Case definition and culture: are people all the same?

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Over the years, cross-cultural studies of mental disorders have reported a number of culture-specific disorders, and the rates of specific mental disorders have differed considerably across epidemiological surveys. This article attempts to address the assertion that the basic psychopathology is universal and that cross-cultural differences have derived mainly from culture-specific illness behaviour. Furthermore, it is argued that there is no solid evidence for a real difference in the prevalence of common psychiatric disorders across cultures. Although there is some progress, the fundamental problem across these studies over the development of cross-culturally comparable case definition and standardised clinical interviews is still awaiting a better solution.

CULTURE-SPECIFIC DISORDERS

The concept of 'emic' has been proposed to describe culture-specific psychopathology, in contrast to the concept of 'etic', which sees psychopathology as universal and sociocultural influences as pathoplastic in nature (Murphy, 1982). Researchers such as Yap (1965) argued that culture-specific disorders reported from non-Western societies could be regarded as pathoplastic variants of disorders commonly observed by Western psychiatrists. Many patients with such syndromes were found to have suffered mainly from anxiety and depressive disorders (e.g. Kleinman & Kleinman, 1985). Moreover, some of these disorders were found later to have existed in more than one culture, including Western (e.g. Kendall & Jenkins, 1987).

The role of sociocultural factors in these emic disorders is by no means confined only to their pathoplastic shaping of common symptoms. In a study of koro epidemics in Guangdong, China, a strong folk belief of koro was speculated to have acted upon specific personal vulnerability (low intelligence) in times of major social crises to generate the epidemics (Tseng *et al*, 1992). From the epidemiological point of view, such belief is a kind of morbid suggestion acting as the transmitting agent for communicable mental disorders (Shepherd, 1978).

Another important role for sociocultural factors in such emic disorders is their influence on illness behaviour. In the case of koro, those who suffered from it (falsely) perceived a shrinkage of the penis and interpreted its cause as the female fox spirit come to collect young men's penises, resulting in death. The victims thus reacted with panic attacks and sought help from their family members and neighbours to rescue them by any means. It is most likely that the specific features of these emic disorders have derived mainly from culture-specific illness behaviour rather than from any emic psychopathology of common mental disorders.

MANIFESTATION OF SYMPTOMS

There is a fundamental difference between subjective complaint and symptom manifestation. Subjective complaint is a kind of illness behaviour that concerns how an individual perceives, interprets and reacts to the psychological discomfort that he or she may have, whereas symptom manifestation is the psychiatrist's judgement on a patient's condition through clinical observation and interview (Cheng, 1989; Brugha *et al*, 1999*a*).

This difference may have an important implication on cross-cultural studies of psychological symptoms upon which diagnoses are made. The rate of any symptom detected by recording the patient's self-report presumably would be different from that of the clinical symptoms assessed by a standardised diagnostic interview. In fact, what has been obtained from self-report is the subjective complaint rather than the objective symptom, which can be assessed only clinically. For instance, somatisation has been reported to be a characteristic feature among non-Western patients with depression (e.g. World Health Organization, 1983). Researchers such as Kirmayer (1984), however, stated that somatisation has been found around the world.

It is probable that psychologically disturbed patients in less-developed societies with limited knowledge of mental disorders interpret their illness as being physical in origin and therefore complain of somatic discomforts to their doctors more often than their Western counterparts. However, the frequencies of somatic symptoms among patients with depression and community respondents have been reported to be very similar between East and West when a detailed psychiatric interview was carried out (Cheng, 1989).

It follows that if the diagnosis of somatisation disorder is based only on the exclusive self-reporting of somatic complaints, then this is most likely a diagnosis of illness behaviour rather than of a disorder, an exercise similar to that applied to other emic disorders. Because somatic symptoms are frequently an important part of psychiatric disorders, the diagnosis of somatisation disorder should be given only when primary psychological symptoms are not found in spite of adequate standardised clinical assessment.

FREQUENCIES OF SPECIFIC DISORDERS

One may infer that cross-cultural comparisons using identical case definition and standardised diagnostic interviews as case-finding instruments are likely to produce the most useful results. There have been several such studies reported in the past two decades, employing either semi-structured clinical interview (such as the European study on old-age depression with the Geriatric Mental State (GMS) schedule and the EURO-Depression scale (EURO-D)) or fully structured lay-interviews (such as the Diagnostic Interview Schedule (DIS) and Composite International Diagnostic Interview (CIDI) epidemiological surveys). As has been reported in the literature, differences and similarities in rates of mental disorders were found from these comparisons, and no satisfactory explanations seem to have been reached hitherto (Weissman *et al*, 1997; Copeland *et al*, 1999).

In general, however, there is a trend towards comparable rates of specific disorders among general population studies using the same case definition and case identification instruments. For example,

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the point prevalence rates for ICD–9 depression (296.2/300.4) across seven communities using Present State Examination–CATEGO ranged from 4.6 in Santander, Spain and two cities in Finland to 7.4% in Athens, Greece. The lifetime prevalences for DSM–III major depression using DIS were similar in the US Epidemiologic Catchment Area (ECA) study (4.4%), Puerto Rico (4.6%) and Seoul, Korea (3.4%), but with exceptionally lower rates in Taiwan (0.9–1.7%) (Smith & Weissman, 1992).

The lower rates of most disorders in the DIS survey in Taiwan compared with data from other countries cannot be explained by differences in case definition, rural–urban distribution of study subjects or somatisation tendency (Weissman *et al*, 1997). However, a recent community study among the elderly in Taiwan using the GMS found a 1-month prevalence rate of 21.7% for all depressive disorders, which is close to the figures from GMS studies in New York (16.2%), London (19.4%) and Munich (23.6%) (Tsang, 2000). Rates of DSM–III–R major depression among consecutive suicides using psychological autopsy was reported to be 87% in the East Taiwan Suicide Study, which is also close to other studies (Cheng, 1995).

The evidence gathered, therefore, seems to suggest that differences in case-finding methods may largely account for the differences in rates of mental disorders in previous work employing the same case definition and diagnostic system. There is no sound evidence at present to support a real difference in major psychiatric disorders across cultures and societies. Furthermore, cases identified by clinical interview differed considerably from cases identified by lay-interview among the same study population (Anthony *et al*, 1985). Because self-report and clinician-rated approaches give different information in Western countries, the implications of this for cross-cultural studies needs to be and has yet to be considered. Furthermore, more detailed formal re-analyses of the existing data may not be warranted because of differences in the measurement design and sampling between studies.

METHODOLOGICAL ISSUES IN CROSS-CULTURAL STUDIES

Case definition

Although there are still differences, the operational diagnostic criteria in the newest editions of ICD (ICD–10–DCR; World Health Organization, 1993) and DSM (DSM–IV; American Psychiatric Association, 1994) have never been so close to each other. This will no doubt greatly facilitate cross-cultural studies.

The inclusion of most culture-specific disorders in the annex of ICD–10–DCR with suggested ICD–10 codes may serve as useful reference for future studies to clarify their relationships. It might be suggested further that investigators with such intention should apply standardised, cross-culturally comparable clinical interviews to reach satisfactory diagnoses.

Because it is argued that culture-specific disorders might have come mainly from culture-specific illness behaviour rather than specific psychopathology, a new classification system for illness behaviour found in different cultures may be desirable in future editions of the ICD. Such a new system will be able to cover most culture-specific disorders around the world, perhaps also including anorexia nervosa and others primarily identified in Western societies. It might add useful knowledge for preventive measures and eventually clinical services.

Case identification

The standardised diagnostic interview

In a standardised diagnostic interview, clinically significant symptoms are identified and diagnosis is then made according to the diagnostic criteria applied, as with ICD–10 or DSM–IV. However, the choice of fully structured or semi-structured interview for case identification in psychiatric research is a major issue that seems to have been much less emphasised hitherto (Brugha *et al*, 1999*a*). Using the former, only the self-reported presence or absence of symptoms can be obtained. It has been argued recently that self-reported symptoms alone are insufficient for case identification, and that illness (symptom) severity and duration, comorbidity and associated functional impairment also should be assessed (Regier *et al*, 1998). It would be very difficult, if not impossible, to perform such assessment with a fully structured interview, particularly if it were conducted by lay-interviewers lacking enough medical background. The reliability and validity of semi-structured clinical interviews conducted by lay-interviewers still await further examination (Brugha *et al*, 1999*b*).

These issues are certainly relevant to researchers in non-Western countries where both structured and semi-structured interviews have been used. The development of cross-culturally comparable diagnostic interviews, yet to be fully achieved, will not only facilitate cross-cultural comparability in epidemiological studies of mental disorders but also serve as the optimal instrument to validate fully structured lay-interviews and screening tools.

One important step in developing such clinical interviews is to ensure the semantic or psycholinguistic equivalence of psychiatric symptoms across cultures (Cox, 1977; Cheng, 1989). Only if research psychiatrists from East and West can work together as a team to develop such instruments will this issue be resolved satisfactorily. All the symptom items considered to have culture-specific expression can then be brought out for thorough direct discussion based on real case examples videotaped with transcriptions in different languages. It is believed that anthropologically oriented researchers will make a substantial contribution to this endeavour.

In the International Pilot Study of Schizophrenia, such an exercise was carried out with the Present State Examination – 6th edn, largely focused on psychoses (World Health Organization, 1973). There is therefore an urgent need to conduct similar exercises for the non-psychotic depressive and neurotic symptoms, as well as for the behaviours and symptoms regarded as salient in substance use and organic mental disorders. In Taiwan, Cheng and his SCAN (Schedules for Clinical Assessment in Neuropsychiatry) research group have begun to work in this way in collaboration with US/UK SCAN experts over the past few years (Cheng *et al*, 2001).

Interviewer bias

The problem of professional interviewer bias was well reported in the early 1970s. It could be argued that in developing nations where psychoses rather than neurotic disorders have long been highlighted the much lower reported rates of depressive illness and neurotic disorders might be at least in part derived from an underdiagnosis of such disorders with a stereotyped diagnostic practice. This kind of underdiagnosis can only be investigated and perhaps resolved when investigators in developing nations use cross-culturally comparable standardised clinical interviews to conduct interrater reliability exercises involving psychiatrists from East and West, not only for psychotic but also for depressive and neurotic symptoms (Cheng *et al*, 2001).

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The validity of lay-interviews and potential lay-interviewer bias in large-scale general population surveys have been investigated in DIS and CIDI surveys (e.g. Anthony *et al*, 1985; Kessler *et al*, 1997; Brugha *et al*, 1999*a*). The lay-interviewer bias also requires careful examination in developing nations against independent clinical reappraisal, a task that has not been well conducted hitherto, partly because of the lack of cross-culturally comparable standardised clinical interviews.

Interviewee bias

Interviewee bias is another problem being investigated in CIDI surveys (Kessler *et al*, 1997). In developing nations, experienced lay-interviewers are scarce. People there with limited knowledge and strong social stigma about mental illness expect to get medical help from a physician only for their somatic symptoms. Hence, the detection of psychiatric symptoms among non-psychiatric patients and community respondents in developing nations by lay-interviews may encounter a more serious problem of underreporting.

This problem will certainly impose great difficulty when conducting large-scale epidemiological surveys in developing nations, where a serious shortage of mental health professionals has long existed. A plausible solution for investigators is to apply a two-stage case-finding strategy, with a brief screening tool for the first stage and clinical interview by professionals for the second stage. This strategy can save substantial time, money and professional resources while providing highly accurate data for prevalence estimation, clinical investigation and assessment of risk factors. It calls for the training of lay-interviewers with a high level of quality control, and the development of cross-culturally reliable and valid screening tools for use in the first stage (Mari *et al*, 1988). Moreover, locally based mental health professionals using a semi-structured interview with satisfactory cross-cultural reliability are essential at the second stage because they are fully attuned to local modes of self-expression.

CONCLUSIONS

Nearly two decades ago, Henry Murphy (1982) stated that:

> "Comparative psychiatry must lean to the etic rather than to the emic position, since with the emic, no comparisons are usually possible."

This statement might be reformulated today as 'a combined etic/emic approach to comparative psychiatry is feasible if a standardised diagnostic interview that has incorporated psycholinguistic equivalents from different cultures is used'.

In conclusion, cultural variation in mental health is mainly in the presenting features rather than in the nature and frequency of the underlying neuropsychiatric impairments and disorders. The finding of culture-general diagnostic entities is of great importance because it may greatly facilitate cross-cultural studies in aetiology, risk factors and preventive measures. Very simply, the benefits of evidence-based psychiatry in one part of the world can be applied elsewhere for the benefit of all.

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