

Ethnic inequalities in the use of health services for common mental disorders in England

Claudia Cooper · Nicola Spiers · Gill Livingston ·
Rachel Jenkins · Howard Meltzer · Terry Brugha ·
Sally McManus · Scott Weich · Paul Bebbington

Received: 6 October 2011 / Accepted: 28 July 2012
© Springer-Verlag 2012

Abstract

Purpose The purpose of this study is to investigate whether minority ethnic people were less likely to receive treatment for mental health problems than the white population were, controlling for symptom severity.

Method We analysed data from 23,917 participants in the 1993, 2000 and 2007 National Psychiatric Morbidity Surveys. Survey response rates were 79, 69 and 57 %, respectively. The revised Clinical Interview Schedule was used to adjust for symptom severity.

Results Black people were less likely to be taking antidepressants than their white counterparts were (Odds ratio 0.4; 95 % confidence interval 0.2–0.9) after controlling for symptom severity. After controlling for symptom severity and socioeconomic status, people from black (0.7; 0.5–0.97) and South Asian (0.5; 0.3–0.8) ethnic groups were less likely

to have contacted a GP about their mental health in the last year.

Conclusions Interventions to reduce these inequalities are needed to ensure that NHS health care is delivered fairly according to need to all ethnic groups.

Keywords Ethnicity · Mental health services · Inequality

Introduction

The British Equality Act 2010 requires that access to health and social care services should be based on need and forbids discrimination on grounds of race [1]. The UK National Institute for Health and Clinical Excellence (NICE) advises clinicians to be “mindful of the need to secure equality of access to treatment for patients from different ethnic groups” [2].

In the 2000 Adult Psychiatric Morbidity Survey (APMS), ethnicity was strongly associated with risk factors for mental illness, including unemployment; lone parent status; lower social class; low social support and poverty. Once these were taken into account, it was no longer associated with a greater risk of common mental disorders (CMD) [3]. Weich et al. [4] found in the EMPIRIC study that there were modest differences in rates of CMD between ethnic groups in England. Middle-aged Irish and Pakistani men, and older Indian and Pakistani women, had significantly higher rates of CMD than their white counterparts did. They also reported a very low prevalence of CMD among Bangladeshi women.

We reported in the 2007 APMS that people from non-white ethnicities are less likely to consult their GP about their mental health and to be prescribed antidepressants [5], although we could not distinguish between different ethnic

C. Cooper (✉) · G. Livingston · P. Bebbington
Department of Mental Health Sciences (Bloomsbury Campus),
UCL, 67-73 Riding House Street, 2nd Floor, Charles Bell House,
London W1W 7EJ, UK
e-mail: c.cooper@ucl.ac.uk

N. Spiers · H. Meltzer · T. Brugha
Department of Health Sciences, University of Leicester,
22-28 Princess Rd West, Leicester LE1 6TP, UK

R. Jenkins
Institute of Psychiatry, De Crespigny Park, Box P035, London,
UK

S. McManus
National Centre for Social Research, London, UK

S. Weich
Health Sciences Research Institute, Warwick Medical School,
University of Warwick, Coventry CV4 7AL, UK

groups due to small numbers. In the 1993–1994 British Fourth National Survey of Ethnic Minorities, black Caribbean people who were depressed were less likely than their white counterparts to be taking antidepressants [6]. Under-utilization of support services also appears to contribute to poor mental health outcomes in African–Caribbean communities [7], Latinos and African Americans [8]. UK black African primary care attendees were less likely than others to say they would talk to their General Practitioner (GP) about psychological problems [9].

In the USA minority ethnic groups were reported as less likely to receive mental health services [10]; and blacks suffering from CMD were less likely to receive care [11, 12]. These treatment inequalities may lead to more chronic episodes of depression and greater functional limitation among minority groups [13, 14].

There is good evidence that psychological therapies are effective treatments for CMDs (such as anxiety and depressive disorders) and they appear to be equally effective across all UK ethnic groups [15]. Antidepressants are recommended for treatment of moderate and severe depression [16]. The numbers of prescriptions for antidepressants in primary care have increased in the last decade [17, 18]. This suggests changes in primary care practice have reflected the developing evidence, but we do not know if all groups have benefited equally. In the current study, we investigated whether receipt of medication and psychological treatment and GP contact for CMD varies between different minority ethnic groups. We controlled for the level of anxiety and depressive symptoms, in order to explore variation in treatment rates rather than variation in the presence of symptoms.

Methods

Data collection

The three National Psychiatric Morbidity Surveys were carried out in 1993, 2000 and 2007. The 1993 and 2000 surveys covered England, Wales and Scotland, while the 2007 survey only took place in England. We only included English participants from the three surveys in our analyses.

The surveys were each designed to be representative of people living in private households, and used very similar sampling methods. The sampling frame comprised the small user postcode address files. The primary sampling units (PSUs) were postcode sectors. Delivery points were randomly drawn from postal sectors of the small area postcode address file. The populations were stratified before sampling by region (Strategic Health Authorities) and manual and non-manual socio-economic grouping. In

the 1993 survey, 12,730 adults aged 16–64 were selected from 15,765 private households located at 18,000 delivery points. In the 2000 survey, 12,792 adults aged 16–74 years were selected from 14,285 eligible households at 15,804 delivery points. In the 2007 survey, 11,536 adults were selected from 13,171 private households located at 14,532 delivery points. In 1993, the upper age limit for participants was 64 years, in 2000 it was 74 years, and in 2007 there was no upper age limit. In households with more than one adult aged 16 or over, one was randomly selected for interview. More details are available in the reports of the 1993 [19], 2000 [20] and 2007 surveys [21].

The interviewers underwent survey-specific training that included introducing the survey, questionnaire content, confidentiality and managing respondent distress, and were provided with full written instructions. Interviews took place in participants' homes and were in English. In 2000 and 2007, computer-assisted interviewing replaced the paper and pencil questionnaires used in 1993.

Measures

Participants were asked harmonised questions (questions standardised across UK government surveys) about age, sex, marital status and housing tenure (whether they owned, part-owned, or rented their home) [22].

Classification of ethnicity

Respondents were asked to indicate their ethnicity. In 1993 and 2000, the categories were: white, black (black Caribbean, black African, any other black background); South Asian (Indian, Pakistani, Bangladeshi) and other (Chinese, mixed—white and black Caribbean, mixed—white and black African, mixed—white and Asian, any other mixed background and other). Additionally, in 2007, the white category included the subcategories: white-British, white-Irish and any other white background. As categories were collapsed for reasons of confidentiality prior to archiving the data, we could only report the categories: white, black, South Asian and mixed or other.

Measures of health service use

In the 1993 and 2000 surveys, participants were asked “Are you taking any pills or tablets or any other medicine by mouth that have been prescribed to you?” If so they were asked for the names of medications. In the 2007 survey, participants were shown a card with a list of medication and asked to indicate if they were taking any of them. The card included 13 commonly prescribed antidepressants. In all surveys, the interviewer then asked to see the packaging of any medication to verify the name.

In 2000, participants were asked if they were having any counselling or therapy for a mental, nervous or emotional problem either at home, at a doctor's surgery, a health centre, hospital or clinic. The 1993 and 2007 surveys asked very similar questions about whether participants were having any counselling or therapy for a mental, nervous or emotional problem.

Participants were asked whether, in the last year, they had spoken to a primary care doctor, in person or by telephone, about being anxious or depressed or having a mental, nervous or emotional problem. In the 2007 survey the question was similar, but participants were asked to exclude telephone calls to NHS Direct, the national medical telephone helpline.

Measure of common mental disorder

The revised Clinical Interview Schedule (CIS-R) was used to assess neurotic symptoms and disorders, such as anxiety and depression. The CIS-R is an interviewer administered structured interview schedule covering non-psychotic symptoms in the week prior to interview. Six common mental disorders can be identified by the application of a computer algorithm. However, in this paper, we use the CIS-R total score for the level of neurotic symptoms in order to control for symptom severity. A score of 12+ indicates the presence of a clinically significant CMD. A score of 18 or more has been used to denote a threshold at which treatment is definitely indicated [21]. Reliability and validity are reported [23, 24]. We analysed scores in four groups: 0–5, 6–11, 12–17 and 18+.

Data analysis

Because of small numbers from ethnic minorities reporting health service use, data from the three adult household surveys were combined. Analyses were performed using data weighted to take account of the complex survey design and nonresponse, in order to ensure results were representative of the English household population at the time of the survey. Sample weights were applied to each survey to take account of the different probabilities of selecting participants in different sized households. Weights were applied using post-stratification based on age, sex and region to take account of differential non-response among regions and age groups, and to weight the data up to represent the structure of the national population.

We used the 'survey' commands in Stata 10.0 [25], and clustered data modified by probability weights, providing robust estimates of variance. We described the variables studied using actual numbers, and weighted means and proportions. Associations between health service use were tested using the adjusted χ^2 test. We compared the

proportion of people from each ethnic group who received the health services of interest.

In multivariate analyses, we omitted the South Asian and mixed and other ethnic groups because of small numbers, but were able to compare those in black and white ethnic groups. We undertook logistic regression analyses using the treatments investigated as dependent variables. In addition to ethnicity, we controlled for CIS-R score. For the dependent variable of contact with a GP in the last year for a mental health problem, we then added age group, sex, measures of socioeconomic status (marital status and housing tenure) and year of survey to our model. These variables were selected because they were associated with treatment receipt in our previous study [5]. Small numbers reporting use meant we were unable to make a similar adjustment for use of antidepressants and talking therapies.

Results

We only included participants resident in England from all three surveys. A full interview was provided by 10,108 (79 %) of those contacted for the 1993 survey, 8,580 (67 %) people contacted for the 2000 survey and 7,403 (57 %) of those contacted for the 2007 survey.

Univariate analyses

Sociodemographic characteristics and ethnic composition of the sample are described in Table 1. The ethnic composition was broadly representative of the ethnic composition of the UK population at the time, as evidenced by the 2001 census [26]. White participants tended to be older. This reflects findings from the 2001 census [26]. Ethnicity was also significantly associated with tenure, with people from black and mixed or other ethnic groups less likely than white or South Asian groups to own their home. People from black ethnic groups were least likely to be married and most likely to be divorced.

Receipt of antidepressants and speaking to a GP in the last year about a mental health problem varied significantly between ethnic groups (Table 2). These outcomes were most common among white participants, followed by Black participants, and least common among those from South Asian or mixed/other groups. Differences between ethnic groups were statistically significant in the case of reported antidepressant use, with black ethnic minority groups less likely to receive antidepressants than the white group. There were also statistically significant differences in reported GP contact, with South Asian and mixed/other groups both less likely to have seen a GP in the past year for a mental health problem than the white group. Differences in reported receipt of talking therapy were not statistically significant.

Table 1 Sociodemographic characteristics of the sample by ethnic group, showing actual numbers and weighted percentages

Characteristic	Whole sample (<i>n</i> = 23,748)	White (<i>n</i> = 22,196)	Black (<i>n</i> = 544)	South Asian (<i>n</i> = 596)	Mixed or other (<i>n</i> = 412)	Adjusted design-based <i>F</i> (<i>p</i>)
Age group						
16–34	7,361 (37.4 %)	6,587 (36.1 %)	235 (47.0 %)	295 (56.1 %)	197 (37.4 %)	23.4 (<0.001)
35–54	9,237 (38.3 %)	8,571 (38.5 %)	216 (39.2 %)	225 (34.4 %)	155 (38.3 %)	
55–74	6,369 (21.6 %)	6,115 (22.6 %)	88 (13.3 %)	73 (9.1 %)	58 (21.7 %)	
75+	950 (2.7 %)	923 (2.9 %)	5 (0.5 %)	3 (0.4 %)	2 (2.7 %)	
Gender						
Male	10,678 (49.3 %)	9848 (48.9 %)	243 (51.3 %)	306 (54.9 %)	191 (52.1 %)	3.2 (0.02)
Marital status						
Married or cohabiting	13,572 (62.0 %)	12,706 (62.7 %)	193 (42.9 %)	365 (59.6 %)	216 (55.7 %)	17.4 (<0.001)
Single	5,505 (25.6 %)	4,934 (24.7 %)	240 (43.0 %)	153 (33.2 %)	140 (36.6 %)	
Widowed	1,734 (4.1 %)	1,652 (4.2 %)	23 (2.9 %)	33 (3.5 %)	10 (1.5 %)	
Divorced or separated	3,062 (8.3 %)	2,864 (8.4 %)	88 (11.2 %)	42 (3.7 %)	46 (6.2 %)	
Home owner						
Yes	16,883 (72.3 %)	15,962 (73.5 %)	222 (44.5 %)	426 (71.2 %)	228 (52.9 %)	50.2 (<0.001)
Year of survey						
1993	8,903 (36.9 %)	8,297 (37.3 %)	176 (27.7 %)	261 (40.5 %)	106 (22.5 %)	4.5 (0.002)
2000	7,611 (32.5 %)	7,092 (32.7 %)	180 (32.8 %)	136 (24.8 %)	147 (33.3 %)	
2007	7,403 (30.7 %)	6,807 (30.0 %)	188 (39.4 %)	199 (34.7 %)	159 (44.2 %)	

Multivariate analyses

After controlling for CIS-R score, people from South Asian and mixed or other ethnicities were less likely to have seen their GP in the last year for a mental health problem than white participants (Table 3). This remained true after controlling for age, sex and socioeconomic variables (Table 4). Black participants were less likely to report seeing their GP about a mental health problem in the last year, after adjusting for potential confounders, including their lower rates of home ownership and greater likelihood of being unmarried and divorced. GP contact about a mental health problem was associated with a higher CIS-R score; being widowed divorced or separated rather than married; female gender; renting one's home and age. Participants aged 75+ were less likely and those aged 35–54 more likely, than younger adults to have seen their GP in the last year for a mental health problem.

Black participants were less likely to be receiving antidepressants after controlling for symptom severity. Due to small numbers we were not able to control for other characteristics.

Sensitivity analysis

When we repeated our analyses without controlling for complex survey design, the odds ratio for contact with a GP in the last year about a mental health problem in the mixed ethnic group versus the white group was somewhat smaller

(0.8 against 0.6) and no longer statistically significant. Given the small numbers involved, this difference may be an artefact of our weighting procedure.

Discussion

After controlling for sociodemographic characteristics and severity of CMD symptoms, people from black and South Asian ethnic groups were less likely than their white counterparts to have seen their GP in the last year. This reflects earlier findings from the UK and USA [5, 10, 27]. Those from mixed or other ethnic groups were also less likely to consult their GP, but not in our sensitivity analysis before controlling for complex survey design, so we can be less sure of this finding. People from minority groups were less likely to be receiving antidepressants than their white counterparts in the univariate analysis. Black people were also less likely than their white counterparts to be receiving antidepressants after controlling for symptom severity, but we could not study this in the other ethnic groups due to the small sample size.

Explanations of why minority ethnic people might consult less for mental health problems have included: perceived racism [28]; disillusionment with doctors, perceived exclusion from services, a sense of stigma, a lack of knowledge about mental illness and services [29]; different illness models [30]; a feeling that care is a family responsibility [31]; and fears of confidentiality, language barriers and doubts about the cultural competence of services [32].

Table 2 Receipt of interventions studied by age and ethnic group in all participants

Year	Receiving talking therapy				Receiving antidepressants				Saw GP in last year for mental health				χ^2 (p) (whole sample)
	1993	2000	2007	Whole sample	1993	2000	2007	Whole sample	1993	2000	2007	Whole sample	
All participants													
White	116 (1.2)	199 (2.4)	185 (2.6)	500 (2.0)	109 (1.1)	411 (4.9)	401 (4.9)	921 (3.5)	1078 (11.7)	956 (12.0)	864 (11.2)	2898 (11.7)	6.2 (<0.001)
Black	1 (.03)	7 (3.6)	8 (4.2)	16 (2.9)	0	5 (1.6)	5 (3.3)	10 (1.8)	24 (13.8)	23 (10.0)	22 (9.2)	69 (10.7)	
South Asian	4 (1.3)	2 (1.1)	2 (.04)	8 (0.9)	0	0	5 (2.4)	5 (0.8)	11 (4.8)	9 (6.5)	20 (8.3)	40 (6.6)	
Mixed/other	1 (1.0)	1 (0.8)	3 (2.3)	5 (1.5)	2 (1.8)	6 (2.2)	3 (1.0)	11 (1.6)	15 (12.3)	17 (7.8)	19 (9.0)	51 (9.3)	

F (p) = Design-based *F* (adjusted Chi squared) and significance

Two UK-based randomised controlled trials have evaluated interventions to increase access to mental health treatment of minority ethnic groups. The Cares of Life Project, based in South London recruited 40 black people with untreated CMD through voluntary groups, local advertising and statutory agencies. Those who received an intervention designed to be culturally sensitive, with therapists matched to patient ethnicity and including advocacy and mentoring, were less likely than the waiting list control to be depressed 3 months later [33]. In the second study, Pakistani women with depression were offered antidepressant treatment by their GP and monitoring according to a standard protocol, or a culturally sensitive social intervention, or both. Measures to ensure cultural sensitivity of the social intervention included: the transport arrangements (British Pakistani women accompanied participants to and from the centre), the venue selected, food served, group activities selected, greeting and addressing participants in a traditional manner and reminders about confidentiality as this had previously been cited as a major reason for non-engagement with services. Greater improvement in depression in the social intervention group and the combined treatment group compared with those receiving antidepressants alone fell short of significance [34].

Reluctance to seek help in primary care settings for a mental health problem may not be the only reason why black groups with CMD were less likely to be prescribed antidepressants. We do not know from this survey if doctors were diagnosing and prescribing for mental illness less in black ethnic groups, or if patients were following treatment advice less frequently. In a large, cross-national USA survey, primary care physicians diagnosed depression and prescribed antidepressants to latino and black patients just as frequently as to white patients, but the latino and black patients were less likely to take them [35]. We do not have similar information about primary care practice in the UK. We found only one RCT assessing how to increase adherence to antidepressants in minority ethnic groups. In this USA study, integrating type 2 diabetes mellitus treatment and depression treatment in older African Caribbean people improved adherence to treatment and outcomes of both conditions [36]. Studies are needed to identify if adherence to antidepressants is particularly low in minority ethnic groups and if so to address it.

A number of national initiatives have sought to reduce inequalities in provision of treatment for mental disorders, by setting out guidelines and referral pathways for all patients. Improving Access to Psychological Therapies (IAPT) programme was not launched until 2006 and therefore its effects are unlikely to influence this survey. NICE guidelines for treatment of depression and anxiety disorders were first published in 2004, so would only have influenced treatment in the third APMS survey. Large scale

Table 3 Logistic regressions with treatments as dependent variables, adjusting for CIS-R score (in four categories) only

	Treatment for mental health problem (Adjusted Odds ratios (95 % confidence interval))		
	Talking therapy (<i>n</i> = 23,748)	Antidepressants (<i>n</i> = 23,733)	GP in last year (<i>n</i> = 23,502)
Ethnic group			
White	Reference	Reference	Reference
Black	1.2 (0.7–2.1)	0.4 (0.2–0.9)*	0.7 (0.5–1.0)
Indian, Pakistani, Bangladeshi ^a			0.5 (0.3–0.7)***
Mixed or other ^a			0.6 (0.4–0.9)**

^a Groups omitted from analyses of talking therapy and antidepressants due to small sample size

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

evaluations of the success of such programmes in reducing inequalities in treatment have not been done, although an early evaluation of two IAPT demonstration sites found that the services succeeded in engaging white, black and Asian groups, especially through the use of self-referral [15]. Perhaps self-referral circumvented the reluctance of minority ethnic groups to consult their GP.

There is evidence that Bangladeshi men and South Asian women with anxiety or depression are more likely to present with somatic symptoms than other ethnic groups [37]. Higher somatisation rates could partly explain the lower rates of South Asian people consulting their GP about a mental health problem. The CIS-R has a somatisation module, and is therefore likely to be more sensitive than other measures in detecting CMD where symptoms are somatised [37].

Limitations

Even in this analysis of three large surveys, the minority ethnic participants were relatively few in number. This was a major limitation because we were unable to control for confounders when examining the interaction between ethnicity and receiving antidepressants. There were differences between the minority groups and the white group in terms of age, sex, and measures of socioeconomic status (marital status and housing tenure), and as these factors were associated with treatment receipt in our previous study they are likely confounders of this relationship [5]. The logistic regression models were based largely on the white population and we did not have the power to investigate interactions between covariates and ethnic group. Unfortunately, not all the surveys would allow us to

Table 4 Logistic regression with GP contact in the last year for mental health problem as dependent variable, showing relationship to ethnicity, controlling for level of neurotic symptoms and sociodemographic characteristics

	GP contact in last year; adjusted Odds ratios (95 % confidence intervals)
Base population	23,420
CIS-R score	
0–5	Reference
6–11	3.7 (3.3–4.1)***
12–17	7.4 (6.3–8.5)***
18+	18.6 (16.2–21.4)***
Age group	
16–34	Reference
35–54	1.2 (1.1–1.4)**
55–74	1.1 (0.8–1.1)
75+	0.5 (0.4–0.8)***
Gender	
Male	Reference
Female	1.8 (1.6–2.0)***
Ethnic group	
White	Reference
Black	0.7 (0.5–0.97)*
Indian, Pakistani, Bangladeshi	0.5 (0.3–0.8)**
Mixed or other	0.6 (0.5–0.9)*
Marital status	
Married or cohabiting	Reference
Single	0.9 (0.8–1.0)
Widowed	1.6 (1.3–1.97)***
Divorced or separated	1.6 (1.4–1.9)***
Home owner	
Yes	Reference
No	1.2 (1.0–1.4)**
Survey year	
1993	Reference
2000	1.0 (0.9–1.1)
2007	1.0 (0.9–1.1)

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$

differentiate white British from other white groups, so we were not able to explore treatment rates in white minority or any other ethnic groups separately. This does not change our finding that people from black groups are less likely than white groups to receive treatment for anxiety and depression, but it may have masked an even greater difference between the white UK majority and minority ethnic groups. The mixed or other category was very heterogeneous, including Chinese people as well as those from various mixed ethnic origins; its composition will have

changed over time, as mixed ethnicity is increasing in prevalence in the UK. This heterogeneity will have masked differences between these groups. Combining Bangladeshi, Pakistani and Indian ethnic groups into the category of South Asian probably also masked inter-group differences. Fixed-response ethnicity categories have been criticised for “the reproduction of racialised categorisations, overemphasis of homogeneity within groups and contrast between them, and failure to offer terms with which people identify and which can express complex identities” [38]. We do not know the migration histories of respondents, and these may have been an important confounder.

We merged results from three cross-sectional surveys, and while these had very similar methodologies, there were some differences in the way they were conducted. For example, computer-assisted interviewing was introduced after the 1993 survey, although this is not thought to have had a substantial effect upon the results [39].

Because the 1993 and 2000 surveys respectively excluded people aged 65 and over, and 75 and over, the older age groups are under-represented in this analysis. This may have led to treatment rates being over estimated as older people are less likely to receive treatment [5].

We did not explore potential cultural confounders such as religion, discrimination, or ethnic area density, nor did we interview participants in languages other than English. Excluding people who did not speak English and may therefore have found accessing services most difficult may have led to an underestimation of the lower rate of service use by minority groups. We asked people whether they had seen their GP about a mental health problem in the last year, but this question would not have detected those who attended for somatic manifestations of their anxieties, and did not realise that they were consulting about symptoms with a mental rather than physical cause. There is some evidence that South Asian people may under-report CMD. Nazroo [6] found in the British Fourth National Survey of Ethnic Minorities that the association between CIS-R score and the Present State Examination (PSE) diagnostic category of depression was much weaker in Asian than whites or Caribbean groups. They also found much higher rates of mental illness among Asians who had been educated in Britain, or who were fluent in English, compared with those who were not, suggesting that western assessments may not be identifying CMD among Asian groups. We only recorded current treatment. Those who are now non-cases may be so because of the treatment they received.

Conclusion

People of black, South Asian and mixed or other ethnicities were less likely to have seen their GP about a mental health

problem and to be taking antidepressants than their white counterparts. Many possible reasons why minority ethnic people may be accessing mental health care less have been suggested but there is little evidence from intervention studies about how to reduce these inequalities. Randomised controlled trials to assess the effectiveness of such interventions are now needed to ensure that NHS health care is delivered equally to all ethnic groups.

Conflict of interest The authors declare that they have no conflict of interest.

References

1. House of Commons (2010) Equality act. House of Commons, London
2. National Institute for Health and Clinical Excellence (NICE) (2011) TA217 Alzheimer's disease—donepezil, galantamine, rivastigmine and memantine: guidance
3. Brugha T, Jenkins R, Bebbington P, Meltzer H, Lewis G, Farrell M (2004) Risk factors and the prevalence of neurosis and psychosis in ethnic groups in Great Britain. *Soc Psychiatry Psychiatr Epidemiol* 39(12):939–946
4. Weich S, Nazroo J, Sproston K, McManus S, Blanchard M, Erens B et al (2004) Common mental disorders and ethnicity in England: the EMPIRIC Study. *Psychol Med* 34(8):1543–1551
5. Cooper C, Bebbington P, McManus S, Meltzer H, Stewart R, Farrell M et al (2010) The treatment of common mental disorders across age groups: results from the 2007 adult psychiatric morbidity survey. *J Affect Disord* 127(1–3):96–101
6. Nazroo JY (1998) Rethinking the relationship between ethnicity and mental health: the British Fourth National Survey of Ethnic Minorities. *Soc Psychiatry Psychiatr Epidemiol* 33(4):145–148
7. Bhui K, Christie Y, Bhugra D (1995) The essential elements of culturally sensitive psychiatric services. *Int J Soc Psychiatry* 41(4):242–256
8. Alegria M, Canino G, Rios R, Vera M, Calderon J, Rusch D et al (2002) Inequalities in use of specialty mental health services among Latinos, African Americans, and non-Latino whites. *Psychiatr Serv* 53(12):1547–1555
9. Maginn S, Boardman AP, Craig TKJ, Haddad M, Heath G, Stott J (2004) The detection of psychological problems by General Practitioners—influence of ethnicity and other demographic variables. *Soc Psychiatry Psychiatr Epidemiol* 39(6):464–471
10. Snowden LR, Yamada AM (2005) Cultural differences in access to care. *Annu Rev Clin Psychol* 1:143–166
11. Alegria M, Chatterji P, Wells K, Cao Z, Chen CN, Takeuchi D et al (2008) Disparity in depression treatment among racial and ethnic minority populations in the United States. *Psychiatr Serv* 59(11):1264–1272
12. Wells K, Klap R, Koike A, Sherbourne C (2001) Ethnic disparities in unmet need for alcoholism, drug abuse, and mental health care. *Am J Psychiatry* 158(12):2027–2032
13. Williams DR, Gonzalez HM, Neighbors H, Nesse R, Abelson JM, Sweetman J et al (2007) Prevalence and distribution of major depressive disorder in African Americans, Caribbean blacks, and non-Hispanic whites—results from the National Survey of American Life. *Arch Gen Psychiatry* 64(3):305–315
14. Breslau J, Kessler KS, Su M, Gaxiola-Aguilar S, Kessler RC (2005) Lifetime risk and persistence of psychiatric disorders across ethnic groups in the United States. *Psychol Med* 35(3):317–327

15. Clark DM, Layard R, Smithies R, Richards DA, Suckling R, Wright B (2009) Improving access to psychological therapy: initial evaluation of two UK demonstration sites. *Behav Res Ther* 47(11):910–920
16. National Institute for Clinical Excellence (NICE) (2007) Depression: full guideline (amended). Report No.: CG23
17. Brugha TS, Bebbington PE, Singleton N, Melzer D, Jenkins R, Lewis G et al (2004) Trends in service use and treatment for mental disorders in adults throughout Great Britain. *Br J Psychiatry* 185:378–384
18. Moore M, Yuen HM, Dunn N, Mullee MA, Maskell J, Kendrick T (2009) Explaining the rise in antidepressant prescribing: a descriptive study using the general practice research database. *Br Med J* 15:339
19. Jenkins R, Bebbington P, Brugha T, Farrell M, Gill B, Lewis G et al (1997) The National Psychiatric Morbidity Surveys of Great Britain—strategy and methods. *Psychol Med* 27(4):765–774
20. Singleton G, Bumpstead R, O'Brien T, Lee A, Meltzer H (2001) Psychiatric morbidity among adults living in private households. TSO, London
21. The Health & Social Care Information Centre, Social Care Statistics (2009) Adult psychiatric morbidity in England, 2007: results of a household survey
22. Government Statistical Service (2003) Harmonised concepts and questions for governmental social surveys. Office of National Statistics, London
23. Lewis G, Pelosi AJ, Araya R, Dunn G (1992) Measuring psychiatric-disorder in the community—a standardized assessment for use by lay interviewers. *Psychol Med* 22(2):465–486
24. Jordanova V, Wickramasinghe C, Gerada C, Prince M (2004) Validation of two survey diagnostic interviews among primary care attendees: a comparison of CIS-R and CIDI with SCAN ICD-10 diagnostic categories. *Psychol Med* 34(6):1013–1024
25. STATA/IC 10.0 for Windows [computer program]. 2007
26. (2001) Census ethnic composition. National Statistics website. 6-20-0011. Ref Type: Internet Communication
27. Wu CH, Erickson SR, Kennedy J (2009) Patient characteristics associated with the use of antidepressants among people diagnosed with DSM-IV mood disorders: results from the National Comorbidity Survey Replication. *Curr Med Res Opin* 25(2): 471–482
28. Karlsen S, Nazroo JY, McKenzie K, Bhui K, Weich S (2005) Racism, psychosis and common mental disorder among ethnic minority groups in England. *Psychol Med* 35(12):1795–1803
29. La Fontaine J, Ahuja J, Bradbury NM, Phillips S, Oyebode JR (2007) Understanding dementia amongst people in minority ethnic and cultural groups. *J Adv Nurs* 60(6):605–614
30. Marwaha S, Livingston G (2002) Stigma, racism or choice. Why do depressed ethnic elders avoid psychiatrists? *J Affect Disord* 72(3):257–265
31. Mukadam N, Cooper C, Livingston G (2011) A systematic review of ethnicity and pathways to care in dementia. *Int J Geriatr Psychiatry* 26(1):12–20
32. Fountain J, Hicks J (2010) Delivering race equality in mental health care: report on the findings and outcomes of the community engagement programme 2005–2008. International School for Communities, Rights and Inclusion (ISCRI), University of Central Lancashire, Lancashire
33. Afuwape SA, Craig TKJ, Harris T, Clarke M, Flood A, Olajide D et al (2010) The Cares of Life Project (CoLP): an exploratory randomised controlled trial of a community-based intervention for black people with common mental disorder. *J Affect Disord* 127(1–3):370–374
34. Gater R, Waheed W, Husain N, Tomenson B, Aseem S, Creed F (2010) Social intervention for British Pakistani women with depression: randomised controlled trial. *Br J Psychiatry* 197(3): 227–233
35. Miranda J, Cooper LA (2004) Disparities in care for depression among primary care patients. *J Gen Intern Med* 19(2):120–126
36. Bogner HR, de Vries HF (2010) Integrating type 2 diabetes mellitus and depression treatment among African Americans a randomized controlled pilot trial. *Diabetes Educ* 36(2):284–292
37. National Centre for Social Research (2002) Ethnic minority psychiatric illness rates in the community (EMPIRIC)—Quantitative Report. The Stationery Office, London
38. Bradby H (2003) Describing ethnicity in health research. *Ethn Health* 8(1):5–13
39. Baker RPNM, Johnson RA (1995) Computer-assisted personal interviewing: an experimental evaluation of data quality and cost. *J Off Stat* 11:413–431