Ethnic differences in prisoners

2: Risk factors and psychiatric service use†

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Background The high rates of psychiatric morbidity in prisoners vary between ethnic groups.

Aims To compare early environmental risks, stressful daily living experiences and reported use of psychiatric services in prisoners from different ethnic groups.

Method Cross-sectional survey of 3142 prisoners in all penal establishments in England and Wales in 1997.

Results Fewer Black and South Asian male prisoners reported childhood traumas and conduct disorder, and fewer Black prisoners experienced stressful prison experiences, than White prisoners. Fewer Black women had received previous psychiatric treatment, and fewer Black men had their psychiatric problems identified in prison. Black prisoners were less likely to have received psychiatric treatment than Whites.

Conclusions The lower prevalence of psychiatric morbidity observed in Black prisoners corresponds with reduced exposure to risk factors. Higher rates of imprisonment might be explained by higher rates of conduct disorder, adolescent-onset criminality and disadvantage within the criminal justice system.

Declaration of interest None. Funded by the Department of Health.

The differences in rates of imprisonment, patterns of criminality, and psychiatric morbidity in different ethnic groups require further explanation. The prevalence of psychiatric morbidity and patterns of criminal behaviour in the community may contribute to these differences; but pathways into secure care and gatekeeping by professionals at different stages of the criminal justice system are ultimately more important in determining these patterns. In addition, they raise the question of whether delivery of health care in prison is appropriate for differing needs. We have already demonstrated a lower prevalence of most forms of psychiatric morbidity in subjects from the Black ethnic subgroup (Coid *et al*, 2002, this issue). We hypothesised that they would correspondingly have experienced fewer risk factors than the White subgroup. We also predicted that reported use of psychiatric services, both before and after imprisonment, would be less for Black prisoners. Finally, we examined the possibility of discrimination in the provision of psychiatric services to different ethnic groups.

METHOD

The first phase of the survey involved initial interviews with lay interviewers who asked questions and entered the prisoners' responses using laptop computers. Details of sampling and methods for assessing psychiatric morbidity are given in the companion paper (Coid *et al*, 2002, this issue). The 3142 subjects interviewed in the first phase were asked a series of questions regarding key life events and post-traumatic stress. Among these life events were early experiences of violence in the home, sexual abuse and running away from home. In addition, subjects were asked questions about who had brought them up during childhood, and whether they had been placed in local authority care. They were also asked 15 questions regarding behavioural disorder before the age of 15 years. A positive endorsement of 3 or more of these behaviours was taken to indicate a diagnosis of DSM–IV (American Psychiatric Association, 1994) Conduct Disorder.

Subjects were asked about daily living experiences in prison, including whether they had received visits or social contact through letters or telephone, had work in the prison setting, had attended educational classes, had committed disciplinary infractions resulting in added days to their sentences, had been placed in solitary confinement or stripped-cell conditions, or had experienced victimisation from other prisoners. Victimisation included experiences of physical intimidation, violence, having belongings stolen and unwanted sexual attentions. Subjects were asked about experiences of psychiatric treatment before and during imprisonment. These included whether subjects had been psychiatric in-patients, including on a compulsory basis, had received court-mandated psychiatric treatment or psychiatric treatment while in prison, had refused psychiatric treatment when it was offered to them in prison, and whether psychiatric treatment had been refused when they had requested it.

Data were recorded from prison health care files relating to previous history of psychiatric illness, history of drug or alcohol misuse or deliberate self-harm, and prescription of psychotropic medication in prison.

RESULTS

Early environmental risk factors

Black and South Asian men were less likely than White men to report that they had been taken into local authority care during their childhood (adjusted odds ratio (OR) 0.64, $P=0.009$, and adjusted OR 0.21, $P=0.001$, respectively). Fewer Black than White men had been brought up by both parents (adjusted OR 0.38, $P<0.001$), and more by a single parent (adjusted OR 1.77, $P<0.001$). This pattern was reversed for South Asian men, with more brought up by two parents (adjusted OR 4.95, $P<0.001$) and fewer by a single parent (adjusted OR 0.22, $P<0.001$). Fewer Black and South Asian men reported violence in their homes (adjusted OR 0.68, $P=0.024$ and adjusted OR 0.30, $P=0.006$, respectively), and fewer Black men reported

†See part I, pp. 473–480, this issue.

https://doi.org/10.1192/bjp.181.6.481 Published online by Cambridge University Press

sexual abuse (adjusted OR 0.46, $P=0.021$) than White men. Fewer Black and South Asian men than White men had run away from home during their childhood (adjusted OR 0.41, $P<0.001$, and adjusted OR 0.36, $P<0.001$, respectively). Fewer Black and South Asian men had conduct disorder in childhood (<15 years old) (adjusted OR 0.53, $P<0.001$, and adjusted OR 0.37, $P<0.001$, respectively). The median age for self-reported first criminal conviction was 18 years for Black, 19 years for South Asian and 16 years for White males.

There were no differences between Black, South Asian and White women reporting being taken into care. Black women were less likely to report that they had been brought up by both parents (adjusted OR 0.35, $P<0.001$), more likely to have been brought up by grandparents (adjusted OR 1.94, $P=0.028$), but no more likely to have been brought up by a single parent. There were no differences between South Asian and White women in who had brought them up in childhood. Black women were less likely to report violence in their home (adjusted OR 0.56, $P=0.017$), but there were no differences between South Asian and White women. There were no differences between Black, South Asian and White women for those who reported sexual abuse in childhood or running away from home. Neither were there differences in those who had conduct disorder in childhood (<15 years old). The median age for self-reported first criminal conviction was 25 years for Black, 28 years for South Asian and 19 years for White women.

Prison life

There were few differences between Black, South Asian and White males in stressful daily experiences in prison that might have contributed to psychiatric morbidity. However, fewer Black and South Asian men reported receiving social contact through letters (adjusted OR 0.61, $P=0.012$, and adjusted OR 0.47, $P=0.02$, respectively). Instead, more Black men reported receiving contact through prison visits (adjusted OR 1.48, $P=0.024$). Black men were significantly less likely to work in the prison setting (adjusted OR 0.71, $P=0.023$). There were no differences between ethnic groups in current attendance at educational classes, or in whether they reported having any close friends or relatives, or persons close to them in the prison setting, or telephone contact with family and friends.

There were no differences in disciplinary infractions in the male prisoner groups. Both Black and South Asian men were as likely as White men to have experienced one of several forms of victimisation during the current prison term, for example the threat or experience of violence, or theft of belongings. However, Black men were less likely to report that they had been physically intimidated than White men (adjusted OR 0.52, $P=0.044$).

Black and South Asian women prisoners did not differ from their White ethnic counterparts on any of the above measures of daily living experiences in the prison setting, except that Black women were more likely to deny that they had experienced any victimisation (adjusted OR 1.61, $P=0.044$).

Use of psychiatric services

Table 1 demonstrates that, after adjusting for confounding, there were no differences between male prisoner groups in self-reported experience of previous psychiatric hospital admission or court-mandated psychiatric treatment. However, Black men reported less often that they had received psychiatric treatment during the current prison term. They were also less likely to report that they had refused psychiatric treatment if it had been offered, or that they had made a request for psychiatric treatment while in prison and had it refused. South Asian men also reported less often having received psychiatric treatment while in prison. There were no differences between South Asian and White female prisoners in their previous experiences of

Table 1 Odds ratios (95% CI) for effects of previous psychiatric treatment and treatment in prison in Black and South Asian prisoners compared with White prisoners

Variable	Black				South Asian			
	Unadjusted	*P*	Adjusted[1]	*P*	Unadjusted	*P*	Adjusted[1]	*P*
Men								
Previous psychiatric admission	0.49 (0.29–0.84)	0.010	0.59 (0.33–1.04)	0.066	0.63 (0.25–1.59)	0.329	1.05 (0.40–2.76)	0.919
Previous court-mandated treatment	0.58 (0.34–0.99)	0.044	0.63 (0.36–1.10)	0.102	0.61 (0.22–1.72)	0.350	0.78 (0.27–2.25)	0.646
Psychiatric treatment in prison	0.55 (0.37–0.82)	0.004	0.59 (0.39–0.91)	0.016	0.20 (0.06–0.65)	0.007	0.23 (0.07–0.74)	0.014
Refused treatment offered in prison	0.43 (0.26–0.72)	0.001	0.45 (0.26–0.76)	0.003	0.70 (0.32–1.55)	0.380	0.75 (0.33–1.70)	0.490
Treatment request refused in prison	0.48 (0.31–0.75)	0.001	0.54 (0.34–0.86)	0.009	0.48 (0.21–1.12)	0.089	0.60 (0.25–1.43)	0.245
Women								
Previous psychiatric admission	0.15 (0.06–0.37)	<0.001	0.22 (0.08–0.59)	0.003	0.98 (0.20–4.65)	0.974	1.43 (0.27–7.66)	0.673
Previous court-mandated treatment	0.24 (0.06–1.01)	0.051	0.16 (0.03–0.83)	0.029	1.98 (0.20–19.40)	0.557	0.77 (0.06–10.30)	0.845
Refused treatment offered in prison	0.27 (0.12–0.64)	0.003	0.24 (0.09–0.62)	0.003	0.60 (0.08–4.77)	0.631	0.61 (0.07–5.03)	0.643

1. Adjusted for age, UK-born, prisoner type, social class, marital status, educational qualifications.

https://doi.org/10.1192/bjp.181.6.481 Published online by Cambridge University Press

psychiatric hospital admission. However, Black women less often reported previous psychiatric admission or court-mandated psychiatric treatment. Fewer reported that they had refused psychiatric treatment offered in prison.

Prison health care case files (see Table 2) recorded that fewer Black than White male prisoners were identified as having a previous history of psychiatric illness by prison health care services; had been prescribed psychotropic medication in prison; were known drug and alcohol misusers; or were known to have a history of deliberate self-harm. South Asian males differed from their White counterparts only in that fewer were currently prescribed psychotropic medication.

There were no differences in recorded psychiatric illness, psychotropic medication, known substance misuse or deliberate self-harm between South Asian and White females. However, Black female prisoners were less likely to be recorded as having a history of psychiatric illness, a current prescription for psychotropic medication, or a history of deliberate self-harm. There were no differences in their recorded histories of substance misuse.

Likelihood of previous psychiatric admission

We examined whether prisoners with current psychiatric disorders had previously been admitted to a psychiatric hospital. No differences were observed between Black, South Asian and White males in reporting a previous psychiatric admission, except that fewer Black males with a neurotic disorder reported a previous admission (Table 3). However, Black women who had attempted suicide, or had a neurotic disorder (particularly depression or phobic disorder), were less likely to report having been admitted to a psychiatric hospital in the past than White women prisoners with the same conditions. There were no differences in previous histories of admission between White women and South Asian women.

Table 4 demonstrates that, of those with a personality disorder, Black men were less likely to have been admitted to psychiatric hospital than White men. There were no important differences in relation to individual categories of personality disorder. Similarly, Black women with a personality disorder were less likely to have been admitted than their White counterparts. No differences were observed between South Asian and White prisoners.

Likelihood of receiving psychiatric treatment in prison

We also recorded the receipt of psychiatric treatment in prison. Both Black and South Asian men were less likely to report having received such treatment if they fell into the overall category of 'any neurotic disorder' (OR 0.7, P=0.026, and OR 0.26, P=0.029, respectively). The only other difference was that Black men with mixed anxiety/depressive disorder (OR 0.34, P=0.025) were also less likely to have received psychiatric treatment. No differences at all were found between Black, South Asian and White women prisoners in their receipt of treatment in prison. No ethnic differences in treatment were found in either gender in relation to a history of dependence on drugs of any kind.

Fewer South Asian than White males with a personality disorder had received treatment in prison (OR 0.31, P=0.054), but in Black males this was only true of the specific condition of antisocial personality disorder (OR 0.46, P=0.030). Black women prisoners with a personality disorder were less likely to report having received psychiatric treatment in prison than their White counterparts (OR 0.54, P=0.019). This was also true for the specific categories of paranoid personality and schizoid personality disorder. When Asian and White women prisoners were compared, no differences were found for psychiatric treatment in prison for any category of personality disorder.

DISCUSSION

Early risk factors for mental disorder and criminality

The cross-sectional design does not allow the identification of causal associations between childhood risk factors and either adult criminality or psychopathology in this criminal population. However, we found important and suggestive differences in terms of ethnic group and gender, both in

Table 2 Odds ratios (95% CI) for effects of psychiatric history recorded in prison case files in Black and South Asian prisoners compared with White prisoners

Variable	Black				South Asian			
	Unadjusted	*P*	Adjusted[1]	*P*	Unadjusted	*P*	Adjusted[1]	*P*
Men								
Psychiatric illness	0.25 (0.14–0.43)	<0.001	0.32 (0.18–0.57)	<0.001	0.41 (0.18–0.96)	0.040	0.56 (0.23–1.34)	0.190
Drug misuse	0.46 (0.31–0.68)	<0.001	0.45 (0.29–0.69)	<0.001	0.75 (0.35–1.61)	0.455	0.66 (0.30–1.47)	0.309
Alcohol misuse	0.46 (0.29–0.72)	<0.001	0.48 (0.29–0.80)	0.004	0.70 (0.33–1.50)	0.359	0.83 (0.38–1.83)	0.641
Deliberate self-harm	0.13 (0.06–0.30)	<0.001	0.15 (0.07–0.35)	<0.001	0.33 (0.12–0.92)	0.033	0.38 (0.13–1.07)	0.066
Prescribed medication	0.19 (0.10–0.37)	<0.001	0.24 (0.12–0.47)	<0.001	0.23 (0.07–0.73)	0.013	0.27 (0.08–0.91)	0.034
Women								
Psychiatric illness	0.29 (0.17–0.50)	<0.001	0.43 (0.24–0.79)	0.006	0.73 (0.14–3.78)	0.704	1.10 (0.20–6.19)	0.912
Alcohol misuse	0.37 (0.17–0.83)	0.015	0.42 (0.17–1.04)	0.060	–		–	
Deliberate self-harm	0.21 (0.11–0.41)	<0.001	0.33 (0.16–0.67)	0.002	0.74 (0.15–3.69)	0.710	1.14 (0.20–6.45)	0.885
Prescribed medication	0.15 (0.08–0.28)	<0.001	0.18 (0.09–0.38)	<0.001	0.79 (0.14–4.32)	0.781	0.95 (0.15–5.92)	0.958

1. Adjusted for age, UK-born, prisoner type, social class, marital status, educational qualifications.

https://doi.org/10.1192/bjp.181.6.481 Published online by Cambridge University Press

Table 3 Odds ratios (95% CI) for effects of previous psychiatric admission in Black and South Asian prisoners with a given diagnosis, compared with White prisoners, adjusted for age and prisoner type

Condition	Black			South Asian		
	OR	95% CI	*P*	OR	95% CI	*P*
Men						
Probable psychosis	2.75	(0.51–14.8)	0.238	3.88	(0.39–39.0)	0.250
Post-traumatic stress disorder	0.73	(0.07–7.33)	0.791	1.63	(0.12–21.6)	0.710
Parasuicide	0.86	(0.27–2.73)	0.795	0.71	(0.14–3.58)	0.678
Self-harm, current term	1.48	(0.13–17.5)	0.756	4.28	(0.17–109.5)	0.380
Hazardous drinking	0.94	(0.47–1.86)	0.857	0.89	(0.27–3.00)	0.854
Mixed anxiety/depression	0.83	(0.31–2.22)	0.714	1.37	(0.39–4.88)	0.623
Obsessive–compulsive disorder	0.42	(0.12–1.48)	0.177	1.07	(0.10–10.9)	0.957
General anxiety disorder	0.78	(0.21–2.88)	0.710	–		
Depression	0.59	(0.19–1.80)	0.355	1.66	(0.16–17.8)	0.673
Phobia	0.82	(0.20–3.27)	0.776	–		
Panic	–			–		
Any neurotic disorder	0.51	(0.26–1.00)	0.049	0.73	(0.25–2.12)	0.564
Women						
Parasuicide	0.31	(0.10–0.96)	0.042	3.49	(0.29–42.0)	0.325
Depression	0.09	(0.01–0.68)	0.020	1.97	(0.11–34.7)	0.643
Phobia	0.11	(0.01–0.91)	0.041	–		
Any neurotic disorder	0.18	(0.07–0.45)	<0.001	0.54	(0.06–4.67)	0.576

the experience of childhood risk factors and in the diagnosis of conduct disorder.

The differences between Black and White prisoners in terms of upbringing in conventional two-parent families was unlikely to have relevance for their future criminality or mental health problems in the absence of other adverse factors. These include violence in the home, running away from home, sexual abuse and being placed in local authority care, which are more suggestive than family structure of family discord and ineffective parenting during childhood. Coercive or hostile parenting, abuse and neglect, ineffective parenting and poor supervision are typically associated with conduct disorder and future criminality, and all have a proximal effect on more serious and persistent forms of criminality (Farrington, 1995; Rutter *et al*, 1998). In this context, the lower prevalence of risk factors thought to be proxy measures of poor parenting during the childhood of Black and South Asian men (but not women) correlates with their lower prevalence of conduct disorder. Likewise, the higher prevalence of conduct disorder in White males would partly explain their higher prevalence of psychiatric morbidity (specifically of substance misuse, parasuicide and antisocial personality disorder) and their more extensive history of previous criminality.

Although they explain differences between subgroups of prisoners, these risk factors do raise major questions over the differences between rates of imprisonment among men from different ethnic groups. Conduct disorder is more prevalent among Black children than White and South Asian children in the general population (Meltzer *et al*, 2000). At first sight, because conduct disorder is associated with increased risk of further criminality and psychiatric morbidity, this might explain the considerably elevated rate of imprisonment of Black men in England and Wales. However, in view of the fact that fewer Black prisoners were rated as having conduct disorder during their childhood, this cannot be the explanation. Moreover, part of the excess of Black male and female prisoners appears to be accounted for by adolescent- and late-onset criminality (Moffit, 1993, 1994). This is suggested by their self-reported age at first conviction and the greater proportion of them with no previous convictions, observed in the companion paper (Coid *et al*, 2002, this issue). Research in the USA has suggested that young offenders from African–American populations are less likely to have emotional and psychological dysfunction and troubled backgrounds than their White counterparts, but more likely to associate with deviant peers (Dinges *et al*, 1997). Barriers to achieving financial self-sufficiency through legitimate means may increase the acceptability of engaging in criminal behaviour within ethnic minority groups during adolescence, particularly when coupled with exposure to neighbourhoods with high rates of gang activity (National Centre for Education Statistics, 1995; Yung & Hammond, 1997).

In a study of children with conduct disorder, McCabe *et al* (2001) found that individual and familial factors were more strongly related to childhood-onset conduct disorder, whereas ethnic minority status and exposure to deviant peers were more strongly associated with onset in adolescence. Longitudinal research is required into the criminal careers of Black men, and the possibility of higher rates of late- or adolescent-onset criminality, together with a third possibility that we could not measure in this study – that the threshold within the criminal justice system for their imprisonment may be lower.

https://doi.org/10.1192/bjp.181.6.481 Published online by Cambridge University Press

Table 4 Odds ratios (95% CI) for effects of previous psychiatric admission in Black and South Asian prisoners with a given diagnosis of personality disorder, compared with White prisoners, adjusted for age and prisoner type

Condition	Black			South Asian		
	OR	95% CI	*P*	OR	95% CI	*P*
Men						
Avoidant	1.03	(0.32–3.37)	0.958	–		
Dependent	0.36	(0.07–1.70)	0.195	0.77	(0.08–7.49)	0.822
Obsessive–compulsive	0.32	(0.09–1.13)	0.077	1.63	(0.29–8.97)	0.577
Paranoid	0.62	(0.31–1.23)	0.169	0.74	(0.17–3.32)	0.698
Schizotypal	0.67	(0.28–1.61)	0.365	–		
Schizoid	0.40	(0.17–0.95)	0.038	–		
Histrionic	–			–		
Narcissistic	0.89	(0.14–5.58)	0.902	–		
Borderline	0.74	(0.20–2.70)	0.646	1.62	(0.17–15.6)	0.675
Antisocial	0.81	(0.40–1.67)	0.574	–		
Any personality disorder	0.49	(0.27–0.90)	0.022	0.56	(0.17–1.84)	0.341
Women						
Avoidant	0.24	(0.05–1.20)	0.082	1.01	(0.08–12.8)	0.996
Dependent	0.83	(0.07–9.77)	0.881	–		
Obsessive–compulsive	0.17	(0.04–0.80)	0.024	–		
Paranoid	0.12	(0.04–0.35)	<0.001	1.44	(0.23–9.14)	0.698
Schizotypal	0.22	(0.06–0.81)	0.023	–		
Schizoid	0.17	(0.06–0.48)	0.001	1.61	(0.27–9.67)	0.602
Histrionic	–			–		
Narcissistic	2.68	(0.16–45.3)	0.495	–		
Borderline	0.08	(0.01–0.60)	0.014	2.09	(0.17–25.4)	0.564
Antisocial	0.08	(0.01–0.63)	0.016	–		
Any personality disorder	0.13	(0.05–0.34)	<0.001	1.08	(0.21–5.59)	0.923

In contrast, the prevalence of conduct disorder in South Asian children is lower than in White and Black children in Great Britain, and lower for girls than boys (Meltzer *et al*, 2000). This might partly explain the markedly lower rate of imprisonment of South Asian women. However, in circumstances where South Asian women do experience the same adverse childhood risk factors as White women prisoners, their risks of future criminality and psychiatric morbidity may be similar.

Daily life in prison

There was little to suggest that Black or South Asian prisoners, male or female, differed markedly in their adjustment to daily life within the prison setting compared with White prisoners. Indeed, there was some suggestion that in Black prisoners it was generally better. Moreover, there was no evidence that they posed more problems of control and disruption, resulting in disciplinary infractions. However, these measures are often the outcome of mental health problems in prisoners rather than risk factors for psychiatric morbidity, and could merely be a further reflection of the lower levels of psychopathology in Black prisoners observed in the companion paper (Coid *et al*, 2002, this issue. Similarly, there was little to indicate that Black or South Asian prisoners were more likely to be victimised, with some suggestion that for Black prisoners this was actually less likely.

Use of prison health care services

There were no differences between ethnic groups or genders for previous experiences of psychiatric in-patient treatment, except that for Black women this was less common. The treatment offered to prisoners with mental disorder once in custody reflects the efficiency of the screening process for mental disorder and associated health care needs. This may be profoundly influenced by previous psychiatric hospital admission. However, a significant proportion of mental disorder (including psychotic illness) remains undetected in both male (Birmingham *et al*, 1996) and female (Parsons *et al*, 2001) remanded prisoners, and mental disorder that is not identified at the early stage of reception into prison is unlikely to be detected later (Birmingham *et al*, 1997). In the case of Black prisoners, fewer were identified by our survey of case files as either currently or previously having a psychiatric illness, or as having a history of drug or alcohol misuse or of deliberate self-harm. But these findings probably reflect the lower prevalence of most forms of psychopathology described in the companion paper (Coid *et al*, 2002, this issue). If so, it is not surprising that fewer Black prisoners were prescribed psychotropic medication while in prison, and that fewer Black male prisoners had received

https://doi.org/10.1192/bjp.181.6.481 Published online by Cambridge University Press

psychiatric treatment in prison. There was certainly little to suggest that they were uncooperative. Thus, there was no evidence that treatment offered to them in prison had been refused, or that they had requested treatment which had been denied to them by prison health care professionals.

Despite the prevalence of mental disorder being similar in White and South Asian prisoners, fewer South Asians had been prescribed medication in prison. Reports by South Asian male prisoners that they were less likely than Whites to be prescribed medication in prison might suggest that they were being denied appropriate treatment. Nevertheless, there was no evidence that they had refused treatment when it had been offered to them, or that treatment had been denied when they had requested it.

CLINICAL IMPLICATIONS

- Black prisoners have reduced early risk factors for mental illness corresponding with their lower current morbidity.
- Criminal behaviours antecedent to imprisonment are more likely to be of adolescent or late onset in Black prisoners.
- Black prisoners with neurotic and personality disorders are less likely than White prisoners to receive treatment.

LIMITATIONS

- Data were based on self-report or on prison records.
- The survey was not specifically designed to measure ethnic differences.
- The design of the study did not permit clarification of the reasons for our findings.

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(First received 5 October 2001, final revision 1 July 2002, accepted 16 July 2002)

Discrimination in treatment provision

This study was not specifically designed to examine discrimination in the provision of treatment to different ethnic groups. Moreover, it cannot be assumed that the psychiatric disorders recognised in the survey are directly linked with experiences of psychiatric treatment before or during imprisonment. However, there was no evidence that Black or South Asian prisoners with disorders were less likely to receive psychiatric treatment in prison than White prisoners. For certain specific neurotic conditions, Black and South Asian men were less likely to report having received treatment; but numbers were small, and the differences emerged in the context of multiple statistical comparisons. Nevertheless, the question remains whether the less frequent previous psychiatric hospital admission for Black men and women for some disorders was the result of differences in self-perceived need for psychiatric treatment, or of their negative perceptions of psychiatric services in hospital and in the community.

The high incidence of psychotic illness among African–Caribbeans in community studies, and the high prevalence in secure forensic psychiatry services in England and Wales, are not mirrored in this national survey of prisoners. Black people with psychotic illness in our survey had not previously been rejected for admission by psychiatric services, and their condition had been identified by clinicians at some stage. However, there is direct evidence from local studies that among people with obvious mental illness, Black offenders have an increased risk of being processed by the police into the criminal justice system (Robertson *et al*, 1996; Bhui *et al*, 1998). Thus, there may be a specific failure to recognise mental illness or to act upon its recognition at the remand stage. The lack of any increase in psychosis rates in Black prisoners may therefore be due to masking by very high rates of imprisonment of Black people without psychiatric disorders. The disproportionate level of admissions of Black patients to forensic psychiatric services in any case requires explanation. One possible reason are the higher levels of the most serious offending or high-risk behaviour by subgroups of African–Caribbeans with severe mental illness. This parallels Smith's (1997) assertion that the higher rate of imprisonment of African–Caribbeans is the outcome of a higher level of offending.

Personality disorder

The findings for personality disorder contrast with those for major mental illness for Black prisoners. It has been previously observed that patients with a primary diagnosis of personality disorder in secure psychiatric hospitals are more likely to be White (Coid *et al*, 1992, 2000; Shubsachs *et al*, 1995). The companion paper (Coid *et al*, 2002, this issue) has demonstrated specific differences in the prevalence of personality disorder categories between Black and White ethnic subgroups (although the relative rates in the general population remain unknown). The current study has demonstrated that if Black prisoners present with the same

https://doi.org/10.1192/bjp.181.6.481 Published online by Cambridge University Press

personality disorder as Whites, they are less likely to have been treated previously in a psychiatric hospital or to receive psychiatric treatment in prison. This is particularly the case for Black women prisoners. For example, 44% of all White women with borderline personality disorder had previously been psychiatric in-patients, in contrast to only 1 of 17 Black prisoners. Borderline personality disorder is typically characterised by seeking help from psychiatric services (Reich & de Girolamo, 1997). Further research is needed to explain whether these findings reflect negative attitudes of Black persons with personality disorder towards psychiatric services, and the belief that they do not require these services, or their rejection by the professional gatekeepers of these services. This is of considerable importance, as previous treatment by psychiatric services of persons with personality disorder partly determines whether treatment in a secure hospital will be offered as an alternative to imprisonment following serious offending (Coid *et al*, 1999).

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https://doi.org/10.1192/bjp.181.6.481 Published online by Cambridge University Press