

Cultural influences on the prevalence of common mental disorder, general practitioners' assessments and help-seeking among Punjabi and English people visiting their general practitioner

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ABSTRACT

Background. Culture influences symptom presentation and help-seeking and may influence the general practitioner's assessment.

Methods. We recruited Punjabi and English GP attenders to a two-phase survey in London (UK) using the Amritsar Depression Inventory and the General Health Questionnaire as screening instruments. The Clinical Interview Schedule was the criterion measure. General practitioners completed Likert assessments.

Results. The second phase was completed by 209 Punjabi and 180 English subjects. The prevalence of common mental disorders was not influenced by culture. Punjabi cases more often had 'poor concentration and memory' and 'depressive ideas' but were not more likely to have somatic symptoms. General practitioners were more likely to assess Punjabis with common mental disorder as having 'physical and somatic' symptoms or 'sub-clinical disorders'. Punjabi cases with depressive ideas were less likely to be detected compared with English ones. In comparison to English men, English women were under-detected by Asian general practitioners. Help-seeking English subjects were more likely to be correctly identified as cases.

Conclusions. The prevalence of common mental disorders and somatic symptoms does not differ across cultures. Among English subjects, general practitioners were more likely to identify correctly pure psychiatric illness and mixed pathology; but Punjabi subjects with common mental disorders were more often assessed as having 'sub-clinical disorders' and 'physical and somatic' disorders. English women were less well detected than English men. English help-seeking cases were more likely to be detected.

INTRODUCTION

'Asians' are reported to have a lower prevalence of mental disorders with explanations of greater cultural resilience against adversity than comparison British groups (Gillam *et al.* 1980; Cochrane & Stopes Roe, 1981). These findings are at variance with epidemiological and eth-

nographic studies reporting higher community rates of common mental disorders among 'Asians' in India, Pakistan and the UK (Venkoba Rao, 1978; Mumford *et al.* 1996; Commander *et al.* 1997; Nazroo, 1997). Inconsistent estimates in epidemiological surveys can reflect methodological artefacts and preclude an informed approach to meet treatment needs (Cooper & Singh, 2000). Measurement errors due to different expressions of distress across cultures might account for the apparent lower rates of morbidity among Asian groups (Nazroo,

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1997). Socio-economic risk factors could account for some of the discrepancies (Lloyd, 1998). Comparative data on culturally defined groups are rarely reported. We hypothesized that in a comparative study, 'Asian' subjects would have a higher prevalence of common mental disorders.

Primary care research on common mental disorders among 'Asians' yields a complex picture (Bhui, 1999). 'Asians' visit their general practitioner more frequently than comparison White groups, but are less likely to have their psychological difficulties identified (Gillam *et al.* 1980; Commander *et al.* 1997). Even where psychological complaints are expressed, general practitioners more often gave Asians physical diagnoses (Wilson & MacCarthy, 1994). Although cultural differences between clinicians/researchers and patients are often used to explain the less frequent identification of mental disorders among 'Asians', one study indicates that detection of disorder among 'Asians' by 'Asian' general practitioner is also poor (Odell *et al.* 1997). We hypothesized that 'Asian' general practitioners would be better at detecting disorder among 'Asian' patients.

Somatic symptom presentation may explain the apparent lower prevalence of non-psychotic mental disorders among Asians (Gillam *et al.* 1980). However, a standardized research measure of somatic symptoms has not previously been compared with the GPs' assessment of somatic symptoms. Even in the fourth national morbidity survey of mental ill health among ethnic minorities in the UK, the somatic item on the Clinical Interview Schedule, a standardized research interview, was left out (Lloyd, 1998). We hypothesized that in comparison with English patients somatic symptoms were likely to be no more common among Asian patients, but that general practitioners' assessments, in accord with previous studies, would find a higher prevalence of somatic presentations among 'Asians'.

Another explanation for the apparent lower primary care presentation of common mental disorders is that culturally distinct groups have different patterns of help-seeking. Traditional healers may preferentially be sought after symptom onset thereby delaying primary care consultation (Gater *et al.* 1991). This can contribute to chronicity and lead to a different pattern of

symptom presentation that complicates assessment of mental disorder across cultures. We hypothesized that help-seeking would differ between cultural groups with Asians more often pursuing non-medical sources of help.

Ill-defined measures of ethnicity compromise precise investigations of culture and mental ill-health (Kleinman, 1987; Sheldon & Parker, 1992; McKenzie & Crowcroft, 1996). Punjabis form a well-circumscribed Asian subcultural group with common language, music, foods, dress and original geographical homeland (the Punjab in Northwest India; Helweg, 1999). In order to test the hypotheses among cultural groups we recruited Punjabi and English people visiting their general practitioner.

METHOD

General practices

Patients were recruited from five general practices in a single electoral ward in London over a 1 year period. These practices were identified by senior local general practitioners as having a significant registered population of 'Asian' patients. One practice was a large health centre; the remainder were all smaller one or two doctor practices. All general practitioners happened to be of Asian origin confirming previous studies where Asian patients preferentially register with Asian doctors (Rudat, 1994). Three of 11 general practitioners were of Punjabi origin and two were women. General practitioners originated from diverse regions of India and Bangladesh.

Subjects

Consecutive attenders of Asian or White appearance who were over the age of 16 were screened. The screening included questions about first language, place of birth, religion, parental place of birth, place of residence before coming to the United Kingdom (where relevant), and ethnic identity. Ethnic identity was assigned by the interviewer in accord with the OPCS census categories following a discussion with the subjects about the category that best described their identity. We classified Punjabis as those considering themselves to be of Punjabi cultural origin, with a family originally from the Indian subcontinent. The English group were those

who were White, English-speaking and identified themselves to be of English identity with English family origins. Again we sought to select a culturally defined English group rather than recruiting those who designated themselves as being of White-UK ethnic origin. We excluded White subjects who identified themselves to be Irish, Scottish, Welsh, or from a European country. We excluded Asian subjects identifying themselves to be anything other than of Punjabi origin. We excluded subjects who were uncertain about their identity, those with a psychosis and those with communication difficulties due to learning difficulties or severe hearing impairment.

Instruments

The General Health Questionnaire (GHQ-12) has been used as a screening instrument to detect non-psychotic morbidity in many cultural contexts but not among Punjabi speakers (Goldberg *et al.* 1997). Although unlikely, its sensitivity may be poor in other cultural groups (Rait, 1999). Therefore, we also used the Amritsar Depression Inventory (ADI), a screening instrument that was developed and validated in the Punjab (Singh *et al.* 1974). The revised version of Clinical Interview Schedule (CIS-R) was used to define cases (Lewis *et al.* 1992). This is a standard semi-structured, rule-based interview eliminating observer bias. It was used by lay interviewers in the Policy Studies Institute's Fourth National Morbidity Survey of Ethnicity and Mental Health (Lewis *et al.* 1992; Nazroo, 1997). The Clinical Interview Schedule provides an aggregated score from 14 symptoms. 'Cases' are defined by a score of ≥ 12 . Specific symptoms reach significance if they score at least 2. The assumption we made is that common symptoms, as rated on the Clinical Interview Schedule, were universal, even where health beliefs, in association with mental disorders, show differences in prevalence across cultures (Jacob *et al.* 1998).

As part of the somatic item in the Clinical Interview Schedule, there is a screening question: 'Is this pain or discomfort brought on or made worse by feeling low anxious or stressed?'. We supplemented this with two probe questions. The use of additional probes has previously been found to be important to ensure the cultural sensitivity of research interviews (Jacob *et al.* 1998). The additional probes we used to assess

the subjects ability to assign an emotional origin to somatic complaints were: 'What could cause this (somatic) symptom?' and 'Could emotional problems or an "illness of the mind" cause these problems?'. At interview we classified subjects as either true somatizers or as a group that acknowledged emotional origins of symptoms. We asked all cases for their most distressing symptom and its duration. We recorded help-seeking behaviour in response to this symptom using a shortened version of the World Health Organizations Pathways into Care schedule (Gater *et al.* 1991). The reasons for consulting were categorized as 'physical complaints', 'psychological complaints' and 'pain'. Pain was separately categorized, as it is difficult for patient and health professional to definitively assign a physical or psychological origin. General practitioners completed Likert questionnaires assessing psychiatric symptoms (none, sub-clinical emotional disturbance, significant psychiatric illness) and physical symptoms and their relationship to psychiatric symptoms (entirely physical illness, physical illness in a neurotic personality, physical illness with somatic symptoms, physical and psychiatric illness).

The interview procedure and sampling strategy

Questionnaires were translated and back translated by two bilingual psychiatrists and a Punjabi social services worker, piloted in two practices and refined following discussion with local voluntary organizations, a user and members of the public. A sexual drive item was omitted from the ADI after objections in the pilot phase. The order of the screens was reversed half way through the survey. All questionnaires were read aloud, completed by the researcher and related to the preceding 7 days. Interviews were conducted in English, Punjabi or a mixture of the two, as preferred by the subject.

We used a two-phase sampling procedure (Newman *et al.* 1990; Pickles *et al.* 1995). The first phase included questions on age, gender, marital status, place of birth, self-assigned ethnic group, religion, cultural identity, occupation, social class classification (respondent rather than head of household), general practitioner, the General Health Questionnaire and the Amritsar Depression Inventory. Screening was conducted by two research assistants in up to a fifth of the weekly recruitment surgeries. A single bilingual

psychiatrist (K. B.) conducted the majority of the screening and all second phase interviews. If an individual scored < 2 on the General Health Questionnaire and < 5 on the Amritsar Depression Inventory, they were classified to be a 'probable-non-case'. A third of these 'probable-non-case' and all other respondents proceeded to the second-phase interviews. The second phase included the Clinical Interview Schedule, questions about physical ill health (numbers of body systems affected by ill health), psychotropic medication use (with or without physical care medicine or other treatments, alcohol use (units/week) and cigarette smoking (number a day).

Statistical analysis

The optimal thresholds for the screening questionnaires and the general practitioners' assessments were calculated by validation against the Clinical Interview Schedule using weighed data. A receiver operating characteristic curve was constructed using these weighted data. The validation data and screening methods are reported in a separate methodology paper (Bhui *et al.* 2000).

The unadjusted prevalence of common mental disorder was calculated as weighted proportions of cases and non-cases using survey commands in STATA 5.0. The adjusted prevalence of common mental disorders were compared across cultures by weighted logistic regression (STATA 5.0); this yields robust confidence intervals for the sampling strategy (Pickles *et al.* 1995; Stata Press, 1997). The weights used were the reciprocals of second-phase sampling fractions. To calculate adjusted prevalence estimates, the associations of each potential confounder with morbidity and cultural group (Punjabi/English) were examined. Each confounder was retained in the full model, if following omission, the likelihood ratio test indicated it to make a significant contribution. Weighted logistic regression was also used to calculate odds ratios exploring the effect of culture on symptom prevalence and the GPs' recognition of morbidity. Continuous variables (age, duration of symptoms, time between symptom onset and help-seeking, time since symptom onset) were recoded into centile categories. Pathways data were calculated as weighted proportions using survey commands in STATA 5.0. and presented as percentages.

RESULTS

A total of 561 individuals were approached of which 541 proceeded to screening. For the second-phase interview 209 Punjabi and 185 English subjects were selected of which 209 and 180 respectively completed the second phase. The overall refusal rate was 12.5% (36/287) for Punjabi and 10.2% (28/274) for English subjects ($\chi^2 = 0.75$, $df = 1$, $P = 0.39$). There were no differences in age, marital status, gender, religion, accommodation, occupation, social class or general practice site between refusers and non-refusers. In comparison to those completing the survey, refusers had statistically significantly higher General Health Questionnaire scores (mean, refusers 4.28, completers 3.00; ANOVA, $P = 0.03$ $F = 5.05$ $df = 1,539$) and higher Amritsar Depression Inventory scores (mean, refusers 9.12, completers 8.76; ANOVA, $P = 0.83$ $df = 1,538$ $F = 0.05$).

Ethnic and cultural characteristics of second phase subjects

Ninety-eight per cent of the English cultural group ($N = 180$) and 15.8% of the Punjabi cultural group ($N = 209$) were born in the UK; 7.7% of Punjabis were born in Pakistan, 62.4% in India, 12.9% in Africa and 1.4% in other countries. In terms of OPCS ethnic categories 60.8% of Punjabis were classified as Asian-Indian, 7.7% as Asian-Pakistani, 23.4% as Asian-British, 1.9% as Asian-African and 6.2% as 'other'. Among English subjects 99% were classified as White-UK. Of Punjabis, 85% were Sikh, 8.1% were Muslim, 6.2% were Hindu and 0.5% were Christian. Of English subjects, 65% were Christian and 29% had no religious affiliation with the remainder having 'other' religious beliefs.

Demographic associations with morbidity and culture

Demographic differences between the two cultural groups on the entire sample of cases and non-cases did not differ from the differences found among cases only. Therefore, data on age, gender, housing, marital status, alcohol and cigarette consumption are presented, in Table 1, for cases only. In the whole sample, Punjabis were less likely to be unemployed (OR = 0.25, 95%CI 0.1–0.26, $P = 0.002$) and less likely

Table 1. Cultural influence on demographic characteristics among cases (weighted logistic regression analyses)

Variable	Culture (Punjabi v. English)		
	Strata	OR (95%CI)	P
Age in years (pentiles)	16.5–29.2	1	
	29.3–40.6	0.59 (0.30–1.16)	0.13
	40.6–49.5	1.43 (0.72–2.83)	0.31
	49.5–61.3	1.05 (0.53–2.10)	0.88
	61.3–85.9	0.43 (0.20–0.89)	0.02
Gender	Male	1	
	Female	1.30 (0.69–2.45)	0.41
Marital status	Single	1	
	Married	3.90 (1.74–8.76)	0.001
	Divorced	0.39 (0.07–2.06)	0.27
	Separated	4.86 (1.23–18.98)	0.02
	Widowed	8.59 (1.57–47.04)	0.01
	Co-habitant	Dropped as all English	
Housing	Owner/occupier	1	
	Rented-local authority	0.23 (0.12–0.48)	< 0.001
	Rented-private	0.12 (0.04–0.39)	< 0.001
	With family for friends	1.00 (0.26–3.83)	1.00
Alcohol consumed: Units/week	0	1	
	≤ 15	0.18 (0.09–0.37)	< 0.001
	16–30	0.25 (0.02–2.88)	0.23
	≥ 30	Dropped as all English	
Cigarettes per day	0	1	
	≤ 10	0.07 (0.02–0.22)	< 0.001
	> 10	0.04 (0.01–0.14)	< 0.001

to be retired (OR = 0.17, 95%CI 0.08–0.35, $P < 0.001$); there were no statistically significant associations of social class with culture or with case status. Irrespective of culture, retired subjects were less likely to be cases (OR = 0.31, 95%CI, 0.14–0.68, $P = 0.003$). Irrespective of culture, housewives and those unemployed because of disability were more likely to be cases (OR = 3.85, 95%CI 1.95–7.6, $P < 0.001$ and OR = 3.08, 95%CI 1.58–6.02, $P = 0.001$ respectively). The ‘number of body systems affected by physical illness’ was not related to culture or case status. Punjabis were less likely to be recruited from the large health centre (OR = 0.14, 95%CI 0.06–0.32, $P < 0.001$) and fewer subjects from this practice were cases (OR = 0.45, 95%CI 0.23–0.87, $P = 0.02$). Ethnic group, place of birth, interview language and religion were not related to case status.

Prevalence of common mental disorders

Cultural differences of symptoms among all subjects (cases and non-cases) are shown in Fig. 1. The weighted unadjusted prevalence of clinical interview schedule rated cases among English

subjects was 39.1% (95%CI 32.5–46.6) while among Punjabis it was 41.2% (95%CI 34.2–48.2) (see Table 2). Among cases Punjabi were more often rated to have ‘poor concentration and memory’ and ‘depressive ideas’ with no difference in the prevalence of somatic symptoms across cultures (Table 2). Women were more likely to score ≥ 2 for somatic symptoms and were more likely to be cases irrespective of culture (Table 2).

General practitioner assessments

General practitioners considered 12% of Punjabi cases and 19.8% of English cases to have a ‘significant psychiatric disorder’ (OR = 0.55, 95%CI 0.23–1.29). General practitioners were less likely to conclude that Punjabi cases with depressive ideas had significant psychiatric disorder (15% v. 43%; OR = 0.24, 95%CI 0.07–0.82, $P = 0.02$). No other symptoms showed an association with detection of cases.

Table 3 sets out the general practitioners’ assessments of the relationship between physical and psychiatric aspects of the presentation, where this assessment is entered as a predictor of

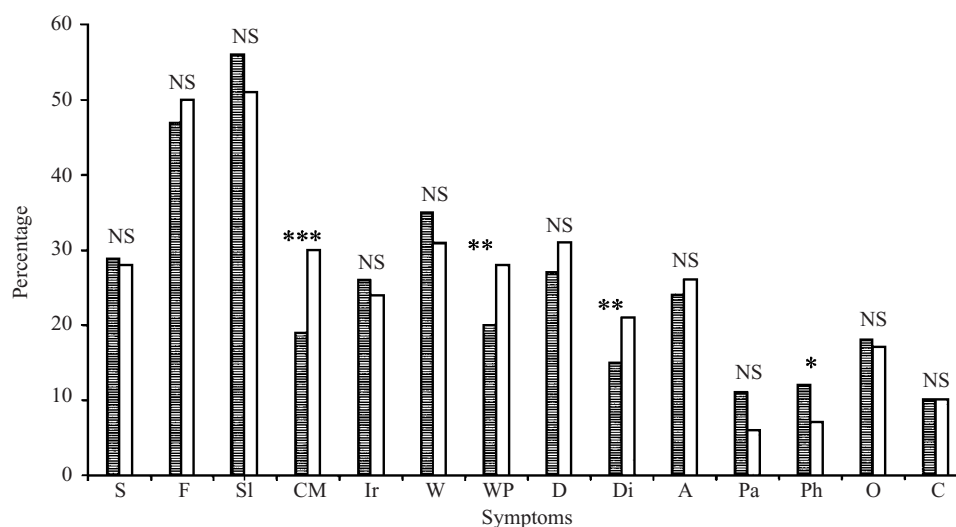


FIG. 1. Symptom profile for the whole sample (weights: reciprocal of sampling fractions). (▨, English; □, Punjabi; S, somatic; F, fatigue; SI, sleep disturbance; CM, poor concentration and memory; Ir, irritability; W, worry; WP, worry about physical health; D, depression; Di, depressive ideas; A, anxiety; Pa, panic; Ph, phobia; O, obsessions; C, compulsions. * $P < 0.1$; ** $P < 0.05$; *** $P < 0.01$; NS, not significant.)

Table 2. Prevalence of cases and specific symptoms: cultural and gender effects

Outcome in LR model	Sample	Model	Culture	OR	95%CI	P
CIS-R cases*	Whole	Unadjusted model	English	1		
			Punjabi	1.19	0.78–1.82	NS
		Adjusted full	English	1		
			Punjabi	1.61	0.77–3.32	NS
		Adjusted fitted	English	1		
Punjabi	1.26	0.69–2.31	NS			
		Gender differences	Men	1		
			Women	2.82	1.81–4.39	< 0.001
PCM symptoms†	Cases	Unadjusted	English	1		
			Punjabi	2.39	1.2–4.8	0.01
Depressive ideas†	Cases	Unadjusted	English	1		
			Punjabi	1.91	1.05–3.49	0.04
Somatic symptoms†	Cases	Unadjusted	English	1		
			Punjabi	0.8	0.44–1.46	NS
Somatic symptoms†	Whole	Gender differences	Men	1		
			Women	2.39	1.25–4.58	0.009

* Case if total symptom score of ≥ 12 on Clinical Interview Schedule.

† Symptom considered significant if scores ≥ 2 in the Clinical Interview Schedule. PCM, Poor concentration and memory.

case status. Punjabi subjects rated by their general practitioner to have a 'subclinical emotional disorder' were 3.4 times more likely to be cases than those rated to have 'entirely physical health problems'; those Punjabis rated to have a 'significant psychiatric disorder' were no more likely to be cases than were those that general practitioners rated as having an 'entirely physical disorder'. Punjabis rated, by the general practitioner to have a somatic component to

their presentation were 4.9 times more likely to be cases compared to Punjabis assessed to have an 'entirely physical disorder'. This suggests that general practitioners applied a 'physical and somatic' symptom label if the patient was Punjabi, reached case status, and the general practitioner considered them to have a 'sub-clinical disorder'.

Among all subjects (Punjabi and English), Punjabi general practitioners were no better at

Table 3. General practitioners' assessment as predictors of caseness (weighted logistic regression)

	English OR (95%CI)	Punjabi OR (95% CI)
Entirely physical illness	1	1
Subclinical emotional disturbance	1.41 (0.59–3.39)	3.38 (1.39–8.2)*
Significant psychiatric illness	9.36 (2.95–29.70)**	1.9 (0.66–5.53)
Entirely physical illness	1	1
Physical illness with neurotic personality	3.24 (0.89–11.73)	0.98 (0.32–3.04)
Physical illness with somatic complaints	2.48 (0.58–10.60)	4.98 (1.70–14.57)*
Mixture of physical and psychiatric illness	5.23 (1.54–17.78)*	3.32 (0.91–12.13)

* $P < 0.01$; ** $P < 0.001$.

Table 4. Chronicity of symptoms among cases (weighted data)

Month since symptom onset (quartiles)	Punjabi cases <i>n</i> (%), <i>N</i> = 91	English cases <i>n</i> (%), <i>N</i> = 85	OR (Punjabi/English), 95%CI	<i>P</i>
< 1	18 (20.3)	24 (27.6)	1	
1–10	18 (18.9)	19 (24)	1.07 (0.43–2.67)	0.9
10–36	23 (25.6)	24 (27.6)	1.25 (0.53–2.96)	0.6
> 36	32 (35.1)	18 (20.7)	2.30 (0.97–5.41)	0.06

detecting cases than non-Punjabi general practitioners (Punjabi OR = 0.95, $P = 0.94$; English OR = 0.89, $P = 0.82$). Women cases were less well detected than men (OR = 0.31, 95%CI 0.14–0.72, $P = 0.006$). This finding persists after adjusting for the subjects' culture (OR = 0.32, 95%CI 0.14–0.74, $P = 0.008$). However, if stratified by culture, these findings remain statistically significant among English women only (OR = 0.27, 95%CI 0.09–0.78, $P = 0.02$) with non-significant findings for Punjabi women (OR = 0.43, $P = 0.22$). The findings among English women remain significant after adjusting for somatic symptoms (OR = 0.27, 95%CI 0.09–0.78, $P = 0.02$).

Symptom appraisal among cases

There were no significant cultural differences in the proportions presenting with physical complaints (Punjabi cases 40.9% *v.* English cases 55.9%) or with psychological complaints (Punjabi cases 30.3% *v.* English cases 24.2%). A greater proportion of Punjabi cases presented with pain (17.1% *v.* 5.5% among English cases OR = 3.0, 95%CI 1.42–6.35, $P = 0.004$).

In response to the questions exploring the appraisal of physical complaints, 65% of Punjabi cases and 80.4% of English cases acknowledged an emotional origin to their physical symptoms (OR = 0.50, 95%CI 0.25–1.01, $P = 0.05$). There were no significant

differences in chronicity of symptoms across cultures, although Punjabis more often had symptoms lasting > 3 years (35% *v.* 20%, $P = 0.06$; see Table 4). There were no significant cultural variations of symptom duration before first seeking help, but overall 46% of the total sample sought help within 6 months of symptom onset, 11% between 6 months and a year and 42% more than a year after symptom onset.

Pathways to care

We defined 'help-seeking' as seeking help from anyone in response to the most subjectively distressing symptom that was rated on the Clinical Interview Schedule. There were no significant cultural differences in the type of carer (GP, friends or relatives, other health and social care, 'other') sought out as first, second or third carer. Of 98 Punjabi and the 90 English cases 46.2% and 40.2 of them respectively, did not seek help. The most popular first sources of help were the 'general practitioner' (English cases: 30.9% *v.* Punjabi cases 29.4%) and 'Friends and relatives' (18.1% *v.* 15.7% respectively). 'Health and social care' agencies other than the general practitioner were sought by 7.5% of English cases and 4.9% of Punjabi cases. 'Other' sources of help, including religious, traditional, and complementary treatments, were sought by 3.2% of English cases and 3.9% of Punjabi cases.

A second source of help was sought by 37 (37.8%) Punjabi and 36 (40%) English subjects. Again there were no statistically significant cultural differences with no Punjabi and 3.2% of English cases seeking out friends and relatives as the second source of help. Help was sought from health and social care agencies other than the general practitioner by 14.9% of English subjects and 13.7% of Punjabi cases. As their second carer, 14.9% of English and 15.7% of Punjabi cases chose their general practitioner. Again, very few chose 'other' sources of help: 5.3% of English and 3.9% of Punjabi subjects. Of those who first sought help from their general practitioner, 36.7% of Punjabi and 31% of English cases next sought help from health and social care agencies. The majority of cases who sought help from their general practitioner on the first occasion did not seek help on a second occasion (50% of Punjabi and 45% of English subjects).

Help-seeking was significantly associated with general practitioners' assessments of 'significant psychiatric morbidity' when cases and non-cases were all aggregated for the analysis (OR = 4.21, 95%CI 1.37–12.92, $P = 0.01$). Compared to non-help seeking cases, help-seeking cases were more likely to be assessed by the general practitioner as having 'a significant psychiatric disorder' if they were English (OR = 5, 95%CI 1.04–23.84, $P = 0.04$; Punjabi, OR = 3.15, $P = 0.17$). In the absence of actual differences in prevalence, or cultural differences in patterns of help-seeking this finding must reflect different processes of communication and assessment in the primary care consultation in response to help-seeking.

DISCUSSION

The Punjabi sample had better social circumstances and a higher refusal rate reflecting the possibility of a selection bias. Elderly Punjabis were under-represented in our sample. Punjabis had more chronic symptoms and hence their recall of help-seeking is likely to be less accurate than the English cases. The estimated times of symptom onset and duration are especially liable to bias. Biased reporting might also explain the findings that Punjabis' alcohol consumption is not as excessive as previously reported (McKeigue & Karmi, 1993). An additional difficulty in studies of culture is that by adjusting

for confounding, one might be adjusting for factors that are formative of culture, and closely associated with it, thereby adjusting out the very effect being investigated. We found that the point estimates for relative prevalence actually increased following adjustment, although remaining non-significant. This suggests that in this instance, if adjustment did have an effect it was to increase rather than remove the differences between culture. This is probably explained by Punjabis being in better social circumstances.

A recent primary care study of common mental disorders among Pakistani patients in Manchester found the prevalence to be 42% (Hussain *et al.* 1997). A study among Indian women in West London found a primary care prevalence rate of 30% (Jacob *et al.* 1998). In this comparative study we demonstrated a similar prevalence for common mental disorder in the two cultural groups presenting in primary care, suggesting factors such as shared environmental socio-economic conditions might be of more importance. Punjabis were more likely to suffer with 'depressive ideas' (worthlessness, hopelessness and suicidal ideas), yet general practitioners were less likely to detect disorder among Punjabi cases with depressive ideas. It is possible that Punjabis were less willing to express depressive ideas and that this mitigated against case detection (Jacob *et al.* 1998), or that depressive ideas were not an instrumental part of the general practitioners' enquiries during assessments. Alternatively the non-pathological presentation of depressive ideas may reflect that the general practitioners' own cultural beliefs, along with their Asian patients, include a more karmic view of life in which hopelessness might be accepted more readily as a culturally concordant belief without resort to illness labels. Studies exploring general practitioners' beliefs, their patients' beliefs and cultural variation of detection as a function of beliefs are required. Small in-depth qualitative surveys of patient-professional interactions across cultures, and the sequence of belief expression leading to detection or non-detection are an important first stage for future research.

General practitioners identified more somatic presentations among Punjabis in the absence of an excess of research interview rated somatic symptoms. This suggests that if Punjabis consult

with physical complaints, general practitioners cannot confidently explain these on a physiological basis. If these are perceived to be indicative of physical illness only, or if a patient is resistant to discussion of psychosocial issues, this will mitigate against detection irrespective of subjects' cultural origins (Tylee *et al.* 1993). Women were more likely to have somatic symptoms irrespective of culture. Although this has been suggested to explain non-detection (Tylee *et al.* 1995), our findings of low detection among English women persisted after adjustment for culture. This finding is at variance with a large World Health Organization study which concluded there to be no evidence that patient gender influenced detection across cultures (Gater *et al.* 1998). Heterogeneity of general practitioner-patient culture and gender may, in such a large study, lead to non-significant findings. It is possible that in our study, English women can be considered the minority, as general practitioners were all of Asian origin. Only two general practitioners were women, and this might also explain an effect where gender and cultural distance together mitigate against the detection of disorder among English women. We did not recruit enough male and female general practitioners to explore confidently this possibility. In order to test such hypotheses fully future studies would need to recruit sufficient general practitioners from each of the cultural groups from which subjects were to be drawn.

Punjabis presented with 'pain' more often than other physical symptoms. Pain may be a special type of somatic symptom that requires more understanding in cross-cultural encounters. For example, Asian cultures countenance a whole web of beliefs centred around the experience of pain, the inevitability of its presence, and the virtues of both endurance and transcendence without resort to illness labels and medical help-seeking (Pugh, 1991). Thus, non-specific pain, or pain that is discordant for known physical disorders, may reflect 'suffering' and global dependency needs, while disguising the affective and cognitive aspects of common mental disorder. Such possibilities would need more qualitative studies in order to improve the understanding of pain across cultures, before mounting comparative quantitative surveys.

Among Punjabis, general practitioners' ratings of 'subclinical disorder' are the best

predictors of case status suggesting a higher threshold for concluding that Punjabis have significant psychiatric morbidity. Compared to Punjabis who general practitioners believe to have an 'entirely physical illness', those with a common mental disorder are most likely to be assessed as having a mixture of 'physical illness and somatic' complaints. Only among English subjects were general practitioners likely to recognize psychiatric disorder, and mixtures of 'physical from psychiatric' disorder. These general practitioners' assessments appear to echo previous primary care data that construe 'Asian' primary care presentations to be dominated by physical rather than psychiatric complaints (Gillman *et al.* 1980; Wilson & MacCarthy, 1994). This work suggests that distinguishing physical from psychiatric presentations is more difficult among Punjabi Asians, and yet 'somatic' and 'subclinical' labels suggest that general practitioners are aware of some emotional disturbance, but consider that it does not amount to a 'significant psychiatric disorder'.

These findings might be explained by Clinical Interview Schedule caseness for common mental disorders not mapping onto general practitioners' understanding of caseness. This discordance has three possible explanations. First, general practitioners' conclusions may be dependent on an inability to assign diagnosis in the face of physical complaints without prominent psychologized expressions of distress. Although the point estimates suggest that Punjabis were less likely to identify an emotional origin to their somatic complaints, this fell short of statistical significance. Therefore, an inability to express distress in psychological terms can not fully explain the general practitioners' assessments.

Previous work suggests that even where psychological complaints are expressed by 'Asians', general practitioners still make a diagnosis of physical disorder (Wilson & MacCarthy, 1994). One must conclude that there is a component of the presentation among Punjabis that deters psychological enquiry while reinforcing physical explanations, which together might make firm conclusions about psychiatric diagnosis an unlikely outcome of the consultation. The second explanation is in line with this hypothesis. General practitioners may appraise distress among Punjabis to be culturally

congruent and to not reach the intensity that is characteristic of a common mental disorder. Language difficulties appear not to be responsible for this, but cultural and religious prescriptions that advocate normalizing responses to distress so that it is expected and tolerated with optimism, may account for general practitioners' impression of less morbidity among Punjabis.

Punjabis did not rate as having more depression than English subjects but they did have more depressive ideas. If Punjabis' expressions of depressive affect do not reflect their actual level of unexpressed depressive cognitions, then Punjabi expressions of distress may not trigger a detailed psychosocial enquiry. Finally, such findings might be explained by the general practitioner identifying a disorder to be present but deciding that its management is different among Punjabis. This might be a consequence of cultural explanations for distress emerging as a preference for non-medication approaches (Fenton & Siddiqui, 1993). So general practitioners may conclude that the use of an illness label is unhelpful unless it is related directly to pharmacological treatment.

Both cultural groups most commonly consult their general practitioner or friends and family, followed by other health social care agencies. Neither group had predominantly sought out lay or traditional healers. This may be a manifestation of the impact of acculturative processes on illness behaviour among Punjabis, where host patterns of help-seeking become active. Alternatively, this finding might reflect biased sampling as general practice attenders, by definition, are more likely to rely on their general practitioner. Another explanation is that loyal patients may not disclose their use of traditional remedies. In view of the popularity of seeking help from friends and family, public education remains equally important for both cultural groups. Primary care interventions and health promotion might be better targeted at the significant proportion (40 to 46%) of cases who, irrespective of culture, did not seek help for their worst psychiatric symptom. The finding that help-seeking among cases is associated with a general practitioners' ratings of 'significant psychiatric disorder' among English subjects, but not among Punjabis, suggests that cultural appraisals and expressions of distress and cross-

cultural communications in consultations hinder the recognition of common mental disorder.

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