

# The Clinical Interview Schedule – Sinhala version: validation in a community setting in Sri Lanka

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**ABSTRACT** *The Clinical Interview Schedule – Revised (CIS-R) was validated in a clinic setting for adolescents 15–19 years of age in Sri Lanka. The interview schedule was translated into Sinhala and modified to include sections introducing each symptom group. One-hundred-and-thirty-one adolescents attending a psychiatric clinic for the first time were interviewed by a lay interviewer using CIS-R (Translated). They had previously been examined and rated by a psychiatrist using local (emic) diagnostic procedures. All the filtering questions showed a high level of sensitivity (80%–96%). None of the questions in the sleep problems and phobias sections were effective at discriminating between those who did and did not show significant symptoms in these areas according to the psychiatrist. The internal consistency of the sections of the interview schedule (when these two sections were excluded) varied between 0.60 and 0.82. Linear regression showed that, when both sections were excluded, 97% of the variation of total score could be explained. Therefore, it was decided to exclude the sleep problems and phobias sections from the modified interview schedule.*

*As the population samples are likely to be different from clinic samples it is necessary to test the validity again in a community sample before confirming the validity of the modified interview schedule.*

**Key words:** Clinical Interview Schedule – Revised, validity, adolescents, common mental disorders

## Introduction

The Clinical Interview Schedule – Revised (CIS-R) has been widely used in the assessment of common mental disorders (Lewis, 1992); it has not, however, been validated or used in Sri Lanka before. We therefore designed and carried out this present study to adapt the CIS-R for use in Sri Lanka and to test its validity in a clinic setting.

Mental and behavioural disorders are common, affecting more than 25% of all people at some time during their lives. They are present at any point in time in about 10% of the adult population. Furthermore, around 20% of all patients seen by primary healthcare professionals have one or more mental disorders (Regier et al., 1988; Wells et al., 1989; Almeida-Filho et al., 1997). In developing countries where the diagnosis and treatment of mental health problems at primary care level is uncommon, and

where the specialist mental healthcare facilities are few and far between, people access specialist care only for debilitating psychosis.

Psychiatric case identification in general populations allows us to study both individuals with functional psychiatric disorders and the populations from which they come. At the population level, valid case identification can be used to evaluate needs in treatment and the utilization of service resources. Thus, prevalence is of interest both to scientists and to those responsible for commissioning and planning services (Brugha et al., 1999a).

Structured diagnostic interviews were introduced into general population surveys in the 1970s as a method to enable interviewers to obtain psychiatric diagnoses comparable to those that a psychiatrist would obtain (Robins et al., 1981). Standardized, semi-structured interviews attempt to encapsulate the

clinical cross-examination while limiting its potential vagaries. The interviewers used in administering semi-structured interviews are usually psychiatrists or clinical psychologists. By contrast, in totally standardized interviews the interviewer is not permitted to make judgments and so the interview is suitable for use by lay interviewers. In developing countries where there is a severe shortage of skilled manpower, use of structured interviews is the most cost-effective and feasible way to carry out community surveys. The best-known structured interviews are the Diagnostic Interview Schedule (DIS) (Robins et al., 1981), the Composite International Diagnostic Interview (CIDI) (WHO, 1990) and CIS-R (Lewis et al., 1992).

The CIS-R is especially designed to be used in community surveys (Lewis et al., 1992) to identify common mental diseases and has the advantage of being suitable for use by lay interviewers. Moreover, compared with similar instruments like CIDI, it takes much less time to complete and the instructions are simpler for a lay interviewer to follow. It has been used extensively in the UK and has been translated into many other languages and used in many countries such as Zimbabwe (Patel and Mann, 1997), Taiwan (Cheng, 1988) and United Arab Emirates (El Rufaie and Absood, 1993). However, the CIS-R was developed in the West and employs European perspectives on symptoms associated with emotional distress. Although the CIS-R has been validated in the UK (Brugha et al., 1999b) this has not been done in other countries. Jacob et al. (1998) studied the factorial structure of the CIS-R in four diverse cultures and showed that symptoms of emotional distress seem to have broadly the same factor structure across the cultures. However, symptoms of phobia, panic, obsessions and compulsions were excluded from the analysis because of their low prevalence. There was some evidence for heterogeneity for worry, anxiety and concentration. These differed across populations, and releasing these constraints resulted in an improved fit of the model.

Clinical experience leaves no doubt about the universality of mental illness as a broad group of phenomena that are part of human experience (Patel and Winston, 1994). However, this does not imply the universality of specific categories of mental illness as defined by ICD-10 or DSM-III-R (American Psychiatric Association, 1987; World Health Organization, 1992) and some workers have even questioned the usefulness of categorizing mental illness

(Goldberg and Huxley, 1985). The etic approach to diagnosis (the evaluation of a phenomenon from outside a particular culture, with the aim of comparing similar phenomenon across different cultural contexts) has therefore been criticized on the grounds that it relies on an unproven assumption that the phenomenology and diagnostic categories of mental illness as defined by Euro-American system are valid in all cultures with minimal modification (Patel and Mann, 1997). The methodologies of the new cross-cultural psychiatry envisage the use of emic techniques. The emic perspective involves the evaluation of the studied phenomenon from within a particular culture and context, aiming to understand its significance and relationship with other intracultural elements (Bristling et al., 1973). Therefore, the use of standardized instruments developed outside a particular culture should be validated before its use in that culture.

## Methodology

### *The CIS-R*

The CIS-R (Lewis et al., 1992) is a structured interview schedule consisting of 15 symptom group sections marked A-O as follows: somatic symptoms, fatigue, concentration and forgetfulness, sleep problems, irritability, worry about physical health, depression, depressive ideas, worry, anxiety, phobias, panic, compulsions, obsessions and overall effects.

The exact wording of most of the questions and specific rules for coding symptoms are fixed, but occasionally interviewers have to ask supplementary questions and return to previous sections if it becomes apparent that the participant has not answered earlier questions accurately.

Each section of the CIS-R from A to N consists of filtering questions and questions that describe symptoms related to each section. Not all questions on symptoms contribute to the score for a particular section. Most symptom sections are scored on a scale from 0 to 4 whereas the section on depressive ideas is scored on a scale from 0 to 5, these ratings depending on the symptom's severity and frequency. Symptom sections with scores of 2 or more are considered as probably clinically significant (Singleton et al., 2001). The total score of the interview schedule is taken to indicate the severity of a minor psychiatric disorder. Using a proxy, an ICD diagnosis can be obtained from the interview schedule.

In addition, a computerized version of the CIS-R

(PROQSY), which is designed for self-administration, is available. Computerized versions of structured Interview Schedules improve standardization of diagnosis, eliminate clinician bias and also offer high reliability and consistency of administration (Erdman et al., 1985). However, evidence is mixed regarding the participants' comfort with interviewers and computers. Some feel comfortable relating sensitive information to computers rather than interviewers (Erdman et al., 1985) but those with mental health problems were more resentful of, and intimidated by, computerized interviews (Kobak et al., 1994). Moreover, in Sri Lanka, school children were not familiar with the use of computers and there were schools without electricity supply. Considering all these factors it was decided to use the interviewer-administered version of CIS-R for this study.

#### *Modification and translation of interview into the local language*

The first step in the assessment of the instrument was the examination of its content validity. Three psychiatrists and the principal investigator critically reviewed the interview schedule for comprehensiveness of questions and clinical appropriateness of the measures. The original interview schedule was designed to be used by all age groups. Because of this, the original CIS-R has a question that enquires about the respondent's interest in sex in the past month. In Sri Lankan culture, it is not acceptable for adolescents who are attending school to engage in sex. It was also believed that including such a question might affect the way a respondent answers other questions. As a replacement item could not be found for this question, and as this was not a scoring question, it was decided to exclude it from the translated version.

The next step was translation into the local language. The translation of the interview schedule was carried out as advised by Meadows (1994) and Mare et al. (1995), so as to maintain conceptual, operational, and semantic equivalence. Semantic equivalence was difficult to achieve because in Sinhala (the language to which the instrument was translated) there are no commonly used words that specify each symptom as given in the English instrument. Many people do not know or understand the technical words developed in Sinhala for each illness, which have a restricted usage, primarily among clinicians. Although some people tend to understand the English words used for some

symptoms and conditions, it is not possible to evaluate whether they understand the true meaning of the word. Because of this, it was decided to explain clearly the terms used in each section of the interview schedule, giving examples. Such explanations were provided in all relevant sections to make sure the respondents understood each question clearly. For example, the scientific Sinhala word for anxiety is 'Kansawa', which is not self-explanatory and is not understandable by lay people. Anxiety was therefore described in Sinhala as follows:

#### J. Anxiety

I will give you an example of anxiety. Imagine that you have to make a speech in front of an audience. If you are anxious about it, before the speech you will feel restless or you will have palpitations or sweating or dryness of the mouth or difficulty in breathing. Sometimes it is possible that you will have more than one symptom. We all feel anxious at times but some people feel anxious about small things and they get anxious more than is usual. Normally you feel anxious before an event. The questions I am about to ask are about this feeling. Do you understand what is meant by anxiety or do you need more examples or explanations?

#### *Examination of the criterion validity of the instrument at a clinic setting*

The validity of the instrument in the first instance has to be tested in a setting where a wide range of symptomatology is observed. This stage of the study was therefore carried out in the psychiatric clinics in the Teaching Hospital Peradeniya and at a few clinics in Kandy where private consultations are held. The inclusion of both settings was considered necessary to ensure a broad spectrum of emotional disorders, necessary to examine the criterion validity of the instrument.

There are different views about validating psychiatric questionnaires. Spitzer (1983) argues that a gold standard for validity does not exist in psychiatry. Brugha et al. (1999a) express the view that diagnostic instruments should be validated against clinically trained interviewers – psychiatrists.

The consultant psychiatrist who worked on this study was trained both in Sri Lanka and the UK and is knowledgeable regarding ICD and DSM diagnostic criteria. He made the diagnoses based on his clinical experience of the presentation of common mental disorders in Sri Lanka. To ensure a comprehensive

assessment the clinician used a checklist and marked on the checklist the severity level of each symptom group according to the four-point classification used in CIS-R (Goldberg et al., 1970). The clinician's assessment took about 30 minutes to 45 minutes depending on the severity of the symptoms.

#### *Selection and training of lay interviewer*

One lay interviewer was trained as an interviewer using the translated version of the training module available with the CIS-R (Lewis and Pelosi 1990). The mode of filling the Interview Schedule was explained in detail for each of the items. Training on the theoretical aspects was carried out for four days and at the end of training a role-play exercise was carried out followed by a two-day field-training session in the clinic.

#### *Study population*

All adolescents between the ages of 15 and 19 years, schooling and attending the psychiatric clinics for the first time and who were not diagnosed as having a psychosis or severe mental illness after examination by a consultant psychiatrist were included. Those who could not understand Sinhala (the language in to which the instrument was translated) were excluded.

#### *Calculation of the sample size*

Sample size was calculated to give adequate power to reject the null hypothesis of no association between CIS-R rating and psychiatrist-rating at the symptom level. A sample size of 140 respondents would give 80% power at 95% significance to detect a true 4.7-fold difference in CIS-R symptom group level caseness between psychiatrist-rated 'cases' and 'non-cases' where the CIS-R prevalence among non-cases was 5% and a true 1.8-fold difference where the CIS-R prevalence among non cases was 30%.

#### *Collection of data*

All the patients who were referred to the psychiatrist had mental illnesses of varying severity; the psychiatrist referred to the lay interviewer all adolescents other than those diagnosed as having a psychosis. They were then administered the translated interview schedule by the trained lay interviewer. The interviewer was blind to the diagnosis made by the psychiatrist. All the patients attending the clinic were interviewed until the sample size was achieved.

#### *Analysis of data*

The ability of the filtering questions in each section of CIS-R to distinguish patients with a given emotional disorder as detected by the psychiatrists was examined for sensitivity and specificity.

The ability of each question in a section to discriminate between respondents, compared with the diagnosis made by the psychiatrist, was examined using the chi-square test. The ability of the total score of a section to discriminate was also tested similarly. Those questions not showing any ability to discriminate between respondents were marked for exclusion.

The next step was to check the internal consistency of questions in a given section. Cronbach's alpha was calculated using all scoring questions in a given section. The correlation of each item with the sectional total was examined.

The validity of the diagnosis indicated in each section of CIS-R compared to a psychiatrist was examined by calculating the Kappa coefficient.

## **Results**

#### *Examination of the criterion validity of the CIS-Translated*

Out of the 141 persons fulfilling the selection criteria, 96 (68%) were from the psychiatric clinic of the Teaching Hospital Peradeniya whereas 35 (32%) were enrolled from a private consultation practice of the same psychiatrists. The response rate for stage one of the study was 93% (131 completed the Interview Schedule). The mean age of the sample was 17.6 years and there were more females (57.2%) than males in the sample. Ninety-three per cent of them were of Sinhala ethnic origin and there were 4.6% Tamils and 2.3% Muslims. No one was previously diagnosed as having a mental health problem.

The CIS-R generally considers any section with a score of more than two as significant (Lewis and Pelosi, 1990). This was used to calculate the prevalence for each symptom group according to CIS-R. The prevalence for each symptom group according to the psychiatrist and the CIS-R is given in Table 1.

Other than for somatic symptoms, sleep problems and phobias, the prevalence according to CIS-R category and psychiatrist's diagnosis is similar. In sleep problems the CIS-R prevalence is much lower than the psychiatrist's diagnosis whereas the opposite is observed for phobias.

**Table 1.** Prevalence for each symptom group according to the psychiatrist and the CIS-R

Symptom group	Prevalence (psychiatrist's diagnosis) (%)	Prevalence (CIS-R)* (%)	Agreement (Kappa)
Somatic symptoms (n=73)	46.6	32.1	0.34 (0.12–0.56)
Fatigue (n = 91)	41.2	51.1	0.51 (0.31–0.71)
Lack of concentration and forgetfulness (n = 97)	58.8	51.1	0.35 (0.15–0.55)
Sleep problems (n = 61)	38.2	7.6	0.19 (–0.27–0.45)
Irritability (n = 97)	61.8	54.2	0.52 (0.32–0.72)
Worry about physical health (n = 63)	25.9	22.1	0.61 (0.37–0.84)
Depression (n = 102)	37.4	29.0	0.38 (–0.02–0.78)
Depressive ideas (n = 96)	62.6	56.4	0.73 (0.53–0.93)
Worry (n = 83)	48.1	48.1	0.57 (0.55–0.95)
Anxiety (n = 74)	38.9	38.2	0.33 (0.11–0.55)
Phobias (n = 79)	14.5	41.2	0.11 (0.01–0.21)
Panic (n = 28)	10.7	10.7	0.88 (0.78–0.98)
Compulsions ( n = 54)	17.6	24.4	0.54 (0.44–0.64)
Obsessions ( n = 50)	18.3	23.7	0.46 (0.26–0.66)

\* CIS-R sectional score of  $\geq 2$  taken as positive for the symptom group.

The agreement rates between the psychiatrist and CIS-R were estimated by calculating the Kappa coefficient. The Kappa values ranged between 0.1 and 0.8. The lowest Kappa's were observed for sleep problems and phobias.

#### Assessment of screening questions

The CIS-R is developed so as to exclude those without a given symptom at the beginning of each section. These filtering questions were analysed to see if they were capable of discriminating between those with and without symptoms as identified by the psychiatrist.

Table 2 shows the sensitivity and specificity in respect of the filtering questions of each section. All the questions showed a high level of sensitivity. The sensitivity of the sections varied from 81% for the section on worry to 96.3% for the section on fatigue. The specificity varied from 31.7% for the section on depression to 87.8% for the section on panic. As sensitivity is the important function of filtering questions of this nature, at this point all filtering questions were retained without modification. It is noteworthy, however, that because of low specificity, Youden's index, which measures the test's efficiency, is more than 0.5 only for the sections on somatic symptoms, anxiety, panic, compulsions and obsessions.

#### Scoring questions

Each section consists of a number of scoring questions and the scores are added for a given section. The next step was to examine whether each scoring question in a given section could differentiate between those having symptoms and those without symptoms as detected by the consultant psychiatrists. The discriminating ability was examined using the  $\chi^2$  test. If the  $\chi^2$  value was not statistically significant the question was marked for deletion. No single question in the sleep problem questions and phobia questions showed statistically significant ability to differentiate between those with or without those symptoms. In phobia many diagnosed as not having phobic disorder by the psychiatrist have scored positively for the questions and the reverse was observed for sleep problems.

Cronbach's alpha was calculated for all scoring questions in a given section. Table 3 gives the Cronbach's alpha and average item-total correlation in the selected sections. It was decided to retain all items with a Cronbach's alpha of more than 0.4. All the sections selected had item-total correlations of more than 0.4 while the sections on phobia and sleep problems had values lower than 0.4.

Linear regression analysis was carried out to examine the effect of excluding sections on sleep problems and

**Table 2.** Response to filtering questions for each section of the CIS (Translated) compared with the psychiatric diagnosis

Section	Sensitivity (%)	Specificity (%)	Youden's index
A. Somatic symptoms	86.9 (75.2–93.8)	71.4 (59.2–81.3)	0.58
B. Fatigue	96.3 (86.2–99.4)	49.4 (37.9–60.9)	0.45
B. Concentration and forgetfulness	92.2 (83.2–96.8)	51.9 (38.0–65.5)	0.44
C. Sleep problems	80.0 (65.9–89.5)	74.1 (62.9–82.9)	0.54
E. Irritability	90.1 (81.0–95.3)	52.0 (37.6–66.1)	0.42
F. Worry about physical health	82.4 (64.8–92.6)	63.9 (53.5–73.2)	0.46
G. Depression	85.1 (71.1–93.3)	31.7 (22.1–43.0)	0.17
H. Depressive ideas	89.0 (79.7–94.5)	53.1 (38.4–67.2)	0.42
I. Worry	81 (68.7–89.4)	52.9 (40.5–65.0)	0.34
J. Anxiety	88.2 (75.4–95.1)	63.8 (52.2–74.0)	0.52
K. Phobias	89.5 (65.5–98.2)	44.6 (35.3–54.3)	0.34
L. Panic	87.5 (60.4–97.8)	87.8 (80.1–92.9)	0.75
M. Compulsions	82.6 (60.5–94.3)	67.6 (57.8–76.1)	0.50
N. Obsessions	87.5 (66.5–96.7)	72.9 (63.3–80.8)	0.61

**Table 3.** Cronbach's alpha and average item- total correlation for each section

Question	Cronbach's alpha	Average item-total correlation
Somatic symptoms	0.82	0.62
Fatigue	0.69	0.52
Concentration and forgetfulness	0.68	0.54
Sleep problems	0.38	0.28
Irritability	0.76	0.61
Worry about physical health	0.70	0.60
Depression	0.60	0.47
Depressive ideas	0.79	0.57
Worry	0.79	0.55
Anxiety	0.74	0.51
Phobias	0.31	0.23
Panic	0.70	0.47
Compulsions	0.70	0.58
Obsessions	0.75	0.55

phobia. When the two sections on sleep problems and phobias were excluded 97% of the variation in total score was explained. The original CIS-R total score could be predicted using the following regression formula:

$$\text{CIS-R} = 2.2 + (0.31 \times \text{CIS-Sn})$$

The relative contributions to the total score from these sections were small and they did not demonstrate a differentiating ability so it was decided to exclude the sections on sleep problems and phobia from the instrument.

## Discussion

In this study we sought to modify and validate the CIS-R for Sri Lankan adolescents. During translation and modification, some questions, which were culturally unacceptable, were removed, and new introductory sections describing symptoms were added to the interview schedule. Two sections (on sleep problems and phobias) that showed no discriminating ability against a local psychiatrist's formulations, were removed from the interview schedule. The final interview schedule was acceptable and valid in Sri Lankan culture, and could be used for future screening programmes for common

mental disorders. As the interview schedule was validated for lay interviewer administration it is, potentially, economically feasible and generalizable for our health-care setting.

Our study had some limitations. Although it is better to validate an interview schedule in a community setting, a clinic was selected as it provided an opportunity to test the CIS-R across a wide range of symptom sections and levels of severity. However, the clinic sample is likely to be systematically different from a community sample, and the validity established here may not generalize to a general community setting. The respondents were seen by medical officers and a psychiatrist before the interview and, as such, the symptoms might have been explained and understood by the time respondents came for the CIS-R interview. It might have been better to randomize the order of the psychiatrist (emic gold standard) and lay interviewer (CIS-R) interviews but in practice this was not feasible because of the need for the clinician to exclude unsuitable patients. It is therefore important to test the validity again in a community setting before confirming the validity of the interview schedule.

The biggest challenge in validating an interview designed in the West is to translate it in a way understandable to the respondents. Most of the symptoms examined in CIS-R are collectively described as 'feeling upset' in the local language. The scientific names developed were not self-explanatory and had not yet reached the general public. Therefore, it became necessary to explain each symptom in detail before questioning. This has modified the structure of the interview schedule from the original version but was essential for the successful understanding of the questions.

In Sri Lankan society adolescents of school age are not expected to be sexually active. Therefore, the questions regarding sexual practice were removed from the interview schedule in order to avoid embarrassing adolescents by asking culturally inappropriate questions. As these questions were not scoring questions they have not affected the sectional or the total scores of the interview schedule but if ICD-10 diagnoses had been used in the study the diagnoses would have been affected by not including these questions.

It was decided to use emic diagnostic criteria in validating the interview schedule. This was because it is possible that Sri Lankan culture, and with it the presentation and interpretation of symptoms, might

differ from Western countries. In the strict sense of the term, emic diagnostic criteria are criteria used by traditional practitioners or healers in diagnosing a disorder. In this study an allopathic medical practitioner, a local psychiatrist, has used local diagnostic practice in making his clinical diagnosis.

Other than for somatic symptoms, sleep problems and phobias, all other symptoms observed by the psychiatrist and the CIS-R were comparable. The questions on somatic symptoms in the original CIS-R were inadequate for establishing ICD 10 criteria for somatoform disorder, so the PROQSY programme used for computer administration of CIS-R was changed to contain more questions on various physical symptoms. The inadequacy of the original bank of questions may be the reason for the low prevalence of cases picked up by the CIS-R.

The phobic section of the CIS-R estimated a much higher prevalence than the psychiatrist (41.2% versus 14.5%). This is in contrast to the observations of Jacob et al. (1998) where the section on phobia was removed from the analysis due to low prevalence. The reason for low prevalence in that study may be that CIS-R scoring questions on phobia collect information for only the past one week but, in the Sri Lankan context, the prevalence may have been reported higher because of the style of upbringing in Sri Lanka (Abeysinghe and Navaratne, 1999). During adolescence, the commonly encountered phobias are agoraphobia and social phobias (Sprinthall and Collins, 1985). In Sri Lanka, children are not expected to talk in front of strangers or to behave freely in front of strangers or visitors. Moreover, unlike in Western society, adolescents, especially females, are always chaperoned by the parents. This means that behaviours considered when assessing social phobia and agoraphobia in CIS-R are considered as signs of good upbringing and are cultivated. These types of behaviours are called 'shyness' and the parents and elders describe shyness as a good and an admirable quality of adolescents. For this reason adolescents might have been shy and avoidant, but nevertheless, appropriately, and would not have been recognized as disordered by a local psychiatrist. Interestingly the description in the Japanese literature of the culture-bound syndromes *Shinkeishitsu* and *Tnjinkyofusho* would seem to have much in common with the phenomena identified in Sri Lankan study. *Shinkeishitsu* and *Tnjinkyofusho* are described as superficially displaying features associated with the

DSM-III classifications for phobic, anxiety and avoidant personality disorders but constituting unique syndromes that the Japanese have attributed variously to temporal predisposition, early childhood socialization practices, family dynamics and frustrated dependency needs (Russel, 1989). Nevertheless, they do seem to be viewed, even in the local literature, as pathological. In Zimbabwe, Patel and Mann (1997) reported that the one etic concept not considered as a mental disorder by care providers was phobia. In a study carried out in Taiwan (Cheng, 1989) it was shown that the prevalence of phobias was zero and the author has attributed this to the extended family system in Taiwan. It is also possible that this would be due to the lack of conceptual validity of the section on phobia.

Difficulties were also encountered when analysing the section on sleep problems. No question differentiated between those with or without symptoms according to the psychiatrist. All the questions were based on time criteria and compared to the UK. Few Sri Lankan teenagers have a watch. Even if they have a watch they might not be in the habit of checking the time when they were unable to sleep. For this reason, the respondents do not have a clear understanding of the time spent trying to go to sleep or the time spent trying to go back to sleep. Another factor for consideration is that in Sri Lanka this is the age when adolescents study for higher examinations and they are expected to sleep late or get up early in the morning for studying. So inability to sleep or getting up early may go unnoticed or may not be a problem for many respondents. If this section is to be included in the interview schedule, therefore, it needs to be completely restructured. It might be possible to question respondents on the change of sleeping pattern in the recent past and the level of distress caused by it and its effect on their daily activities.

The sleep problems and phobia sections were characterized by poor internal consistency, as well as weak discriminability with respect to the external criteria. Accordingly, they were excluded from the scale, the residue of which still explained nearly 98% of the total variance.

Excluding two sections from the CIS-R might make it less comparable to studies carried out worldwide with the original version. It also becomes necessary to identify a new cut-off score to diagnose common mental disorders in this population (this work has also now been completed in Sri Lanka, and will be published

separately). However, as the modified interview schedule is locally valid and compatible with the Sri Lankan culture, it will at least indicate the true nature of the problems of common mental disorders in this population. The benefits of cross-cultural comparison using common methods are illusory if the assessment tools do not have cross-cultural validity.

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