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Highlights

- Psychological interventions should be offered to all with first episode psychosis.
- We examined ethnic differences in receipt of CBTp and family intervention.
- We used audit data from all Early Intervention in Psychosis services across England.
- 14 of 16 ethnic groups were less likely to receive CBTp than White British people.
- Six of 16 ethnic groups were also less likely to receive family intervention.

Ethnic differences in receipt of psychological interventions in Early Intervention in Psychosis services in England – a cross-sectional study

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Abstract

There is some evidence of differences in psychosis care provision by ethnicity. We investigated variations in the receipt of CBTp and family intervention across ethnic groups in Early Intervention in Psychosis (EIP) teams throughout England, where national policy mandates offering these interventions to all.

We included data on 29,610 service users from the National Clinical Audit of Psychosis (NCAP), collected between 2018 and 2021. We conducted mixed effects logistic regression to examine odds ratios of receiving an intervention (CBTp, family intervention, either intervention) across 17 ethnic groups while accounting for the effect of years and variance between teams and adjusting for individual- (age, gender, occupational status) and team-level covariates (care-coordinator caseload, inequalities strategies).

Compared with White British people, every minoritized ethnic group, except those of mixed Asian-White and mixed Black African-White ethnicities, had significantly lower adjusted odds of receiving CBTp. People of Black African, Black Caribbean, non-African/Caribbean Black, non-British/Irish White, and of "any other" ethnicity also experienced significantly lower adjusted odds of receiving family intervention.

Pervasive inequalities in receiving CBTp for first episode psychosis exist for almost all minoritized ethnic groups, and family intervention for many groups. Investigating how these inequalities arise should be a research priority.

Key Words: First episode psychosis, ethnicity, inequalities, CBTp, family intervention

1. Introduction

1.1. Background

People from minoritized ethnic backgrounds often go through more complex and coercive pathways of psychosis care relative to their White counterparts (Anderson et al., 2014; Bhui and Bhugra, 2002; Halvorsrud et al., 2018; Morgan et al., 2005a, b). There is emerging evidence that these groups experience inequalities in the psychosis treatment they receive, including the use of pharmacological treatments and psychological interventions (Das-Munshi et al., 2018; Kapadia et al., 2022; McKenzie et al., 2001; Morris et al., 2020; Raleigh et al., 2007). People from minoritized ethnic backgrounds appear less likely to receive

psychotherapy for psychosis, and to be referred for psychological treatments (Das-Munshi et al., 2018; McKenzie et al., 2001; Morris et al., 2020; Raleigh et al., 2007), which has been linked to increased likelihood of involuntary admissions (Freitas et al., 2023). Which groups are affected and to what degree remains unclear, as do the stages of care at which inequalities emerge.

With a few exceptions (Coleman et al., 2016; Johns et al., 2019; Stefanova et al., 2021), most studies from the US and UK observed ethnic inequalities in receipt of psychological interventions among people with psychosis, including first episode of psychosis (FEP) (Colling et al., 2017; Das-Munshi et al., 2018; Heun-Johnson et al., 2021; Mason et al., 2022; Mercer et al., 2019; Morris et al., 2020; Oluwoye et al., 2018). Studies from the UK found inequalities in offer and receipt of Cognitive Behavioural Therapy for psychosis (CBTp) (Colling et al., 2017; Das-Munshi et al., 2018; Mason et al., 2022; Mercer et al., 2019; Morris et al., 2020) and family intervention (Das-Munshi et al., 2018). While this was consistently the case for Black service users, evidence for other minoritized ethnic groups varied across studies including different samples and service settings (Das-Munshi et al., 2018; Mason et al., 2022; Morris et al., 2020). While most studies used audit data from one trust (Colling et al., 2017; Mason et al., 2022; Mercer et al., 2019; Morris et al., 2020), a nationwide study using data from a National Audit of Schizophrenia (NAS) in England and Wales found all minoritized ethnic groups, except for those of mixed ethnicities, to be less likely to have been offered CBTp compared with White people (Das-Munshi et al., 2018). Black people were also less likely to have been offered family intervention, though Asian people were more likely.

A key setting for delivery of CBTp and family intervention are Early Intervention in Psychosis (EIP) services that have been available nationwide in England over the past 20 years. One policy-mandated goal is to offer all service users interventions that are recommended by National Institute for Health and Care Excellence (NICE) guidelines for people with psychosis (National Institute for Health Care and Excellence (NICE, 2013, 2014). According to these guidelines, service users should receive 16 planned sessions of CBTp and 10 sessions of family intervention (given they are in close contact with their families), in conjunction with antipsychotic medication, as part of their individual treatment plan (National Institute for Health Care and Excellence (NICE), 2013, 2014). Previous research showed generally low rates of implementation of CBTp and family intervention across UK services (Ince et al. 2016). A key question is whether ethnic inequalities are present in EIP services

despite this commitment to an assertive and universal offer of interventions. No previous study has investigated differences in receipt of psychological interventions in EIP services for people with FEP specifically while also using fine-grained ethnic categories. Substantial and high-quality evidence regarding ethnic differences in receipt of psychological and family intervention in EIP settings, where delivery is a policy requirement and service users are at a stage of symptoms that is important for long-term prognosis, is needed.

1.12. Aims & Objectives

This study aimed to investigate the magnitude of inequalities in receipt of psychological interventions in EIP services.

Our specific objectives were:

1. To examine the association between ethnicity and receipt of CBTp, family intervention, and at least one of the two psychological interventions.
2. To investigate the role of other individual-level factors (age, gender, and occupational status), and team-level factors (whether teams have a strategy to address inequalities in mental health services and the average caseload of care coordinators) in the association between ethnicity and receipt of CBTp, family intervention, and either intervention.

2. Methods

2.1. Data collection

2.1.1. Participants

We used cross-sectional data from three years (2018/19 to 2020/21) of the National Clinical Audit of Psychosis (NCAP) commissioned across England by the Healthcare Quality Improvement Partnership (HQIP), a body working to promote quality across healthcare services (HQIP, n.d.). Data were collected retrospectively via a case-note audit and service-level questionnaire completed by EIP teams. All NHS-funded EIP teams in England were asked to return their audit on a sample from their caseload of up to 100 people with FEP who met eligibility criteria established by the NCAP methodology (NCAP, 2021a). If a team identified more than 100 eligible service users a random sample was selected by the NCAP. To be included in the audit, participants had to be on the caseload of an EIP team for at least six months at the census date. Participants were excluded from the audit if they experienced psychotic symptoms due to an organic cause or if they spent most of their time in a

geographical area different from the EIP service. Data were collected from 162 EIP teams in all 57 eligible service providers including mental health trusts and other NHS service providers in 2018/2019, from 155 EIP teams in all 57 eligible service providers in 2019/2020, and 154 EIP teams in 55 eligible service providers in 2020/2021. Each year, data were submitted for between 97% and 99% of the randomly selected service users across EIP services (NCAP, 2019, 2020, 2021b). Due to anonymization of NCAP audit data in each survey wave, it was not possible to identify participants who received treatment across multiple years and who therefore might have contributed to more than one survey wave.

2.1.2. Outcome

Our two main outcome variables were receipt of CBTp and family intervention. Receipt reflected both offer and uptake of appropriate and relevant care. We created a binary variable to indicate receipt of at least one session of each outcome in each year (*see* Supplement for further details). As a secondary outcome, we investigated receipt of either psychological intervention, i.e., CBTp and/or family intervention, to ascertain whether there are ethnic differences in receiving at least one of the two NICE mandated psychological interventions. Some service users might receive one psychological intervention while not having been offered, having refused, or still waiting for the other intervention.

2.1.3. Exposure and covariates

Our main exposure was ethnicity, grouped into 17 categories as per NCAP methodology and based on the UK census (*see* Table 1) (GOV.UK, n.d.). Ethnicity was collected as part of the case-note audit based on clinical notes and other information available to the EIP teams (NCAP, 2019). NHS staff are required to follow guidance for ethnicity recording which should be based on service user self-reports.

Covariates included participant age (14-25 years, 26-35 years, 36-45 years, 46-55 years, 56-65 years) and gender (male, female, other), *a priori*, and participant occupational status (binary measure: in/out of work, education, or training at first assessment). We included two covariates at team-level, including whether the team or trust had a strategy to identify and address inequalities in mental health service use (yes/no), and a continuous proxy variable for staff caseload (mean number of service users per care coordinator).

2.2. Statistical Analysis

We conducted a complete case analysis, excluding participants with missing data. We compared differences between these two groups using X^2 or Fisher's exact tests and univariable logistic regression analyses. We reported descriptive statistics by outcome status on the complete case sample. Next, we used multilevel logistic regression models to examine the association between each outcome and ethnicity, adjusted for covariates. We included a random intercept for EIP team to account for potential team-level variation in treatment, and random slopes between EIP team and survey year to account for any yearly differences in variance of psychological interventions attributable to the EIP team level, e.g., due to COVID-19. For each outcome, we reported findings from null, age-sex adjusted, and fully adjusted models, including odds ratios (OR) and 95% confidence intervals (95%CI) for ethnic variation in receipt of psychological interventions and intraclass correlation coefficients (ICC) of the proportion of outcomes attributable to the team-level (*see* Supplement for further details).

We ran a secondary analysis investigating ethnic variation in "offer" rather than "receipt" of psychological interventions (only available in 2019/20 and 2020/21 survey years) to ascertain whether ethnic differences in receipt of psychological interventions might be explained by differences in interventions offered by EIP service staff. We fitted our final multivariable models from our primary analyses of "receipt" for "offer" outcomes.

We further conducted two sensitivity analyses to strengthen our conclusions. First, we ran the family intervention model on a subsample of service users who had a family member, friend, or carer who supported them, excluding those who did not want this person to be involved in their care. Second, we re-ran our main model for each primary outcome in separate survey years to account for potential sample overlap.

2.3. Role of the funding source

The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

3. Results

The final analytic sample included 29,610 participants, after excluding 1.7% (n=510) due to missingness on the variable age (n=16) and team-level variables (n=494) (Figure S1). Excluded participants did not differ from the complete case sample by outcome status, gender, age, or occupational status, but did differ by ethnicity ($p<0.001$), with people from a Black

Caribbean (6.3%) and "any other Black" background (5.5%) having the highest percentage of missingness, and people from of White British (0.6%) and Chinese (0.8%) ethnicity having the lowest percentage of missingness (Table S1).

3.1. Descriptive statistics

The majority of the sample was White British (57.9%), male (61.6%), aged 35 or younger (69.6%), and not in work, education, or training (60.2%) (Table 1). The overall proportion of people who received CBTp and family intervention were 47.4% and 21.2%, respectively. Receipt of CBTp differed by gender, occupational status, and ethnicity, and receipt of family intervention by age, occupational status, and ethnicity (*see* Table 1 and Supplement for further details). Compared with receipt, the overall proportion of the sample offered CBTp and family intervention were higher, at 80.9% and 62.3%, respectively (Table S2).

3.2. Multilevel modelling

The univariable logistic regression analyses showed similar results for the association between the exposure and outcomes for the complete case sample and full sample (*see* Table S3 for results for the full sample).

3.2.1. Ethnic variation in receipt of CBTp

In a null model, 18.5% of the variance in receipt of CBTp was attributable to the EIP team level (95%CI: 0.14-0.23), when holding the random slope constant, and increased slightly in a model adjusted for ethnicity and other fixed effects covariates (ICC 0.21; 95%CI: 0.16-0.26). Unadjusted and adjusted results were similar with respect to ethnicity (Table 2). In the adjusted model, people of Bangladeshi ethnicity had the lowest odds of receiving CBTp (aOR: 0.39; 95%CI: 0.32-0.47), followed by those of Chinese (aOR: 0.52; 95%CI: 0.35-0.77), Black African (aOR: 0.53; 95%CI: 0.47-0.59), and Pakistani (aOR: 0.54; 95%CI: 0.48-0.62) ethnicity relative to White British participants. Participants who were female (aOR: 1.42; 95%CI: 1.35-1.50) and in work, education, or training (aOR: 1.63; 95%CI: 1.55-1.72) were more likely to receive CBTp, while those below 26-years-old (aOR: 0.91; 95%CI: 0.86-0.97) or above 46-years-old were less likely to receive CBTp compared with those aged 26-35-years-old (Table 2). Finally, those in teams with an inequalities strategy (aOR: 1.19; 95%CI: 1.04-1.37) had higher odds of receiving CBTp, but caseload size was not associated with receipt of CBTp (per one extra patient per care coordinate: aOR: 0.99; 95%CI: 0.97-1.00).

3.2.2. Ethnic variation in receipt of family intervention

Compared with CBTp, a greater portion of variance in receipt of family intervention was attributable to the EIP team level in the null model (ICC 0.25; 95%CI: 0.20-0.30), which persisted in unadjusted and adjusted models (Table 2). Following multivariable adjustment models, six minoritized ethnic groups were less likely to receive family intervention (Table 2), including those of Black African (aOR: 0.61; 95%CI: 0.53-0.69), Black Caribbean (aOR: 0.67; 95%CI: 0.56-0.81), "any other Black" (aOR: 0.63; 95%CI: 0.51-0.79), "any other White" (aOR: 0.73; 95%CI: 0.64-0.84), "any other mixed" (aOR: 0.74; 95%CI: 0.57-0.95), or "any other" (aOR: 0.66; 95%CI: 0.54-0.81) ethnicities. Being female (aOR: 1.09; 95%CI: 1.02-1.16), in work, education, or training (aOR: 1.33; 95%CI: 1.25-1.42), or younger than 26 years old (aOR: 1.51; 95%CI: 1.41-1.62) was associated with higher odds, and being older than 35-years-old with lower odds of receiving family intervention (Table 2). We did not observe differences in receipt of family intervention by average caseload size or presence of an inequalities strategy.

3.2.3. Ethnic variation in receipt of either psychological intervention

Results from this model were similar to CBTp, with additional weak evidence that participants in EIP teams with greater caseloads were less likely to have received either intervention (aOR: 0.98; 95%CI: 0.97-1.00; Table 2).

3.2.4. Secondary analysis on offer of CBTp, family intervention, and either intervention

Patterns of ethnic disparities in offer of CBTp (Table S7) were broadly similar to those for receipt (Table 2), with point estimates tending to indicate less reductions in offer (see Supplement for further details). Exceptions to this existed, and (unlike receipt) we observed no statistically significant differences in offer of CBTp between White British and Black Caribbean, mixed Black Caribbean-White, and Chinese participants. Odds reached conventional statistical significance for people from a mixed Asian-White background (aOR: 0.51; 95%CI: 0.31-0.82).

Patterns of ethnic disparities in *offer* of family intervention (Table S8) were broadly similar to those for *receipt* (Table 2). Exceptions existed, and (unlike receipt) we observed no statistically significant differences in offer of family intervention for those of "any other Black" background, and found that those from an Indian background were more likely to be

offered family intervention compared with White British participants (aOR: 1.26; 95%CI: 1.01-1.56).

Patterns of ethnic difference in *offer* of either intervention (Table S8) resembled those of *receipt* for most ethnic groups (Table 2). However, contrary to receipt, we observed no statistically significant differences in offer of either intervention for six ethnic groups which had lower odds of receipt, and statistically significantly lower odds of offer among those of mixed Asian-White background (aOR: 0.50; 95%CI: 0.29-0.87).

3.3.4. Sensitivity analyses

3.3.4.1. Receipt of family intervention among service users who had support from a family member, friend, or carer

Patterns of ethnic differences in receipt of family intervention among a subsample of service users who reportedly had a family member, friend, or carer who supported them (excluding those who did not wish this person to be involved in their care) (Table S4) largely resembled ethnic differences in the entire sample (Table 2). However, compared with the entire sample, the difference in odds of receiving family intervention reached statistical significance among Pakistani service users who had a family member, friend, or carer to support them (aOR: 0.81; 95%CI: 0.67-0.97).

3.3.4.2. Receipt of CBTp, family intervention, and either intervention using separate samples by year

In the sensitivity analyses examining each year of data collection separately, odds of receipt of CBTp were marginally larger for some ethnic groups and smaller for others compared with those of the merged sample (Tables S5-7). Differences in receipt of CBTp failed to reach statistical significance for some ethnic groups, including the White Irish group, across all three years, mixed Black Caribbean-White in 2018-2019 and 2020-2021, and Chinese and "any other mixed" ethnicities in 2019-2020, but were larger in the other years for the latter two groups.

Odds of receipt of family intervention marginally differed in both directions across years compared with the merged sample (Tables S5-7). Odds failed to reach conventional statistical significance for the Black Caribbean group in 2018-2019, "any other" ethnic background in 2018-2019 and 2019-2020, and "White other" and "any other mixed" background in 2018-2020 and 2020-2021 but were marginally larger compared with the main sample in other

years. Contrary to the merged sample, odds reached statistical significance for the mixed Black Caribbean-White group in 2019-2020 and "any other Asian" background in 2020-2021.

Odds of receipt of either intervention failed to reach conventional statistical significance for the Indian group in 2018-2019 and 2019-2020, White Irish group in 2018-2019 and 2019-2020, mixed Black Caribbean-White group in 2018-2019 and 2020-2021, and "any other mixed" background in 2020-2021 (Tables S5-7). However, differences in receipt of either intervention were larger in the other years for these ethnic groups compared with the merged sample. Odds were not statistically significant for the Chinese group across years.

4. Discussion

4.1. Summary of findings

This is the first cross-sectional study to examine differences in receipt of psychological interventions among people with FEP of several specific ethnicities using nationwide data from EIP services mandated to deliver these interventions to all service users.
Overall, the proportion of service users who received CBTp and family intervention appeared low across ethnic groups with only 47.4% and 21.2% of service users having received these interventions, respectively. Additionally, we found evidence for inequalities in receipt of psychological interventions, including both CBTp and family intervention independently, across most ethnic groups compared with White British service users. This was most consistent for CBTp, where the odds of receiving CBTp were reduced by between 20-61% for most minoritized ethnic groups, after adjustment for covariates. Decreased odds were most pronounced for Bangladeshi groups, but Pakistani, Chinese, and Black African service users were also almost half as likely to receive CBTp as their White British counterparts. Receipt of family intervention were notably reduced by between 33-39% in Black Caribbean, Black African, and other Black groups. Other differences in receipt of psychological interventions included reduced odds of receipt amongst those older than 35/45-years-old, and greater odds of receipt for women and service users who were in work, education, or training, as well as amongst those in EIP teams who reported having an inequalities strategy in place. Variance at team-level accounted for approximately 19-25% in differences in receipt of interventions and remained similar when controlling for relevant covariates. When examining differences in which service users were reported to have been offered, as opposed to receiving, CBTp or

family intervention, patterns were largely similar. Compared with receipt, differences in offer of interventions were marginally smaller for most ethnic groups and failed to reach significance for a few.

4.2. Limitations

The study's findings should be considered in the context of several methodological limitations. First, we were unable to control for potential sample overlap between the three audit years which were merged for our main analyses, potentially inflating observed effect sizes. When the three years of data are analysed separately, odds ratios for some ethnic groups varied in size and failed to reach significance compared with the merged sample. However, findings remained comparable for most ethnic groups. Second, we conducted a complete case analysis excluding anyone with missing data on the exposure, outcomes, or covariates. We expect the complete case analysis to produce unbiased results based on the low percentage of excluded cases (1.7% of all participants) (Dong and Peng, 2013). Third, while we explored the role of several individual-level and team-level covariates, we did not account for variance between NHS trusts, and were limited to covariates available in the NCAP audit dataset. We were not able to include other potentially relevant covariates, including area-level deprivation, which might partially account for the observed differences in receipt of psychological interventions. Fourth, while we used fine-grained ethnic categories based on the UK census, there remains a substantial degree of heterogeneity obscuring differences in outcomes within these group. Lastly, data on outcomes were based on clinician rather than service user reports potentially impacting the accuracy and reliability of reporting across services, especially regarding the offer of interventions. While staff are generally required to record ethnicity based on service user self-reports, this might not have been adhered to. As a result, some service users' ethnicities might have been misclassified and a proportion of the sample's ethnicity was unknown or undocumented.

4.3. Findings in context of previous studies

4.3.1. Ethnic inequalities in CBTp

We found evidence for lower odds of receiving CBTp, and also of being offered CBTp, among most minoritized ethnic groups, except of mixed Black African-White and mixed Asian-White ethnicity, and obtained similar results for offer of CBTp even though odds ratios marginally increased for most ethnic groups and failed to reach significance for Black Caribbean and mixed Black Caribbean-White groups. This is in line with previous UK and

most US studies which have found lower odds of being offered or receiving CBTp or other psychotherapy among service users of Black ethnicity (Colling et al., 2017; Das-Munshi et al., 2018; Heun-Johnson et al., 2021; Mason et al., 2022; Mercer et al., 2019; Morris et al., 2020; Oluwoye et al., 2018). Findings for other ethnic groups have been more mixed (Das-Munshi et al., 2018; Heun-Johnson et al., 2021; Mason et al., 2022; Morris et al., 2020; Oluwoye et al., 2018). In accordance with our findings, most studies, including a UK study using nationwide audit data, also showed differences in care for other minoritized ethnic groups Das-Munshi et al., 2018; Heun-Johnson et al., 2021; Mason et al., 2022). Divergences in findings across studies may reflect differences in samples, services, and covariates examined, including potential variations in factors associated with care, such as diversity of staff and aspects of service delivery intended to improve noted inequalities. Overall, findings confirm substantial inequalities in both being offered and receiving psychological interventions, and indicate that these are present at an early stage in treatment, and despite a national policy requirement to deliver equitable EIP services to all.

4.3.2. Ethnic inequalities in family intervention

In line with the findings of a study using nationwide audit data, we found lower odds of receiving and being offered family intervention among people from Black Caribbean and Black African, compared with White British people, but no differences among most mixed ethnic groups (Das-Munshi et al., 2018). Service users from “any other Black” ethnic background had lower odds of receipt only. Das-Munshi and colleagues also found higher odds of being offered family intervention among Asian and Asian British compared with White British people (Das-Munshi et al., 2018). We did not find evidence for differences in receipt of family intervention between people of different Asian ethnic backgrounds and White British people overall, however, people of Indian ethnicity had greater odds of being offered family intervention. Deviations in findings might be due to differences in service settings and ethnic categories explored with our study looking at EIP services only and more fine-grained, but smaller ethnic groups. Our findings further suggested that White people other than White Irish or White British people had lower odds of receiving and being offered family intervention. Lower odds of receiving and being offered family intervention may also reflect a lower likelihood of living or being in closely in contact with families early in the course of psychosis among certain ethnic groups.

4.4. Potential explanations for inequalities in receipt of care

4.4.1. Ethnic inequalities

Ethnic inequalities in psychological interventions may arise at several points in the care pathway. We found evidence for inequalities in both receipt and offer of psychological interventions. While differences in offer of interventions were (marginally) smaller than differences in receipt for most ethnic groups, this suggests staff factors and service structures play an important role in inequalities in care. Whether an intervention is offered may reflect clinicians' (mis)perceptions of appropriateness of care for different groups (Rathod et al., 2010), an institutionally racist culture, and/or service capacity limitations, including availability of interpreters (Islam et al., 2015; Kurtz and Street, 2006; Rathod et al., 2010). Minoritized ethnic groups, specifically Black ethnic groups, have been found to be subject to more coercive pathways to care and present as more severe at first diagnosis in the UK (Maguire et al., 2021; Morgan et al., 2005a, b). As a result, the window for psychological intervention offer might be missed by some minoritized ethnic groups due to being perceived as too unwell to benefit from psychological interventions or where psychological interventions may not be prioritised for compulsorily admitted patients in hospital wards compared with antipsychotic medication, despite NICE guidelines recommending psychological interventions during the acute phase of symptoms (National Institute for Health Care and Excellence (NICE), 2014). Additionally, people from minoritized backgrounds may be less likely to engage with care due to negative experiences of services restricting opportunities to offer therapy interventions. Interestingly, whether a team had a strategy to address mental health inequalities in place was associated with receipt of CBTp, but not offer. Thus, existence of a strategy might influence service factors related to uptake rather than impacting offer of interventions among clinicians.

Whether service users accept an offer of treatment may be influenced by attitudes towards mental health problems and psychological treatments, and this may also influence whether they remain engaged with the services. This may be influenced by a range of factors including cultural differences in beliefs and stigma (Islam et al., 2015; Kurtz and Street, 2006; Memon et al., 2016; Rathod et al., 2010) as well as individual and community experiences of services, including coercive pathways to care (Islam et al., 2015; Lawrence et al., 2021), and cultural ignorance and racism among clinicians (Islam et al., 2015; Mclean et al., 2003; Memon et al., 2016; Rathod et al., 2010), leading to mistrust towards professionals and services (Islam et al., 2015; Lawrence et al., 2021; Rathod et al., 2010). Uptake may further reflect clinicians' ability to offer and explain treatments in a way that appears acceptable and relevant to people

from a range of backgrounds, as may the quality and cultural appropriateness of informational materials about treatments, including whether they have been adapted and co-produced with people from the relevant background (Islam et al., 2015; Rathod et al., 2010). The appropriateness and acceptability of family intervention is also likely to be influenced by family composition, language proficiency, and availability, and by attitudes among family members and communities (Kurtz and Street, 2006).

4.4.2. Age and occupational inequalities

Our study found evidence for inequalities in care across different age groups. Lower odds of receiving family intervention or CBTp among age groups 36 or 46 and older may be explained by the only recent expansion of EIP services in England to older age groups (36-65 years) recommended by NICE in 2016 (National Institute for Health Care and Excellence (NICE), 2016). Previous studies showed that older EIP service users differed regarding service use needs, referral route, and duration of untreated psychosis potentially accounting for differences in receipt of care and indicating a lack of tailored interventions provided to older age groups (Clay et al., 2018; O'Driscoll et al., 2021; Thakrar et al., 2022). Our study also found greater odds of receiving family intervention among people younger than 26. Young people might live at home or near their parents, facilitating their involvement in care. Lastly, we found lower odds of receiving psychological interventions among people who were not in work, education, or training compared with those who were. Service users who are not in occupation at first presentation may experience more severe symptoms, lower general functioning, and longer duration of untreated psychosis (Turner et al., 2009). This might hinder engagement in work/education and care (Leclerc et al., 2015), and they might be perceived as being less able to accept interventions.

4.5. Implications for research and practice

Our results highlight that, at a national level, most minoritized ethnic groups are offered and receive psychological interventions in EIP services less often than White British people. Co-produced, qualitative studies including staff and service users are needed to shed light on the underlying reasons for inequalities in care across different ethnic group and on approaches to addressing these. The finding of marked differences in offers and receipt of therapies makes addressing the question of why people from minoritized backgrounds are less likely to be offered therapy especially pressing. Further investigation is also indicated to understand differences between teams, including area-level factors such as deprivation, ethnic density,

and urbanicity, and service factors, such as ethnic diversity among service users and staff of teams, or leadership and organisational context in teams.

Mandating inequalities strategies as part of routine EIP care might reduce ethnic inequalities in care. However, we found receipt, but not offer, of CBTp and either intervention to be higher in EIP teams which reported to have an inequalities strategy in place. Thus, existence of strategies might be an indicator of ethnic diversity of cases and service resources and/or of greater cultural competency of staff, rather than impacting on offer of care. More research is needed on the type and implementation of strategies addressing inequalities in receipt and offer of care. For instance, South London and Maudsely (SLaM) trust has a Patient and Carer Race Equality Framework (PCREF) taskforce, which was formed to address longstanding ethnic inequalities in care (NHS England, n.d.; South London and Maudsley NHS Foundation Trust, n.d.).

Lastly, more evidence is needed on inequalities in other NICE mandated treatments, including education and employment support, physical health monitoring and interventions, carer education and support, and prescribing of antipsychotic medication with lack of UK nation-wide evidence using fine-grained ethnic groups (Puyat et al., 2013; Ventura et al., 2022).

Box 1 presents an independent commentary on the findings and implications of our study written by two Mental Health Policy Research Unit Lived Experience Researchers (one being a co-author of the study) who have experiences of living with and/or supporting others with mental health problems.

Box 1: Lived experience commentary written by Lizzie Mitchell and Karen Persaud*

Crucial to improving mental health service provision is tackling the persistent and wide-ranging inequalities faced by minoritized groups when accessing psychological support. With NICE guidelines recommending CBTp as a first line of intervention for psychosis and mandating access to equitable care, this study found the probability of receiving CBTp was lower among patients who were non-white, male, not in work or education, and below 26 and above 45-years-old. These findings are saddening, but also not surprising. Those of us who have used services are aware of the challenges and hurdles faced when advocating for yourself or a loved one, which can be silenced when being instantly judged on characteristics such as socioeconomic background, culture, race, age, or gender. These factors should be accepted, understood, and integrated to form a holistic treatment plan, but instead can result in being tarnished with judgement, assumptions, and

unconscious biases.

The impacts of this are widespread: Patients simply being offered medication creates dependency on the system, which perpetuates the "revolving door" of being in and out of institutions. Absence of access to the right psychological intervention means patients and their carers do not benefit from an improved understanding of the illness and how to manage it, resulting in poorer mental and physical health outcomes and lower quality of life. For people declining treatment, the long-standing historical factors of consistent bias, coercion, distrust, miscommunication, misunderstanding, and lack of cultural awareness can create a barrier to willingly access services and meaningful engagement.

To close this inequalities gap, several pieces of recent research have found the need for culturally aware and responsive services, yet there seems to be a reluctancy to put this into practise. Qualitative or longitudinal studies exploring people's experiences of being declined psychological support could be useful in exploring the reasons behind, and impact, of these statistics further. Further investigation into community and cultural resources being used would help to build resources for trusts and services seeking to redress inequalities. We need to clearly identify the underlying reasons for inequalities in order to find solutions to remove this imbalance and provide people with the care they deserve.

"All human beings are born free and equal in dignity and rights" is the first declaration in the United Nations Declaration of Human Rights, and a long overdue cultural change within the mental health system is needed to reflect this.

*The authors of the commentary consent to its publication alongside the study. There are no copyright issues.

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Data Sharing Statement

The data employed in this study are from the NCAP reports and cannot be shared by authors due privacy or ethical restrictions.

Declaration of Interests

MS: No conflicts of interests to declare.
NR: No conflicts of interests to declare.
LSR: No conflicts of interests to declare.
HB: No conflicts of interests to declare.
ARG: No conflicts of interests to declare.
PN: No conflicts of interests to declare.
KP: No conflicts of interests to declare.
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JBK: No conflicts of interests to declare.
SJ: No conflicts of interests to declare.

Table 1: Sociodemographic characteristics and ethnicities, by receipt of CBTp, family intervention, and either intervention

Characteristics	Full sample	CBTp				Family Intervention				Either Intervention			
		Not received	Received			Not received	Received			Not received	Received		
	N (100%)	*N* (%)	*N* (%)	x^2 (df)	p(x^2)	*N* (%)	*N* (%)	x^2 (df)	p(x^2)	*N* (%)	*N* (%)	x^2 (df)	p(x^2)
Total		15,583 (52.6)	14,027 (47.4)			23,339 (78.8)	6,271 (21.2)			13,280 (44.9)	16,330 (55.2)	143.1 (2)	
Gender				204.6 (2)	<0.001			0.2 (2)	0.902				<0.001
Male	18,242	10,198 (55.9)	8,044 (44.1)			14,367 (78.8)	3,875 (21.2)			8,677 (47.6)	9,565 (52.4)		
Female	11,338	5,371 (47.4)	5,967 (52.6)			8,949 (78.9)	2,389 (21.1)			4,594 (40.5)	6,744 (59.5)		
Other	30	14 (46.7)	16 (53.3)			23 (76.7)	7 (23.3)			9 (30.0)	21 (70.0)		
Age				7.6 (4)	0.109			331.6 (4)	<0.001			53.4 (4)	<0.001
<26 years	10,138	5,348 (52.8)	4,790 (47.3)			7,428 (73.3)	2,710 (26.7)			4,318 (42.6)	5,820 (57.4)		
26-35 years	10,480	5,478 (52.3)	5,002 (47.7)			8,396 (80.1)	2,084 (19.9)			4,705 (44.9)	5,775 (55.1)		
36-45 years	4,732	2,468 (52.2)	2,264 (47.8)			3,906 (82.5)	826 (17.5)			2,188 (46.2)	2,544 (53.8)		
46-55 years	2,756	1,448 (52.5)	1,308 (47.5)			2,304 (83.6)	452 (16.4)			1,304 (47.3)	1,452 (52.7)		
56-66 years	1,504	841 (55.9)	663 (44.1)			1,305 (86.8)	199 (13.2)			765 (50.9)	739 (49.1)		
Occupational status				366.2 (1)	<0.001			148.4 (1)	<0.001			346.0 (1)	<0.001
In work, education, or training	11,798	5,404 (45.8)	6,394 (54.2)			8,880 (75.3)	2,918 (24.7)			4,512 (38.2)	7,286 (61.8)		
Not in work, education, or training	17,812	10,179 (57.2)	7,633 (42.9)			14,459 (81.2)	3,353 (18.8)			8,768 (49.2)	9,044 (50.8)		
Support from family member, friend, or carer				35.2 (2)	<0.001			1.2	<0.001			263.1	<0.001
Yes	21,648	11,175 (51.6)	10,473 (48.4)			15,990 (73.9)	5,658 (26.1)			9,097 (42.0)	12,551 (58.0)		
Yes, but no contact or involvement wished	3,374	1,833 (54.3)	1,541 (45.7)			3,104 (92.0)	270 (8.0)			1,735 (51.4)	1,639 (48.6)		
No	4,588	2,575 (56.1)	2,013 (43.9)			4,245 (92.5)	343 (7.5)			2,448 (53.4)	2,140 (46.6)		
Ethnicity				148.6 (16)	<0.001			92.9 (16)	<0.001			198.7 (16)	<0.001
White British	17,155	8,565 (49.9)	8,590 (50.1)			13,297 (77.5)	3,858 (22.5)			7,168 (41.8)	9,987 (58.2)		
White Irish	161	91 (56.5)	70 (43.5)			127 (78.9)	34 (21.1)			81 (50.3)	80 (49.7)		
Any other White background	1,863	1,010 (54.2)	853 (45.8)			1,486 (79.8)	377 (20.2)			864 (46.4)	999 (53.6)		
Black African	2,074	1,153 (55.6)	921 (44.4)			1,693 (81.6)	381 (18.4)			1,016 (49.0)	1,058 (51.0)		
Black Caribbean	917	515 (56.2)	402 (43.8)			749 (81.7)	168 (18.3)			459 (50.1)	458 (50.0)		

Mixed Black African-White	187	97 (51.9)	90 (48.1)	139 (74.3)	48 (25.7)		81 (43.3)	106 (56.7)
Mixed Black Caribbean-White	372	190 (51.1)	182 (48.9)	294 (79.0)	78 (21.0)		165 (44.4)	207 (55.7)
Any other Black background	639	356 (55.7)	283 (44.3)	515 (80.6)	124 (19.4)		310 (48.5)	329 (51.5)
Bangladeshi	591	361 (61.1)	230 (38.9)	463 (78.3)	128 (21.7)		301 (50.9)	290 (49.1)
Indian	709	394 (55.6)	315 (44.4)	541 (76.3)	168 (23.7)		325 (45.8)	384 (54.2)
Pakistani	1,349	802 (59.5)	547 (40.6)	1,114 (82.6)	235 (17.4)		706 (52.3)	643 (47.7)
Chinese	119	68 (57.1)	51 (42.9)	89 (74.8)	30 (25.2)		57 (47.9)	62 (52.1)
Mixed Asian-White	195	99 (50.8)	96 (49.2)	137 (70.3)	58 (29.7)		76 (39.0)	119 (61.0)
Any other Asian background	969	552 (57.0)	417 (43.0)	771 (79.6)	198 (20.4)		478 (49.3)	491 (50.7)
Any other Mixed background	450	238 (52.9)	212 (47.1)	360 (80.0)	90 (20.0)		206 (45.8)	244 (54.2)
Any other ethnic background	801	469 (58.6)	332 (41.5)	665 (83.0)	136 (17.0)		422 (52.7)	379 (47.3)
Unknown or refused	1,059	623 (58.8)	436 (41.2)	899 (84.9)	160 (15.1)		565 (53.4)	494 (46.7)

Table 2: Association between ethnicities and receipt of CBTp, family intervention, and either intervention

	CBTp			**Family intervention**			**Either intervention**		
	OR[1] (95%CI:)	aOR[2] (95%CI:)	LRT (p)	OR[1] (95%CI:)	aOR[2] (95%CI:)	LRT (p)	OR[1] (95%CI:)	aOR[2] (95%CI:)	LRT (p)
Fixed Effects									
Ethnicity			<0.001			<0.001			<0.001
White British	1	1		1	1		1	1	
White Irish	**0.65 (0.47-0.91)**	**0.68 (0.49-0.95)**		0.88 (0.59-1.31)	0.92 (0.61-1.38)		**0.61 (0.44-0.84)**	**0.63 (0.45-0.88)**	
Any other White background	**0.65 (0.58-0.72)**	**0.61 (0.55-0.68)**		**0.75 (0.66-0.86)**	**0.73 (0.64-0.84)**		**0.66 (0.59-0.73)**	**0.62 (0.55-0.69)**	
Black African	**0.55 (0.50-0.61)**	**0.53 (0.47-0.59)**		**0.65 (0.57-0.75)**	**0.61 (0.53-0.69)**		**0.55 (0.49-0.61)**	**0.52 (0.46-0.57)**	
Black Caribbean	**0.59 (0.50-0.68)**	**0.59 (0.51-0.69)**		**0.68 (0.57-0.83)**	**0.67 (0.56-0.81)**		**0.57 (0.49-0.66)**	**0.57 (0.49-0.66)**	
Mixed Black African-White	0.77 (0.57-1.05)	0.76 (0.55-1.03)		1.04 (0.73-1.49)	0.91 (0.63-1.30)		0.82 (0.60-1.11)	0.77 (0.56-1.05)	
Mixed Black Caribbean-White	**0.78 (0.63-0.98)**	**0.80 (0.64-1.00)**		0.86 (0.65-1.13)	0.79 (0.60-1.04)		**0.78 (0.63-0.98)**	**0.77 (0.61-0.96)**	
Any other Black background	**0.56 (0.47-0.66)**	**0.55 (0.46-0.65)**		**0.68 (0.55-0.85)**	**0.63 (0.51-0.79)**		**0.55 (0.47-0.66)**	**0.54 (0.45-0.64)**	
Bangladeshi	**0.41 (0.34-0.50)**	**0.39 (0.32-0.47)**		0.99 (0.78-1.25)	0.91 (0.72-1.15)		**0.51 (0.42-0.61)**	**0.47 (0.39-0.57)**	
Indian	**0.66 (0.56-0.78)**	**0.62 (0.53-0.74)**		1.20 (0.99-1.46)	1.20 (0.98-1.46)		**0.79 (0.67-0.94)**	**0.76 (0.64-0.90)**	
Pakistani	**0.56 (0.49-0.64)**	**0.54 (0.48-0.62)**		0.90 (0.76-1.06)	0.86 (0.73-1.01)		**0.60 (0.53-0.69)**	**0.58 (0.51-0.66)**	
Chinese	**0.59 (0.40-0.87)**	**0.52 (0.35-0.77)**		1.00 (0.64-1.56)	1.04 (0.66-1.63)		**0.64 (0.43-0.94)**	**0.58 (0.39-0.85)**	
Mixed Asian-White	0.87 (0.65-1.18)	0.84 (0.62-1.14)		1.34 (0.96-1.87)	1.15 (0.82-1.62)		1.02 (0.75-1.38)	0.94 (0.69-1.28)	

Any other Asian background	**0.60 (0.52-0.69)**	**0.58 (0.51-0.67)**		0.89 (0.75-1.06)	0.86 (0.72-1.02)		**0.63 (0.55-0.73)**	**0.61 (0.53-0.70)**	
Any other mixed background	**0.76 (0.62-0.93)**	**0.72 (0.59-0.89)**		0.83 (0.65-1.07)	**0.74 (0.57-0.95)**		**0.75 (0.62-0.92)**	**0.70 (0.57-0.86)**	
Any other ethnic background	**0.57 (0.49-0.67)**	**0.57 (0.49-0.67)**		**0.67 (0.55-0.83)**	**0.66 (0.54-0.81)**		**0.55 (0.47-0.64)**	**0.55 (0.47-0.64)**	
Unknown or refused	**0.69 (0.60-0.80)**	**0.68 (0.59-0.79)**		0.84 (0.69-1.02)	0.80 (0.66-0.98)		**0.69 (0.60-0.80)**	**0.67 (0.58-0.78)**	
Gender			<0.001			=0.89			<0.001
Female	1.42 (1.35-1.49)	**1.42 (1.35-1.50)**		1.01 (0.95-1.07)	**1.09 (1.02-1.16)**		**1.35 (1.28-1.41)**	**1.39 (1.32-1.46)**	
Other	1.71 (0.81-3.64)	1.61 (0.76-3.44)		1.25 (0.49-3.17)	1.02 (0.40-2.61)		**2.66 (1.17-6.05)**	**2.36 (1.03-5.40)**	
Male	1	1			1		1	1	
Age			<0.001			<0.001			<0.001
<26	0.97 (0.92-1.03)	**0.91 (0.86-0.97)**		**1.56 (1.46-1.68)**	**1.51 (1.41-1.62)**		**1.11 (1.05-1.18)**	1.05 (0.99-1.11)	
26-35	1	1		1	1		1	1	
36-45	0.99 (0.92-1.06)	0.96 (0.89-1.04)		**0.80 (0.73-0.88)**	**0.79 (0.72-0.87)**		**0.91 (0.85-0.98)**	**0.88 (0.82-0.95)**	
46-55	0.96 (0.87-1.05)	**0.86 (0.79-0.95)**		**0.72 (0.64-0.81)**	**0.70 (0.62-0.79)**		**0.85 (0.78-0.94)**	**0.77 (0.71-0.85)**	
56-66	**0.86 (0.77-0.97)**	**0.75 (0.66-0.84)**		**0.54 (0.45-0.63)**	**0.51 (0.43-0.60)**		**0.75 (0.67-0.84)**	**0.65 (0.58-0.74)**	
Occupational status			<0.001			<0.001			<0.001
In work, education, or training	**1.64 (1.56-1.72)**	**1.63 (1.55-1.72)**		**1.44 (1.36-1.53)**	**1.33 (1.25-1.42)**		**1.62 (1.54-1.71)**	**1.58 (1.50-1.66)**	
Not in work, education, or training	**1**	1		1	1		1	1	
Caseload size of care coordinators[3]	**0.98 (0.97-1.00)**	0.99 (0.97-1.00)	0.039	0.99 (0.97-1.00)	0.99 (0.97-1.00)	0.12	0.98 (0.97-0.99)	**0.98 (0.97-1.00)**	0.009
Inequalities strategies			0..015			0.49			0.019
Yes	**1.17 (1.02-1.34)**	**1.19 (1.04-1.37)**		1.07 (0.91-1.25)	1.06 (0.90-1.24)		**1.16 (1.02-1.32)**	**1.17 (1.03-1.34)**	
No	1	1		1	1		1	1	
Random Part of the Model			<0.001			<0.001			<0.001
Between EIP team variance									
2018-2019	1	1		1	1		1	1	
2019-2020	**0.30 (0.21-0.44)**	**0.33 (0.23-0.47)**		**0.32 (0.21-0.49)**	**0.33 (0.22-0.51)**		**0.28 (0.19-0.40)**	**0.30 (0.20-0.43)**	
2020-2021	**0.41 (0.29-0.59)**	**0.44 (0.31-0.63)**		0.74 (0.53-1.04)	0.77 (0.55-1.07)		**0.40 (0.28-0.57)**	**0.42 (0.30-0.60)**	
ICC									
Null model	**0.19 (0.14-0.23)**	**0.19 (0.14-0.23)**		**0.25 (0.20-0.30)**	**0.25 (0.20-0.30)**		**0.16 (0.13-0.20)**	**0.16 (0.13-0.20)**	
Unadjusted[4] / adjusted models	**0.20 (0.16-0.25)**	**0.21 (0.16-0.26)**		**0.25 (0.20-0.31)**	**0.25 (0.21-0.31)**		**0.17 (0.14-0.22)**	**0.18 (0.14-0.22)**	

OR: Odds ratio; 95%CI: 95% confidence interval. P-values (p<0.05) in bold.

[1]Univariable regression analyses including the outcome and random effects.

[2]Full adjusted model including fixed effects for ethnicity, gender, age, occupational status, caseload size of care coordinators, and inequalities strategies, and random effects for EIP teams and year of data collection.

[3]Caseload size is scaled as the odds associated with one extra patient per care coordinator (i.e., increased caseload size of care coordinators is associated with lower odds of receipt of either psychological intervention).

[4]ICC reported from an unadjusted model including ethnicity as the single covariate.

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Declaration of Interests

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Authors have no conflicts of interests to declare.

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