

# Culturally sensitive validation of screening questionnaires for depression in older African–Caribbean people living in south London

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**Background** We tested the validity of two screens for depression in older African–Caribbean adults, the 15-item Geriatric Depression Scale (GDS) and a new Caribbean Culture-Specific Screen for emotional distress (CCSS). Two independent criteria were used for validity: (a) a psychiatric diagnosis derived from GMS–AGECAT, and (b) a culturally sensitive assessment of mental disorder, derived from a tool developed with local African–Caribbean religious healers.

**Method** One hundred and sixty-four consecutive African–Caribbean primary care users, aged 60 years or older, were screened with the GDS and the CCSS. Diagnostic interviews were carried out on 80% of high scorers and 20% of low scorers.

**Results** The number of cases detected by the two separate diagnostic approaches was similar. However, the agreement between who was and who was not a case was only modest. At a cut-off of  $\geq 5$ , the GDS was an adequate case detector for psychiatric depression, and, at a cut-off of  $\geq 4$ , for 'depressed/lost spirit', as defined by culture-specific criteria. It performed as well as the new CCSS.

**Conclusions** At a cut-off of  $\geq 4$  the 15-item GDS can be recommended as a case detector for significant forms of depression in older African–Caribbean people living in south London.

Nearly all of those now aged 60 plus years, living in the UK, who are from the Caribbean, migrated here in their twenties or thirties. Of these, nearly all are African–Caribbean, that is, people with an African ancestry and Caribbean background (Hutchinson & McKenzie, 1995). Previous use of the Geriatric Depression Scale (GDS; Sheikh & Yesavage, 1986) in African–Caribbean elders indicated that some items may not be ideal (Abas, 1996). The main study aim was thus to test the validity of the standard 15-item GDS. Our second aim was to see whether the GDS would have similar validity to a new Caribbean Culture-Specific Screen for emotional distress (CCSS; Abas *et al.*, 1996). This incorporates terminology common in emotionally distressed African–Caribbeans (see Appendix 1). Validation of a screen usually involves an independent assessment using a medical diagnostic interview. However, value should also be given to categories of mental disorder defined by care providers working from within the culture (Leff, 1990; Littlewood, 1990). For this study, therefore, a separate culturally sensitive 'diagnosis' was made in addition. The third aim was to look at the agreement between the two approaches.

## METHOD

### Settings and subjects

The target population was African–Caribbean adults, aged 60 years or older, using primary care services in the Lambeth, Southwark and Lewisham districts of London in 1996. The number of Black Caribbean people aged 60 or older living in Lambeth, Southwark and Lewisham is around 8000 (Office of Population Censuses and Surveys, 1992) with 99% estimated to be registered with a general practitioner (GP) (Richards *et al.*, 1996). Five primary care clinics took part where 750 Black Caribbean people aged 60 or

older were estimated to be registered (Health Policy Unit of Lambeth, Southwark and Lewisham, personal communication). The sample comprised consecutive primary care users, that is, both clinic attenders and those receiving home visits by a member of the primary care team.

### Study design

Subjects were approached by one of three trained interviewers in the waiting room or at home within one week of their contact with a member of the primary care team. They were informed that a study of the health of Caribbean migrants aged 60 or older was taking place and asked if they considered themselves in that category and if so, if they were willing to be interviewed. Those in agreement were asked some demographic and general health information. Ethnicity was self-classified. Those unable to provide a self-description were asked to choose from the 1991 census categories. They were then interviewed with:

- (a) the short GDS, a 15-item validated screen for depression in the elderly (Sheikh & Yesavage, 1986), a score of  $\geq 5$  indicating caseness of depression;
- (b) the CCSS, a new 13-item screen for emotional distress in older African–Caribbean adults, validated in one previous study (Abas *et al.*, 1996; see Appendix 1) where a score of  $\geq 5$  indicated caseness of depression;
- (c) the Mini-Mental State Examination (MMSE; Folstein *et al.*, 1975), a 30-item validated screen for cognitive impairment, a score of  $\leq 24$  indicating impairment.

The GDS and the CCSS were given in random order. Low scorers were defined as those scoring  $< 4$  on each of the screens. Higher scorers were defined as those scoring  $\geq 4$  on either screen. A random 80% of higher scorers and a random 20% of low scorers were approached at home within two weeks of the assessment and were asked to take part in a further interview. Those giving informed consent were interviewed with the two diagnostic interviews, separately, as described below. These were given in random order on separate days, within two weeks of each other, blind to the results of screening. Discussion of agreement or disagreement between the two approaches to diagnosis only took place once data analysis was complete.

## Diagnostic interviews and criteria

### Psychiatric interviews and diagnostic criteria

Psychiatric diagnostic interviewing was carried out using the third edition of the community version (A) of the Geriatric Mental State interview (GMS; Copeland *et al.*, 1976, 1986). This semi-structured standardised interview rates mental state symptoms present in the past four weeks. The symptom information derived is used by the computerised GMS-AGECAT system to generate Stage I syndromes (such as 'organic' or 'anxiety'), each with a level of diagnostic confidence (0–5). Levels 3 and above correspond to what psychiatrists would usually recognise as a case with levels 1 and 2 being 'sub-case'. A hierarchically evaluated probable diagnosis is then produced at Stage II, again with levels of diagnostic confidence (0–5). The caseness threshold used was the same as that for previous studies (Copeland *et al.*, 1986). The GMS interviews were performed by four trained psychiatrists (White British or mixed Asian/White). The psychiatrist also made an assessment based on overall clinical judgement.

### Culture-specific interviews and diagnostic criteria

Pilot interviews with a range of lay African–Caribbean care providers had shown that several mental disorders in the elderly were commonly recognised including stress, depressed/lost spirit, senility/ageing and madness (Abas *et al.*, 1996). Indicators for a culture-specific diagnosis of depressed/lost spirit were developed with four African–Caribbean religious healers/ministers (see Appendix 2).

A person with depressed/lost spirit was recognised through having changes in their appearance, several typical complaints, social problems and ineffective functioning. As shown in Appendix 2, they would have indicators in at least two of these four main areas.

Stress/a stressful condition was viewed as different and often less severe than depressed spirit. Someone with 'stress' was facing a lot of problems and would complain of fretting or worrying, a feeling of pressure and a lowering of spirit.

Diagnostic information was gathered systematically using the specially derived Culture-Specific Diagnostic Interview (CDI) modified from the Short Explanatory Model Interview (Lloyd *et al.*, 1998) in

collaboration with four African–Caribbean religious healers/ministers and two African–Caribbean social workers. The approach of the CDI included: (a) showing courtesy and respect, showing interest in ethnicity and country of origin, listening and showing warmth; (b) being prepared to be flexible about 'standard' professional boundaries, for example, being discreetly open to allow the interviewee to make a 'connection', for example, through sharing a similar residential location or interest. This facilitated rapport and made it easier for the interviewee to accept help; (c) not offering false promises; (d) offering a copy of written material; (e) asking comprehensive questions – not expecting complaints to be volunteered; (f) acknowledging losses, both recent and chronic, including racism; (g) giving information about services.

The interview content covered:

- (a) identification of worries, needs, problems in help being received and ways to improve service delivery;
- (b) gathering of information about appearance and manner, complaints in the previous month, problems faced and the person's general functioning such that mental disorder could be rated.

Guidelines were followed on gathering qualitative and explanatory model-type information (Kleinman, 1980; Lloyd *et al.*, 1998) and on assessing needs (Slade *et al.*, 1996). In making the culture-specific diagnoses, strict criteria or precise algorithms were not applied. However, interview data were gathered systematically using the CDI, with many verbatim comments recorded. All interviews were performed by one African–Caribbean research social worker. Data were discussed for all subjects with one Pentecostal African–Caribbean minister/healer, maintaining confidentiality. In a proportion, taped interview material allowed the healer to make a more direct assessment. A consensus decision on diagnosis was made between the African–Caribbean social work research interviewer and the Pentecostal healer. Any diagnosis could be made but stress, depressed/lost spirit, senility and madness were routinely considered.

While realising that the interview and the indicators for diagnosis do not follow usual standardised precise criteria, they were purposefully devised to represent the type of global 'clinical' assessment that a African–Caribbean minister/healer might make. The particular healer for this ex-

ercise saw depression as loss of spirituality, of soul and of faith, as the end result of many stressors which, for a variety of reasons (e.g. spiritual, personality, and/or social) the person was unable to cope with.

## Analysis

Analysis was performed with SPSS for Windows, Version 6.0 and Stata Version 5 (StataCorp, 1997). Descriptive statistics were obtained for all demographic variables, screen scores and diagnostic groups. A categorical variable was created to indicate whether each subject was a low or a high screen scorer (see Method). Given that only nearly 20% of low scorers and nearly 80% of high scorers underwent second-phase interviewing, this proportion was seen as 'representing' the whole sample. Data from them was expanded by applying expansion weights (the reciprocal of the sampling fraction). The weight for low scorers was 5.385 and for high scorers was 1.362. Expansion weights were applied using the 'weight data' command in SPSS and, later, the 'pw' function in Stata. The appropriately expanded data was thus analysed to estimate diagnostic agreement (kappa statistic) and screen validity (e.g. sensitivities and specificities, plotting of receiver operating characteristic curves (ROC)) for the whole screened sample. Conditional probabilities were used to estimate the prevalence of depression in the whole screened sample, based on the proportion of high and low scorers seen and, within these, the numbers of true and false positives and negatives (Pickles *et al.*, 1995). The sample size required to determine a specificity of 75% and a sensitivity of 85%, with 95% CIs with a precision of  $\pm 10\%$ , using the large sample approximation for a single proportion, was around 70 non-cases and 40 cases (after weighting).

## RESULTS

### Response rate

Data were collected from November 1995 to July 1996. Consecutive primary care users ( $n=232$ ) were asked to take part, of whom 164 (71%) completed screening.

Of the 164 who took part, 75 (46%) were male. The mean age was 68.3 years (s.d.=5.98). Eighty-four per cent were born in Jamaica. Fifty-nine per cent described themselves as Black Caribbeans, 31% as Afro-Caribbean, 4% as Black British and 6% as Jamaican. Mean and median years

living in the UK was 36.0 (s.d.=5.8). The mean and median years of education was 9.0 (s.d.=2.7). Compared with those who refused to take part in screening (68/232), there were no significant differences in terms of age, gender or years of education.

The mean score on the GDS was 3.6 (s.d.=3.0) and on the CCSS was 4.0 (s.d.=3.2). The GDS and the CCSS were highly correlated (Spearman correlation coefficient 0.69,  $P < 0.0001$ ). Seventy subjects were low scorers (see Method) and 94 were higher scorers. More women than men were higher scorers (58 *v.* 39%,

$\chi^2=6.3$ , d.f.=1,  $P=0.012$ ). The mean score on MMSE was 23.6 (s.d.=4.6).

### Diagnostic interviewing

Of the 15/70 low scorers and 75/94 higher scorers randomly selected for second phase diagnostic interviewing, 13/15 (87%) and 69/75 (92%) agreed to take part.

### GMS-AGECAT diagnoses

No cases above threshold level were found among the 13 low scorers. Thirty-three out of the 69 higher scorers had a Stage II diagnosis. These were: 22 with depression (15 'neurotic depression', 7 'psychotic' depression); five with hypochondriasis; two with schizophrenia and four with dementia. Also, one of the subjects with schizophrenia and one of the subjects with an organic disorder had a coexisting Stage 1 diagnosis of depression above threshold level. A total of 24/69 of the higher scorers thus had depression at a case level. Table 1 shows the prevalence of GMS-AGECAT depression (neurotic depression or psychotic depression) for the whole sample ( $n=164$ ), estimated as described in the section on analysis.

### Culture-specific diagnoses

Of the 82 who had a GMS interview, 68 also completed a CDI. Among the eight low scorers there were no cases meeting culture-specific criteria for stress or mental disorder. Among the 60 higher scorers there were 27 cases of depressed/lost spirit, three of senility and one of madness. An additional 20 were diagnosed as suffering from stress. Table 1 shows the prevalence of depressed/lost spirit among the whole sample ( $n=164$ ), estimated as described above.

### Agreement between diagnoses of depression and depressed/lost spirit

Of the 34 subjects were diagnosed as either having depression (by GMS-AGECAT) and/or of depressed spirit (by CDI), 14/34 (41%) were agreed by both approaches to be cases. Of the 56 rated as non-cases by GMS-AGECAT and/or by CDI, 34/56 (61%) were agreed by both approaches to be non-cases. The kappa statistic (applying expansion weights as described above) was 0.392.

### Reasons for disagreement

Depressed by GMS-AGECAT but not by culture-specific approach (six subjects). All were considered to have some symptoms by

the culture-specific approach, for example, three were rated as 'stressed' and three had intermittent 'lowering of spirit' but none had sufficient indicators for a depressed spirit, for example, 4/6 were considered to have adequate social/interpersonal functioning which influenced the healer not to diagnose depressed spirit. Of the six, the clinician judged four to be clinically depressed and two not to be.

Depressed spirit by culture-specific approach but not depressed by GMS-AGECAT (14 subjects). Nine out of 14 had a sub-case GMS-AGECAT syndrome (depressive, anxiety or phobic syndrome). A further four had a Stage II diagnosis of organic or schizophrenic psychosis. Five of the 14 subjects seemed to have disclosed far more on symptoms to the culture-specific interviewer. If they had done similarly during the GMS interview they may have reached case level depression. In 2/14 subjects the culture-specific diagnosis was influenced by the person having impaired social/interpersonal function. In one subject out of 14 a severe life event had occurred between the GMS and the CDI interviews. Of the 14 subjects, the clinician judged three to be clinically depressed and 11 not to be.

### GMS-AGECAT diagnosis of depression and clinicians' judgement

Of the 82 subjects interviewed, 53 were agreed to be non-cases, 20 were agreed to be cases and there was disagreement about the remaining nine subjects. The weighted kappa statistic was 0.77.

### Validity of the GDS-15 and the CCSS

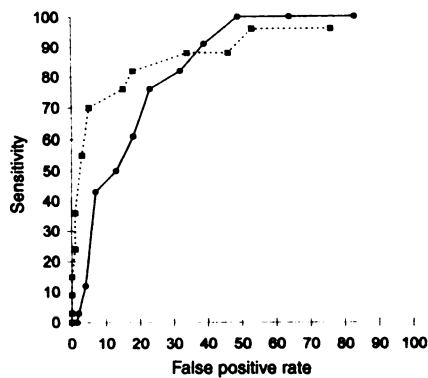
#### Area under the ROC curve

Figures 1 and 2 show the ROC curves attained by plotting sensitivity against the false positive rate, for all cut-off points of the two screens, in relation to caseness of depression and to caseness of depressed/lost spirit (data weighted as described above). The area under the curve was higher for the GDS than the CCSS (0.882 *v.* 0.84), both for the GMS-AGECAT gold-standard, and for the culture-specific gold-standard (0.881 GDS *v.* CCSS). These differences were not significant ( $P=0.26$ ,  $P=0.41$ ). As shown, the optimum cut-off point for the GDS in detecting caseness of GMS-AGECAT depression was  $\geq 5$ . However, for detecting caseness of culture-specific

**Table 1** Demographic and psychiatric characteristics of study subjects

Characteristic	% (n)
<b>Gender</b>	
Female	54 (89/164)
Male	46 (75/164)
<b>Birthplace</b>	
Jamaica	86 (137/164)
Barbados	7 (11/164)
Guyana	4 (7/164)
Other Caribbean region	3 (5/164)
<b>Age (years)</b>	
60-64	34 (55/164)
65-69	33 (54/164)
70-74	20 (33/164)
75+	13 (22/164)
<b>Years living in the UK</b>	
0-19	3 (4/164)
20-29	2 (4/164)
30+	95 (156/164)
<b>Years of education</b>	
0-5	3 (4/149)
5-9	66 (99/149)
10-14	26 (38/149)
15+	5 (8/149)
<b>Mini-Mental State Examination score</b>	
0-9	2 (3/144)
10-19	12 (19/144)
20-24	30 (43/144)
25+	55 (79/144)
<b>Scoring 5+ on 15-item Geriatric Depression Scale</b>	31 (51/164)
<b>Scoring 5+ on Caribbean Screen for emotional distress</b>	41 (68/164)
<b>Prevalence of GMS-AGECAT depression</b>	20 (95% CI 17-23)
<b>Prevalence of culture-specific depressed spirit</b>	26 (95% CI 18-34)



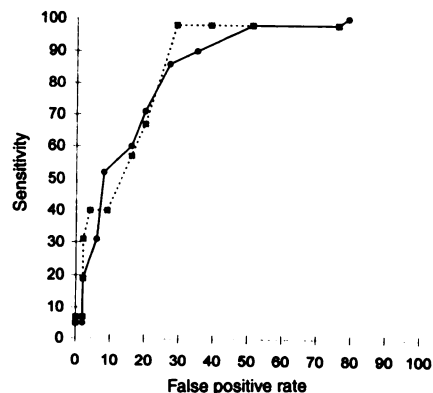


**Fig. 1** A comparison between the Geriatric Depression Scale (GDS-15) and Caribbean Culture-Specific Screen (CCSS) by receiver operating characteristic curves. Diagnostic criterion was GMS-AGECAT diagnosis of depressive disorder. -----■-----, GDS-15; —●—, CCSS.

depressed/lost spirit, the optimum GDS cut-point was  $\geq 4$ .

**Sensitivity, specificity, positive and negative predictive value**

As seen in Table 2, for detecting medical depression, the sensitivity of the GDS, at the recommended cut-off of  $\geq 5$ , was 81.5% (95% CI 62.1–92.2) and specificity was 81.5% (95% CI 70.6–88.9). At this cut-off, the positive predictive value (PPV) of the GDS was 53% and the negative predictive value (NPV) was 95%. For detecting depressed spirit, GDS sensitivity was 97.8% (95% CI 79.2–99.5) and specificity was 68.5% (95% CI 55.7–



**Fig. 2** A comparison between the Geriatric Depression Scale (GDS-15) and Caribbean Culture-Specific Screen (CCSS) by receiver operating characteristic curves. Diagnostic criterion was culture-specific diagnosis of depressed spirit. -----■-----, GDS-15; —●—, CCSS.

79.4) at the lower cut-point of  $\geq 4$  (PPV 55%, NPV 94%). Results in Table 2 do not suggest that the GDS performed less well than the specially developed CCSS.

**DISCUSSION**

**Performance of GDS**

In this sample of older African-Caribbean primary care users, the 15-item GDS had a sensitivity and a specificity of 82%, similar to that reported at the same cut-off ( $\geq 5$ ) which is recommended in White British elders (D'Ath *et al*, 1994). However, the lower limit of the confidence interval for sensitivity was only 62%, hence the alternative  $\geq 4$  cut-off may be preferable. Given that those interviewed here were using services, they may not have been representative of all African-Caribbean older adults, who might be less likely to be registered with or consult a doctor. They could, therefore, have been more similar to White British elders than a random community sample of African-Caribbean elders would be, for example, in their language and response to a questionnaire about depression. However, around 99% of African-Caribbean older adults are registered with a GP and they are at least as likely to consult as older White people (Balarajan *et al*, 1989; Ritch *et al*, 1996). Hence this sample are likely to be reasonably representative of older African-Caribbean residents of south-east London, who are nearly all of Jamaican birth. (We cannot assume these findings extrapolate to African-Caribbean adults living in Birmingham, for example, who may come predominantly from other Caribbean regions.)

The findings here are limited to some degree in terms of precision. The collection of a large sample would have taken considerable resources given the still low numbers of African-Caribbean adults aged over 60 years living in south London. The sample size chosen was thus a compromise between practicality and reasonable precision. However, the prevalence of case depression was slightly lower than we had predicted, hence some of the confidence intervals for sensitivity and specificity were wider than we had aimed for.

In interpreting GDS performance in detecting medical depression, we need to consider the cultural relevance of that condition. There was only modest agreement between the medical and the culture-

specific approaches to diagnosing depression. If we consider that mental disorder should be defined within parameters agreed as abnormal by key people from one's own culture, the GDS, at the  $\geq 5$  cut-off, had a sensitivity of only 67% in detecting depressed/lost spirit. The GDS performed best in relation to culture-specific caseness, at the lower cut-off of  $\geq 4$ . This finding supports the hypothesis that older African-Caribbean adults may be significantly depressed when they admit to a small number of symptoms regarding low mood. It also appeared that the MMSE may be a poor discriminator of dementia at the standard cut-off, given that 45% scored  $\leq 24$ , yet only four met GMS-AGECAT criteria for an organic diagnosis. However the study was not designed to test this hypothesis. Further work is required to validate screening methods for significant cognitive impairment in African-Caribbean people.

**Agreement between medical depression and culture-specific 'depressed spirit'**

For GDS validation, two sets of criteria were applied. One was a standardised psychiatric diagnosis of depression. The other was a culturally sensitive and specific diagnosis of depressed/lost spirit. The latter was limited in relying on a consensus between only two people. However, the interview material on which they based their decision was collected systematically using an instrument and diagnostic indicators developed with four other African-Caribbean religious/lay workers, all with extensive experience of working with Black elders. The CDI was piloted in the community and incorporated aspects of an explanatory model interview used successfully with younger African-Caribbean people (Lloyd *et al*, 1998).

The number of cases of significant emotional disorder detected by the two different diagnostic approaches was similar. However, those identified as medically depressed were, in many cases, not the same people as those identified as having a depressed spirit. Why was the agreement only modest? The healer diagnosed more people as depressed than did GMS-AGECAT. This might have been expected, that is, it would be likely that religious healers might have a wider view than doctors of what they could offer help for, hence their wider concept of caseness. It is perhaps more surprising that, on the whole, the Caribbean culture-specific concepts of

**Table 2** Sensitivity (Sens) and Specificity (Spec) for 15-item Geriatric Depression Scale (GDS) and 13-item Caribbean Culture-Specific Screen (CCSS) in detecting Geriatric Mental State (GMS-AGECAT) depression and culture-specific depressed/lost spirit

Instrument	Cut-off score	GMS-AGECAT depression		Culture-specific depressed spirit	
		Sens % (95% CI)	Spec % (95% CI)	Sens % (95% CI)	Spec % (95% CI)
GDS	≥ 4	89.1 (70.2–96.5)	65.8 (52.4–77.3)	96.7 (79.2–99.5)	68.5 (53.7–79.4)
	≥ 5	81.5 (62.1–92.2)	81.5 (70.6–88.9)	66.7 (50.1–81.2)	76.7 (62.1–87.0)
	≥ 6	74.0 (54.3–87.1)	85.5 (75.6–91.8)	56.7 (42.7–73.0)	81.4 (67.7–90.1)
CCSS	≥ 4	88.9 (70.0–96.3)	60.1 (48.1–73.4)	86.7 (69.0–95.0)	58.2 (42.4–74.0)
	≥ 5	81.7 (62.3–92.4)	67.7 (54.3–78.7)	83.3 (65.3–93.0)	67.7 (60.9–80.4)
	≥ 6	74.2 (54.3–87.3)	77.2 (65.4–85.7)	69.7 (51.2–83.8)	76.7 (62.1–87.0)

depression show considerable similarity to medical concepts. This supports the view that, for many societies, the experience of the core features of depression is similar, despite cultural differences in the expression of distress (Abas & Broadhead, 1997). In five of those with depressed spirit but without medical depression, subjects disclosed more symptoms during the CDI interview, perhaps because of its stress on rapport and on showing interest. This is potentially important. Although interviews such as the GMS cannot be altered for each culture, its approach needs to be kept under review. These five subjects may have reached GMS-AGECAT threshold if they had disclosed similarly during the medical interview. In a quarter of the cases where there was disagreement, an experienced clinician sided with the CDI assessment of caseness. The agreement between the doctors in the study and GMS-AGECAT was fairly good, with the kappa of 0.77 just at the lower end of the agreement reported from a range of studies using GMS-AGECAT (Henderson *et al*, 1983). These observations taken together suggest that GMS-AGECAT performs adequately in African-Caribbean elders but, as for people from all cultures, it should be considered a yard stick, rather than a gold standard. While it is easy to get agreement on severe cases, and on obvious non-cases, borderline cases are bound to be difficult to ascribe consistently which perhaps additionally explains some of the discrepancy between the GMS and the CDI. For research purposes, a standardised interview has benefits, but at a clinical level it is crucial to take account of the individual, and not be rigid about thresholds or about any single concept of depression. As will be presented in a future paper, those people

with depressed spirit, with or without overlapping medical depression, had significant unmet needs, many of which could be addressed via statutory services.

**GDS compared with the culture-specific screen**

We have not previously known whether culture-specific tools would be needed to detect depression in older African-Caribbean people. In terms of the trade-off between sensitivity and specificity of a screen, at no cut-off did the carefully prepared CCSS perform better than the GDS in detecting depression or depressed spirit. At certain cut-off points, the GDS appeared to perform better than the CCSS, although a larger sample would be required to show that this difference was statistically significant. Further work is required to produce a shorter version of the GDS for African-Caribbean elders which will be more realistic to use than a 15-item questionnaire.

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**APPENDIX I**

**Caribbean Culture-Specific Screen for emotional distress**

In the past month:

1. Have you been worrying too much or fretting?
2. Have you felt pressured, like pressure is rising in your head?
3. Have you had lots of pain or gas in the belly or the pit of your stomach?
4. What about pain or aching all over the body?
5. Have you felt weak or tired a lot of the time?
6. Have you slept well most of the time?
7. Have you been feeling down or low spirited or like you're crying inside?
8. Have you felt palpitations or fear around the heart?
9. Have you felt fed up with yourself or even with others, like you want to curse or scream?
10. Have you felt cut off or alone, like people don't appreciate you?
11. Or been feeling empty or spiritless inside?
12. Do you feel weighed down by life?
13. Do you still feel hopeful?

**APPENDIX 2**

**Indicators for a culture-specific diagnosis of depressed or lost spirit**

The four main areas below were routinely considered and the weight across them used to come to a decision. Although it was not necessary for the subject to rate in all of the areas, in practice, subjects given a culture-specific diagnosis of depressed or lost spirit had problems in at least 2/4 areas.

**Appearance and manner**

- (a) An unusually quiet, low or monotonous tone of voice.
- (b) Tearfulness.
- (c) Repeated sighing.
- (d) Unkempt.
- (e) Restless.
- (f) Language content powerfully negative, for example, the use of terms such as 'despondent', 'fatigued', 'betrayed' or 'I wish God would take me'.
- (g) Keeps repeating one or more particular problems and/or shies away from logical discussion of problem solving.

**Complaints – experienced as troublesome in the past month**

- (a) Poor sleep.
- (b) Reduced or excessive eating.
- (c) Stomach cramps or gas.
- (d) Low energy.
- (e) Difficulty in concentrating on usual interests.
- (f) Aching all over.
- (g) Feels lack of quality of care from close relatives/ friends.
- (h) Low in spirit.

## Social problems

These are usually at least moderately severe and often numerous. Although their severity would only rarely influence the diagnosis, it would be crucial to assess the problems faced in order to understand the person's situation and reaction.

## Functioning

This takes the form of impaired social functioning, without a clear reason for such impaired function such as lack of information about how to broach the problem, or disability or a threat to safety. It is manifest as a lack of personal effectiveness in negotiating social difficulties, for example, taking on blame for a family problem despite evidence to the contrary, being unable to discuss a family rift with the relevant relative, not taking steps to approach a particular agency, for example, the local housing office given a severe housing difficulty.

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## CLINICAL IMPLICATIONS

- Lowering the cut-point of the 15-item GDS to  $\geq 4$  will optimise its use in detecting significant forms of depression in African–Caribbean older people.
- Showing openness and genuine interest in symptoms, ethnicity and stressors faced facilitates diagnostic interviews.
- An African–Caribbean elder with three or four classic mood-related symptoms may still fulfil culturally relevant criteria for depression.

## LIMITATIONS

- The small sample size limits the precision of the estimates of screen validity, this is a problem in many studies of ethnic minority older people.
- The sample was predominantly Jamaican-born hence the results may not generalise to those from other Caribbean regions.
- The culture-specific approach to diagnosis requires further standardisation.

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