ORIGINAL ARTICLES

Common mental disorders, explanatory models and consultation behaviour among Indian women living in the UK

K S Jacob MD[1]   D Bhugra MPhil FRCPsych[1]   K R Lloyd MSc MRCPsych[1]   A H Mann MD FRCPsych[1]

SUMMARY

Women of Indian origin are said to have a lower rate of recognized common mental disorders and a higher frequency of consultation in primary care than white British. The aim of this study was to evaluate factors, including explanatory models (patient perspectives) of illness, associated with common mental disorders and with frequency of consultation among women of Indian origin in primary care.

The investigation was conducted in a general practice in West London with a large Indian population. Consecutive woman attenders of Indian descent were screened with the General Health Questionnaire-12 to identify probable cases of psychiatric morbidity. 100 patients were interviewed with the Revised Clinical Interview Schedule (CIS-R), a specific tool for the diagnosis of common mental disorders, and the Short Explanatory Model Interview, which elicits the individual's conceptualization of his or her illness. Those patients who satisfied CIS-R criteria were classified as 'cases', the others as 'controls'.

Common mental disorders were documented in 30% of patients. The general practitioner's diagnosis of common mental disorders had a sensitivity of 17% and a specificity of 91%. Individuals with common mental disorders had a higher frequency of consultation (P=0.017), were less likely to see depression as an indication for medical intervention and were more likely to withhold some of their concerns from the general practitioner. Incorrect diagnosis by the GP was most likely to occur when patients did not disclose all their complaints. These associations were all statistically significant after adjustment for possible confounders by multiple linear and logistic regression.

Women of Indian origin in this sample had rates of common mental disorders similar to those in other UK populations. Differing conceptualizations of common mental disorders may contribute to their underrecognition in women of Indian origin.

INTRODUCTION

A worrying trend has been the rise in suicide and suicide attempts among immigrants from the Indian subcontinent[1-3]. However, the prevalence of common mental disorders (depression and anxiety) documented by general practitioners (GPs) among Indians is much less than that observed in other British populations[4,5] despite higher general practice consultation rates in this immigrant group[4,6]. The discrepancy between a high consultation rate and a reported low rate of psychiatric morbidity has not been examined systematically.

Explanatory models denote the 'notions about an episode of sickness and its treatment that are employed by all those engaged in the clinical process'[7]. They

emphasize the differentiation of *etic* and *emic* perspectives of illness[8]. *Etic* models employ physician perspectives and are scientific explanations, whereas *emic* models elicit patients' perspectives and conceptualizations of the sickness episode. These include beliefs and behaviours concerning aetiology, course, timing of symptoms, meaning of sickness, roles and expectations. Explanatory models influence many aspects of the illness including help seeking behaviour, compliance with treatment and patient satisfaction. Differences between physician and patient models tend to generate difficulties in the treatment[7].

Patients' beliefs related to their illness can be elicited by direct questioning. Kleinman[7] proposed a few questions which enquire about the nature of the problem, its cause, its consequences and the expectation of the individual. Most interviews that attempt to elicit explanatory models employ similar probes. Elicitation of explanatory models becomes more important when the patient and physician come from

[1]Institute of Psychiatry, Denmark Hill, London SE5 8AF: [2]University of Exeter Department of Mental Health, Dryden Road, Exeter EX2 5AF, UK

Correspondence to: Dr D Bhugra

different cultural backgrounds. This is particularly true in relation to psychiatric disorders where many of the concepts and categories have a western basis.

So far, investigations of common mental disorders in primary care conducted among British Indian patients have employed only *etic* measures, but the difference in cultures mandates the use of *emic* perspectives. This study attempted to examine the interrelations between beliefs, common mental disorders and consultation behaviour. Women were the focus since they show the highest suicide rates and the lowest reported morbidity. It was hypothesized that patients who did not report a medical model for psychiatric illness would have a lower chance of being diagnosed by their GP. An unmatched case–control design was employed to examine the issues.

METHOD

The study was conducted in a large general practice in West London, chosen because a high proportion of its patients were of Indian origin and all practice staff came from a similar background. Two GPs were Hindu and one followed the Sikh religion; all had practised in the UK for over 15 years. A consecutive sample of general practice attenders who satisfied the study criteria were invited to participate. The criteria for inclusion were: women aged over 16 years, of Indian origin (Indian subcontinent), resident in the catchment area for one year and able to converse in English or Hindi. Individuals with the following characteristics were excluded: diagnosis of schizophrenia, chronic psychosis, organic mental disorder or mental retardation, or the presence of severe language or hearing disability. Informed consent was obtained.

The patients were allowed to choose the language for the self-report questionnaire and the interview (English or Hindi). Patients who consented completed the General Health Questionnaire-12 (GHQ-12)[9]. The Hindi version of the GHQ standardized in India was employed[10]. All individuals who scored 2 or more on the GHQ-12 were considered probable cases and were interviewed[11] by means of the Revised Clinical Interview Schedule (CIS-R)[12], a standard semi-structured interview to assess the mental state of individuals with non-psychotic disorders. An equal number of those scoring 0 or 1 were also evaluated. CIS-R yields a symptom profile and a total score that enable the patient to be classed as a psychiatric case or non-case, cases being defined as individuals who score 12 or more. The Hindi version of the CIS-R employed in the 4th National Survey of Ethnic Minorities[13] was used. The Short Explanatory Model Interview (SEMI)[14] provides a framework for understanding how individuals conceptualize their illness. It is based on Kleinman's approach to explanatory models and their elicitation[7]. It explores the relationship between beliefs, behaviours and practices associated with particular illness episodes in specific cultural settings. It enquires about reasons for consultation, perceived causes and consequences of presenting problems, expectation and satisfaction with treatments received and help-seeking behaviour. The SEMI was devised to be brief and easy to administer. The instrument is intended as a simple tool for use in routine clinical practice and research. It has an open-ended format, taking 30–45 minutes to administer. Its non-technical nature allows for translation and adoption into different languages for use in different cultures. Its format also allows for qualitative and quantitative analysis. Interviewers from diverse theoretical backgrounds can be trained and high inter-rater reliability achieved. Interviewees are encouraged to talk openly about their attitudes towards and experience of current illness with the aim of eliciting beliefs held. Specific probes are then employed to confirm any beliefs mentioned in response to the open-ended questions and to explore areas in which comments have been volunteered.

SEMI is divided into five sections which cover personal background, nature of presenting problem, help-seeking behaviour, interaction with physician/healer, and beliefs related to mental illness. The section on *background* reviews the individual and cultural factors. Basic demographic data, interpersonal relationships, housing, work, social life, religion, life history and specific cultural beliefs are first recorded. The respondent's beliefs concerning the *nature of the presenting problem*, the reason for consulting, name of the problem, perceived causes, consequences, severity and its effects on body, emotion, social network, home life and work are examined. *Help-seeking behaviour*, especially contact with alternative non-medical sources (e.g. traditional healers) is then discussed and the details of the *interaction with the physician/healer* are also evaluated in terms of expectation and satisfaction. A last section to elicit *beliefs* about common mental disorders consists of three vignettes of 'depression', 'phobia' and 'somatization', followed by open-ended questions to elicit attitudes to the clinical problem—in particular, whether the respondent considers the presentation as a problem or an illness and what are the respondent's views on causation, course of action and the role of the doctor/healer. Each section of the interview is designed to stand alone and this allows the interviewer flexibility in the order of questioning. It also allows for focus on certain aspects of the interview and the omission of other aspects depending on the overall objectives of the study. The qualitative data generated from the SEMI are converted to numerical codes by the method of stepwise reduction of data to discrete categories. SEMI was translated into Hindi by two bilingual psychiatrists. After translation of the questionnaire, the vernacular versions were independently back-translated into

English. The back translations were compared with the English version and a final vernacular version was reached. Data reflecting evidence of recognition and treatment of common mental disorders and the frequency of consultations were obtained from the patient's medical record. Sociodemographic details were obtained from the patient.

A sample size of 25 cases and 50 controls was calculated from the following: confidence 95%, power 80%, willingness to contact GP for the treatment of depression among controls 84%; willingness among cases 50%. The individual's willingness to consult a GP for depression was presumed to reflect a medical model of illness. The value for controls used for the calculation was taken from the MORI survey[15] which indicated that 84% of the general population would consult a GP for the treatment of depression. It was assumed that only half the cases would consult the GP for this condition.

Chi square and Fisher's test were employed to assess the significance of categorical data. Student's t test was used to compare continuous variables between groups. Pearson's correlation coefficient was employed to examine the relation between continuous variables. Multivariate analysis was also done to exclude confounding. Multiple linear regression was used for continuous dependent variables while logistic regression was employed for dichotomous variables.

RESULTS

140 patients were contacted and 24 (17.1%) refused consent. There were no statistically significant differences between patients who participated and those who refused, on the following variables: age, frequency of consultations in past year, chronic physical illness, or common mental disorders diagnosed by GP. 100 patients were interviewed in detail (all 48 GHQ positives [score 2 or more] and 52 GHQ negatives [score 0 or 1]).

53 individuals chose Hindi as the language for the interview, 47 English. The choice of language for the interview was not significantly associated with CIS-R score or the presence of common mental disorders (CIS-R case or International Classification of Diseases-10[16] diagnosis). However, the choice of English was significantly associated with being a second generation migrant, younger age, being single and having received formal education. The sample had a mean age of 43.2 years. The sociodemographic details are recorded in Table 1. The average number of consultations during the previous year was 6.1 (SD 6.7).

Common mental disorders

30 individuals (30%) met psychiatric case criteria (CIS-R threshold 12). 29 patients (29%) met criteria for an International Classification of Diseases-10 diagnosis[16]. 21

Table 1 **Sociodemographic characteristics of the sample**

Characteristic	Number (%)
Single	7 (7)
Married/widow/separated/divorced	93 (93)
Religion	
Sikh	55 (55)
Hinduism	22 (22)
Islam	15 (15)
Christianity	8 (8)
First-generation migrants	89 (89)
Received formal education	82 (82)
Occupation: housewives	65 (65)

individuals satisfied ICD criteria for a depressive disorder, while 7 were diagnosed as having neurasthenia and 1 mixed anxiety and depressive disorder.

Consultation data

Cases had a significantly higher consultation rate (mean 9.3/year) than non-cases (mean 4.6/year) (t value =2.5; df=33.4; P=0.017). The significant relation between frequency of consultations and psychiatric cases persisted even after adjustment for chronic physical illness, age, marital status, religion, education, and occupation (P=0.002; 95% CI 1.6, 7.3).

Patients' recognition of common mental disorders

The hypothesis that psychiatric cases are less likely to perceive the western concept of depression as requiring medical treatment was assessed by means of the SEMI vignette for depression. Individuals who did not favour medical intervention had a significantly higher common mental disorders score. This relation remained significant after adjustment for age, marital status, education, occupation, migrant status and religion (P=0.008; 95% CI −12.0, −1.8) and when psychiatric case and non-case status were compared (χ^2=6.9; df 1; P=0.008).

Similarly, cases did not recognize the vignette on somatization as requiring medical intervention (χ^2=7.5, df=1; P=0.006; OR 0.19; 95% CI 0.05, 0.68) and again the relation persisted after adjustment for confounders. However, there was no difference in the perception of the need for medical intervention between cases and controls for the vignette on phobia.

Detection by GP

The GP's psychiatric diagnosis was compared with CIS-R case threshold results. The GP's recognition rate had a sensitivity of 17% and a specificity of 91%. 12% of the sample were on psychotropic medication while only 1 individual was referred to a psychiatric service/counsellor. Sociodemographic and explanatory model variables that might have contributed to incorrect diagnosis by the GP were examined. Age, education, occupation, marital status, migrant status and religion did not have a statistically significant relation with incorrect diagnosis. However, whether patients told all their complaints to their GP was significantly associated with this outcome (see below).

Patients' disclosure to GP

All non-cases said that they had discussed all their problems while only half of those who satisfied psychiatric case criteria reported mentioning all their concerns to their GP. This association between not telling the GP all their complaints and psychiatric caseness was statistically significant (χ^2=43.9; df=1; P=0.001). Individuals who did not disclose all their symptoms were less likely to be detected (χ^2=28.4; df=1; P<0.001). The relation between not disclosing all problems to the GP with incorrect psychiatric diagnosis remained significant after age, education, occupation, marital status, religion, migrant status and the total number of complaints were adjusted for by logistic regression (P=0.001; OR 88; 95% CI 6.2, 1263). Not telling the GP all the complaints was also related to the perception that the vignette on somatization did not require medical intervention (Fisher's test P=0.022). Similar trends were documented for the vignettes on depression (P=0.07) and phobia (P=0.06).

Emic and *etic* classifications

The possible similarity in concepts and overlap (between physician and patients) was assessed by use of the CIS-R case diagnosis to represent *etic* concepts with the individual's self report of emotional distress on the SEMI to measure the *emic* aspect. There was a significant relation between the two scores (Pearson's correlation coefficient 0.77; P<0.001). The relation remained significant after adjustment for other sociodemographic variables by logistic regression (OR 8.5; 95% CI 3.3, 22.3).

DISCUSSION

A case–control design was chosen because of its efficiency in identifying the risk factors. Limitations of this study include the heterogeneity of the sample, the fact that GP recognition data were obtained from the patients' medical records (ideally we would have employed a current

assessment) and the lack of other populations for comparison. This study attempted to examine common mental disorders and explanatory models among 'Indians'. However, it could be argued that this group is diverse in terms of religion, culture and language. Although examination of subgroups (based on religion, language, etc) may provide more specific cultural models of illness, such a strategy results in small samples. Definitions of 'ethnicity' are varied and pursuing the different subdivisions among ethnic Indians may not be worthwhile.

The lack of similar investigations in other populations and the absence of another study group (e.g. African-Caribbean) prevents direct comparison. Similar investigations (which simultaneously examine common mental disorders and explanatory models) need to be done in other populations. The conclusions of this study should be considered as preliminary.

The sample size calculation deserves comment. The dearth of studies combining *etic* and *emic* perspectives mandated certain assumptions. However, the significant associations detected suggest an adequate sample size, excluding the possibility of type II errors.

Psychiatric morbidity was documented in one-third of the sample. This is comparable to reported morbidity among other British populations[17,18]. Similarly, studies conducted in hospital medical clinics showed a range of 23–39%[19]. Thus, the rates of such common mental disorders (conspicuous and hidden) is similar across all these British populations. In contrast, publications on *conspicuous* common mental disorders among patients of British Indian origin have reported much lower prevalence rates[4,5]. The findings of the current study confirm that most individuals with common mental disorders are not identified by the GP. Poor detection rates among British Indian patients have been attributed to linguistic and cultural barriers between the doctor and the patient[20] but in this practice all the doctors were of the same ethnic group. The low recognition rate seemed in part to be explained by differing explanatory models between the physician and the patient. The low level of patient perception of the need for medical treatment for depression differs from the medical view that depression is an illness which requires intervention. In keeping with this, most of the individuals with common mental disorders did not disclose all their problems to their GP. Both factors may contribute to under-recognition of psychiatric morbidity.

Psychiatric morbidity contributed to a high consultation rate in this population. However, since their disorders were not identified by the GP, many such patients remained undiagnosed and untreated. The high frequency of consultations by patients with undiagnosed problems not only results in increased workload and cost to the general practice but can also result in a strained doctor–patient

relationship, since physicians tend to view such individuals as difficult while patients become dissatisfied when they do not get better. Greater recognition of morbidity by the GP should make consultations more productive. Findings from a recent study[21] have been used to argue that the disclosure of undetected depression does not improve the prognosis of individuals suffering from the condition. The study was a prospective 12-month investigation including a randomized control trial of the effects of disclosure (of undiagnosed depression) to the GPs. However, this investigation has been criticized on methodological grounds[22-24]. The issues raised are: (i) will better diagnosis (in isolation) by GPs make a difference to outcome? and (ii) will better diagnosis and (consequently) better treatment by GPs make a difference to outcome? The study provides a negative answer to the first question and no information on the second. However, the negative result of the investigation does not adequately address the whole issue. The study involved the passive acquisition of diagnostic information on the part of GPs. Obviously, if the GPs had gone through the process of acquiring better diagnostic knowledge and made the diagnosis themselves, their attitude towards treatment would have been different.

It was also noteworthy that the individual's admission of emotional distress in response to a direct question during the interview correlated well with the diagnosis of common mental disorders according to a standard case-finding instrument. This is important since some authorities reject the use of western categories and concepts for the diagnosis of mental illness in non-western cultures[25]. Other investigations have also shown that individuals diagnosed by *emic* criteria also satisfy *etic* standards of diagnosis for overall caseness[26]. In addition, most patients seem to be facultative somatizers who will admit to emotional distress on probing. The use of somatization inventories[27] to identify psychiatric cases may not be necessary. Thus, brief probing by a GP should identify patients with common mental disorders who need treatment. The findings of this study confirm the hypothesis that patients who do not hold a medical model for psychiatric illness are less likely to be detected by their GP. The high suicide rate documented in this population demands a greater emphasis on recognition and treatment of psychiatric morbidity.

Elicitation of a patient's explanatory model would improve doctors' understanding of the patient, the problem and the circumstances and would improve compliance with treatment[28]. The recognition of divergence of models between physician and patients might necessarily imply the need to negotiate a treatment plan acceptable to both patient and physician. A few questions about the patient's views of the illness will elicit his or her explanatory model (e.g. nature of problem, effect on mind and body, cause, expectations). Since most individuals with common mental

disorders seem able to recognize emotional distress, direct questioning should prove useful.

REFERENCES

1 Burke AW. Attempted suicide among Asian immigrants in Birmingham. *Br J Psychiatry* 1976;**128**:528–33

2 Raleigh VS, Balusu T, Balarajan R. Suicides amongst immigrants from the Indian subcontinent. *Br J Psychiatry* 1990;**156**:46–50

3 Raleigh VS, Balarajan R. Suicides and self burning among Indian and West Indians in England and Wales. *Br J Psychiatry* 1992;**161**:365–8

4 Gillam SJ, Jarman B, White P, Law R. Ethnic differences in consultation rates in general practice. *BMJ* 1989;**299**:953–7

5 McCormick A, Fleming D, Charlton J. *Morbidity Statistics from General Practice: Fourth National Study 1991–1992.* London: HMSO, 1995

6 Balarajan R, Yuen P, Raleigh VS. Ethnic differences in general practitioner consultations. *BMJ* 1989;**299**:958–60

7 Kleinman A. *Patients and Healers in the Context of Culture.* Berkeley: University of California Press, 1980

8 Littlewood R. From categories to contexts: a decade of the new cross-cultural psychiatry. *Br J Psychiatry* 1990;**156**:308–27

9 Goldberg D. *GHQ (General Health Questionnaire).* Windsor: NEFR, 1978.

10 Gautum S, Nijhawan M, Kamal P. Standardization of Hindi version of Goldberg's General Health Questionnaire. *Indian J Psychiatry* 1987;**29**:63–6

11 Goldberg D, Williams P. *A User's Guide to the General Health Questionnaire.* Berkshire: NEFR-NELSON Publishing, 1988

12 Lewis G, Pelosi A, Araya R, Dunn G. Measuring psychiatric disorder in the community: a standardized assessment for use by lay interviewers. *Psychol Med* 1992;**22**:465–86

13 Policy Studies Institute. *The 4th National Survey on Ethnic Minorities.* London: Policy Studies Institute, 1994

14 Lloyd K, St Louis L. Explanatory models of anxiety and depression among general practice attenders. Paper presented to the Royal Society of Medicine, 1993

15 Royal College of Psychiatrists. MORI Attitudes towards Depression Research Study, conducted for the Royal College of Psychiatrists, March 1995. London: RCP, 1995

16 World Health Organization. *International Classification of Diseases 10: Clinical Descriptions and Diagnostic Guidelines.* Geneva: WHO, 1992

17 Goldberg D, Bridges K, Duncan-Jones P, Grayson D. Dimensions of neurosis seen in primary care settings. *Psychol Med* 1987;**17**:461–70

18 Skuse D, Williams P. Screening for psychiatric disorder in general practice. *Psychol Med* 1984;**14**:365–77

19 Lobo A. Mental health in general medical clinics. In: Goldberg D, Tantum D, eds. *The Public Health Impact of Mental Disorder.* Bern: Huber-Hogrefe, 1990

20 Brewin C. Explaining the lower rate of psychiatric treatment among Asian immigrants to the United Kingdom: A preliminary study. *Soc Psychiatry* 1980;**15**:17–19

21 Dowrick C, Buchan I. Twelve month outcome of depression in general practice: does detection or disclosure make a difference? *BMJ* 1995;**311**:1274–6

22 Menezes P, Lewis G, Sharp D. Effects of detection of depression in general practice. *BMJ* 1996;**312**:512–13

23 Goldberg D. Effects of detection of depression in general practice. *BMJ* 1996;**312**:512

24 Currie A, Ryman A. Effects of detection of depression in general practice. *BMJ* 1996;**312**:512

25 Kleinman A. Anthropology and psychiatry: the role of culture in cross-cultural research on mental illness. *Br J Psychiatry* 1987;**151**:447–54

26 Patel V, Gwanzura F, Simunyu E, Lloyd K, Mann A. The phenomenology and explanatory models of common mental disorder: a study in primary care in Harare, Zimbabwe. *Psychol Med* 1995;**25**:1991–9

27 Mumford DB. Somatization a transcultural perspective. *Int Rev Psychiatry* 1993;**5**:231–42

28 Lazare A, Eisenthal S, Wasserman L. The customer approach to patienthood. *Arch Gen Psychiatry* 1975;**32**:553–8