

A smaller piece of the psychology pie: how equitable is the service provision within the Medical Speciality team of the Mid Yorkshire Hospitals Clinical Health Psychology department?

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## Introduction

### Literature review

#### Long-term conditions and mental health

Approximately 15 million English people (30% of the population) have a long-term physical health condition (The King's Fund, 2012, 2021). These are defined as "conditions for which there is currently no cure, and which are managed with drugs and other treatment" (The King's Fund, 2021, para. 1) e.g., diabetes, heart diseases and respiratory conditions.

Alongside their physical health condition, this group are 2-3 times more likely than the general population to suffer mental health (MH) difficulties, including depression and anxiety, which impact their wellbeing and prognosis (National Institute for Health and Care Excellence [NICE], 2009; The King's Fund, 2012). MH difficulties are the leading cause of disability in the UK and a leading contributor to disease burden (Department of Health [DOH], 2011b). Such difficulties have a substantial cost directly for funding of National Health Service (NHS) resources, and indirectly through impacting employment, productivity and family members (The King's Fund, 2012).

To improve quality of care for people with long-term conditions, there is growing recognition of the connection between physical and mental wellbeing (DOH, 2011a), and prioritisation of developing integrated services for clinical commissioning groups (The King's Fund, 2015) and the NHS (NHS, 2014). Delayed support for, or not addressing MH difficulties reduces quality of life; physical, social and occupational functioning; and life-expectancy (Harwood et al., 2021). Therefore, it is crucial that both physical and mental wellbeing are managed. Clinical health psychology services can support individuals with physical health conditions e.g., with adjustment, adherence to treatment and pain management (American Psychological Association, 2008).

#### Health inequality

An individual's health and life expectancy is influenced by their social position (education level, employment status), gender, ethnicity (World Health Organisation, 2018), and socio-economic status; factors which also impact their view and use of health services (NHS, 2015). Health inequality is defined as "systematic differences in the health status of different population groups" which "have significant social and economic costs both to individuals and societies"

(WHO, 2018, para. 2). It is avoidable, unjust, and often caused by systematic factors beyond the individual's control (The King's Fund, 2020).

In line with the Equality Act (2010) and the NHS Act (2006), the NHS values equality, and aims to reduce health inequality (NHS, 2015). Following the exacerbating impact of coronavirus on existing health inequality, the British Psychological Society (2020) also acknowledge their responsibility towards this. When addressing health inequality, health outcomes, accessibility and quality of care provided should be considered (WHO, 2010). The NHS (2014) Five Year Forward View highlighted addressing the health gap as a priority.

One factor which determines health inequality is ethnicity. Over the last 20 years, England's ethnic diversity has increased, with people from cultures different from the national majority culture (PCDNMC) contributing to a larger percentage of the population (NICE, 2018). In 2011, 86% of the population in England and Wales were identified as White, 8% as Asian / British Asian and 3% as Black/African/Caribbean/Black British (ONS, 2011b). The WHO (2010) highlighted significantly poorer health outcomes for migrant and ethnic minority populations compared to those of the national majority culture, for both physical and MH conditions. Research has found that health inequalities exist for PCDNMC, for both pursuing and accessing health and MH services (Cooper et al., 2013; NICE, 2018a; Sizmur & McCulloch, 2016). This is particularly important considering this groups' vulnerability to MH difficulties due to discrimination (Hatch et al., 2016), social inequality and exclusion (Allen, Balfour, Bell, & Marmot, 2014). Health inequality is fuelled by institutional discrimination, which occurs indirectly due to the design of the service evolving to consider the needs of the national majority culture; and requiring adaptation to offer good quality, accessible and optimised services which meet the needs of PCDNMC (WHO, 2010). NICE (2018b) highlights the need for promoting the voice of PCDNMC in health services, and gives recommendations for the design, planning and delivery of such services (NICE, 2018a; 2018b).

A recent, large study examined the variation in referral to, and use of, Improving Access to Psychological Therapies (IAPT) services based on ethnicity (Harwood et al., 2021). Harwood et al. (2021) found that PCDNMC were less likely than White British individuals to self-refer to IAPT and to be offered a service (either assessment or treatment); resulting in discharge, attrition, or referral elsewhere. This highlights barriers for PCDNMC in accessing IAPT throughout the process, and highlights unmet MH needs within these groups (King's College

London, 2021). However, it is important to note study limitations relating to recording accuracy (high levels of missing data), and poor generalisability (due to the sample).

Barriers to access and use of healthcare services for PCDNMC can be at an individual, service and systemic level (Scheppers, van Dongen, Dekker, Geertzen, & Dekker, 2006). Harwood et al. (2021) suggest such barriers are experienced due to reduced help-seeking; cultural beliefs surrounding MH e.g., its severity, cause, and treatability; and mistrust of healthcare services due to previous experiences of discrimination and cultural insensitivity. Language barriers, stigma and practical barriers (such as cost) also play a role (WHO, 2010).

Additionally, intersectionality with other protected characteristics such as age, sexuality, gender, socio-economic status, and disability further exacerbate health inequalities (Centre for Mental Health, 2020; Jayaweera, 2018; Public Health England, 2018; Raghavan, 2009).

### [Rationale for SEP and commissioning](#)

This service evaluation project (SEP) was commissioned by Dr Kathryn Palmer, a Clinical Psychologist working within the Medical Speciality team of the Mid Yorkshire Hospitals Clinical Health Psychology (MYHCHP) service. The team is one of nine specialities within the department, serving the Wakefield and Kirklees areas. They receive referrals from medical health professionals, for outpatients who require psychological support alongside their physical healthcare. They provide assessment and treatment for patients, carers and family members experiencing physical and MH difficulties, e.g., difficulties with adjustment, treatment adherence, managing their symptoms, depression, anxiety, self-esteem, and relationships. Once referred, the patient is invited to opt-in to psychology.

The MYHCHP department have been considering the impact of ethnicity on access to and use of their psychology services. Anecdotally, they know the team is situated in a diverse area, however caseloads do not appear to reflect this. To think about this further, the department has set up a regular minority and marginalisation working group and have rolled out an anti-racism training package. This SEP was commissioned as part of their ongoing equity, diversity, and inclusion agenda, to better understand the equitability and

accessibility of the service. It is hoped that this SEP will help direct further service developments to ensure accessible interventions that meet population needs are offered.

## Aims

Using existing, routinely collected data, this SEP aims to describe and compare the population of people who are referred to the Medical Speciality team of the MYHCHP service, and how they move through the process. Specifically, it aims to:

- analyse referral data to evaluate whether the Medical Speciality team offers an equal service to all members of the local population, or whether there is variance in service provision dependent on demographic data (ethnicity, first language spoken)
- highlight whether the service is meeting the needs of the populations it works within, by comparing to local demographics, to ensure accessible interventions are being offered
- highlight problems relating to intersectionality if indicated
- and if possible, also analyse referral data relating to age and gender

## Method

### Design

As we hope to gain insight into the service provided to patients accessing the service based on their demographic data (ethnicity, first language spoken, age, gender), and the accessibility of this for the local population, a quantitative design was selected. This allows for analysis of a large data set and use of descriptive statistics and statistical tests for difference will be helpful to address the SEP aims.

### Procedure

Information for referrals is routinely collected and inputted into SystemOne (patient record database) by the MYHCHP team. Information collected for the SEP included: age, ethnicity, language spoken, sex, discharge date, referral date, and intervention type. The data collected covered 2 years of referrals into the service, from 1<sup>st</sup> April 2019 to 31<sup>st</sup> March 2021. It was agreed this would be a sufficient period to explore the patterns within the referral and pathway data. To consider accessibility, and whether the service is meeting the

needs of the local population, data from the 2011 National Census was used for comparison (Office for National Statistics [ONS], 2011a).

### Ethical considerations

As this SEP uses routinely collected, existing data, the risks are minimal, and consent is not required. No personally identifiable information was collected, and data was anonymised prior to my access, extracted into an excel file, and sent securely via email. The University of Leeds Ethics Policy was fully adhered to, and the anonymised data was stored in-line with the University Information Protection Policy, on the M: Drive.

Prior to accessing the data, ethical approval was sought from the University of Leeds' School of Medicine Doctorate of Clinical Psychology (DClin) Research Ethics Committee. This was granted on 11<sup>th</sup> June 2021. See Appendix 1 for the approval email.

### Data management

The raw data was first cleaned and coded to create the final data set for analysis. This included collapsing ethnic groups; collapsing intervention categories; removing repeat referrals; and transforming the age data into deciles. All collapsing decisions and assumptions were discussed with and agreed by the commissioner and supervisor of the SEP.

### Ethnic groups

Ethnicity has been recorded in different ways over time (e.g., based on categories from the 2001 or 2011 census), and therefore, to ensure the data was suitable for analysis, I was required to make assumptions which unified these categories. New categories were based on those listed in the 2011 census, to facilitate comparison to the local population data, and used to generate descriptive statistics.

Due to small numbers of patients within some of the categories, for statistical tests of difference, these categories were further collapsed to White British and PCDNMC. At this point, those whose ethnicity was not specified were removed from the analysis.

See Appendix 2 for details on original and collapsed ethnic groups.



### Intervention categories

Due to the small numbers within some categories, and to facilitate meaningful analysis, intervention categories were also collapsed. For example, 'did not opt in' and 'discharge unseen' were combined as both categories included those who had chosen not to engage.

To ensure further analysis was useful, including statistical tests for difference, it was necessary to further collapse the intervention categories to 'completed', 'did not opt in', 'dropped out', 'ongoing', 'inappropriate' and 'other'.

See Appendix 2 for details on original and collapsed intervention categories.

### Repeat referrals

As the SEP aims to compare service provision for people with different demographic characteristics, analysis is focused on individuals rather than episodes of care (preventing double counting outcomes for individuals). Due to some referrals having the same demographics, I have assumed these referrals relate to the same individual. This is further supported by patterns of discharge and re-referral dates which indicate one episode of care (i.e., where for one referral an assessment is completed and then shortly after another referral is made for intervention). Therefore, in the analysis, only the final episode of care was included for individuals who had been referred multiple times.

See Appendix 2 for details on the exclusion of repeat referrals.

### Age

To conduct analysis, age was categorised into deciles. See Appendix 2.

### Data analysis

Data was stored and analysed using Microsoft Excel, including the use of Pivot Tables and statistical tests. SPSS was considered for analysis; however, the data and analysis ultimately did not require this. Analysis included use of descriptive statistics to compare referral demographics to the local population, using the National Census data from 2011 (ONS, 2011a). Descriptive statistics also gave an overview of patients' journeys through the service based on demographic characteristics, including whether the referral was accepted, whether they opted in or dropped out, and the intervention received. Collapsed data (as

described above) was then used to explore differences between groups, using a chi-square statistical test.

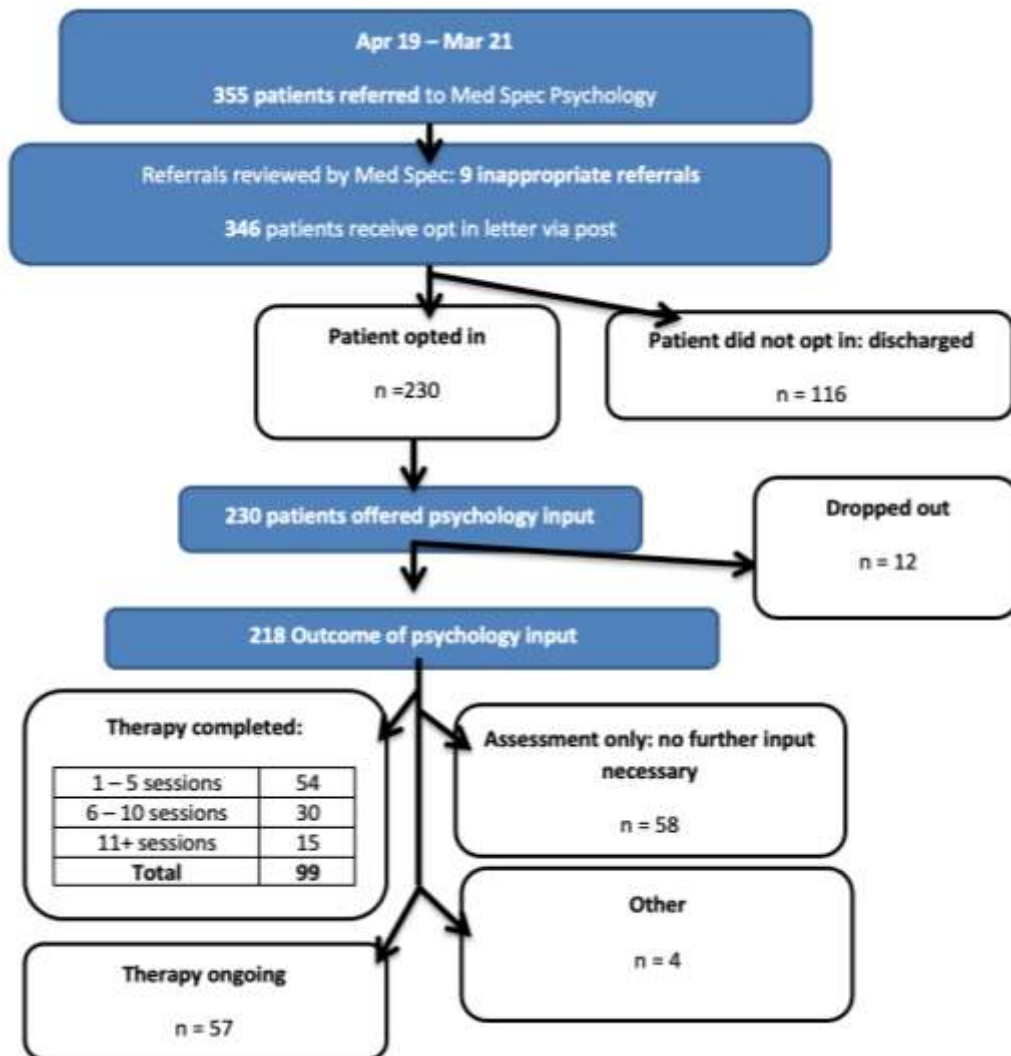
## Results

### Sample

401 referrals were made to the Medical Speciality team between 1<sup>st</sup> April 2019 and 21<sup>st</sup> March 2021. 46 were removed from the analysis as they appeared to be repeat referrals for the same individual (as described above). Analysis was completed on the remaining 355 referrals. Of these, 9 were considered inappropriate, and 116 did not opt in. Of the 230 who opted in, 12 dropped out, 99 completed therapy, 58 completed an assessment only, 57 remain in therapy, and 4 were categorised as other. The most common length of completed therapy was 1-5 sessions. Figure 1 depicts the flow of referrals through the service.

**Figure 1**

*Flow of referrals through the Medical Speciality service*



### Ethnicity demographic

#### Descriptive data

As shown in Figure 2 below, the ethnic groups most represented in the sample were White British (84%), Pakistani / British Pakistani (5%), and Indian / British Indian (3%). There were 19 referrals (5%) whose ethnicity was not specified. Other ethnic groups represented  $\leq 1\%$  of the sample each. Therefore, results should be interpreted with caution, and will largely focus on White British, Pakistani / British Pakistani, and Indian / British Indian.

### *Comparison to 2011 National Census data*

To consider the accessibility of the service, and whether it is meeting the needs of the local population, referral data was compared to the 2011 National Census for ethnicity (ONS, 2011a). Table 1 depicts the percentages of ethnic groups in the areas served by the Medical Speciality team. Though there is a difference between the areas, for example 76.7% and 92.8% of the population being White British in Kirklees and Wakefield respectively, for the purpose of the analysis I will assume people are equally selected and use the mean percentage of the two groups.

**Table 1**

*2011 National Census Ethnic Group data for Wakefield and Kirklees (ONS, 2011a)*

Ethnicity	Kirklees (%)	Wakefield (%)	Mean (%)
White: English/Welsh/Scottish/ Northern Irish/British	76.7	92.8	84.75
White: Irish	0.6	0.3	0.45
White: Gypsy or Irish Traveller	0	0.1	0.05
White: Other White	1.8	2.3	2.05
Mixed/multiple ethnic group: White and Black Caribbean	1.2	0.3	0.75
Mixed/multiple ethnic group: White and Black African	0.2	0.1	0.15
Mixed/multiple ethnic group: White and Asian	0.6	0.3	0.45
Mixed/multiple ethnic group: Other Mixed	0.3	0.2	0.25
Asian/Asian British: Indian	4.9	0.5	2.7
Asian/Asian British: Pakistani	9.9	1.5	5.7
Asian/Asian British: Bangladeshi	0.2	0	0.1

Asian/Asian British: Chinese	0.3	0.3	0.3
Asian/Asian British: Other Asian	0.7	0.4	0.55
Black/African/Caribbean/Black British: African	0.6	0.6	0.6
Black/African/ Caribbean/ Black British: Caribbean	1.1	0.1	0.6
Black/African/ Caribbean/ Black British: Other Black	0.2	0.1	0.15
Other ethnic group: Arab	0.3	0.1	0.2
Other ethnic group: Any other ethnic group	0.4	0.2	0.3

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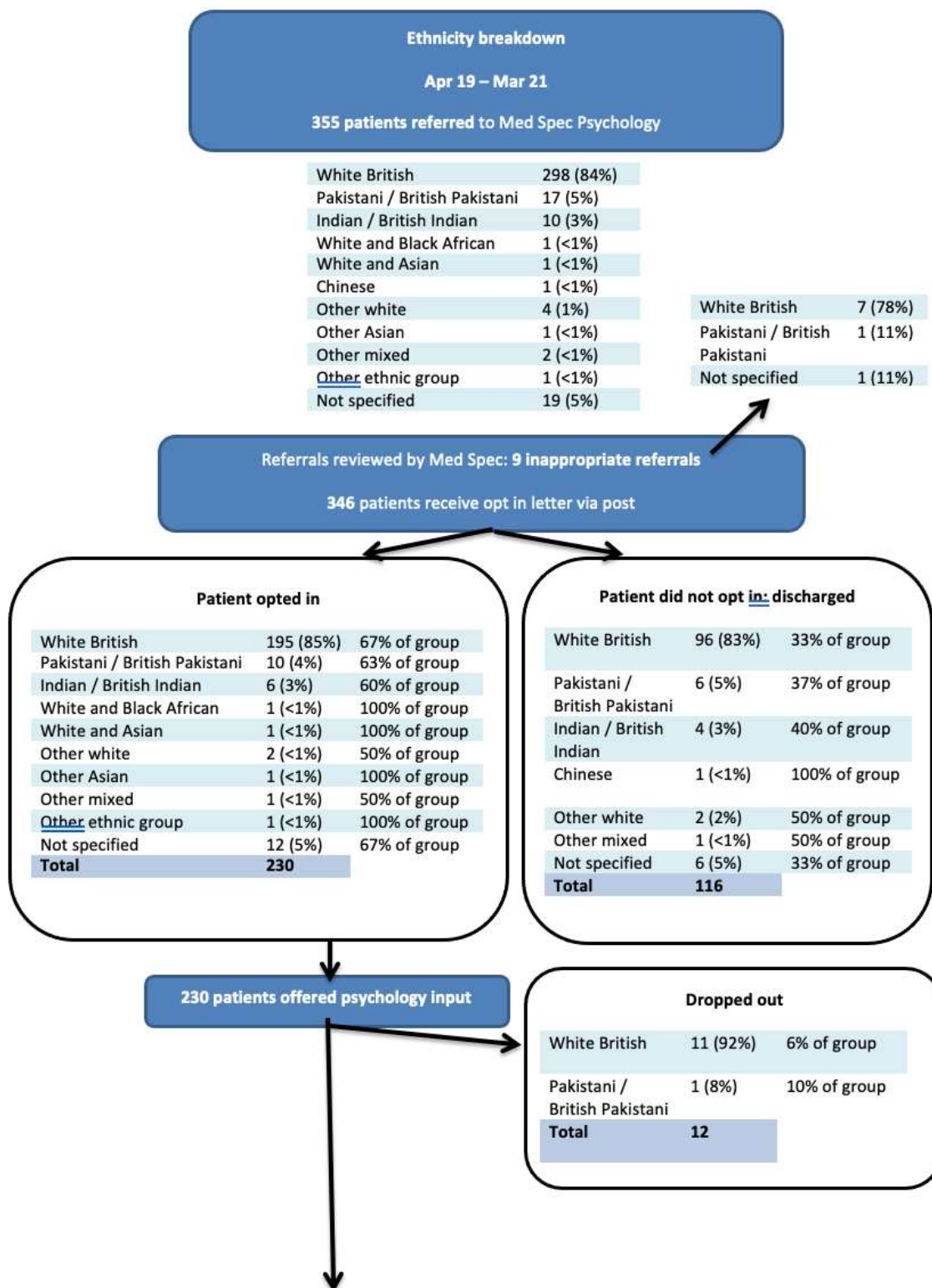
The ethnic groups most represented in the 2011 National Census (ONS, 2011a) were: White British (85%), Pakistani / British Pakistani (6%), and Indian / British Indian (3%). This is comparable to the population referred to the service, as reported above. As the numbers are much smaller for the other ethnicities, I am unable to draw conclusions beyond these groups.

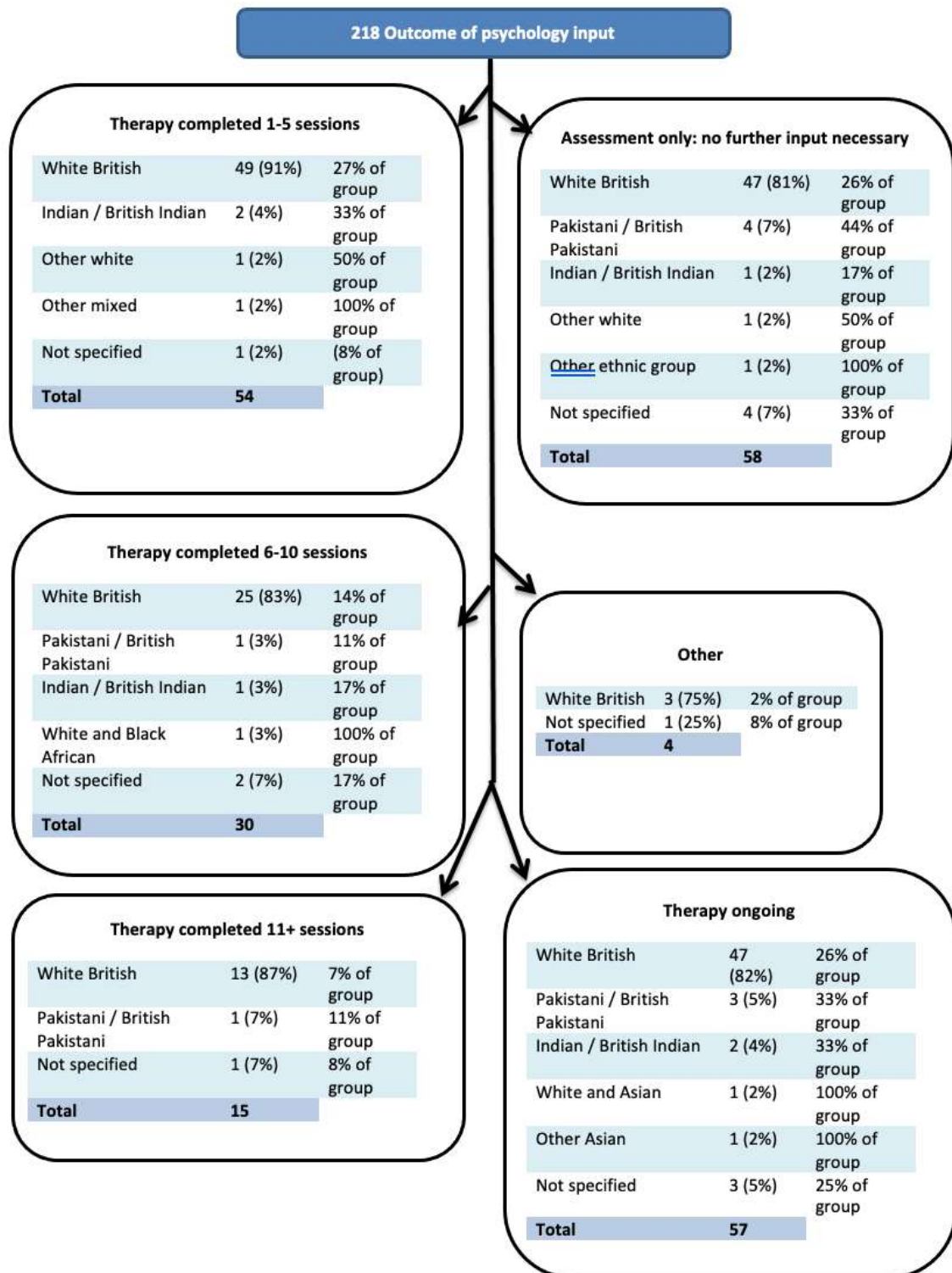
#### *Service provision*

Figure 2 depicts the flow of referrals through the service, based on their ethnicity demographic.

**Figure 2**

*Flow of referrals through the Medical Speciality service, based on ethnicity*





For the three ethnic groups with the highest representation, there appears to be a similar pattern of engagement with the service. The proportion of ethnic groups does not appear to change as they move through the service, and the percentage of each group at each stage is largely equitable (where numbers are large enough to draw meaningful conclusions). For example, at each stage the percentage of White British referrals ranges between 81% and

92% (except for Other where the numbers are small) comparable to 84% of the total sample. Additionally, the number of patients opting in from these primary ethnic groups ranged between 60-67%. However, due to small numbers, interpretation becomes less meaningful towards the bottom of the flow chart.

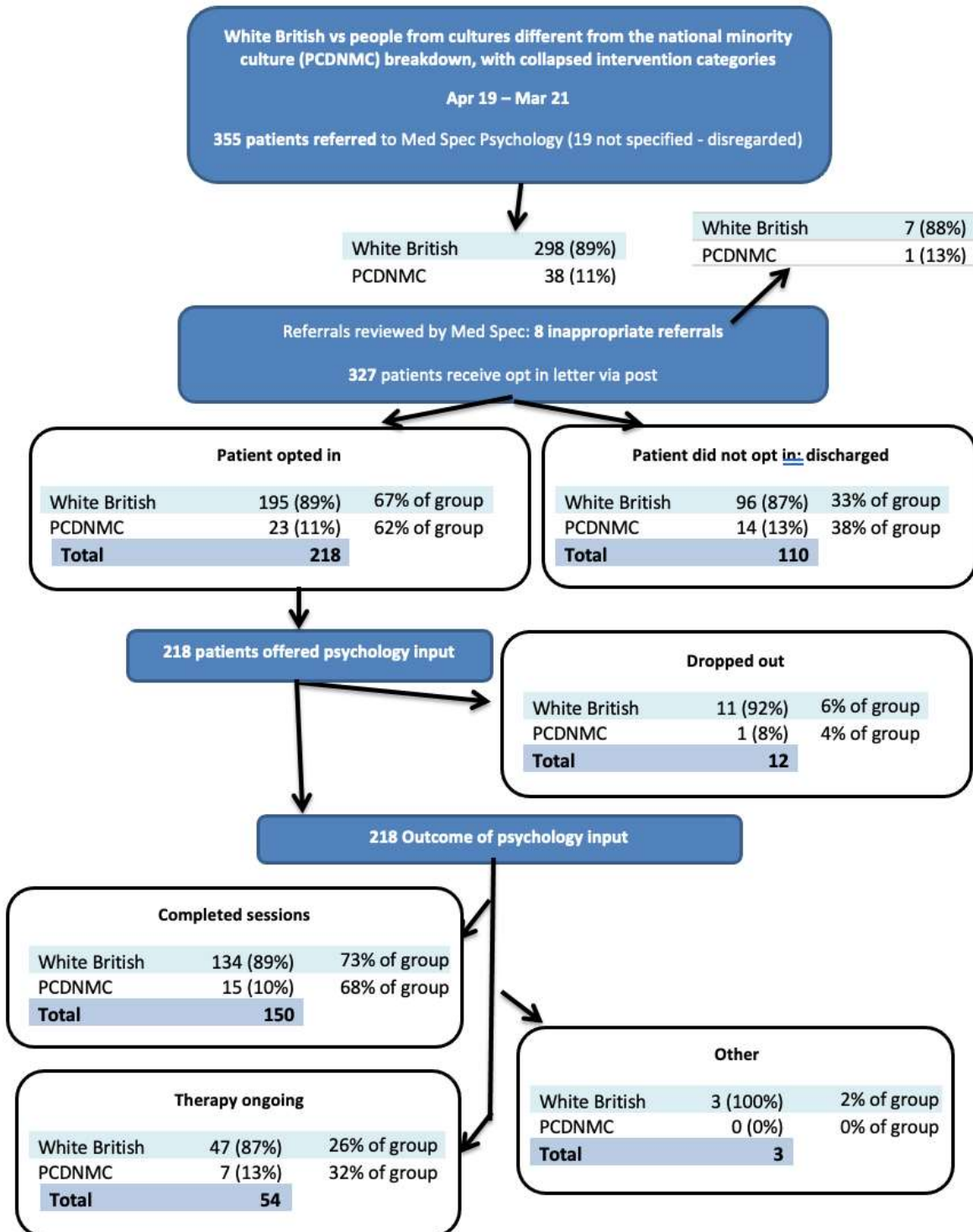
#### Statistical tests for difference

From visual observation of the flow chart, the proportion of ethnic groups does not appear to change as they move through the service. However, due to the small numbers, the ethnicity and intervention groups were further collapsed (as described above) and analysed. Figure 3 depicts the flow of referrals through the service, based on these collapsed categories.



**Figure 3**

*Flow of referrals through the Medical Speciality service, based on collapsed ethnic and intervention groups*



Again, the proportion of ethnic groups does not appear to change as they move through the service, and the percentage of each group at each stage is largely equitable. For example, at each stage the percentage of White British referrals ranges between 87% and 92% (except for Other where the numbers are small) comparable to 89% of the total sample.

Additionally, the number of patients opting in from these ethnic groups ranged between 62-67%. However, due to small numbers, interpretation becomes less meaningful towards the bottom of the flow chart.

Collapsed categories (White British and PCDNMC, and completed, did not opt in, dropped out, ongoing, inappropriate, and other) were also used to explore if there were significant differences between groups, using a chi-square statistical test. Analysis confirmed that service provision did not differ by ethnic group,  $\chi^2 (5, N = 336) = 1.1, p > 0.05$ . See Appendix 3 for the Microsoft Excel output.

Both observation and statistical tests suggest that service provision does not differ by ethnic group, suggesting that if there is a difference between the groups it is not observable with this number of people. However, some of the cell numbers were very low, which undermines trust in the outcome. A Chi-square test assumption is that the expected cells should have a value of  $\geq 5$  in at least 80% of the cells, and none should be  $< 1$  (McHugh, 2013). This was not met. However, given that the outcome of the statistical test matches the observation of the numbers, I have assumed the outcome is correct, and there is no need for further analysis.

### Language Spoken Demographic

Due to limited recording of data and small numbers for most groups, I was unable to complete analysis to explore whether people who speak different first languages receive an equitable service from the Medical Speciality team. See Appendix 4 for a breakdown of the language data recorded.

### Age demographic

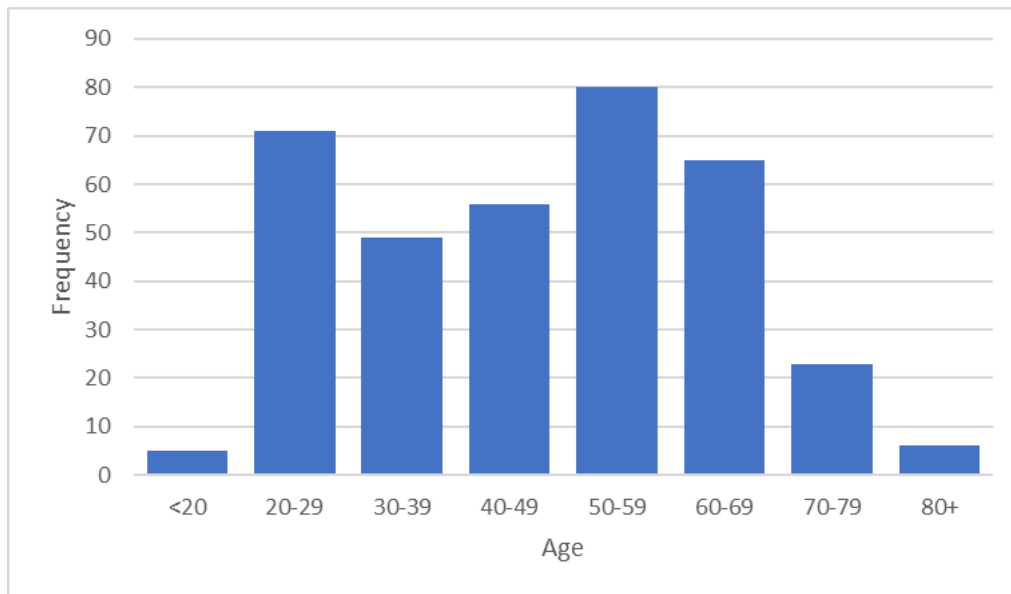
#### Descriptive and frequency data

The most prevalent age group was 50-59 (23%) and the least prevalent was  $< 20$  (1%). Figure 4 depicts the frequency of age categories within the sample. From observation, the high

frequency of patients in their 20's appears interesting considering the overall age distribution.

**Figure 4**

*Sample age category frequencies*

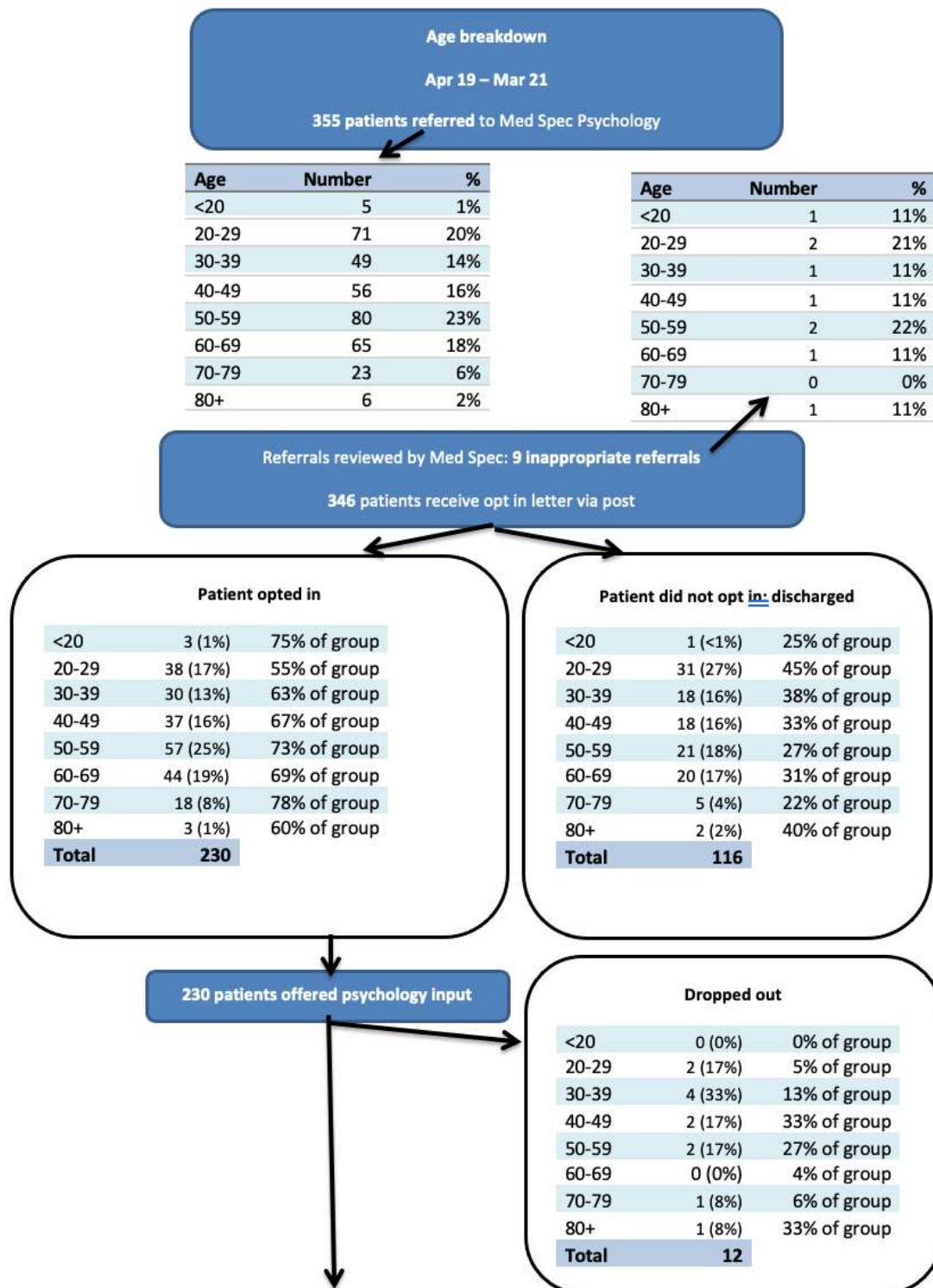


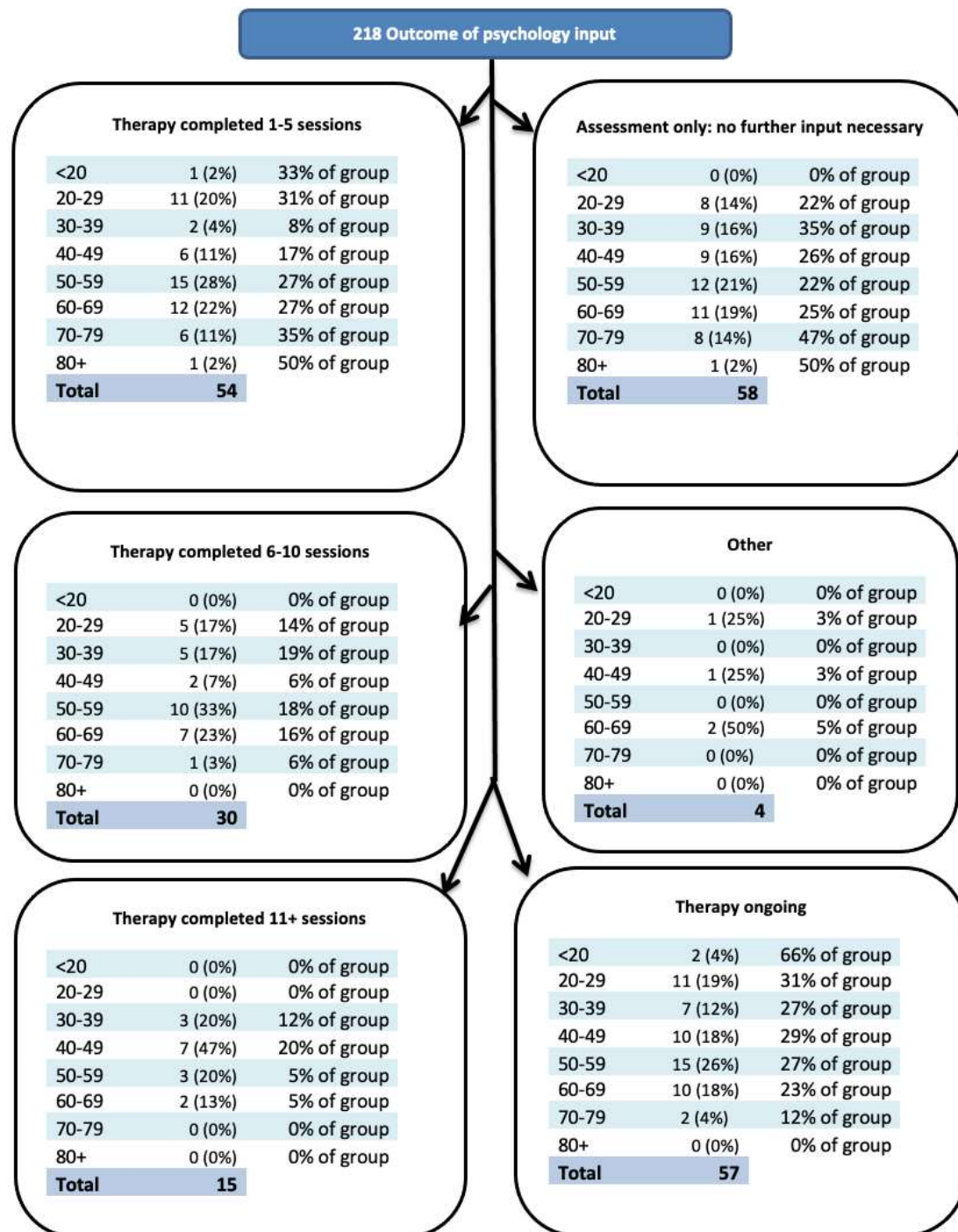
*Service provision*

Figure 5 depicts the flow of referrals through the service, based on their age.

**Figure 5**

*Flow of referrals through the Medical Speciality service, based on age*





Overall, there appears to be a similar pattern of engagement with the service regardless of the patient's age. The proportion of age does not appear to change as they move through the service, and the percentage of each age group at each stage is largely equitable (where numbers are large enough to draw meaningful conclusions).

Of note, is that only 55% of 20–29 year olds opt in to the service, which is comparatively lower than those in other age groups. This is particularly interesting considering this group is potentially over-represented in the overall sample. However, once they have opted in, the service provision for this age group becomes more equitable with the other groups.

Due to small numbers, interpretation becomes less meaningful towards the bottom of the flow chart. It is possible there could be other patterns in the data that might have been observable. However, as I have tracked people through the process with this sample, the numbers reduce quickly and limit further interpretation.

#### Statistical tests for difference

From visual observation of the flow chart, the proportion of age groups does not appear to change as they move through the service. Though there appears to be a dip in opting in for 20-29 year olds, once in the service their experience appears more equitable to the other age groups.

However, due to small numbers collapsed intervention categories were also used to explore if there were significant differences between groups, using a chi-square statistical test. Analysis confirmed that service provision did not differ by age group,  $X^2 (35, N = 355) = 40.6$ ,  $p > 0.05$ . See Appendix 5 for the Microsoft Excel output.

Both observation and statistical tests suggest that service provision does not differ by age group, suggesting that if there is a difference between the groups it is not observable with this number of people. However, this test suffered the same limitations described above.

#### Gender demographic

##### Descriptive data

206 females and 149 males were referred to the service (58% and 42% respectively).

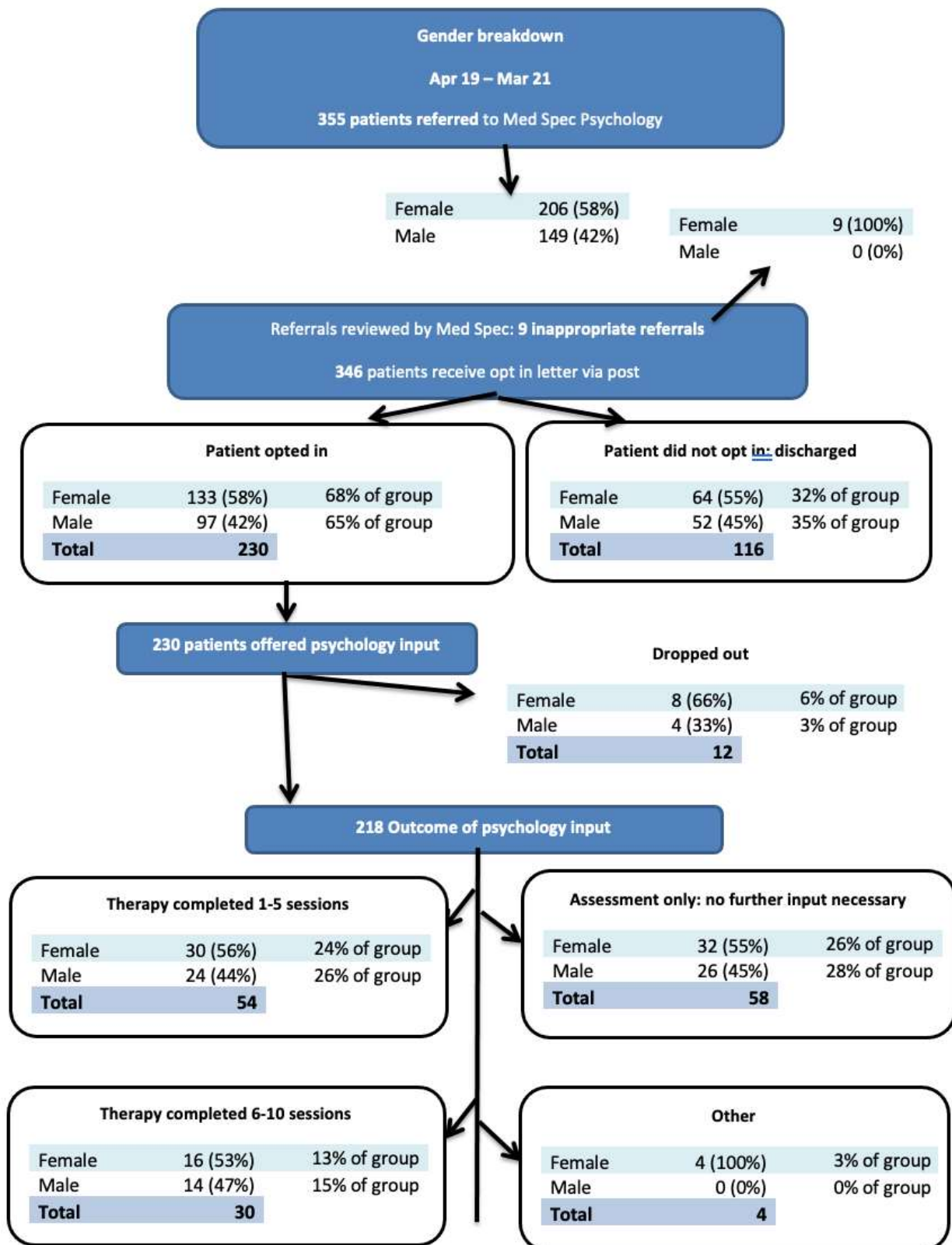
##### Service provision

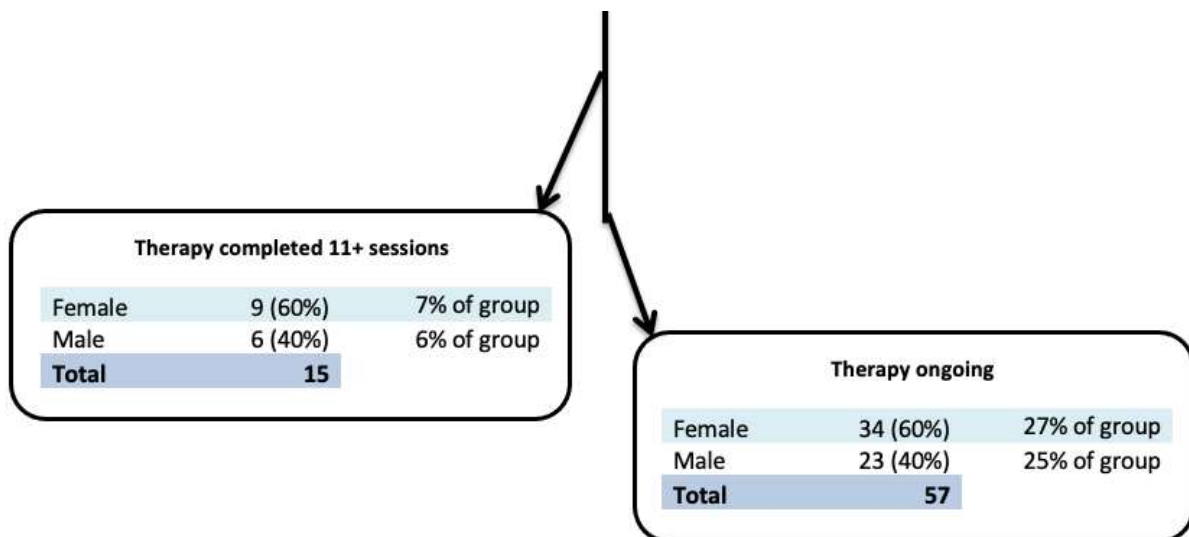
Figure 6 depicts the flow of referrals through the service, based on their gender.



**Figure 6**

*Flow of referrals through the Medical Speciality service, based on gender*





Overall, there appears to be a similar pattern of engagement with the service regardless of the patient's gender. The proportions do not appear to change as they move through the service, and the percentage of each group at each stage is largely equitable (where numbers are large enough to draw meaningful conclusions). However, due to small numbers, interpretation becomes less meaningful towards the bottom of the flow chart.

#### Statistical tests for difference

From visual observation of the flow chart, the gender proportion does not appear to change as they move through the service. However, due to small numbers collapsed intervention categories were also used to explore if there were significant differences between groups, using a chi-square statistical test. Analysis confirmed that service provision did not differ by gender,  $\chi^2 (5, N = 355) = 10.7, p > 0.05$ . All assumptions of this chi-square test were met. See Appendix 6 for the Microsoft Excel output.

Both observation and statistical tests suggest that service provision does not differ by gender, suggesting that if there is a difference between the groups it is not observable with this number of people.

## Discussion

This SEP aimed to explore the accessibility and equitability of the service provided to patients accessing the Medical Speciality team of the MYHCHP service, based on their



demographic data (ethnicity, first language spoken, age, gender). Overall, findings suggest that referrals are in line with the local population, and experiences of the service are equitable.

### Key findings

The SEP aimed to highlight whether the service is meeting the needs of the local population, to ensure accessible interventions are being offered. The ethnic groups most represented in the sample were White British (84%), Pakistani / British Pakistani (5%), and Indian / British Indian (3%). This was comparable to that of the local population (White British 85%, Pakistani / British Pakistani 6%, and Indian / British Indian 3%) (ONS, 2011a). This suggests referrals are in line with what would be expected when providing an accessible service to meet the needs of the local population.

The SEP also aimed to evaluate whether the Medical Speciality team offers an equal service, or whether there is variance in service provision dependent on demographic data (specifically ethnicity and first language spoken, and secondarily age and gender). As discussed above, I was unable to explore whether people who speak different first languages receive an equitable service. Both observation and Chi-square tests suggest experiences of the service are equitable, regardless of ethnic group, age, and gender demographics. Overall, there appears to be a similar pattern of engagement with the service irrespective of these factors, where numbers are large enough to draw meaningful conclusions.

One interesting observation made with regards to the age demographic was the high frequency of referrals, but lower proportion of opting in, for patients in their 20's compared to other age groups. Those in their 20s are potentially overrepresented in the overall referral sample but are comparatively less likely to engage with the service. However, once engaged, the service provision for this age group becomes more equitable.

Though not specifically linked with a research aim, the findings around overall rates of opting in may be of interest to the MYHCHP service and commissioner. Analysis found that of those offered psychological input, 33% did not opt in. Though this does not appear to relate specifically to any of the factors evaluated here, it could be worth considering this for future evaluation, and whether this reflects problems with accessibility for other groups.

A final aim of the SEP was to highlight problems regarding intersectionality. As no problems with accessing interventions were identified in relation to ethnicity, age, and gender, and considering the nature of the sample (i.e., small numbers of people from potentially disadvantaged groups) further exploration and analysis regarding this aim was not indicated.

Overall, the SEP results suggest that both medical professionals referring into the service, and psychologists in the service itself support the access needs of the local population. Once people are accessing the service, engagement appears equitable, regardless of ethnicity, age, and gender demographics. However, due to the small numbers in some categories, and the limitations outlined below, results should be interpreted with appropriate caution, and continued monitoring is recommended.

#### [Links to previous research](#)

Previous research has shown that ethnicity may impact upon experiences of health inequality (Harwood et al., 2021), resulting in poorer physical and MH outcomes (WHO, 2010). This health inequality translates to both pursuing and accessing health and MH services (Cooper et al., 2013). Research shows that PCDNMC are less likely than White British individuals to self-refer or be offered a service (either assessment or treatment), resulting in discharge, attrition, or referral elsewhere (Harwood et al., 2021). However, the results of this SEP do not suggest that health inequality is occurring within the Medical Speciality team, based on ethnicity (or age and gender). One explanation for this could be that the department's ongoing equity, diversity and inclusion agenda is helping to address institutional discrimination, which can fuel health inequality (WHO, 2010). Additionally, the process of being referred by a medical professional, from a service with which the patient is already engaged, may help to diminish the barrier of reduced help seeking from people from a minority ethnic background, as they are not required to self-refer or be referred by the GP (Cooper et al., 2013; Harwood et al., 2021). However, considering the limitations described below, conclusions are tentative.

#### [Strengths and limitations](#)

A strength of this SEP is that it provides the first evaluation of the service provided to patients accessing the Medical Speciality team, based on these demographic factors, and

the accessibility of this for the local population. The results support the consideration that the service has given to ensuring accessibility and equitability. This SEP also has continued application, in that it can act as a springboard for continued monitoring and evaluation of service provision and accessibility, considering the recommendations below. Not only will this support continued service development for the Medical Speciality team, but this could also support similar monitoring and evaluation in other specialities of the MYHCHP service.

The SEP also suffers several limitations. One limitation is that as I have tracked people through the process of engaging with the Medical Speciality team, the numbers reduce quickly and limit further interpretation. It is possible that there is a difference between the groups that is not observable with this sample size. Certainly, due to small numbers in some categories (particularly potentially disadvantaged groups), assumptions of the Chi-square tests for ethnicity and age were not met, which can undermine confidence in the outcomes. However, given that these outcomes match those of the observations, it seems reasonable to assume they are correct in this case. Furthermore, although I was able to draw conclusions regarding the three main ethnic groups represented in the sample, as the numbers are much smaller for the other ethnicities, I am unable to draw conclusions beyond these groups.

Another limitation of this SEP is that collapsing of data and assumption making was required to facilitate analysis and comparison of the data. For example, as ethnicity has been recorded in different ways over time, I was required to make some assumptions which unified the ethnic groups represented in the sample. It was also necessary to assume that referrals which had the same demographics, related to the same individual to prevent double counting. As analysis progressed, ethnic groups and intervention categories were further collapsed due to small numbers. These decisions were agreed with the commissioner and supervisor and made to ensure the ability to draw meaningful conclusions regarding patterns within the data. However, it may be that some of the intricacy of the data was lost. For example, comparing those receiving different types of assessments or distinguishing between those who did not opt in and those who did but then did not engage (discharged unseen). Additionally, to compare White British and PCDNMC referrals, it was necessary to remove those whose ethnicity was not specified from the analysis.

A further limitation of this SEP is that there was a difference between the local demographics for the two areas served by the service. For example, 76.7% and 92.8% of the population were White British in Kirklees and Wakefield respectively. For the analysis, the mean percentage of the two groups was used. However, another option would have been to use the postcodes of those referred to the service to make more specific comparisons to the local demographics for each area. This could be considered for future projects to generate a more precise analysis.

Another consideration for this SEP is that physical health diagnosis may have been a confounding variable which was not accounted for in the analysis. Physical health conditions are associated with demographic factors, such as age of onset and ethnicity, and may be exacerbated by health inequality. For example, South Asian groups show higher rates of cardiovascular disease and type 2 diabetes than other population groups (Knott & Willacy, 2021).

A major limitation of this SEP is that, to consider whether the service was meeting the needs of the local population, data from the 2011 National Census was used for comparison. This was due to the 2021 National Census not yet being published, and the SEP would benefit from repetition with more recent data once this is publicly available.

It is also noteworthy that due to the nature of the SEP being focused on one service population the results are not generalisable beyond the Medical Speciality team.

Finally, due to its quantitative design, conclusions cannot be drawn about the reasons why patients choose to engage or not engage with the team. Therefore, it may be beneficial to conduct a qualitative investigation, to capture the voice of the service user and particularly the experience of those who are from disadvantaged groups or groups who are less likely to opt in (such as 20-29 year olds).

## Recommendations

Based on the findings of this SEP the following recommendations are suggested:

**Table 2**

*Key recommendations*

Recommendations	
1.	<p><b>Consider continued monitoring of the equitability and accessibility of the service</b></p> <p>Once people are in, the engagement with the service looks equitable and the service appears to be meeting the access needs of the local population. However, it may be beneficial to continue monitoring this, particularly considering changes to service provision due to coronavirus restrictions, during the data collection period. This would highlight any issues for these groups as they arise and help to inform service development in real time.</p>
2.	<p><b>Consider repeating the SEP with data from the 2021 National Census</b></p> <p>Once publicly available, it may be useful to repeat the SEP using the most recent census data for the local population. Although the current findings support that the service is accessible against the local population in 2011, this may not be the case in 2021 where local demographics may have changed. This is particularly important, considering the increasing ethnic diversity in England (NICE, 2018).</p>
3.	<p><b>Consider repeating the SEP for other specialities within the MYHCHP service</b></p> <p>The Medical Speciality team is one of 9 specialities within the MYHCHP service. It may be beneficial to repeat the SEP using data from the other specialities, to ensure that the whole service is equitable and accessible. This may inform areas to target for service development.</p>
4.	<p><b>Consider how data around referrals and their engagement is inputted</b></p> <p>It may be useful to consider the following around data collection and input:</p> <ul style="list-style-type: none"><li>- Ensure that it is clear what is meant by 'Other' for interventions, or discard of this category for clarity</li><li>- Consider consistency when recording ethnicity, potentially in line with the most recent National Census categories, so that assumptions do not have to be made to unify ethnic groups in future research projects</li><li>- Ensure consistent documenting of first language spoken where possible. For this SEP I was unable to complete analysis to explore whether people who speak different first languages receive an equitable service from the Medical Speciality team. This would be useful to consider for future projects</li><li>- Ensure that repeat referrals indicate discrete episodes of care and consider capturing whether an individual has been referred before or is new to the service. This will prevent double counting in future research projects</li></ul>

5. **Consider reviewing the opt-in process**  
The current data does not highlight a need to specifically target groups for engagement or referral based on their ethnic group, age, or gender. However, given what I have observed in the overall lack of opt in, this is potentially something that could be improved
6. **Consider looking further at the experience of 20-29 year olds**  
Patients in their 20s are potentially overrepresented in the overall referral sample but are comparatively less likely to engage with the service. However, once engaged, the service provision for this age group becomes more equitable. It may be useful to explore why the referral and not opting in rates are comparatively high for this age group, and subsequently targeting this group for engagement during the opt-in process.
7. **Consider exploring how representative the referrals are from different local areas**  
Although this project found the referral sample to be comparable to that of the local population, it was recognised that there were differences between the ethnic diversity of the two areas serviced. Therefore, it may be useful to compare referrals to each area individually, rather than take an average, to ensure that the needs of both areas are being met

## Conclusion

Overall, the results of this SEP suggest that the Medical Speciality team of the MYHCHP service are providing an accessible and equitable service to members of the local population. Interesting findings around the high referral rate and not opting in of 20-29 year olds, and the overall rate of not opting in were discussed. This SEP is the first evaluation of Medical Speciality team service provision and has continued application for monitoring and evaluation of service provision and accessibility within other specialities of the MYHCHP service. However, several limitations are acknowledged, meaning results are tentative and should be interpreted with caution. Finally, recommendations are made for the team.

## Dissemination of findings

This project was presented at the University of Leeds SEP conference, to the DClIn course staff team and trainees, alongside local clinical psychologists who commissioned SEPs for the cohort. A written report will be provided to the commissioner and Medical Speciality team of the MYHCHP service, as well as being published on the Leeds DClIn extranet. The SEP will also be presented at the service department meeting in due course.

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# Appendices

## Appendix 1: Ethical Approval Email

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**Re: SEP ethics**

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**From:** Gary Latchford <G.Latchford@leeds.ac.uk>  
**Sent:** 09 June 2021 12:32  
**To:** Jennifer Kirby <umjtk@leeds.ac.uk>  
**Cc:** Anita Dorsett <A.M.Dorsett@leeds.ac.uk>; Debby Williams <D.Williams@leeds.ac.uk>  
**Subject:** SEP ethics

Dear Jen,

I am pleased to let you know that your application **A smaller piece of the psychology pie: how equitable is our service provision within clinical health psychology?**, reference number DCInREC 20-014, has now been approved by the DCIn sub-REC. You may commence with the fieldwork when you are ready.

As it involves analysing anonymised routinely collected clinical data only, I was actually able to approve this using chair's action.

If you need to make any changes to the approved plan, please briefly outline the amendment and rationale in an email to your original reviewers, Cc'ing Debby Williams for tracking purposes, and wait for approval before implementing the change.

Best wishes,

Gary

Dr Gary Latchford

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## Appendix 2: Data management

### Ethnic groups

#### *2011 census ethnic groups*

<b>White</b>
British
Irish
Gypsy or Irish Traveller
Other White
<b>Mixed/Multiple ethnic group</b>
White and Black Caribbean
White and Black African
White and Asian
Other Mixed
<b>Asian/Asian British</b>
Indian
Pakistani
Bangladeshi
Chinese
Other Asian
<b>Black/African/Caribbean/Black British</b>
African
Caribbean
Other Black
<b>Other ethnic group</b>
Arab
Any other ethnic group

#### *Original data ethnic groups*

(XaJR0) White and Asian - ethnic category 2001 census
(XaJR3) Pakistani or British Pakistani - ethnic category 2001 census
(XaJQv) British or mixed British - ethnic category 2001 census
(XaQEa) White British - ethnic category 2001 census
(XactH) White:Eng/Welsh/Scot/NI/Brit - England and Wales 2011 census
(9S1..) White - ethnic group
(XaFwD) White British
(XaJRC) English - ethnic category 2001 census
(XaJR9) Chinese - ethnic category 2001 census
(XaIB6) Black African and White
(XaJQx) Other White background - ethnic category 2001 census
(XaJR1) Other Mixed background - ethnic category 2001 census
(XaJR2) Indian or British Indian - ethnic category 2001 census

(XaJR5) Other Asian background - ethnic category 2001 census
(XaJRA) Other - ethnic category 2001 census
(XE0oc) Race: Not stated
(XaJRB) Ethnic category not stated - 2001 census

*Ethnic groups used for analysis*

White and Asian
Pakistani / British Pakistani
White British (assumption made that British or mixed British meant White British due to likelihood that otherwise another option would be selected. Also includes English and white)
Chinese
White and Black African
Other white
Other mixed
Indian / British Indian
Other Asian
Other ethnic group
Not specified

Intervention categories

*Original*

Did not opt in
Discharged unseen
Dropped out 1-3
Dropped out 4+
Episode of care complete 1 - 5
Episode of care complete 6 - 10
Episode of care complete 11 - 20
Episode of care complete 20+
Inappropriate Referral
Other
Referred to IAPT
Telephone assessment
Therapy assessment complete 1 session
Therapy assessment complete 2 sessions
Ongoing

### *Collapsed*

Did not opt in (include discharge unseen)
Dropped out (include 1-3 as well as 4+ as only one)
Care complete (short intervention 1-5, medium 6-10, long 11+ (which includes the two 20+ cases))
Inappropriate referral (include referred to IAPT)
Other
Assessment (include telephone and 1 / 2 sessions)
Ongoing

### *Further collapsed*

Completed (includes care complete and assessment)
Did not opt in
Dropped out
Ongoing
Inappropriate
Other

### Repeat referrals

- 44 repeat referrals (90 episodes of care out of 401)
- 46 episodes of care removed from analysis

### Referral number (by ethnicity)

	Two	Three
Pakistani / British Pakistani	3	
White British	35	2
Not specified	2	
White and Black African	1	
Other Asian	1	

### Referral number (by age)

	Two	Three
20-29	14	1
50-59	11	
40-49	10	1
30-39	5	
60-69	3	
70-79	1	

Referral number (by gender)

	Two	Three
Female	30	1
Male	14	1

Age

<20
20-29
30-39
40-49
50-59
60-69
70-79
80+



#### Appendix 4 – Language data

<b>Language</b>	<b>Number</b>	<b>%</b>
English	266	74.93%
Not specified	81	22.82%
Gujarati	3	0.85%
Urdu	2	0.56%
Turkish	1	0.28%
Punjabi	1	0.28%
Polish	1	0.28%
<b>Grand Total</b>	<b>355</b>	<b>100.00%</b>



Appendix 5 – Chi-square Microsoft Excel Output (age)

<20			20-29			30-39		
Intervention	Number	%	Intervention	Number	%	Intervention	Number	%
Completed	1	20.00%	Completed	24	33.80%	Completed	19	38.78%
Did not opt in	1	20.00%	Did not opt in	31	43.66%	Did not opt in	18	36.73%
Dropped out	0	0.00%	Dropped out	2	2.82%	Dropped out	4	8.16%
Ongoing	2	40.00%	Ongoing	11	15.49%	Ongoing	7	14.29%
Inappropriate	1	20.00%	Inappropriate	2	2.82%	Inappropriate	1	2.04%
Other	0	0.00%	Other	1	1.41%	Other	0	0.00%

40-49			50-59			60-69			70-79		
Intervention	Number	%	Intervention	Number	%	Intervention	Number	%	Intervention	Number	%
Completed	24	42.86%	Completed	40	50.00%	Completed	32	49.23%	Completed	15	65.22%
Did not opt in	18	32.14%	Did not opt in	21	26.25%	Did not opt in	20	30.77%	Did not opt in	5	21.74%
Dropped out	2	3.57%	Dropped out	2	2.50%	Dropped out	0	0.00%	Dropped out	1	4.35%
Ongoing	10	17.86%	Ongoing	15	18.75%	Ongoing	10	15.38%	Ongoing	2	8.70%
Inappropriate	1	1.79%	Inappropriate	2	2.50%	Inappropriate	1	1.54%	Inappropriate	0	0.00%
Other	1	1.79%	Other	0	0.00%	Other	2	3.08%	Other	0	0.00%

80+		
Intervention	Number	%
Completed	2	33.33%
Did not opt in	2	33.33%
Dropped out	1	16.67%
Ongoing	0	0.00%
Inappropriate	1	16.67%
Other	0	0.00%

Chi-square Observed (O)								Expected (E)							
	Completed	Did not opt in	Dropped Out	Ongoing	Inappropriate	Other	Completed		Did not opt in	Dropped Out	Ongoing	Inappropriate	Other		
<20	1	1	0	2	1	0	5	2.211268	1.63380382	0.16901408	0.8028	0.12676056	0.05433803		
20-29	24	31	2	11	2	1	71	31.4	33.2	2.4	11.4	1.8	0.8		
30-39	19	18	4	7	1	0	49	21.67042	16.0112678	1.65633803	7.8676	1.24225352	0.55211268		
40-49	24	18	2	10	1	1	54	24.7662	18.2985915	1.89295775	8.9915	1.41971831	0.43086592		
50-59	40	21	2	15	2	0	80	35.38028	26.1408451	2.70422535	12.845	2.02816901	0.90140845		
60-69	32	30	0	10	1	2	85	28.74648	21.2394366	2.1971831	10.437	1.64788732	0.73239427		
70-79	15	5	1	2	0	0	23	10.17183	7.51549296	0.77746479	3.693	0.58309859	0.25915493		
80+	2	2	1	0	1	0	6	2.653521	1.96016338	0.2028189	0.9634	0.15211268	0.06760563		
	157	116	12	57	9	4	355								
ID-E/E	Completed	Did not opt in	Dropped Out	Ongoing	Inappropriate	Other	Completed	Did not opt in	Dropped Out	Ongoing	Inappropriate	Other			
<20	0.663497	0.24587178	0.16901408	1.7953	0.01564945	0.05433803									
20-29	1.743949	2.43241379	0.06666667	0.014	0.02222222	0.05									
30-39	0.329073	0.24701708	3.31620197	0.0957	0.04724218	0.55211268									
40-49	0.023704	0.00467234	0.00605288	0.1131	0.12408339	0.21580734									
50-59	0.603212	1.01099599	0.18339202	0.3619	0.00039134	0.90140845									
60-69	0.368233	0.07232787	2.1971831	0.0183	0.25472493	2.19993283									
70-79	2.291742	0.84195473	0.06369687	0.7781	0.58309859	0.25915493									
80+	0.160952	0.00079327	3.13337246	0.9634	4.72618675	0.06760563									
$\chi^2$	40.5635														
df	35														
p-value	0.138396														

