-based studies and studies of treatment seekers indicate that women are disproportionately affected by depression\textsuperscript{32,33}. The obvious question thrown up by these findings are the reasons for this apparent vulnerability. There are a number of potential factors which may make women more vulnerable to suffer depression. Theories have ranged from biological perspectives with a focus on hormonal and physiological factors associated with reproduction, to the pervasive effects of oppression and lack of opportunities in all spheres of life as a result of gender inequality\textsuperscript{34}. There is considerable evidence demonstrating that stressful life events are closely associated with depression and such events are more common in the lives of women\textsuperscript{35}. Thus, women are far more likely to be victims of violence in their homes. Difficulties for women are encountered in a number of different areas such as their social position, aspirations and domestic problems. The reproductive roles of women, such as her expected role of bearing
children, the consequences of infertility and the failure to produce a male child have been linked to wife battering and female suicide\textsuperscript{33,34}. Women are far more likely to be denied educational and occupational opportunities and access to appropriate health care. Culture plays a profound role in determining the vulnerability posed by gender; for example, the pervasive influence of boy preference on gender status and the perceived life-roles for men and women in South Asia\textsuperscript{36}.

**Poverty and depression**

There is a large body of evidence demonstrating the association between poverty and depression in industrialised countries. In recent years, population-based research has demonstrated higher risk for depression and suicide in those who are unemployed\textsuperscript{37–39}, those who have relatively lower income\textsuperscript{40}, and those who have a relatively lower standard of living\textsuperscript{41}. Such population-based data are also evident from non-industrialised countries. Five recent cross-sectional surveys of treatment seekers and community samples from Brazil, Zimbabwe, India and Chile were collated to examine the economic risk factors for depression. In all 5 studies, there was a consistent, and significant, relationship between low income and risk to suffer depression\textsuperscript{32}. There was also a relationship between proxy indicators of impoverishment and depression; for example, those who had experienced hunger recently and those who were in debt were more likely to suffer depression. Other studies have demonstrated the relationship between depression and other indicators of poverty such as education and household amenities\textsuperscript{22,42,43}. There is also evidence, from prospective longitudinal studies, that economic deprivation is associated with persistence and incidence of depression\textsuperscript{44}. Culture plays a role in determining the vulnerability of the poor for depression in a number of ways, such as the caste system of South Asia which relegates a section of the population to subservient roles or the economic disadvantages faced by ethnic minorities in multicultural societies across the world.

**Culture and management of depression**

**Pathways to care**

In all parts of the world, the vast majority of depressed patients seen by biomedical health care professionals are in general or primary health care settings. The *International Pathways to Care Study* examined the referral pathways taken by patients referred to mental health services in
11 countries, including 7 non-industrialised countries in Asia, Africa and Latin America. Thus, the study was located in patients attending psychiatric care, which would be expected to reflect a small, and unrepresentative, fraction of the population suffering from any type of mental disorder. By far, the commonest route of referral was the general medical practitioner based in a family practice setting or in a hospital out-patient clinic setting. A study from Harare, Zimbabwe described the pathways to primary care for patients with conspicuous common mental disorders attending primary care clinics and traditional medical clinics. Other than those patients with an acute illness, most patients consulted more than one care provider; three-quarters of those with a history of prior consultations had consulted both traditional and biomedical care providers. The first care provider sought for the illness was most often a biomedical carer. The finding is consonant with the cultural concepts of illness; thus, illness at onset is considered to be a ‘normal’ illness and is taken to a biomedical carer. If this treatment fails, or if the patients’ expectations are not fulfilled, he will consult a traditional carer. Depression is rarely considered to be a mental disorder in many non-industrialised countries and thus mental health professionals are perceived to have a limited role in its management. Thus, attitudes and beliefs about illness causation, which are considerably influenced by culture, will determine the pathways to care.

**Recognition and treatment**

Primary care physicians recognize up to a third of psychological morbidity; this rate has been reported to be highly variable across centres being influenced by a number of factors such as the training of doctors. In addition to low awareness or somatization, low recognition can be attributed to a number of other factors such as discomfort in recording distress states as a mental illness which were associated with considerable stigma and the perceived lack of personal skills in dealing with ‘mental’ problems.

There is robust evidence that antidepressants and brief psychological treatments such as problem-solving are efficacious treatments for depression, although virtually all the treatment evidence is from industrialised countries. The most typical treatment response by general physicians is to prescribe greater number of drugs (such as benzodiazepines) and injectable vitamins. The WHO Multinational Study in General Health Care reported that nearly 10% of primary care attenders in the Indian centre were prescribed psychotropic drugs, a figure similar to that of many European and North American centres. However, the majority of prescriptions were for tranquilizers rather than antidepressant drugs; for example, while 50% of patients with anxiety disorders received...
tranquilizers, none received antidepressants. A similar, if less marked, imbalance was also recorded for patients with depressive syndromes. As might be expected, prescription of psychotropics was maximum in those patients whose mental disorder was recognised by the physician; recognition, in turn, was influenced by the severity of symptoms and the presence of overt psychological symptoms. A remarkable finding of the study was that nearly 80% of all prescriptions were for ‘drugs of unproven clinical efficacy’ such as tonics and tranquilizers. These findings resonate with the earlier discussion on somatization in primary care; thus, physicians are more likely to diagnose a mental illness when patients present with psychological symptoms, but tend to use inappropriate medications suggesting lack of knowledge or confidence in psychopharmacology as a key factor. The use of psychosocial and psychotherapeutic interventions is even lower. Culture thus plays a role in the diagnosis of depression; however, the treatment of depression is more likely to be influenced by factors such as awareness and availability of effective interventions. Cultural factors may play a role in the acceptability of certain interventions, in particular psychological interventions in non-industrialised countries.

From cross-cultural epidemiology to international epidemiology

There is evidence that the prevalence of depressive illnesses is high in both industrialised and non-industrialised countries. Studies from diverse settings ranging from rural Lesotho, the slums of São Paulo and Santiago in South America and the urban general practices of India reveal prevalence figures of depression exceeding 30% in community samples and approaching 50% in primary care samples. The high prevalence of depression is of concern for many reasons. First, the social factors known to be linked to depression are on the increase throughout the world as the formula for economic development adopted by most countries is leading to a reduction in public health expenditure, a rising inequality between the rich and poor, increased migration to urban areas with its attendant rise in urban squalor and rapid culture change as the great urban centres take on an international cosmopolitan flavour. Secondly, there is the much replicated association between depression and disability independent of any co-existing physical illness. Thus, those who are already vulnerable due to their gender or social circumstances risk becoming ill with a disorder which will further disable them and render them less able to cope with the adverse circumstances that they already faced. Third, despite considerable epidemiological research from both multinational and local research initiatives, most individuals with a depression remain undiagnosed and untreated.
The priorities for international research on depression need to move well beyond its focus on examining cultural influences on depression to action-oriented research which serves to inform regional health policy and practice. Health policy is unlikely to be influenced by research as long as the only evidence available are the astronomical numbers of persons with depression thrown up regularly by surveys, but no demonstrated affordable solutions for these problems. Due to considerable variations in cultural models, pharmacodynamic factors, health service variations and drug availability, there is a need for generating efficacy and cost-effectiveness evidence from different regions of the world. However, there is little evidence of this kind available today. Thus a major research priority must be the evaluation of the efficacy and cost-effectiveness of health service interventions and treatments for various nervous systems disorders. The second major research priority is examining the relationship between depression and other health priorities. Thus, in many non-industrialised countries, child development, poverty alleviation, reproductive health and violence are the main priorities. There are obvious mental health implications for these priorities; for example, learning disabilities are associated with poor school performance and drop-outs; poverty is linked to depression and suicide; reproductive health is associated with post-natal depression; and violence is associated with a range of adverse mental health outcomes. Such research, by working within the framework of existing priorities will lead to practical information which is of value to existing health programmes and which, in turn, is likely to make it more amenable for wider acceptance and implementation. Such research would be relatively cheap to implement since they could be ‘piggy-backed’ onto existing programmes of research.

An ethical imperative of international epidemiological research is empowerment of local health researchers to conduct and lead research programmes. Raising capacity must be a core element of all research in non-industrialised countries, most of all in the field of psychiatry where these skills are still extremely difficult to obtain. The ‘dash-in-dash-out’ research strategy where highly skilled researchers from industrialised countries ‘collaborate’ with economically and academically weaker colleagues in non-industrialised countries to conduct research programmes with little local capacity building has dubious ethical standards. Dissemination must be a multifaceted targeting, in addition to the academics, policy makers, health care providers and the general community.

**Key points for clinical practice**

- The clinical presentation of depression in all cultures is multiple somatic symptoms of chronic duration; psychological symptoms are important for diagnosis and can be easily elicited in most patients.
• The diagnostic differentiation between depression and anxiety in general health care is not clinically useful since they typically occur together and the treatments are similar
• Awareness of culturally appropriate terminology for depression is a useful way of bridging the gap between lay and biomedical models of illness and may help improve levels of recognition and treatment compliance
• Women and the poor are at greater risk to suffer depression
• Treatment of depression should include antidepressants or problem-solving therapy, either of which can be delivered in general health care settings with relative ease and efficacy

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