# Ethnicity and the Mental Health Act (1983): A Systematic Review

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**Abstract**

**Background –** Black and minority ethnic (BME) patients have frequently been reported to be disproportionately detained under the Mental Health Act (MHA, 1983) but there has been no systematic exploration of differences within and between ethnic groups and of the explanations hypothesized for this excess.

**Aims** – We conducted a systematic review of detention and ethnicity with meta-analyses of detention rates for BME groups and a descriptive exploration of all explanations offered for ethnic differences in detentions rates.

**Method** – Electronic bibliographic databases were searched. Meta-analyses were conducted producing pooled odds ratios. Explanations offered were categorized, literature cited to support these was accessed and the strength of the evidence evaluated.

**Results –** A total of 49 studies met inclusion criteria of which 19 were included in the meta-analyses. Overall, compared with White patients, Black patients were 3.83 times, BME patients 3.35 times and Asian patients 2.06 times more likely to be detained. This excess was less marked in first-episode patients than mixed episode patients, in studies rated high quality and in later publications. Commonest explanations for this excess related to misdiagnosis, racial stereotyping and discrimination against BME patients, higher incidence of psychoses amongst BME patients, and ethnic differences in illness expression. There was a striking lack of evidence to support many explanations. There was no clear evidence that the excess could be attributed to racism within mental health services.

**Conclusions** - BME status is an independent predictor of psychiatric detention in the UK. Lower detention rates for first-episode patients suggest deterioration in relationship between BME patients and mental health services over time. Many explanations offered for the excess of Black patients detained under the MHA are largely unsupported.

**Background**

Over the last twenty years several studies have reported that a disproportionate number of patients from Black and ethnic minority (BME) population within the UK are compulsorily detained under both civil and forensic sections of the Mental Health Act 1983 (MHA) (Churchill et al. 1998); (Bhui et al. 2003); (Morgan et al. 2004)). However, some studies have not found this over-representation, with some evidence that it may not apply to certain groups such as first episode patients (Cole et al. 1995); (Burnett et al. 1999). There is also evidence that detention rates may not be excessive for all ethnic minority patients. Rates for Asian patients, for example lie between Black (such as Black Caribbean and Black African) and White patients (Audini and Lelliott 2002). The presence of such inequalities in service provision is important to service users, service providers and policy makers. For service users and carers, traumatic experiences of detention and coercion can lead to long-term aversion to mental health care. From a clinical perspective, such negative experiences cause mistrust and resistance to intervention, with delayed help seeking, and the necessity for further coercion (Singh 2001) (Morgan et al. 2004).

Several hypotheses have been put forward to explain this excess. These can be broadly divided into patient-related and service-related explanations (Littlewood 1986). Patient-related explanations include higher rates of psychosis (Bebbington et al. 1994), perceptions of BME patients being at greater risk (Lewis et al. 1990) and poorer insight in this group (van Os et al. 1996). Greater stigma associated with mental illness within BME communities leading to delays in help-seeking and more severe symptoms at presentation have also been offered as explanations (Harrison et al. 1989). Service-

related explanations have focussed on inherent racism within psychiatry (Littlewood and Lipsedge 1997) with associated 'Eurocentric' misdiagnosis (Fernando 1988) and perceptions amongst Black patients of services being inaccessible and inappropriate (Cochrane and Sashidharan 1996). There are two narrative reviews of such explanations (Littlewood 1986; Spector 2001) but a systematic and structured review determining the strength of evidence for the various explanations for this excess is lacking.

We conducted a systematic review of all UK literature on ethnicity and detention to

i) examine the evidence for greater detention of BME patients within psychiatric services in UK
ii) explore differences between ethnic minority groups,
iii) determine the full range of hypotheses put forward to account for any such excess and
iv) examine the evidence for these hypotheses within the literature

**Method**

A literature search was undertaken of studies relating to the MHA in the UK, both civil and forensic sections, published between 1984 and April 2005. The following bibliographic databases were searched: Medline, Embase, PsychINFO, CINAHL (The Cumulative Index for Nursing and Allied Health), ASSIA (Applied Social Sciences Index and Abstracts), HMIC (Health Management Information Consortium), Web of Science, the Cochrane database, SIGLE (System for Information on Grey Literature) and the National Research Register. The CD ROM for the British National Bibliography (UK) was searched for relevant books. The electronic database search terms were divided into

four sets: set 1 = Mental Health Act terms; set 2 = Mental illness and forensic psychiatry terms; set 3 = Compulsory detention; set 4 = Ethnic group terms. A combination of search terms from these sets was applied. Where MESH terms were available in the databases, these were exploded and combined. The bibliographies of relevant works were checked for articles missed by the initial search. Key review papers and published bibliographies in the area were also scrutinised for relevant studies.

*Inclusion criteria*

Studies had to fulfil the following inclusion criteria: i) published in English; ii) reference made to the use of compulsion to detain a person under the Mental Health ACT (1983) in England and Wales; iii) providing original data relating to the MHA and; iv) two or more ethnic groups included in the study.

The relevance of the literature was initially ascertained from the titles. NG and SS independently looked at the titles of the first 250 studies in the database searches and agreed on the relevance of all but one article. Discussion about this article led to an improved understanding of the criteria and NG then continued with the remaining articles. Where titles appeared relevant, abstracts or equivalent summary information were studied. Just over two hundred (n=210) hard copies of studies appearing pertinent from the abstracts were obtained. Further analysis of the full articles revealed that many of these did not fit the inclusion criteria and were excluded. Selected articles were then read and the inclusion criteria applied independently by both NG and SS before the final selection was made.

*Personal communication with experts*

Once the articles for the review had been selected, 24 experts were sent the list of included studies and asked if there were any further studies they could suggest. Five experts responded with suggestions for additional studies but these had been already been considered. One expert did not provide any further studies. However they expressed their unhappiness that we had excluded case histories and therefore considered our review to be "invalid". We did explain that this was a meta-analysis of data-based studies and by definition case studies could not be included.

*Quality ratings*

Literature quality was assessed using an adaptation of a scale (appendix I) previously used in a similar review (Bhui et al. 2003). The resulting quality scores range from 0-14 and were divided into Low (0-5), Medium (6-10) and High (11-14). NG and SS rated five articles together to ensure consistence application of the scale and then the rest were rated independently. There was agreement on all but five studies but discussion revealed that these differences were due to differing interpretations of the scale. Once this was resolved, complete consensus was reached on appropriate ratings for each study.

*Data extraction*

For meta-analysis, raw data were extracted independently by NG and SS. For explanatory evidence, categories emerged as successive papers were studied and data regarding explanations extracted independently by NG and SS and consensus reached regarding categorisation of explanations. Explanations were recorded as presented in the original paper and no attempts were made to interpret the text to fit any *a priori* hypotheses. Only

explanations relating specifically to ethnic differences in detention rates were included. For instance in papers discussing ethnic differences in admission rates in general rather than MHA detention rates specifically, explanations were not included in the results. Some explanations were difficult to categorise, such as poor compliance, which could potentially be assigned to more than one category. A judgement was made as to the most appropriate category to include it in. Study authors sometimes offered similar explanations but for different reasons, especially for complex phenomena such as delay in help-seeking amongst Black patients which in turn might lead to more disturbed presentation with greater risk of detention. Some authors attributed this delay to lack of social support, whereas others attributed it to denial of illness. Such explanations therefore appear in more than one category. Perception of BME patients as more violent or at higher risk was categorised separately from studies showing differences in clinical presentation between ethnic groups.

*Level of evidence*

Each study providing an explanation was scrutinised for the level of evidence for the explanation. Evidence was further categorised as primary evidence, secondary evidence, or no evidence. *Primary evidence* was defined as direct evidence for an explanation provided by a study using its own data. This was further categorised as evidence at the level of '*an association*' if the data demonstrated correlation between variables where confounders were not controlled and causal interpretations could not be made. An example would be studies where BME patients were more likely to be detained but also more likely to be diagnosed with psychosis and it was not certain whether ethnicity or

psychotic illness was the primary reason for the excess of detentions (especially if tests of association such as Chi-squared rather than regression had been employed). *Secondary evidence* was defined as citations of other papers to support an explanation. These secondary citations were perused and key findings summarised including, where possible, the strength of evidence for relevant conclusions drawn. A few authors discussed explanations for detention rates amongst Asian patients and these are distinguished from other explanations.

**Analyses**

Meta-analyses were performed where aggregate data of minority ethnic and White compulsorily admitted patients were provided. Pooled odds ratios were calculated for the overall comparisons using the fixed effects model. The chi-squared ($\chi 2$) test for heterogeneity was then performed to determine if there was significant heterogeneity in the odds ratios between studies. For comparisons where there was significant heterogeneity, four possible source variables for the heterogeneity were investigated. These were patient type (civil, forensic, mixed); episode (first episode, mixed episode); quality rating (high, medium, low) and year of publication. Pooled odds ratios and 95% confidence intervals are presented for studies within each grouping created by the categorical variables. Year of publication was categorised as studies from 1980s, from 1990-94, from 1995-1999 and from 2000 onwards. Meta-regression was performed, plotting the log odds ratio for each study against year of publication, using appropriate weighting. All meta-analysis was carried out using Comprehensive Meta-Analysis v2.2.

One study (Goater et al. 1999) included three sets of data (at admission, year 1 and year 5), each of which reported differing detention rates amongst BME patients. Each set was treated as independent and included separately in the meta-analyses.

**Terminology**

In this paper the term Black and ethnic minority (BME) is used to refer to participants of any ethnic group other than White. The term 'Black' refers to people of Black African, Black Caribbean and 'Black Other' groups. The term Asian is used for people originating from the Indian subcontinent (India, Pakistan, Bangladesh and Sri Lanka). While all such terms have limitations and obscure important intra-group differences, the review is restricted by these terms as these are the most frequently used categories in such research.

**Results**

Forty nine studies met the inclusion criteria and were included in the review but only 19 of these studies provided raw data to permit meta-analyses. Table 1 gives details of the 49 studies listed alphabetically. Research was mainly concentrated in major cities (71% studies from London with 32% from the Institute of Psychiatry, the Maudsley or Kings College) Most studies were cross-sectional and relied on routinely collected data. Some studies included both retrospective and prospective data; just over half used only retrospective data and a fifth were prospective studies. Sample size varied from 20 patients (Anderson and Parrot 1995) to 31702 admissions (Audini and Lelliott 2002) and just over half (53%) included fewer than 120 patients. Very few studies were hypothesis-

driven and only 39% stated inclusion and exclusion criteria. No study included power calculations.

**Table 1 here**

Figure 1 shows a forest plot of the studies included in the meta-analyses, with odds ratios and 95% confidence intervals for each study on a horizontal plane and the pooled effect displayed with a diamond marker.

**Figure 1 here**

Table 2 provides a summary of the metaanalyses carried out for four main ethnic group comparisons: BME compared with White, Black compared with White, Asian compared with White, and Asian compared with Black. Within these ethnic group comparisons and where there were sufficient data, sub-groups such as patient types and illness episodes were also analysed.

**Table 2 here**

*Ethnicity:* Overall pooled odds ratios for BME compared with White (3.35, 95% CI 3.05-3.73, $p<0.0001$) and Black compared with White (3.83, 95% CI 3.42-4.29, $p<0.0001$) were similar. The odds for Asian compared to White (2.06, 95% CI 1.60-2.65, $p<0.0001$) and Black compared with Asian (2.25, 95% CI 1.72-2.94, $p<0.0001$) patients were both close to two. Put slightly differently, compared to White patients, Asian patients were approximately twice as likely and Black patients approximately four times as likely to be detained.

*Civil and forensic detentions:* The pooled odds ratios of detention type showed that the excess of BME (4.03, 95% CI 3.37-4.81, p<0.0001) and Black (4.48, 95% CI 3.71-5.41, p<0.0001) compared with White patients for civil detentions are greater than for forensic detentions (2.29, 95% CI 1.50-3.50, p<0.0001 and 2.45, 95% CI 1.57-3.82, p<0.001 respectively). The odds ratios differ significantly between the patient type groups for the Black-White (p=0.031) and the BME-White comparisons (p=0.017). The Black-Asian comparison was non-significant (p=0.115) and although the Asian-White comparison was statistically significant, this should be viewed with caution because only one forensic study was included.

*Illness episode:* There was also an effect for illness episode across different ethnic comparisons with first episode BME (2.15, 95% CI 1.55-2.98, p<0.0001) and Black patients (2.42, 95% CI 1.74-3.38, p<0.001) less likely to be detained than later mixed episode BME (3.53, 95% CI, 3.16-3.95 p<0.0001) and Black patients (4.06, 95% CI 3.60-4.59, p<0.0001).

*Quality:* Studies rated 'high' quality (11-14) in both the BME-White and Black-White comparisons showed lower summarised odds than low and medium quality studies. This effect was statistically significant in the Black-White comparison, (p=0.03), but not so in the BME-White comparison (p=0.16).

*Publication date*: Overall the odds ratio decreased significantly with study publication date for both the BME-White ($p=0.001$) and the Black-White comparisons ($p=0.001$). The Asian-White comparison approached significance ($p=0.06$) whilst the Black Asian comparison was non-significant ($p=0.55$). There was a statistical correlation between higher quality and recency of publication ($p<0.01$).

**Explanations for the excess**

Five categories of explanations emerged from the 49 studies included in the review. These were categorised as 'Patient-related', 'Illness-related', 'Service-related', 'Culture-related' and 'Patient-service interaction related'. Each category of explanation and literature offered to support it are presented in separate tables. The right hand column in each table describes the level of evidence offered for each explanation. For secondary evidence the key findings from the cited papers are presented in italics. Papers presenting evidence against that particular explanation are grouped at the end of each table.

**Table 3 here**

*Patient-related explanations (Table 3):*

These included explanations that higher rates of detention occur because BME patients have higher rates of psychoses, are perceived as being at greater risk of violence/disturbed behaviour, have higher rates of comorbid drug use and have greater delays in help-seeking. Much of the evidence for these explanations came from secondary citations with little primary evidence, especially for explanations such as for comorbid drug use and delayed help-seeking. A few studies reported primary evidence that the

effect of ethnicity could be entirely explained by an interaction between diagnosis and challenging behaviour. Some studies found that even when such variables were controlled for, BME status remained a predictor of detention.

*Illness-related explanations (Table 4):*

Explanations in this category related to different illness expression in BME patients with more challenging behaviour/violence, association with offending behaviour, poorer compliance and with greater denial of illness, all of which could account for higher rates of detention. Much of the evidence was of a secondary nature with one study reporting no ethnic differences in clinical presentation of psychotic disorders.

**Table 4 here**

*Service-related explanations (Table 5)*

These included the possibilities that excess detentions could be explained by under-recognition and misdiagnosis of mental illness in BME patients, lower likelihood of referral to specialist services, greater contact with the police and racial stereotyping and discrimination within both the mental health and the criminal justice system. There was some secondary evidence of under-recognition of psychiatric problems in BME patients and possible role of racial stereotyping.

**Table 5 here**

The other two sets of explanations: culture-related and patient-service interaction (tables 6 and 7) included a mixed set of explanations ranging from cultural differences in explanatory models of illness, stigma of mental illness in BME communities, alienation from and mistrust of services due to negative perceptions and experiences, and unwillingness to seek help. Of all explanatory categories, culture-related explanations had the fewest supporting citations. Negative perceptions of services with mistrust and poor engagement dominated the service-patient-interface explanations but there was lack of supportive primary evidence.

**Table 6 and 7 here**

Overall racial stereotyping, labeling and discrimination against BME patients was the most often cited explanation and appeared in 15 papers (31%); followed by alienation, dissatisfaction, negative perceptions and mistrust of psychiatric services (in 26% papers); greater perception of violence (22%); higher rates of psychosis (22%); delay in help seeking and poor social support (18%); and misdiagnosis, under recognition of illness of lower referral rates to specialist services (16%). If this perception of Black patients as more violent or at greater risk is considered as part of the 'racial stereotyping' category, then this 'race-based' explanation was offered in 53% of the studies. There was no primary evidence provided by most studies to confirm any of these explanations, while some papers presented data that contradicted these explanations, for instance some studies showed that the effect of ethnicity could be accounted for by an interaction between age, gender, diagnosis and challenging behaviour.

**Discussion**

Excess rates of detention among certain BME groups have been a major cause of concern for users, health service providers and policy makers. Reducing "disproportionate rates of compulsory detention of BME users" is a key aim of the government report: Delivering Race Equality (DOH 2005). Psychiatry and psychiatric services have been accused of being explicitly and implicitly racist both in service provision and diagnosis (Fernando 1988); (Littlewood and Lipsedge 1997); (Sashidharan and Francis 1999); (Sashidharan 2001); (Chakraborty and McKenzie 2002). Excess detention of BME patients is not only a clinically important issue, it is also politically charged and ethically contentious, requiring a cautious and balanced approach to research and interpretation of data.

This review confirms earlier findings of an excess of compulsory detentions amongst BME patients (Churchill et al. 1998); (Bhui et al. 2003); (Morgan et al. 2004). However our findings go further in identifying variations in detention rates between different BME groups, and also reveal differences between first and later illness episodes, between civil and forensic patients, publication date and research quality ratings. The finding that studies rated high quality (a rating which included an assessment of degree of control of possible confounders) tended to report a reduced excess of detentions, supports the hypothesis that at least some of the excess is accounted for by confounding variables. The reasons for differences between minority ethnic groups remain unexplored and warrant further scrutiny as to whether these are related to socio-economic, cultural or help-

seeking differences between groups or different experiences and perception of racism. Our finding that forensic detention rates for BME-White and Black-White comparisons were lower than the rates for civil detentions was unexpected, given previous results of the over-representation of BME patients in secure psychiatric care (Lelliott et al. 2001). However meta-analyses results should be interpreted with caution since only two data sets were included for the forensic sections.

The increasing detention rate across time, with lower rates for first-episode patients suggests that the relationship between BME patients and mental health services deteriorates over time. Parkman (Parkman et al. 1997) found that while BME patients had decreasing satisfaction with each hospital admission, whether the admissions were compulsory or not did not have an independent effect on patient satisfaction. The relationship between engagement, satisfaction and detention needs to be further explored in order to identify both general concerns and those specific to BME groups using longitudinal, mixed-methods studies exploring the process and experience of care and detention over time.

We found that racism and racial stereotyping of BME patients were the commonest explanations offered for excess detentions but without primary supportive evidence to justify these assertions. The second most common explanation was that BME patients are alienated, mistrust mental health services and are dissatisfied with services. This also had little supporting evidence from the papers itself. Overall, very few studies were hypothesis driven or methodologically based on a testable theoretical or conceptual

model. Even where ethnic differences were found, there was a disjunction between reported findings and proposed explanations, with no attempts to link or explore complex multi-dimensional interactions between variables.

One possible reason why explanations such as racism have become accepted as the 'cause' of excess detention is that authors of early papers that reported excess detentions speculated on several possible explanations for this new finding. Instead of robustly testing these hypotheses, subsequent research has presented these speculations as 'evidence from previous research'. While this often happens in scientific research, in politically sensitive and emotionally charged areas such as detention and ethnicity, it is critical to distinguish fact from opinion and hypothesis from evidence. Racial discrimination undoubtedly occurs in British society and leads to much personal suffering and possibly also to mental illnesses (Bhui 2002); (Karlsen and Nazroo 2002). Racism may indeed play a role in ethnic inequalities in mental health care, but this needs to be scientifically explored rather than accepted as the only cause of such differences (Singh and Burns 2006)

Inclusion of publication dates in meta-analyses for the BME-White and Black-White comparisons shows a reduction in the excess of detention rate with later publication date. This can be interpreted in two ways. Either the excess rates for BME patients have reduced over time, or with better control of confounders in later studies, the effect of ethnicity is partly accounted for by confounding variables.

There is also an important issue of possible publication bias where research reporting significant differences between groups is more likely to be published, be cited by other authors and to produce multiple publications than research not finding differences. Such studies are therefore more likely to be identified in systematic reviews, which potentially leads to bias (Sterne et al. 2001); (Dubben and Beck-Bornholdt 2005). It was noteworthy here that some studies not finding differences in detention rates did not attempt to explain this finding (Holloway et al. 1988); (King et al. 1994); (Harrison et al. 1999); (Riordan et al. 2004) though this was in contradiction with much of the available literature. This suggests that statistically non-significant differences are perceived as less worthy of comment. Presumably, reporting and commenting on no difference in rates was even less likely amongst authors whose main focus was not ethnicity and the MHA. This would mean their findings might not have been reported and therefore not included in this review and meta-analyses.

Internationally there is nearly twenty-fold variation in detention rates across Europe with rates rising in England, Austria and the Netherlands (Zinkler, 2002; Salize, 2004 ). In the Netherlands immigrants from Morocco, Surinam and Dutch Antilles have among the highest rates of psychiatric detention, but this excess is accounted for by the presence of more severe symptoms, risk behaviours, lack of treatment motivation and poor functioning in these groups (Mulder et al. 2006). While there are no major differences in the attitudes of mental health workers and society with regards to compulsory detention of the mentally ill across several European countries (Lepping et al. 2004; Steinert et al. 2005), it has been suggested that in England, the mass-media generated public concern

about the dangers posed by the mentally ill, along with high level of personal responsibility that psychiatrists are expected to carry may influence decision-making and increase the tendency to detain (Szmukler and Holloway 2000){Turner 1999) . A common ethical and legal framework is needed to harmonise these critical decisions and their outcomes across Europe.

*Agenda for the future*

In order to make studies comparable, there must be consistency in ethnic categories adopted and in their classification. We recommend using a formal standardised approach to classifying that should be adopted in future studies. In-depth, longitudinal, mixed-methods studies using both qualitative and quantitative techniques would improve understanding of patients' experiences and journey through the services, pathways to care and why compulsory admission is more frequently required in later admissions amongst BME patients. Studies should be hypothesis driven and also explore the process of application of the MHA. The true denominator for MHA studies is the population assessed for MHA detention, not only the subgroup who is detained. Data relating to both assessment and detention should be routinely and centrally collected. Finally, as we have argued elsewhere(Singh and Burns 2006) factors that contribute to excess detention even in the first episode of mental illness operate before presentation to mental health services. Hence, any potential solutions must go beyond the health sector and involve statutory as well as voluntary and community agencies.

**Clinical implications**

- BME status is a predictor of detention under the Mental Health Act in the UK, with Black-Caribbean and Black African patients at the highest risk of detention
- The balance between civil liberties and compulsory treatment may shift towards the former if racism in psychiatry is construed as the main reason for higher detentions, thereby depriving some needy patients of appropriate treatment.
- The evolution of the relationship between BME communities and mental health services needs to be better understood both at individual and at societal/community levels.

**Limitations**

- Meta-analyses could only be performed on studies providing sufficient data, reducing the number of studies that could be included.
- Explanations were restricted to those provided by papers included in the review and do not include wider social sciences literature.
- Limiting the number of ethnic categories may have exaggerated similarities and reduced differences between explanations, perhaps over-simplifying them.

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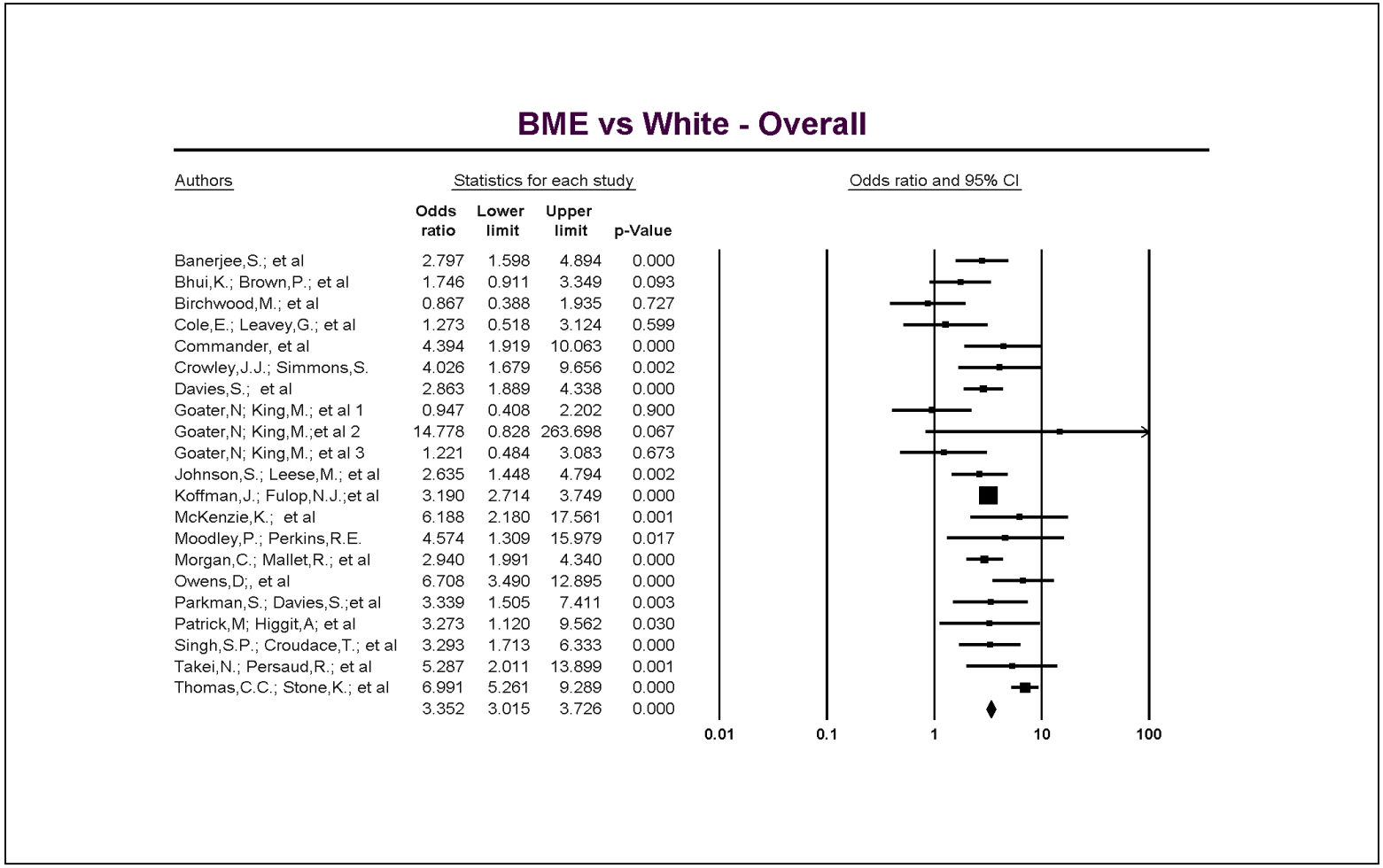


**Fig 1 Forest Plot showing Odds Ratios and 95 % Confidence Interval s for studies included in the meta-analysis** *Goater et al 1999 is included three time times in the analysis, hence n=22*

**Table I: Articles included in the review**

| Authors (date) | Study site | Sample source | Sample size n= | MHA sections |
|---|---|---|---|---|
| Anderson & Parrot (1995) | London | Prisoners on remand, | 20 | Forensic |
| Audini,& Lelliott,(2002) | England & Wales | Local authority & NHS Trusts data, | 31702 | Civil |
| Banerjee et al (1995) | London | Prisoners on remand, | 53 | Forensic primarily |
| Bebbington,et al (1994) | London | Inpatient | 376 | Mixture |
| Bhui,et al (1998) | London | Male prisoners on remand | 268 | Forensic |
| Birchwood,et al (1992) | Birmingham | 1st episode schizophrenia | 101 | Civil primarily |
| Bowl & Barnes, (1990) | Multi-centre | MHA assessments | ? | Civil primarily |
| Browne,(1997) | London | Detained inpatients | 224 | Civil |
| Burnett,et al (1999) | London | 1st contact patients | 100 | Civil primarily |
| Chen et al (1991) | Nottingham | 1st episode patients, | 80 | Civil primarily |
| Coid,et al (2000) | Multi-centre | Secure forensic admissions | 3152 | Forensic primarily |
| Cole,et al (1995), | London | 1st episode psychosis | 93 | Civil primarily |
| Commander et al (1997a) | Birmingham | Secondary & tertiary services | 112 | Mixture ? |
| Commander,et al (1999) | Birmingham | Inpatient - non-affective psychoses | 120 | Civil ? |
| Cope,& Ndegwa,. (1991) | West Midlands | Inpatients, regional secure unit | 109 | Forensic primarily |
| Crowley & Simmons,(1992) | London | Inpatient | 152 | Civil |
| Davies,et al (1996) | London | Multiple sources | 413 | Mixture |
| Dean,& Webster. (1991) | Manchester | 1st admission detained inpatient | 180 | Civil |
| Dunn,& Fahy,(1990) | London | S136 referrals | 253 | Civil(S136) |
| Fahy,et al (1987) | London & Canterbury | S136 admission & other detained inpatients | 466 | Civil |
| Goater,et al (1999) | London | 1st contact psychosis | 93 | Civil primarily |
| Harrison,et al (1999) | Nottingham | 1st episode psychosis | 166 | Mixture |
| Holloway,et al (1988) | London | Inpatients | 71 | Civil primarily |
| Johnson,et al (1998) | London | Psychotic patients | 286 | Civil primarily |
| King,et al (1994) | London | 1st onset psychosis | 93 | Civil - primarily |
| Koffman,et al (1997) | London(N & S Thames) | Acute inpatient & low-level secure inpatients | 3769 | Mixture |
| Law-Min,et al (2003) | Birmingham | 1st admission detained inpatient | 168 | Civil |
| Lloyd,& Moodley,1992) | London | Inpatient | 138 | Civil - primarily |
| McCreadie,et al (1997) | London & Scotland | IP,OP,GP, CMHT | 468 | Mixture- probably |
| McGovern,et al (1994) | Birmingham | Community & hospital sources | 75 | Mixture |
| McKenzie et al(1995) | London | Recent onset psychosis Inpatient, | 113 | Civil primarily |
| Moodley,&.; Perkins,(1991) | London | Inpatient | 52 | Civil primarily |

| | | | | |
|---|---|---|---|---|
| Moodley,&.; Thornicroft (1988) | London | Detained inpatient | 91 | Civil |
| Morgan,et al (2005) | London, Nottingham, | 1st episode psychosis | 462 | Mixture probably |
| Naismith & ; Coldwell,(1990) | Merseyside (special hospital) | Special hospital -Males only | 109 | Forensic primarily |
| Owens,et al (1991) | Nottingham | Inpatient | 110 | Mixture |
| Parkman,et al 1997) | London | Psychosis | 184 | Mixture ? |
| Reeves,et al 2002) | London | New and very-late-onset-schizophrenia-like psychosis | 44 | Civil probably |
| Riordan,et al (2004) | Birmingham | Hospital order patients in MSU | 55 | Forensic primarily |
| Simmons,& Hoar,(2001) | London | Patients assessed under S136 | 90 | Civil (S136) |
| Singh,et al (1998) | Nottingham | Inpatients | 396 | Civil |
| Takei,et al (1998) | London | Inpatients | 81 | Civil primarily |
| Thomas,et al (1993) | Manchester | Inpatients | 1534 | Civil primarily |
| Tolmac,& Hodes,(2004) | London | Adolescent inpatients | 55 | Civil primarily |
| Turner,et al (1992) | London | S136 referrals | 100 | Civil(S136) |
| Walsh,et al (2002) | Multi-centre | Special hospital & Community sample | 396 | Mixture |
| Webber,& Huxley,P.(2004) | London | Inpatient & those assessed for MHA | 300 | Civil |

**Table 2: Results of the meta-analyses:** Pooled odds ratios with 95% confidence intervals and p-values.

| **BME compared with White** (Number of data sets) | | **Odds ratio (95% CI)** | **p-value** |
|---|---|---|---|
| Overall (21) | | 3.35 (3.05, 3.73) | <0.0001 |
| | | | |
| Patient type (21) | Civil (15) | 4.03 (3.37, 4.81) | <0.0001 |
| | Forensic (2) | 2.29 (1.50, 3.50) | <0.0001 |
| | Mixed (4) | 3.12 (2.72, 3.59) | 0.003 |
| Illness episode (21) | First episode (3) | 2.15 (1.55, 2.98) | <0.0001 |
| | Mixed episode (18) | 3.53 (3.16, 3.95) | <0.0001 |
| **Black compared with White** | | | |
| Overall (21) | | 3.83 (3.42, 4.29) | <0.000 |
| | | | |
| Patient type (21) | Civil (15) | 4.48 (3.71, 5.41) | <0.0001 |
| | Forensic (2) | 2.45 (1.57, 3.82) | <0.0001 |
| | Mixed (4) | 3.65 (3.14, 4.29) | <0.0001 |
| Illness episode (21) | First episode (3) | 2.42 (1.74, 3.38) | <0.0001 |
| | Mixed episode (18) | 4.06 (3.60, 4.59) | <0.0001 |
| **Asian compared with White** | | | |
| Overall (5) | | 2.06 (1.60, 2.65) | <0.0001 |
| | | | |
| Patient type (5) | Civil (4) | 3.42 (2.31, 5.07) | <0.0001 |
| | Mixed (1) | 1.45 (1.04, 2.00) | 0.028 |
| Illness episode (5) | First episode (1) | 0.39 (0.113, 1.37) | 0.142 |
| | Mixed episode (4) | 2.21 (1.71, 2.86) | <0.0001 |
| **Black compared with Asian** | | | |
| Overall (5) | | 2.25 (1.72, 2.94) | <0.0001 |
| | | | |
| Patient type (5) | Civil (4) | 1.76 (1.18, 2.64) | 0.0006 |
| | Mixed (1) | 2.72 (1.90, 3.88) | <0.0001 |
| Illness episode (5) | First episode (1) | 3.16 (0.87, 1.45) | 0.0800 |
| | Mixed episode (4) | 2.21 (1.68, 2.91) | <0.0001 |

**Table 3: Patient related explanations for the excess of detentions of Black patients under the Mental Health Act**

| **Authors offering this explanation** | **Primary evidence** refers to supporting evidence provided direct from the study data. Where the data show correlation between variables without causal interpretations being made, it is categorised as an association.<br>**Secondary evidence** refers to citations to support a suggested explanation. A summary of the relevant findings from secondary citations are provided in italics. |
|---|---|
| **Explanation: Higher prevalence/ diagnosis of psychosis/schizophrenia amongst Black patients** | |
| Anderson & Parrott (1995) | Primary evidence: None<br>Secondary evidence: None |
| Audini & Lelliott (2002) | Primary evidence: None<br>Secondary evidence: None Wall et al (1999) – *A systematic review* |
| Banerjee et al (1992) | Primary evidence: None<br>Secondary evidence: None |
| Bebbington et al (1994) | Primary evidence: With one statistical model higher rate of compulsory admissions among Black-Caribbean patients could be fully explained by strong interaction between diagnosis and challenging behaviour. In the second model, 'a small proportion *(of the excess)* could reflect an increased readiness to admit under compulsion in the case of Black Caribbeans.' (p 748)<br>Secondary evidence: None |
| Dunn & Fahy (1990)<br>S136 patients | Primary evidence: An association<br>Secondary evidence: McGovern & Cope (1987) *as above*<br>Littlewood & Lipsedge (1981a) *as above* |
| Fahy et al (1987) | Primary evidence: None<br>Secondary evidence: Littlewood & Lipsedge (1981a) – *Reported increased rate of schizophrenia in patients from the Caribbean and Africa using data from other research.*<br>Rwegellera (1977) – *Inception rates for all diagnostic categories except reactive depression and paranoid states were significantly higher among West Africans than West Indians than the British.* |
| Goater et al (1999) | Primary evidence: An association<br>Secondary evidence: None |
| Owens et al (1991) | Primary evidence: None<br>Secondary evidence: McGovern & Cope (1987) – *Reported an association between being West Indian and the likelihood of receiving a diagnosis of schizophrenia which was twice that for White & Asian patients.* |
| Riordan et al (2004) | Primary evidence: None<br>Secondary evidence: Cochrane (1977) – S*uggest possibly the best explanation for differing rates of mental hospital admissions is differential selection for migration – where migration is relatively easy, the less stable members of a population self select for migration but where migration is relatively difficult, only the most stable can achieve migration, but provide no evidence.*<br>Sharpley et al (2001) – *A review of explanations for the excess of psychosis among the Afro-Caribbean population in England.* |
| Turner et al (1992) | Primary evidence: None<br>Secondary evidence: Dean et al (1981) – *First admissions for schizophrenia were five times the expected number for immigrants from the West Indies.* |

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| | Harrison et al (1984) – *Reported an association between being West Indian and being diagnosed with schizophrenia or non-affective psychosis.* |
| Webber & Huxley (2004) | Primary evidence: None<br>Secondary evidence: Harrison et al (1988) – *Rates for schizophrenia were substantially higher in the Afro-Caribbean community.*<br>Wessely et al (1991) - *The risk of schizophrenia was greater in those of Afro-Caribbean ethnicity, irrespective of age, gender or place of birth.*<br>King et al (1994) - *The incidence ratio for schizophrenia in all minority ethnic groups compared with the White population was 3.6. The corresponding ratio for non-affective psychosis was 3.7.* |
| **Explanation: Black patients perceived as at greater risk of violence/disturbed behaviour** | |
| Audini & Lelliott (2002) | Primary evidence: None<br>Secondary evidence: Wall et al (1999) – *A systematic review.* |
| Bebbington et al (1994) | Primary evidence: High detention rate can be explained by strong interaction between diagnosis and challenging behaviour, but not ethnicity. No interaction between ethnicity and challenging behaviour.<br>Secondary evidence: None |
| Browne (1997) | Primary evidence: None, but interview data reporting subjective opinion of professionals involved in the MHA.<br>Secondary evidence: None |
| Commander et al (1999) | Primary evidence: An association<br>Secondary evidence: Whaley (1998) – *A discussion and review article of the evidence for stereotyping and racism in mental health services in the USA.* |
| Cope & Ndegwa (1991) | Primary evidence: None<br>Secondary evidence: Littlewood (1986) – *A discussion paper.* |
| Dunn & Fahy (1990) | Primary evidence: None<br>Secondary evidence: Hitch & Clegg (1980) – *They had the 'impression' that New Commonwealth immigrant schizophrenics … seemed to be of a much more overt, physically excitable nature…' (p 373) and '… and more overtly disturbed than the native-born.' (p 374)*<br>Rwegellera (1980) – *Compared with English patients, disturbed behaviour prior to psychiatric contact was significantly more often associated with West African patients. Although more West Indian patients showed disturbed behaviour than White patients, this was not significant.*<br>Harrison et al (1984) – *as above* |
| Lloyd & Moodley (1992) | Primary evidence: An association<br>Secondary evidence: Harrison et al (1984) *as above*<br>Lewis et al (1990) – *Psychiatrists were more likely to see the Afro-Caribbean patients as potentially violent and criminal proceedings being slightly more appropriate.* |
| Pipe et al (1991) | Primary evidence: An association<br>Secondary evidence: None |
| Singh et al (1998) | Primary evidence: None<br>Secondary evidence: None |
| Webber et al (2004) | Primary evidence: None<br>Secondary evidence: Rogers (1990) – *Police ratings regarding danger to others was the same for Afro-Caribbeans and other S136 referrals but psychiatrists were more likely to rate Afro-Caribbeans as a serious or moderate danger* |

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| | *to others.*<br>Browne (1995) – R*eference unavailable.*<br>Singh et al (1998) – *Black patients were more likely to be considered at risk of violence. They suggest that perceived ethnicity may influence the perception of dangerousness and decision making in emergency assessments but give no primary evidence.* |
| | |
| **Explanation: Higher rates of co-morbid drug use among Black patients** | |
| Law-Min et al (2003) refers to Asian males | Primary evidence: None<br>Secondary evidence: None |
| **Language difficulties** | |
| Crowley & Simmons (1992) | Primary evidence: None<br>Secondary evidence: None |
| Personality selection in migration | |
| Fahy et al (1987) | Primary evidence: None<br>Secondary evidence: London (1986) – *A review article with no evidence provided.* |
| **Delay in help-seeking/poor social support** | |
| Audini & Lelliott (2002) | Primary evidence: None<br>Secondary evidence: None Wall et al (1999) – *A systematic review* |
| Commander et al (1999) due to differences in social support. | Primary evidence: No – an association.<br>Secondary evidence: Lloyd & Moodley (1992) – *suggest that this might be an explanation but no evidence provided.* |
| Law-Min et al (2003) due to differences in social support. | Primary evidence: None<br>Secondary evidence: None |
| Law-Min et al (2003)<br>Asian patients may delay seeking help by going to traditional healers. | Primary evidence: None<br>Secondary evidence: Goldberg (1999) – *mentioned by the author but no primary evidence provided. .* |
| Lloyd & Moodley (1992) | Primary evidence: None<br>Secondary evidence: Harrison et al (1989) – *An association between ethnicity and greater delays in seeking treatment.* |
| Owens et al (1991) due to differences in social support. | Primary evidence: None<br>Secondary evidence: None |
| Singh et al (1998) | Primary evidence: None<br>Secondary evidence: Harrison et al (1989) – *as above* |
| Thomas et al (1993) Applied to Afro-Caribbean but not to Asian patients. | Primary evidence: An association<br>Secondary evidence: None |
| Webber & Huxley (2004)<br>Lower contact leading to delay in getting help | Primary evidence: Lower social support associated with section 4 admission<br>Secondary evidence: Thomas et al (1993) – *Using age-standardised data, found an association between Afro-Caribbean patients and lower use of hospital and primary care services compared with Europeans but this was not true for the Asian patients.*<br>Ineichen (1991) – *A review study with no primary evidence*. |
| **Evidence against patient-related explanations** | |
| Coid et al (2000) | Primary evidence: Both Afro-Caribbean and Asian patients came from more socio-economically deprived areas, but |

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| Admissions to a RSU<br>Socio-economic status does not explain the higher detention rates. | Afro-Caribbean patients were more likely to be detained and Asian patients less likely to be detained than White patients.<br>Secondary evidence: None |
| Lloyd & Moodley (1992) Disturbed behaviour does not account for the excess. | Primary evidence: There remained a significant association between ethnicity and compulsory detention, even after adjusting for disturbed behaviour.<br>Secondary evidence: None |
| Moodley & Perkins (1991) Higher rates of psychosis do not explain the higher detention rates. | Primary evidence: Higher rates of psychosis did not account for the higher detention rate.<br>Secondary evidence: None |
| Morgan et al (2005)<br>Perceived risk and diagnosis do not account for the excess. | Primary evidence: Higher detention rates could not be explained by perceived risk or diagnosis.<br>Secondary evidence: Rwegellera (1980) – *as above*<br>Owens et al (1991) - *No association was found between being Afro-Caribbean and the amount of publicly manifest disturbance compared with White compulsorily admitted patients, but there were trends towards more behavioural 'disturbance' overall.*<br>Pipe et al (1991) – *Amongst S136 referrals, there was an association between young Afro-Caribbean males and Africans and being perceived as threatening, incoherent and disturbed.* |
| Morgan et al (2005)<br>Social isolation does not account for the higher rates. | Primary evidence: Although social isolation was independently associated with compulsory admission, it did not account for the ethnic differences.<br>Secondary evidence: Szmukler et al (1981) – *When compulsorily admitted patients were compared with voluntary ones, there was an association between living alone, being friendless and having had no contact with a relative over the last 6 months. However, these authors did not look at ethnicity.*<br>Cole et al (1995) – *Variables associated with social support were more important than ethnicity in determining pathways to care.*<br>Burnett et al (1999) – *Unemployment, living alone and living in public housing were all significantly associated with pathways to care and compulsory admission.* |

**Table 4: Illness related explanations for the excess of detentions of Black patients under the Mental Health Act**

| **Authors offering this explanation** | **Primary evidence** refers to supporting evidence provided direct from the study. Where the data show correlation between variables without causal interpretations being made, it is categorised as an association.<br>**Secondary evidence** refers to evidence to support a suggested explanation. A summary of the relevant findings are provided in italics. |
|---|---|
| **Explanation: Different expression of illness - more challenging behaviour/violence** | |
| Goater et al (1999) | Primary evidence: No - an association<br>Secondary evidence: Koffman et al (1997) – *Black inpatients were more likely to be in locked wards* |
| Koffman et al (1997) Cultural expression of distress by Black people increases likelihood of identification by lay people and police arrest. | Primary evidence: None<br>Secondary evidence: Harrison et al (1984) – *as above Table 1*<br>Littlewood & Lipsedge (1982) – *A book on mental health and ethnicity.* |
| McGovern et al (1994) | Primary evidence: None<br>Secondary evidence: Harrison et al (1984) *as above* |
| Singh et al (1998)<br>Severity of psychopathology. | Primary evidence: None<br>Secondary evidence: None |
| **Explanation: Different patterns of criminal behaviour associated with mental illness** | |
| Coid et al (2000)<br>Black but not Asian patients admitted to a Regional secure unit | Primary evidence: None<br>Secondary evidence: None |
| **Explanation: Less compliance with medication** | |
| Singh et al (1998) | Primary evidence: None<br>Secondary evidence: Sellwood & Terrier (1994) – *Non-compliance with neuroleptic medication was associated with being Afro-Caribbean. Logistic regression revealed that gender and ethnicity were significant predictors of extreme non-compliance.* |
| Audini & Lelliott (2002) | Primary evidence: None<br>Secondary evidence: Wall et al (1999) – *A systematic review* |
| **Explanation: Poorer insight and more denial of illness** | |
| Cole et al (1997) | Primary evidence: None<br>Secondary evidence: Perkins & Moodley (1993) – *African-Caribbean patients were more likely than White patients to say they had no problems and to be compulsorily admitted.* |
| Commander et al (1999) | Primary evidence: An association<br>Secondary evidence: Perkins & Moodley (1993) – *as above* |
| Law-Min et al (2003) | Primary evidence: None<br>Secondary evidence: None |
| Law-Min et al (2003)<br>Denial of illness/Insight (Asian patients) | Primary evidence: None<br>Secondary evidence: None |
| Singh et al (1998) | Primary evidence: None<br>Secondary evidence: Perkins & Moodley (1993) – *as above* |
| Evidence against suggested explanations | |

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| Owens et al (1991) | Primary evidence: No differences between Black and White sectioned patients in “publicly manifest disturbance” |
| McKenzie et al (1995) Not different expression of illness/clinical state. | Primary evidence against: An association.<br>Secondary evidence: None |

**Table 5: Service-related explanations for the excess of detentions of Black patients under the Mental Health Act**

| **Authors offering this explanation** | **Primary evidence** refers to supporting evidence provided direct from the study. Where the data show correlation between variables without causal interpretations being made, it is categorised as an association.<br>**Secondary evidence** refers to citations to support a suggested explanation. A summary of the relevant findings are provided in italics. |
|---|---|
| **Explanation: Misdiagnosis, under-recognition of psychiatric disturbance, lower likelihood of referral to specialist services** | |
| Crowley & Simmons (1992) | Primary evidence: None<br>Secondary evidence: None |
| Dunn & Fahy (1990)<br>Section 136 patients Misidentification of mental disorder in Afro-Caribbeans by the police leading to inappropriate referrals. | Primary evidence: None<br>Secondary evidence: None |
| Fahy et al (1987) | Primary evidence: None<br>Secondary evidence: Burke (1984) – *Evidence of under diagnosis of depression in West Indian patients in primary care and West Indians were under-represented in referrals to out-patient clinics.* |
| Goater et al (1999) | Primary evidence: None<br>Secondary evidence: Odell et al (1997) – *GPs were less likely to identify psychological problems in Asian and Black than White patients.* |
| Law-Min et al (2003) Misdiagnosis of Asian patients as having a physical illness. | Primary evidence: None<br>Secondary evidence: Wilson & McCarthy (1994) – *GPs were more likely to identify psychiatric morbidity in White than Asian patients who were more likely to see their problems as physical rather than psychiatric.* |
| Law-Min et al (2003)<br>A lower likelihood of Afro-Caribbean patients being referred to specialist services. | Primary evidence: None<br>Secondary evidence: Burnett et al (1999) – *as above Table 1*<br>Commander et al (1997a) – *White patients were more likely than Black patients to have their mental health problems identified by their GP.* |
| Law-Min et al (2003)<br>Less likelihood of referral of Asian patients to specialist services causing delay. | Primary evidence: None<br>Secondary evidence: Commander et al (1997a) – *as above* |
| McGovern et al (1994) Under-recognition of mental illness in Black people by the police with greater risk of arrest and detention. | Primary evidence: None<br>Secondary evidence: Dunn & Fahy (1990) – S*uggestion that over-identification of mental illness by the police was not occurring but they do not know how many mentally ill people are being inappropriately referred to the courts or are being dealt with without psychiatric referral.*<br>McGovern (1988) – R*eference to a conference presentation was unavailable.* |
| Takei et al (1998)<br>Afro-Caribbeans diagnosed with schizophrenia may be suffering from psychosis with underlying affective basis, receiving inappropriate treatment and at greater risk of detention. | Primary evidence: None<br>Secondary evidence: None |
| **Explanation: Black patients have greater contact with the police** | |
| Audini & Lelliott (2002) | Primary evidence: None |

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| | Secondary evidence: Wall et al (1999) – *A systematic review* |
| Cope & Ndegwa (1991) The combination of being mentally ill and 'arrest-prone' and the police failing to detect mental illness in those they arrest. | Primary evidence: None<br>Secondary evidence: None |
| | |
| McGovern et al (1994) Greater involvement of the police with members of the Black community. | Primary evidence: None<br>Secondary evidence: Harrison et al (1989) – *A non-significant association between Afro-Caribbean ethnicity and greater involvement of the police in the early stages of help-seeking. They also refer to another study 'in preparation' which 'illustrates the role played sometimes by relatives themselves in contacting the police rather than involving other appropriate agencies.'(p.694)*<br>Harrison et al (1984) – *An association between Afro-Caribbean ethnicity and referral to psychiatric services through police agencies and frequent admission from public places following public disturbance.* |
| Moodley & Perkins (1991) Police involvement leading to a cycle of disengagement | Primary evidence: None<br>Secondary evidence: None |
| Turner et al (1992) Police behaviour – e.g. 'stop and search'. | Primary evidence: None<br>Secondary evidence: Harrison et al (1984) – *There were significant associations between West Indian ethnicity and police initiated admission and admission from a public place via a police station but differences in 'police involvement' were non-significant.* |
| **Explanation: Racial stereotyping, labelling and discrimination including differential management of patients** | |
| Takei et al (1998) Racial stereotyping may affect clinical management. | Primary evidence: None<br>Secondary evidence: Lewis et al (1990) – *A case vignette describing an Afro-Caribbean psychotic patient was more likely to be seen as potentially violent and to require criminal proceeding than White patients.* |
| Takei et al (1998) Specific prejudice against Afro-Caribbeans with schizophrenia but not those with manic depression. | Primary evidence: None<br>Secondary evidence: None |
| McGovern et al (1994) Exclusion of Afro-Caribbean patients from psychiatric system as they are stereotyped as difficult and dangerous. | Primary evidence: None<br>Secondary evidence: Cope & Ndegwa (1990) - *Suggest racial stereotyping by psychiatric professionals may lead to rejection but provide no primary evidence.* |
| Banerjee et al (1992)<br>Referring to patients on remand. | Primary evidence: None<br>Secondary evidence: None |
| Bowl & Barnes (1990) Cultural bias in psychiatry | Primary evidence: None<br>Secondary evidence: None |
| Browne (1997) | Primary evidence: None<br>Secondary evidence: None |
| Crowley & Simmons (1992) Racism in psychiatry | Primary evidence: None<br>Secondary evidence: None |
| Goater et al (1999) Racism or stereotyping in psychiatry. | Primary evidence: None<br>Secondary evidence: Koffman et al (1997) – *as above* |
| Goater et al (1999) Mistrust by clinicians and less likely to form collaborative therapeutic | Primary evidence: None<br>Secondary evidence: None |

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| relationships. | |
| McGovern et al (1994) | Primary evidence: None<br>Secondary evidence: Lewis et al (1990) – *as above* |
| McGovern et al (1994) Labelling by psychiatrists, with increased hospitalisation leading to more negative symptoms & more stigma. | Primary evidence: None<br>Secondary evidence: None |
| Lloyd & Moodley (1992) | Primary evidence: None<br>Secondary evidence: Fernando (1988) – *Psychiatry is both implicitly and explicitly racist both in service provision and diagnosis.* |
| Pipe et al (1991) Racism in psychiatry and insensitivity to cultural differences. | Primary evidence: None<br>Secondary evidence: Fernando (1988) – *as above* |
| Turner et al (1992) | Primary evidence: None<br>Secondary evidence: Littlewood & Lipsedge (1988) – *A review study with no primary evidence of its own.* |
| Webber et al (2004) | Primary evidence: None<br>Secondary evidence: Fernando (2001) –I*nstitutional racism in British psychiatry, no primary evidence* |
| **Evidence against suggested explanations** | |
| Bebbington et al (1994) | Primary evidence: None<br>Secondary evidence: None but suggest that misdiagnosis is unlikely to be a cause of excess detention |
| Morgan et al (2005) Not pathways. | Primary evidence: Criminal justice involvement did not fully account for ethnic variation in detention<br>Secondary evidence: None |
| Turner et al (1992) Not transcultural misdiagnosis. | Primary evidence: An association - Not misdiagnosis - Found no major differences in the course and symptoms of psychotic illness between White and Afro-Caribbean groups.<br>Secondary evidence: Littlewood & Lipsedge (1981b) – *Concluded the excess diagnosis of schizophrenia might be accounted for at least partially by the occurrence of acute psychotic reactions which are diagnosed as schizophrenia.*<br>Harvey et al (1990) – *No support for the hypothesis that misdiagnosis within the psychoses explains the higher admission rates of schizophrenia for Afro-Caribbean patients.* |

**Table 6: Culture related explanations for the excess of detentions of Black patients under the Mental Health Act**

| **Authors offering this explanation** | **Primary evidence** refers to supporting evidence provided direct from the study. Where the data show correlation between variables without causal interpretations being made, it is categorised as an association.<br>**Secondary evidence** refers to citations to support a suggested explanation. A summary of the relevant findings are provided in italics. |
|---|---|
| **Explanation: Differing cultural norms of behaviour** | |
| Browne (1997) | Primary evidence: None – interview data with police and clinicians who suggested this.<br>Secondary evidence: None |
| Riordan et al (2004) | Primary evidence: None<br>Secondary evidence: Sharpley et al (2001) – *A review paper with no primary evidence.* |
| **Explanation: Different explanatory models of illness** | |
| Commander et al (1999) | Primary evidence: None<br>Secondary evidence: Morley et al (1991) – *Attitudes of relatives of Afro-Caribbean patients admitted voluntarily and compulsorily did not differ. It was concluded that the attitudes of relatives did not contribute to the likelihood of compulsory admission.* |
| Fahy et al (1987) | Primary evidence: None<br>Secondary evidence: Hitch & Clegg (1980) – *Discussion of the possible effects of stigma and cultural attitudes to mental illness.* |
| **Explanation: Ethnic disadvantage due to societal racism** | |
| McGovern et al (1994) | Primary evidence: None<br>Secondary evidence: None |
| **Explanation: Attitudes to mental illness and perception of roles of services** | |
| Goater et al (1999) | Primary evidence: Yes<br>Secondary evidence: None |
| Owens et al (1991) | Primary evidence: None<br>Secondary evidence: None |
| **Explanation: Greater stigma (leading to non-compliance)** | |
| Cole et al (1995)<br>Stigma associated with mental illness may increase delay in help-seeking. | Primary evidence: None<br>Secondary evidence: Harrison et al (1989) – *Their evidence 'suggests that there may be stigmatisation of mental illness in Afro-Caribbeans greater even than in the rest of the community' (p 693) but no primary evidence.* |
| Law-Min et al (2003) Asian patients may fear disgrace or being unable to find a marriage partner. | Primary evidence: None<br>Secondary evidence: None |
| **Explanation: Black people's 'social life' takes place more often in public** | |
| Koffman et al (1997) Social life takes place more often in public so mental illness is more likely to be detected and dealt with by e.g. the police. | Primary evidence: None<br>Secondary evidence: Bean (1986) – A suggestion with no evidence. |

**Table 7: Service-patient interface related explanations for the excess of detentions of Black patients under the Mental Health Act (**

| **Authors offering this explanation** | **Primary evidence** refers to supporting evidence provided direct from the study. Where the data show correlation between variables without causal interpretations being made, it is categorised as an association.<br>**Secondary evidence** refers to citations to support a suggested explanation. A summary of the relevant findings are provided in italics. |
|---|---|
| **Explanation Alienation with services/Dissatisfaction /Negative perception of services/Mistrust** | |
| Audini & Lelliott (2002) | Primary evidence: None<br>Secondary evidence: Wall et al (1999) – *A systematic review* |
| Cole et al (1995) | Primary evidence: None<br>Secondary evidence: 'All Black' – Documentary Series, BBC 2, 1993. *Not seen.* |
| Cope & Ndegwa (1991) Perception of psychiatric services as racist, coercive and inappropriate to their needs. | Primary evidence: None<br>Secondary evidence: Francis et al (1989) – *A descriptive, discussion paper which comments on the excess of Black patients detained and treated against their will and assumes such patients have negative perceptions of British psychiatry.* |
| Commander et al (1999) Dissatisfaction with admission process. | Primary evidence: An association<br>Secondary evidence: Callan & Littlewood (1998) – *From interviews concluded the most significant association with satisfaction was not ethnic origin but concordance between patients' and psychiatrists' explanatory models.*<br>Cole et al (1995) – *No primary evidence about satisfaction was provided.*<br>Leavey et al (1997) –*There were no differences in satisfaction with services between Black and other first episode schizophrenic patients but there were some differences between their relatives. This was an association.* |
| Crowley & Simmons (1992) | Primary evidence: None<br>Secondary evidence: None |
| Davies et al (1996) | Primary evidence: None<br>Secondary evidence: McGovern & Cope (1987) – S*uggest there might be a poor relationship between West Indian patients and psychiatric and other agencies but do not provide any evidence.* |
| Davies et al (1995) Perception of services as un-therapeutic, with delayed help-seeking. | Primary evidence: None<br>Secondary evidence: Bebbington et al (1994) – *Discuss the possible impact of insight or denial of illness but do not directly refer to perceptions of services and delay. No primary evidence provided.* . |
| Law-Min et al (2003) | Primary evidence: None<br>Secondary evidence: McGovern & Cope (1991) – *Afro-Caribbean patients were less likely to make and maintain contact with primary and secondary services voluntarily.* |
| Lloyd & Moodley (1992) Perception of services as inaccessible. | Primary evidence: None<br>Secondary evidence: Francis et al (1989) – *A descriptive, discussion paper commenting on the excess of Black patients detained and treated against their will and assumes such patients have negative perceptions of British psychiatry.* |
| Lloyd & Moodley (1992) Patient dissatisfaction shaped by previous experience leading to later presentation. | Primary evidence: None<br>Secondary evidence: None |
| Owens et al (1991) | Primary evidence: None<br>Secondary evidence: None |
| Riordan et al (2004) | Primary evidence: None<br>Secondary evidence: Audini & Lelliott (2002) – *Suggest mistrust is important but provide no primary evidence.* |

| | |
|---|---|
| Takei et al (1998) | Primary evidence: None<br>Secondary evidence: None |
| **Explanation: Poor engagement with services** | |
| Singh et al (1998) | Primary evidence: None<br>Secondary evidence: None |
| **Explanation: Absence of GP/unwillingness to consult GP** | |
| Burnett et al (1999) | Primary evidence: An association.<br>Secondary evidence: None |
| Law-Min et al (2003) | Primary evidence: None<br>Secondary evidence: Lloyd & St Louis (1996) – *Reported low attendance of Black males at a GP surgery and GPs were less likely to report psychological problems in the Black than in the White women. .* |
| **Explanation: Services not be meeting the needs of ethnic minorities** | |
| Crowley & Simmons (1992) | Primary evidence: None<br>Secondary evidence: None |
| **Explanation: Services lack cultural understanding** | |
| Audini & Lelliott (2002) | Primary evidence: None<br>Secondary evidence: None |
| Bowl & Barnes (1990) | Primary evidence: None<br>Secondary evidence: None |

**Appendix I: Quality rating system for methodological quality of articles**

**Authors (date)**

**Title**

| **Data source** | **Score** | **Adjustment for confounding variables** | **Score** | **Ethnicity coding** | | **Ethnicity analysis** | |
|---|---|---|---|---|---|---|---|
| | | | | **Quality** | **Score** | **Use in analysis** | **Score** |
| Routine data (e.g. health authority, GP list data) | 0 | None | 0 | Not recorded | 0 | Inappropriate ethnic groups combined (e.g. Black vs all others) | 0 |
| Project specific data | 1 | | | Third party reports (e.g. ward staff categorisation, name based methods, skin colour methods) | 1 | | |
| **Sample Size** | | Age and/gender | 1 | Self – reported ethnicity or use of census categories | 2 | Lumping of groups: reasonable combinations of groups | 1 |
| <30 cases in ethnic groups for major outcomes | 1 | | | | | | |
| 30 or more but < 199 cases in ethnic groups for major outcomes | 2 | Diagnosis or disease severity (give one point if this sample is selected by diagnosis) | 1 | Hypothesis - driven ethnic categorisation | 3 | All analysis done on ethnic groups without amalgamation | 2 |
| Total sample size >200 | 3 | Comorbidity and risk factors for outcome of interest | 1-3 | | | | |
| **Maximum** | **1/3** | | **5** | | **3** | | **2** |

Adapted from Bhui et al (2003) British Journal of Psychiatry, **182**, 105-116.