Mental health policies in South-East Asia and the public health role of screening instruments for depression

Pratap Sharan, Rajesh Sagar, Saurabh Kumar
All India Institute of Medical Sciences, New Delhi, India

Correspondence to: Professor Pratap Sharan (pratapsharan@gmail.com)

Abstract
The World Health Organization (WHO) South-East Asia Region, which contributes one quarter of the world’s population, has a significant burden due to mental illnesses. Mental health has been a low priority in most countries of the region. Although most of these countries have national mental health policies, implementation at ground level remains a huge challenge. Many countries in the region lack mental health legislation that can safeguard the rights of people with mental illnesses, and governments have allocated low budgets for mental health services. It is imperative that concerned authorities work towards scaling up both financial and human resources for effective delivery of mental health services. Policy-makers should facilitate training in the field of mental health and aim towards integrating mental health services with primary health care, to reduce the treatment gap. Steps should also be taken to develop a robust mental health information system that can provide baseline information and insight about existing mental health services and help in prioritization of the mental health needs of the individual countries. Although evidence-based management protocols such as the WHO Mental Health Gap Action Programme (mhGAP) guidelines facilitate training and scaling up of care in resource-limited countries, the identification of mental disorders like depression in such settings remains a challenge. Development and validation of brief psychiatric screening instruments should be prioritized to support such models of care. This paper illustrates an approach towards the development of a new culturally adapted instrument to identify depression that has scope for wider use in the WHO South-East Asia Region.

Keywords: depression, instrument development, mental health policy, mental health resources, screening instruments

Mental health challenges in the WHO South-East Asia Region

The World Health Organization (WHO) South-East Asia Region comprises 11 countries and contributes one quarter of the world’s population. Most of the countries in the region belong to the low-income group based on World Bank criteria, and face significant mental health challenges. Mental disorders are the leading cause of all years lived with disability globally, with two of the disorders figuring in the top 10 causes of disability in 2015; major depressive disorder was the third-leading cause of disability worldwide.

Despite this huge burden, most patients with mental illness do not receive any treatment. The situation is especially alarming in low-resource settings, where the treatment gap can be as high as 90%. This gap can be attributed to several reasons, including low governmental priority for mental health, which is reflected in delays in developing national-level mental health policies or legislation protecting the human rights of people with mental health problems. Another important contributor to this gap is lack of both financial and human resources. There have been a number of initiatives at the global level to bridge this gap through effective interventions and evidence-based delivery mechanisms. WHO has also made available evidence for effective intervention in the form of the Mental Health Gap Action Programme (mhGAP) guidelines.

This paper provides a brief overview of the current constraints on mental health care in the WHO South-East Asia Region; highlights the need for improved screening of mental disorders; and describes the development of a new culturally adapted instrument to identify depression in Bangladesh, India and Nepal that has scope for expanded use throughout the WHO South-East Asia Region.

Governance and mental health policy provision
An effective mental health policy helps in establishing national priorities in planning, organizing and coordinating different components of a mental health system. Eight out of 11 countries in the WHO South-East Asia Region have a separate national mental health policy; however, implementation of such policies is limited in many low- and middle-income countries.

Five out of the 11 countries of the region do not have separate legislation for mental health, while some dedicated legislation includes documents that are more than a century old and do not reflect international standards based upon universally accepted values and principles. Several countries in the region have drafted new legislation that is awaiting approval and enactment.

Many countries of the region have high estimated suicide rates (age-standardized rate per 100 000 population ranging...
Mental health training is lacking in the undergraduate curricula in much of the region (e.g. only 4% of the training for medical doctors is devoted to psychiatry). However, Sri Lanka requires eight or more weeks of training in psychiatry and it conducts a separate examination in the subject for medical undergraduates.23

WHO strongly recommends integration of mental health services into primary health care, to close the mental health treatment gap, as it can enhance access to services, decrease violation of the human rights of patients, be cost effective and generate better health outcome.24 Only 30% of the countries in the region have provided training in mental health to the majority of doctors in primary health care, whereas almost 50% of them have trained their nurses in primary health care. Similarly, 50% of the countries in the region have officially approved training manuals in the majority of primary health-care clinics. In 44% of the countries, there is no regulation for doctors in primary health care prescribing psychotropic medication; however, none of the countries of the region allow their nurses to prescribe medications.7

Information systems for mental health
A robust mental health information system is required to understand the functioning of the mental health system and provide a baseline for monitoring changes and insight to improve it.25 Seven countries in the WHO South-East Asia Region have made use of the WHO Assessment Instrument for Mental Health Systems (WHO-AIMS) for an initial assessment of their mental health-care system.

The current level of mental health information system in most countries in the region is patchy at best. In three countries (Bangladesh, Bhutan and Myanmar), data on mental health are compiled only for general health statistics. In four countries (India, Indonesia, Nepal and Maldives), no data on mental health have been collected for the last 2 years.8 In Thailand only, a system is in place where all the facilities transmit data to the Strategic and Planning Bureau, Ministry of Public Health and to regional community mental health centres. Based on this information, a report that comments on the data has been published every year by the Government Department of Mental Health.22

Scaling up mental health care
Several initiatives are needed to circumvent the lack of resources in these countries in the WHO South-East Asia Region. Belkin et al. have proposed a five-step implementation approach for large-scale scale-up of mental health care in lower-resource settings: (i) assessing the context; (ii) identifying priority care pathways that are linked with specific skill packages; (iii) specifying decision supports, supervision and triage rules to activate those care pathways; (iv) using quality-improvement practices; and (v) planning for sustainability and capacity-building.26 In this framework, available resources are deployed in ways that are context specific and scaleable. Treatment functions can be divided along various levels of a stepped care pathway, such that nonspecialists are enabled to do the bulk of screening and triage, monitoring, and counselling tasks (task-shifting).27 A recent study conducted in a rural tribal population of south India showed that task-shifting was a cost-effective strategy that helped to improve daily functioning, treatment adherence and self-referral of psychiatric patients over a period of 3 years.28
Screening for depression in primary care

Depression contributes significantly to the burden of disease worldwide. Primary care is a major access point for the management of depression in high-income countries, and can play a similar role in low- and middle-income countries.\textsuperscript{27,29} However, even in high-income countries, despite advances in the management of depression at the level of primary care, such as the availability of safe antidepressant drugs and effective collaborative care strategies, amelioration of depression is uncommon. For a successful outcome, the affected individual has to access health care, and the care setting has to recognize depression, initiate and provide adequate treatment, and monitor progress and outcome. Pence et al. estimated that in the USA, of the 12.5% of patients in primary care that have major depression, only 47% were recognized clinically in primary care settings, 24% received some treatment, 9% received adequate treatment, and 6% achieved remission.\textsuperscript{29} Multiple steps along the depression-management cascade would have to be targeted to improve the overall remission rates for patients in primary care and thus the burden of depression at the population level.\textsuperscript{29}

It is evident that clinical under-recognition of depression presents a major barrier to improvement of population mental health. The United States Preventive Services Task Force has found a moderate level of evidence to recommend screening for depression in the general adult population, including pregnant and postpartum women, in practices with systems to ensure accurate diagnosis, effective treatment and appropriate follow-up.\textsuperscript{30} However, others have argued that there is no evidence that screening per se improves mental health outcomes for patients, and that depression-screening programmes carry risks that are not justified by the uncertain benefits.\textsuperscript{31} Potential disadvantages to screening include large numbers of false positives, with the potential adverse effects of labelling, and the lower efficacy of depression treatment for patients with less-severe depression.\textsuperscript{32} Findings also suggest low levels of patient acceptance of mental health services in primary care, poor quality of routine care received after screening, and lack of evidence showing cost effectiveness and improved outcome with screening programmes.\textsuperscript{31} Thombs and colleagues have cited rising rates of antidepressant prescriptions as evidence that depression is already being adequately diagnosed (in high-income countries).\textsuperscript{32} In line with such reasoning, the National Institute for Health and Care Excellence of the United Kingdom of Great Britain and Northern Ireland, and the Canadian Task Force on Preventive Health Care, do not recommend routine screening for depression in adults at average risk.\textsuperscript{33,34} Similarly, the Nepal Mental Health Care Package does not include recommendations for universal screening.\textsuperscript{35}

In low- and middle-income countries, the current rate of detection of depression in primary care is suboptimal and is a point in favour of screening; however, the paucity of trained staff to conduct screening and provide adequate services would argue against a policy for routine screening of depression in the clinical as against the research setting. As Pence et al. have suggested,\textsuperscript{29} as a first step, periodic screening of all patients could be initiated to help define the prevalence of depression in the patient population in specified clinics. Later, clinics that gain experience in identification and management of depression could be recruited to improve the quality of treatment through an approach of regular identification, monitoring and management. System-level changes for the identification and treatment of depression could be initiated later, after the accrual of evidence.\textsuperscript{29}

The need for brief identification instruments for depression in low-resource settings

Evidence-based management protocols for resource-limited settings are available (e.g. the WHO publication, \textit{mhGAP intervention guide for mental, neurological and substance use disorders in non-specialized health settings}) to aid provision of basic mental health services by nonspecialist health workers; however, identification of mental disorders like depression in such settings remains a challenge. Development and validation of brief psychiatric screening instruments is one of the priority research areas identified by global experts through the “Grand challenges in global mental health” initiative to support such models of care.\textsuperscript{36} The use of brief screening instruments as clinical tools for nonspecialist workers necessitates a high level of local precision and relevance, as these instruments need to be sensitive enough to identify new cases and monitor changes in symptom level over time, in order to facilitate targeted management and follow-up.\textsuperscript{37}

Most brief screening instruments have been developed in high-income countries with “western” cultures and may have reduced sensitivity in low- and middle-income countries because emotional distress is experienced and communicated differently in different social contexts.\textsuperscript{38,39} Cross-cultural use of research instruments requires tools that are “culture free” or culturally equivalent. Van de Vijver and Poortinga list three types of bias that can impact on cross-cultural research, namely construct bias, method bias and item bias.\textsuperscript{40} Construct bias occurs when the concept under investigation differs substantially across cultural groups; for example, the idea that emotions can exist as mental phenomena in the absence of external causes is incomprehensible in certain societies. Method bias occurs when the methods used to examine a construct are culturally unfamiliar or inappropriate, for example, the use of paper-and-pencil tests in cultures where oral traditions predominate. Item bias occurs when a specific item does not fit the description of a concept under investigation in the target culture, for example, using local idioms such as “blues” for sadness.\textsuperscript{41}

Cultural considerations in the development of instruments

A longstanding challenge in studying the relationship between psychological phenomena and their cultural context has been striking a balance between the search for universals and the description of the rich variations in phenomena due to cultural and contextual differences. Three approaches to the study of psychological phenomena in relation to their cultural context can be distinguished: the cultural-comparative, or etic approach; the indigenous, or emic approach; and the combined etic–emic approach. The etic approach examines the applicability of western models and theories of psychological phenomena in non-western cultural contexts. The emic approach explores phenomenological variations and culture-specific phenomena in indigenous cultures. The combined etic–emic approach attempts to generate more
nearly universal models of phenomena that are valid for a broader range of cultures; for example, studies have conclusively demonstrated the ubiquity of somatization of depression and anxiety. The main substantive challenge to the etic approach is whether imposed constructs adequately cover indigenous constructs. The major limitation of the emic approach is that many of the discovered “unique” or culture-specific constructs can be subsumed under broader universal models. So, emic constructs need to demonstrate that they provide incremental validity beyond that provided by etic constructs. The combined etic–emic approach assumes that etic constructs may provide a framework in which to consider human universals, and that the emic approach may add new constructs to the assumed universals, to create more comprehensive universals as well as to delineate cultural variability. The main limitation of the combined emic–etic approach is that the process required to build up the comprehensive nomological network of constructs to reach universal coverage is time consuming. Empirical validation is also needed, to demonstrate that the combined approach provides incremental predictive validity above and beyond that provided using either the emic or etic approach alone.

In several countries of the WHO South-East Asia Region, the Patient Health Questionnaire (PHQ) has been translated or culturally adapted for screening depressive disorders. Some efforts have also been made to develop scales based on symptoms and signs as manifested in local cultures. Noteworthy examples of the latter are the Amritsar Depression Inventory in India, whose cross-cultural validity has also been tested with the General Health Questionnaire in an English population; the Peradeniya Depression Scale in Sri Lanka; and the Thai Depression Inventory in Thailand. The greater number of items limits use of these emic scales as screening instruments and their cultural dependence limits their cross-cultural comparability and international/regional use. Recently, Kohrt et al. combined local idioms of distress with a culturally adapted version of the PHQ-9, to efficiently screen for depression in Nepal.

In the development of the Depression Identification Instrument for Bangladesh, India and Nepal (detailed later), the authors proceeded from the assumption that depression, like many psychological constructs, may have universal aspects that are shared by all cultures (i.e. “global etic”) and aspects that are common to some cultures (i.e. “regional etic”), as well as unique aspects (i.e. emic). The Depression Identification Instrument was compared and contrasted with relevant western (presumed global etic) measures of depression, anxiety and somatization, to locate the new measure within the global etic space, as well as to visualize the cultural specificity of the regional/local measure. A possible challenge to this approach is that the “regional” measure based in Bangladesh, India and Nepal may not generalize to subregions of these countries and other countries in the WHO South-East Asia Region, which differ on linguistic (Bangla, Hindi and Nepali share Indo-Aryan roots) as well as other cultural yardsticks. However, the possibility of this happening should be lower than for etic measures.

Kohrt et al. followed a different form of a combined etic–emic approach, in which they used idioms of distress with a culturally adapted etic measure to efficiently identify depression in a primary care setting in Nepal. However, their approach does not address the question of universality of the western construct of depression.

**Development of cross-cultural instruments**

If a validated questionnaire is available in another language, researchers usually adapt it rather than creating a new one, because cross-cultural adaptation is faster. The cultural adaptation of established instruments follows what has been called a sequential approach to instrument development. This approach assumes that the item content in the original scale adequately represents the construct under consideration in the source country and the target countries. If the construct of depression is different in the source and target countries, the sequential approach will provide for cross-cultural comparability but will have limited validity in the target countries.

In contrast to the sequential approach, simultaneous development of an instrument assumes that, even when cultural universality of dimensions exists, culture-specific assessments may be necessary. The approach identifies cross-cultural aspects at the concept and construct level in multiple cultures. This process of development enhances the international and cross-cultural comparability of items, scales and instrument properties. This method was used by the WHO Quality-of-Life (WHOQOL) group to develop its quality-of-life measure, which is reliable and valid in a range of different cultures. Fifteen culturally diverse centres were simultaneously involved in operationalizing the WHOQOL instrument’s domains; drafting and selecting questions; generating response scales; and pilot-testing. Item development occurred at the same time in these countries, and the results were then pooled and translated into one source version, from which back translations into different languages were performed.

**Steps of instrument development**

Over the years, the standards have been set for developmental steps in the process of instrument development and testing. It is important to obtain an adequate representation of the respondent’s experience. This is achieved through client interviews, expert opinion, symptom lists, or diagnostic classification systems. After recording, these statements are used for item development and the construction of a dimensional measurement model. In the case of multinational instrument development, a forward–backward translation process follows, so that language versions reflecting core contents can be tested. Pilot-testing involves completing the questionnaire, followed by a review of the acceptability of the measure in terms of detailed feedback on the item level, by means of patient interviews or written responses (cognitive debriefing). Field-testing of the new questionnaire requires an adequate sample size, with patient numbers depending on the psychometric approach chosen. In classical test theory, reliability testing and factorial validity are used to determine construct validity. Inspection of the characteristics of item distribution guides decisions on inclusion or exclusion of items, and factor analysis informs the composition of scales.

Some measures like the comprehensive modular measurement systems are based on probabilistic rather than classical test theory, wherein an item–response–theory approach is used to construct comprehensive “item banks” derived from available instruments.
Depression Identification Instrument for the WHO South-East Asia Region

The WHO Regional Office for South-East Asia is in the process of developing a Depression Identification Instrument for use in primary care. The aim of the exercise was to develop a culturally adapted instrument to identify depression in Bangladesh (Bangla), India (Hindi) and Nepal (Nepali), with a view to potentially expanding its use in the South-East Asia Region. An etic–emic approach was used that allowed for measurement of depression using western as well as indigenous expressions.

To develop a measure of depression that was reliable and valid in the three countries, a regional panel of experts was formed in each country. It was decided to define depression as constitutive of 14 domains: 10 etic domains based on diagnostic elements of the International Statistical Classification of Diseases and Related Health Problems (ICD-10) and four emic domains (preoccupation/worry, irritability, other psychological, other somatic). All centres subsequently contributed items to the pilot version of the Depression Identification Instrument, based on focus-group discussions with users, caregivers and mental health professionals. Commonly used diagnostic criteria for depression, and items from etic as well as emic depression scales, were added to this pool. Repeated translation and back-translation were used to check the adequacy of the items. After these formulated questions were transcribed, semantically equivalent questions were eliminated from the global pool and 173 items were included in the pilot instrument.

The resulting draft of the Depression Identification Instrument was validated in primary health-care populations at each centre, in a sample of 300 individuals (200 with depression, 50 with neurotic, stress-related and somatoform disorders and 50 normal controls, diagnosed as having no mental health disorder according to the Mini International Neuropsychiatric Interview). Data gathered were statistically analysed to eliminate items that did not show adequate discriminant value in relation to healthy controls; convergent validity in relation to commonly used scales (Hamilton Depression Rating Scale, Hamilton Anxiety Rating Scale, and PHQ-9); or adequate inter-item or item-total correlation or factorial loading. These analyses were carried out at the level of individual centres, at the level of summaries across centres, and at the level of the pooled regional data.

An item-sorting exercise was conducted with 50 mental health professionals, to classify depressive symptoms into the 14 specified domains of depression. Preliminary confirmatory factor analysis yielded a six-factor model, comprising factors titled: “depressed mood”, “loss of interest”, “pessimism”, “guilt”, “preoccupation/worry” and “perceived lack of agency”, with adequate fit indices for the three-country data. These dimensions were also recovered in data from each country individually.

While, “depressed mood”, “loss of interest”, “pessimism” and “guilt” are universal domains of depression; “preoccupation/worry” and “perceived lack of agency” appeared to be new dimensions. The factor “preoccupation/worry” lies outside of diagnostic elements of the ICD-10, but such phenomena are described as associated features of depression. The factor also overlaps with “thinking too much”, an idiom that has appeared frequently in ethnographic studies of mental distress in many world regions, including countries in the WHO South-East Asia Region. Kaiser et al. report that out of 138 publications on “thinking too much”, 43.5% were from Africa, and 38.4% from South-East/South Asia. The idioms typically reference ruminative, intrusive and anxious thoughts and worries. The present authors’ research suggests that “preoccupation/worry”/“thinking too much” may constitute important (core) aspects of depression, although literature suggests that phenomena related to the idiom may also be important constituents of anxiety and post-traumatic stress disorders. However, considering that idioms like “thinking too much” also reflect aspects of experience, distress and social positioning not captured by psychiatric diagnoses, the factor was named “preoccupation/worry” rather than “thinking too much”.

Lack of agency may resemble learned helplessness/lack of self-efficacy in the etic sphere, while it may mirror indigenous worldviews in the emic sphere. Hoch states that there is a lack of anthropocentric orientation in the traditional Indian worldview, which may be variably influential in the three countries studied. There is less emphasis on ego, i.e. sense of personal identity, or individual power, as a result of such an orientation. The doctrine of karma adds to this subordination of the self to the cosmic order, and acceptance of misfortune or adverse circumstances, as they are believed to be impervious to both individual and interpersonal–social action.

The six-factor model of combined etic–emic descriptors offers a factorially valid way to measure dimensions of depression in primary-care populations in the three countries. The instrument can be used as an alternative to imported depression measures, when the goal is to measure depression in an indigenously valid way while still retaining comparability across cultures. Future research needs to examine the comparative advantage of the combined etic–emic depression instrument in predicting important outcomes such as the clinical diagnosis. Equally importantly, however, future studies should test the unique value of these scales, assessing the relative utility of the combined etic–emic scales (compared with imported measures) to predict culture-specific outcomes such as differences in emotional expressiveness or the relational nature of depressive symptoms.

The effectiveness of brief screening questionnaires

Treatment guidelines developed in high-income countries recommend routine screening for depression in primary health care as an initial step in holistic patient care. A growing body of evidence suggests that nonspecialist health workers are capable of providing effective counselling as well as case management for depression in health settings in low- and middle-income countries. Brief instruments have emerged as a key element of these treatment-delivery models in resource-poor settings, and are critical to the scale-up of mental health care.

A number of brief instruments (≤12 items), including the PHQ-9 and the Kessler-10 (K-10), have been validated in low- and middle-income countries. Similarly, longer instruments (≥15 items), including the Centre for Epidemiological Studies-Depression (CES-D) scale, have also been validated in low- and middle-income countries. In a systematic review...
of validated depression-screening instruments in low- and middle-income countries, Akena et al. found that brief, as well as long, screening instruments showed acceptable accuracy. Brief scales may have an edge over the longer instruments, as they can be administered in a much shorter time. However, the authors cautioned that use of ultra-brief scales that do not include the whole spectrum of depression symptoms, such as suicide, should be followed by a detailed diagnostic interview.

**Conclusion**

Depression is a leading cause of disability, yet in many countries of the WHO South-East Asia Region, the treatment gap is over 90%. A dearth of mental health specialists is a barrier to closing this treatment gap. Lay providers can be trained to provide basic mental health services at the primary care and community level. Brief identification instruments can facilitate case detection, symptom monitoring and triage to a higher level of care. Instruments developed in high-income countries with “western” cultures may be of limited relevance in settings in South-East Asia. Ethnographic methods can help in adaptation of instruments to enable effective use across diverse systems of care.

**Source of support:** Nil.

**Conflict of interest:** Pratap Sharan was the principal investigator for a clinical trial funded by Eli Lilly (CTRI/2011/07/001866) that ended in January 2015.

**Authorship:** All authors contributed equally to the conception, drafting and final approval of this paper and all are accountable for all aspects of this work.

**How to cite this paper:** Sharan P, Sagar R, Kumar S. Mental health policies in South-East Asia and the public health role of screening instruments for depression. WHO South-East Asia J Public Health. 2017;6(1):5–11.

**References**


